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Under the paper title, the name(s) of the author(s) should be given while the full name, official title, institute or company affiliation and the like should be placed at the end of the paper together with the exact mail and e-mail address, as well as short (running) title of paper.

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2. Novičević, B., Antić, Lj. (2009), *Upravljačko računovodstvo*, Niš, Ekonomski fakultet.
3. Malinić S. The modern accounting system – the answer to the challenges of the environment, enterprise and management, 40 godina računovodstva i korporativnih finansija: 1-11, Zlatibor, AAAS, Beograd.
4. National Bank of Serba, [www.nbs.rs](http://www.nbs.rs) (15.02.2012).

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## **THE IMPERATIVE OF IMPROVING THE FINANCIAL REGULATORY FRAMEWORK UNDER CRISIS CONDITIONS - A CONTRADICTION IN ADJECTO OF THE NEOLIBERAL PARADIGM**

*UDC 338.124.4: 329.12*

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**Abstract.** *The global financial crisis has caused massive interventions by monetary and fiscal authorities, such as the rehabilitation of failed banks, insurance companies and other financial institutions and insertion of huge amounts of money into the financial system, with a view to their rescuing and preventing further spread of the crisis. Such an environment has challenged the basic postulates underlying neoliberalism as the ruling economic doctrine of the 1980s. In this regard, the question is whether the imperative requirements for improving the financial regulatory framework have caused a substantial relativization of the hitherto dominant neoliberal paradigm.*

**Key Words:** *neoliberalism, global financial crisis, financial regulatory framework.*

### INTRODUCTION

The global financial and economic crisis has highlighted the need for a systemic approach to regulation and supervision of the financial sector, taking into consideration that the costs of the financial crisis are very high and that price stability is not sufficient for achieving financial stability, as well. In such conditions, it became necessary to revise the basic postulates of neoliberalism as the prevailing paradigm. Starting from the basic postulates of neoliberal paradigm, the analysis was performed in this paper to determine whether the imperative demands for financial regulatory framework improvement caused a substantial relativization of the hitherto dominant neoliberal paradigm. Has the time come for the promotion of a complex economic theory that would result from connecting separate parts of different economic theories, manifested in the historical development, which would allow the emergence of synergetic effects of the complexity economics? The paper is not intended to fully outline the complex economic theory, but its aim is to

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analyze the financial regulatory framework in order to indicate possible directions of research. The basic postulates of this theory would be: 1) Appreciation of global trends, but also of the specific problems of individual national economies; 2) Every economic theory and economic policy should ensure the economic growth and stability at the same time.

## 1. NEOLIBERAL PARADIGM AS A RULING ECONOMIC DOCTRINE

The neoliberal paradigm, based on the neoclassical economic theory, was created after World War II, and since the end of the seventies of the 20th century, precisely when Margaret Thatcher came to power in the UK and Ronald Reagan in the US, it has become the ruling economic doctrine. Created in response to a major crisis of Keynesian economics, this paradigm is based on the theory of free trade and free market and opposes state intervention in the economy, protectionism, high tax rates and the like.

The realization of the ideas of neoliberalism began after 1989, when John Williamson introduced a package of neoliberal economic recommendations called "Washington Consensus". It is the following list of suggestions: 1) Fiscal policy discipline; 2) Redirection of public spending from subsidies to industries towards policies for economic growth and support of the poor population; 3) Tax reform in the direction of lowering taxes; 4) Financial liberalization; 5) Competitive exchange rates; 6) Liberalization of the trade regime towards lifting or lowering taxes and duties on imports; 7) Openness to foreign direct investment; 8) Privatization; 9) Deregulation and 10) Protection of property rights (Rodrik 2008, p. 143).

The implementation of these proposals in developing countries was conducted with the support of the group of developed countries, along with the mediation of international financial institutions, the International Monetary Fund (IMF), World Bank (WB) and the World Trade Organization (WTO). While the IMF and the WB stipulated lending to developing countries by the acceptance of neoliberal policy, the WTO was bringing trade rules especially in those areas in which the developed countries had better predispositions of growth (Vrzić, 2008). Hereby, the neoliberal reforms were being implemented in a very discriminatory manner, in conformity with the principle of "one rule for the wealthy and powerful countries, the other for the poor and weak countries". Inclination towards the rich and powerful countries is not surprising, given that the structure of decision-making in the IMF and the WB is determined according to the share that a particular country has in the capital of the Fund, on the principle of "one dollar, one vote". In addition, the voting system in the World Trade Organization, although organized on the principle of one country - one vote, was in practice inclined exclusively to the interests of a small number of rich countries. While the developed countries were, through the aforementioned international institutions, promoting neoliberal paradigm in developing countries in order to further amass their own wealth, they at the same time relied precisely on the interventionist policy in their development policies. Hereby the awareness has spread that "the developed have never done what they advise the underdeveloped", and the recent crisis event has once again confirmed this statement.

The global financial crisis that marked the first decade of the 21st century has triggered a massive intervention by monetary and fiscal authorities in most developed economies, thus challenging many postulates of the neoliberal paradigm. Namely, the criticism of neoliberalism, although actualized with the new crisis event, stems just from the elements that formed its basis. Stabilization, privatization and liberalization facilitated market



manipulation and speculation, contributed to the development of some countries to the detriment of others, and finally led to growing inequality in the society. This has created a system in which "an ever smaller number of individuals disposes of ever higher national income".

Faced with the fact that every country that relied on the neoliberal paradigm in its development generated lower economic growth rates compared to those that were achieved in the era of Keynesianism, the leaders of 20 most powerful countries (G20) met in Seoul for the enactment of new rules that will reject neoliberal conception, propagated by the Washington Consensus (Kovačević, 2012, p. 42). The adoption of the Seoul Consensus made a shift from market to state intervention. In order to ensure a dynamic, stable and sustainable growth, the action plan was adopted which identifies six basic principles<sup>1</sup> and eight key areas<sup>2</sup>, where each country needs to shape its development policy in accordance with its own national characteristics (Dušanić, 2011).

The severity of the financial crisis highlighted the need for a systemic approach to regulation and supervision of the financial sector, bearing in mind that the sector of financial services has a far greater impact on economic activity than it was previously thought. In order to increase the stability of the financial system, and hence the economic system as a whole, a new "re-regulation" trend was recognized. The expression "re-regulation" emphasizes that the current system of financial regulation is based on the ex-post concept, i.e. that it has insufficient preventive capacity. In this sense, it is rather informative, as it explains what has already happened. Significant costs of the financial crisis conditioned that special emphasis is put in the work on the basic components of the regulatory framework to preserve the stability of the financial system, which exhibited different characteristics in specific anti-crisis strategies.

## 2. REGULATORY FRAMEWORK WITH A VIEW TO FINANCIAL SYSTEM STABILITY

The regulatory role of the state and its institutions in the financial market is needed to the extent to which it contributes to the smooth functioning and development of financial markets. Banks as specific financial institutions are subject to a special regulatory regime that is intended to preserve the solvency of banks, to protect depositors in a situation where the bank is not in a position to meet its obligations, and to prevent the possibility of a systemic risk occurrence (Bhattacharya et al., 1998). Due to the increasing number of European financial institutions operating abroad as well, financial regulation has come into prominence as a useful instrument of market integration (Mašić, 2009).

Since banks are the institutions through which numerous mutually conflicting interests are refracted, regulation of the banking sector contributes to the increase of clients' confidence in the bank; control of cash flows and fair distribution of financial resources are achieved in order to accomplish broader national economic objectives, such as a higher employment rate and a lower rate of inflation; the risk of bank investments is

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<sup>1</sup> More specifically, these are the following principles: 1) Focusing on economic growth; 2) Global partnership in the field of development; 3) Focus on issues of systemic character; 4) Participation of the private sector; 5) Complementarities, and 6) Focus on concrete results.

<sup>2</sup> As the key areas in which reforms are most needed, the following were singled out: 1) Infrastructure; 2) Private investment and job creation; 3) Development of human resources; 4) Trade; 5) Availability of financial services (financial inclusion); 6) Economic growth along with ensuring stability; 7) Food safety; 8) Mobilization of domestic resources, and 9) Knowledge exchange.

limited, and ultimately the probability of bank bankruptcy is reduced (Bašić, 2012, p. 190). Past experience has shown that the state, through a series of its measures, plays a key role in defusing the banking crises and preventing the spread of their adverse effects on the rest of the economy. The Swedish model of crisis management in the 90s of the 20th century, through the establishment of public institutions to support banks (Bank Support Authority, Crisis Management Authority) and massive government intervention, confirmed the importance of the role of state in easing the banking crisis. The global financial crisis that marked the beginning of the 21st century has also caused massive government interventions and the establishment of public institution for supporting banks and other financial institutions.

Thus assumed, banking regulation is indisputably directed towards a safer and more stable banking business. However, as banks are primarily institutions that are guided by the maximization of profit, they have often been forced throughout history to introduce numerous financial innovations, in order to "bypass" current regulations<sup>3</sup>. This practice of banks was identified as a form of "informal" deregulation (Krstić, 2003, p. 167). However, as the emergence of new financial instruments requires the creation of a new or modification of the existing regulatory framework, it launches a vicious circle in which regulation encourages search for ways to circumvent it through the introduction of new financial instruments. In such an environment of continuous alternating between regulation and deregulation, it is necessary to ensure effective financial intermediation which will have economic growth as its purpose. This requires the creation of an appropriate regulatory framework that will not sacrifice the economic growth to ensure financial stability and prevent the outbreak of crisis.

Excessive regulation and the pursuit of international harmonization of banking regulations may lead to unification of banking activities, thereby suppressing the initiative and creativity of banks and endangering their competitive capacity (Bašić, 2012, p. 194). In addition, the mere application of new standards and regulations and their harmonization create numerous costs and require an overall adjustment, and in that sense regulation remains justified as long as its benefits (establishing financial stability) outweigh the costs it creates.

The stability of the financial system implies its resistance which must be designed in advance. In this regard, concern for financial stability requires the design of an appropriate regulatory framework that includes a variety of institutions, rules and procedures (Marinković, 2004). Accompanying the life cycle of financial institutions as its unavoidable components, the following were singled out: banking license policy, i.e. the rules of bank entry into the system, the function of lender of last resort, deposit insurance, rules and procedures governing intervention in the banking sector and the rules of bank exit from the system.

### **2.1. Banking license policy**

Banking license policy defines the rules of bank entry into the system, i.e. the requirements for obtaining a license, namely: minimum cash capital required for starting a bank, credit worthiness of the founder, the procedure of establishing a bank, the scope of the banking license, i.e. permitted types of transactions, and other issues related to the policy of bank establishment.

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<sup>3</sup> Well-known examples are the introductions of financial innovations associated with the Regulation Q in the US (money market funds, transferable deposit certificates, NOW arrangements, etc.) and with the process of securitization that took place intensively both in the US and in Europe.



As banks are the key financial institutions in most of the financial systems, the control of their operations is extremely important. In the process of business internationalization of financial institutions, the need emerged for an international harmonization of banking regulations. The highest degree of harmonization of banking regulations has been achieved in the field of solvency regulation, as the majority of banking systems apply a unique framework devised within the Basel Committee on Banking Supervision<sup>4</sup> (Marinković, 2008, p. 238).

The reduction of the capital base of a large number of banks around the world during the seventies and eighties of the 20th century resulted in the adoption of the first international agreement on bank capital (Basel Capital Accord), known as Basel I. It introduced a unique way for calculating capital adequacy ratio, expressed as the ratio between the capital and the credit risk weighted assets of a bank. Although these regulations were legally non-binding, they were initially accepted by over 100 countries around the world, indicating a positive attitude of the countries towards such standards. Despite the indisputable benefits that are reflected in the increase in the capital adequacy of internationally active banks, the strengthening of competitiveness of banks at the international level and the increased discipline in the process of capital management, specific shortcomings of Basel I standards were manifested after a certain period of time. Namely, the emphasis was placed only on credit risk, while other risks (e.g. market and operational risks) were ignored; in the credit risk assessment, no difference was made between debtors of different ratings; balance sheet items were evaluated at book rather than market value; and there was no adequate valorization of both modern financial instruments and risk mitigation techniques.

Due to the poor adaptability of Basel I standards to changes and innovations in the financial market, the Committee issued a Revised Framework in June 2004, and its comprehensive version followed after two years in the form of Basel II standards as a new approach to capital management. It is based on three pillars, namely: a) the definition of minimum capital requirements for credit, market and operational risk (Pillar 1); b) the introduction of internal capital adequacy assessment (Pillar 2); and c) strengthening market discipline by introducing minimum requirements related to the disclosure of information on banks (Pillar 3).

After the outbreak of the global financial crisis, weaknesses of the financial systems were identified and changes were initiated in the field of capital regulation, in terms of tightening regulatory requirements, particularly in the part that relates to the regulatory capital (the numerator of the indicator). In addition, minimum standards relating to the required liquidity were introduced for the first time, as well. The above changes were published within the standards of Basel III in June 2011 (Basel Committee on Banking Supervision, 2011). The countries represented in the Basel Committee have started with the implementation of new standards from January 1, 2013 (Matić, 2011).

Regulatory standards for capital adequacy and liquidity of banks, alongside with their positive impact on financial stability, also have their negative effects which are reflected in the reduction of banks' profitability. In fact, by increasing their capital ratios, many banks reduce crediting and other placements, which are usually the main streams for forming the bank profits. For these reasons, the regulatory authorities have to be careful

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<sup>4</sup> *Basel Committee for Banking Supervision* (BCBS) was established by the Group of Ten (G10) countries in the late 1974, hosted by the Bank for International Settlements.

when passing new regulations, in order to establish a proper balance between stability and profitability of the banking sector.

The very essence of the neo-liberal paradigm gives rise to the imperative of freedom of capital movements, full privatization and exclusion of the state from both the real and the financial sectors. As a result, transition and post-transition economies have relatively stable and developed financial systems, but at the same time, the same economies have insufficient or negative rates of economic growth and high unemployment rates. In particular, in the Serbian banking system, 21 of 29 operating banks are with foreign capital, whose share in the equity and total assets of the banking sector of Serbia is dominant and, according to the data for the III quarter of 2014, amounts to 60% (National Bank of Serbia, 2014). The assertion is well known that "the type of ownership has no significance", be it domestic or foreign, but the practice has shown that, when it comes to a crisis, foreign owners of domestic banks give priority to solving problems of their home countries. Furthermore, a short-term orientation of such banks and their lack of interest in the economic development and balanced regional development of the states in which they operate, as well as a reduction in lending activity are also known facts. In this sense, after the escalation of the global financial crisis in the second half of 2008, the question arose whether the banks from Western Europe that have subsidiaries in the emerging markets in Central, Eastern and Southeastern Europe (regions) would abandon these markets. The problem lies in the fact that these banks are systemically important in these markets, so their departure would deepen the already existing systemic crisis. For this reason, on a proposal from the European Bank for Reconstruction and Development, the key international financial institutions established in January 2009 an international framework for coordination and cooperation in crisis management - the Vienna Initiative. Since it was founded, the Vienna Initiative has been adapting to new risks and circumstances in the financial sector in the region, setting as its primary objective the preservation of stability of the financial sector in the markets of Eastern Europe, or the stimulation of cross-border banking groups to maintain their exposure in these markets, while ensuring an adequate level of solvency and liquidity of their subsidiaries. In addition, the problem of implementing an effective monetary policy was also noticed, being that national central banks have to optimize the interests of the domestic financial sector and the financial sector of the countries of bank capital origin in its designing. For the above reasons, it would be opportune that the regulatory framework sets a time limit on the participation of foreign capital in local banks to below 50% (in terms of the number of banks), for example, in a defined number of transition years (5-10 years).

## **2.2. Lender of last resort function**

The function of lender of last resort represents an inevitable component of the infrastructure of financial system safety, although unlike other components it does not contain elements of obligation (Marinković, 2004). The lender of last resort function stands for a system of bank liquidity control and a system for support to banks with endangered liquidity, which are typically organized by the central monetary institution. The position of the central bank as the "bank of banks" entails its specific responsibility towards the members of the banking system (Krstić, 2003). The precondition for its intervention is by rule a systemic illiquidity of the banking sector and not problems of individual banks.

The global financial crisis and concerns about the liquidity of not only banks but also the entire financial system have contributed to the re-activation of the central bank's function as a lender of last resort. This form of liquidity support should be arranged in the form of short-term loans to illiquid but solvent banks that have reliable collateral and are ready to pay a penal interest rate. However, as it is necessary to act quickly in the atmosphere of crisis, and since it is very difficult then to assess the nature of the problem with which the bank is faced, this kind of support is being arranged mainly under preferential conditions (Frexias, et al., 2003; Krstić and Jemović, 2009).

### **2.3. Deposit insurance**

Deposit insurance is an essential institutional component of banking and overall financial system, given that it preserves the confidence of depositors and prevents the run on banks in the conditions of their insolvency. Namely, deposits, and above all demand deposits, are an important component of the financial potential of banks. Being that, from the standpoint of the bank, these are extremely unstable sources of funding and therefore treated as risky liabilities, the need emerged for their special treatment in the form of protection of deposits. Thus, through the deposit protection, the banking system is indirectly protected as well.

Since banks are the financial institutions with an exclusive license to perform deposit-lending operations, their membership in the deposit insurance system is mandatory. As such, they are obliged to insure deposits of their clients and pay the insurance premium as required by the Law on Deposit Insurance. On this basis, a system of deposit insurance guarantees depositors the payment of deposited funds up to the insured amount if their deposit bank fails. When the net claim of the depositor is higher than the insured amount, the difference is compensated in the bankruptcy or liquidation proceedings.

The operationalization of the deposit insurance system requires solving a number of questions: what scope of protection should be provided, what should be the deadline for the payout of deposits, what should be the structure of financing deposit schemes, what should be the responsibility of the institution that provides deposit insurance (a place just for the disbursement or also for the treatment of insolvent institutions), etc. (Ćirović, 2007, p. 425).

Deposit insurance as a component of the system for preserving the financial system stability is especially gaining importance in the conditions of frequent banking crises. In fact, guaranteeing payment of deposits to the depositors up to the level of the insured amount, deposit insurance prevents a "run" on the bank, and at the same time increases competitiveness in the banking sector, providing the possibility for small and newly established banks to operate under the same conditions as larger and already existing banks. Deposit insurance covers the category of small depositors, because it starts from the assumption that small depositors are insufficiently informed about the current state of affairs in the bank. This is not the case with large depositors who will be the first to withdraw their deposits in case of disruptions in the operations of the bank, owing to inside information. In this sense, the deposit insurance system is reasonably directed to small depositors. However, the global financial crisis required a timely response in the sphere of deposit insurance, too. Specifically, as the previous insurance threshold proved insufficient, changes were made in the deposit insurance system in the direction of increasing the insured amount (from 50,000 to 100,000), including some other categories of depositors in the system of protection, as well as shortening the time limit for the payout of deposits to only one week.

#### **2.4. The rules governing intervention in the banking sector and bank exit from the system**

The rules for bank exit from the system and procedures governing intervention in the banking sector are inevitable components of the financial regulatory framework at the end of the life cycle of financial institutions. Specifically, as the degree of solvency is also used as the main criterion for the license revocation, i.e. the bank exit from the system (Marinković, 2008, p. 239), in a situation where the solvency of the bank is significantly undermined it will be assessed whether a more favorable alternative would be to revoke the license of a particular institution or to apply one of the measures of the banking sector restructuring aimed at further existence of such institution.

The rules and procedures governing the intervention in the banking sector represent special regulations in the majority of legal systems, due to specificities of those institutions in relation to non-financial firms. Being that the insolvency of banks and other financial institutions poses a serious threat to financial stability, bankruptcy procedures must be implemented as soon as possible. A credit institution may be terminated in a regular procedure, or the competent authority may decide on a forced liquidation if it concludes that the situation can not be improved and there are no grounds for bankruptcy. If the liquidator finds later that a reason for bankruptcy has appeared, it shall terminate the compulsory liquidation and declare bankruptcy.

Financing of interventions in the banking sector is an important item which, in the absence of a special fund for this purpose, as well as with the insufficient amount of the assets of owners and creditors, is ultimately being funded by taxpayers. The current crisis has confirmed this, which is why it is proposed to establish a special fund that will administer the intervention in the banking sector.

### **3. COMPARATIVE ANALYSIS OF THE REGULATORY FRAMEWORK ROLE IN MOST SIGNIFICANT ANTI-CRISIS STRATEGIES - NEGATION OF THE NEOLIBERAL PARADIGM ESSENCE**

Since the beginning of the financial crisis, central banks of leading developed countries have taken a number of measures to mitigate the adverse effects of the crisis and curb the tension that prevailed in the money market. This resulted in a significant increase in total assets of the central banks, with the largest increase recorded in countries that were most affected by the crisis, that is, in the United Kingdom and the United States. A significant increase in the total assets of leading central banks was also accompanied by substantial changes in the structure of the balance sheets of leading central banks, due to the implementation of many new instruments (non-standard policy measures) for combating the consequences of the crisis (Carpenter et al., 2013).

Non-standard measures in support of liquidity can be divided into two groups: the first, directed towards the banks, and the second, directed towards key market segments. Although many of the instruments were abolished, due to the improvement of the functioning of financial markets in late 2009 and early 2010, in the following text we will briefly present the arrangements applied hitherto by the US Central Bank (Fed) and the European Central Bank (ECB).

In its anti-crisis strategy, the Fed applied different arrangements in the situations when liquidity of financial institutions or liquidity of financial assets were threatened, given the fact that the very concept of liquidity has two dimensions<sup>5</sup>.

After the appearance of financial institutions with vulnerable liquidity in the interbank market in August 2007, within the measures for supporting liquidity of financial institutions, the Fed modified the existing and introduced new instruments closely related to its traditional role as a guarantor of liquidity of depository institutions. The maturity of this loan agreement was extended, while the borrowing costs were reduced. However, as the borrowing from the discount window exposed deposit institutions to considerable reputational risk, they opted to borrow in the interbank market rather than to use the easy terms of the discount window. For these reasons, only a few months after that, precisely in December 2007, the Fed introduced a completely new instrument, Term Auction Facility (TAF), which rendered support to liquidity through an auction mechanism. It pre-determined the amount of funds that can be borrowed, as well as the maturity of the arrangement (initially 30, and later 90 days). A broader list of asset forms that meet the prescribed criteria was used as credit protection. Despite its temporary nature, TAF has proved to be quite a successful instrument, as demonstrated by the data on a large number of participants in the auction and on the total auction value. Three months after the introduction of TAF arrangement, in order to enable access to the discount window to a wider range of institutions, the Fed introduced two groups of measures: (a) Term Securities Lending Facility (TSLF) which is based on replacing less liquid bonds that are kept by primary dealers in their portfolio for more liquid bonds of the Ministry of Finance, and (b) the Primary Dealer Credit Facility (PDCF), providing the possibility to all financial institutions (banking and non-banking) acting as primary dealers to borrow from the Fed's discount window against a wider range of collateral. Hereby, for the first time in history, the Fed expanded its direct lending to investment banks which are beyond its control (for example, Bear Stearns).

In the context of measures for supporting liquidity of the key market segments, in late 2008 the Fed encountered a significant systemic risk, due to the growing instability in the commercial paper market. On that occasion, the Fed provided additional USD 540 billion to purchase commercial paper issued by companies. This was the first time since the Great Depression that the Fed indirectly credited activities of the private non-financial sector. For these purposes, the Fed introduced easy payment terms when buying high-ranking commercial paper (Commercial Paper Funding Facility, CPFF); money market mutual funds (Asset Backed Commercial Paper Money Market Mutual Funds Liquidity Facility, AMLF); as well as securities backed by student loans, auto loans, credit cards (Asset-backed securities, ABS).

Like the Fed, the ECB started relaxing its monetary policy after the first signs of the crisis. The worsening of the crisis and increasingly serious consequences that it brings along have conditioned a coordinated and immediate response of the central banks of most developed countries. The ECB and the central banks of Sweden, the United Kingdom and Switzerland have lowered their reference interest rates and turned to the

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<sup>5</sup> Liquidity may refer to the institution, when we talk about the liquidity of the fund i.e. institution (funding liquidity), or to the assets, when we talk about the liquidity of the market, i.e. assets (market liquidity). In analogy to the generally accepted view that the assets are liquid if they can be converted into a legal instrument of final payment with economically acceptable costs and in economically reasonable period of time, the institution will be liquid if it has more of such assets compared to liabilities.

relaxation of monetary policy (Kilibarda, et al., 2011). In such conditions, lacks of capital and trust have made loans less available and more expensive. The resulting situation required the implementation of more drastic measures, which would help improve the system liquidity and restore the shaken confidence and prevent, to the extent possible, the continuation of the financial crisis and its spillover to the real sector. It was decided to allocate a sum of 1.700 billion euros for this purpose. The measures have referred to: capital injections in order to increase the liquidity and solvency of financial institutions, guarantees for interbank loans and guarantees on private savings of up to 50,000 euros per year. The high flexibility of the European Union monetary system, despite the lack of a centralized fiscal authority, enabled the European Central Bank, with minor changes in its system of work, to maintain liquidity of both individual financial institutions and asset markets in the first year of the crisis.

After the bankruptcy of Lehman Brothers in September 2008, there were significant disturbances in the Eurosystem's money market, which imposed the need for a radical change of the existing system and the introduction of non-standard measures to support liquidity. For the purpose of more efficient support to the liquidity of commercial banks, the ECB switched in mid-October to the so-called fixed rate tender procedures with full allotment, according to which the interested institutions could borrow desired amounts with the payment of fixed interest rate determined in advance by the ECB. As a complementary measure the ECB introduced the possibility of a long-term loan secured by different types of assets as collateral. Significant liquidity is also provided by the conclusion of currency swap contracts, most often with the Fed, as well as by the purchase of private bonds as the primary sources of bank financing. With the first signs of improving the conditions in the financial market, it was decided to start with the gradual abolition of long-term refinancing operations and currency swaps, and to further perform tender procedure for the three-month long-term financing operations at variable rates.

Previous arguments clearly show that, after the outbreak of the crisis, the Fed and the ECB appeared with a rather aggressive anti-crisis policy. A significant drop in reference interest rates alleviated the terms of conducting monetary policy, while the introduction of non-standard instruments provided necessary liquidity both to individual institutions and key market segments. Anti-crisis policy of the ECB revealed, however, certain specific characteristics in relation to the anti-crisis policy of the Fed, due to its focusing exclusively on the banking sector liquidity support (Ponce, 2010). Although different in their application, both anti-crisis strategies were aimed at improving the financial regulatory framework. Given that the current crisis scenario extorted increased state intervention, the question arises whether the imperative improvement of the financial regulatory framework challenges the basic postulates of neo-liberal paradigm, and whether the solution should be sought in a convergence or in a synthesis of past and current paradigms.

#### 4. IS THE SOLUTION IN THE SYNTHESIS AND SYNERGY OF PAST AND CURRENT PARADIGMS?

The current financial crisis has denied the principle of *laissez-faire* based on market self-regulation, and re-actualized the need for government intervention. Specifically, with the deregulation of financial regulations, banking institutions as key financial intermediaries entered the competition with a heterogeneous group of non-bank financial institutions. A wave of disintermediation, i.e. reduced participation of banks in financial intermediation

in the 1980s, imposed the need to introduce a range of financial innovations, which should enable them to maintain their market position. In such circumstances, banks introduced the securitization of mortgage loans, having entered high-risk operations with financial derivatives. A high level of financial leverage, in the absence of adequate control of all participants in the securitization mechanism, led to huge losses in balance sheets of banks.

In such an environment, government intervention is absolutely necessary, given that the market mechanism has proved to be inadequate as a coordination mechanism. In the book by N. Serra and J. Stiglitz, entitled "The Washington Consensus Reconsidered", it is emphasized that, in the conditions of growing integration in the areas of IT, production and civilization in the 21st century, distrust of state interventionism is impermissible (Drašković, 2009, p. 139). The point here is primarily the need to regulate the financial services sector, whose volume of transactions increased several times and exceeded the volume of transactions in the real sphere. However, although state intervention in the financial services sector is utterly indispensable indeed, the question is what the optimal level of intervention would be. One of the misconceptions of the financial crisis is that it is the consequence of inadequate regulation. It should be borne in mind that the concept of financial globalization is based on the model of crisis management. The most important segment of crisis management is the regulation at the international level, in order to alleviate the negative effects arising from different degrees of financial deregulation at individual national levels. But, deregulation effects are so large that they are getting out of control of both national and international regulators. Namely, economic and financial, as well as political power of global players has increased, and they do not allow any restriction of their activities. Therefore, the expectations from a tightening of regulation are unrealistic, because the changes have a posteriori and cosmetic character, thus ensuring the status quo for global players. Moreover, the regulatory changes are formal and of extremely quantitative range. The inability to exert a prospective effect on increasingly complex and risky operations of banks is compensated by stipulating large number of complicated procedures. It is interesting to mention the fact that the Glass-Steagall Act (GS Act) of 1933 had only 37 pages, which did not prevent it to provide financial stability all the way to the end of the twentieth century. In contrast to this, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 has 8,500 pages and over 20,000 additional pages of supporting documents, specifying the members of this Act.

There is no universal recipe for interference of the state in the financial services sector, but it must be adapted to the specifics of a particular national economy, as well as its internal and external environments. However, the fact that excessive regulation hinders functioning of the market, while on the other hand deregulation contributes in causing the financial system to be prone to crisis incidents, seems to lead to the synthesis and synergy of past and current paradigms. Has the time come for the promotion of a complex economic theory that would be the result of mixing individual parts of different economic theories, manifested in the historical development, which would allow the emergence of synergetic effects of the complex economic theory? In this sense, an efficient market with sufficient and adequate regulation is a key assumption of exiting the current global financial and economic crisis and of normal functioning of the financial and real spheres of economy.

We believe that the development of economic thought so far provided enough economic theories and models to formulate a universal theoretical paradigm that would, on the one hand, have a preventive effect on the occurrence of the causes of crisis, and at



the first sign of crisis undertake an anti-crisis action, through the involvement of international and national institutions, on the other hand. Accordingly, it is time for a *civilization synthesis*, which would be underlain by the *universal economic-theoretical paradigm*. In fact, the change in the ruling paradigm would also enable a change in the political situation in the world and, based on that, a change in the operation of global institutions, on the one hand, and a change of national economic policies, on the other hand.

At least two conclusions may be drawn from the above statements:

- 1) Future economic paradigms will be less and less ideologically burdened, given the current trend of relativization of the ideological conflict between capitalism and socialism, because socialism accepts market economy as well;
- 2) Former competition between socialism and capitalism will be transformed into a competition of different variants of the market economy, because there is a process of convergence of social and economic systems as a result of, among other things, economic and financial globalization.

In this sense, the *balance between market and state* is essential. This would mean that the state should act in a corrective manner relative to market dysfunctions, that is, to correct mistakes and regulate the market in the pre-crisis period in order to avoid the crisis, or eliminate market deficiencies when the crisis occurs. When it is said that a balance of market and state is needed, it does not refer to the mathematical or absolute balance, but to a dynamic equilibrium that is based on the functional balance. Functional balance allows relatively stable and acceptable rates of economic growth, in the context of sustainable development, as well as an acceptable level of social justice. Considering the advanced stage of the globalization process, the balance will be established on two levels: 1) global and 2) national levels. Although globalization involves the harmonization of social, economic and financial institutions, instruments, mechanisms and principles, it does not necessarily mean that the international (global) institutions condition their economic and financial assistance to certain economies on their absolute acceptance of global rules of functioning. For example, developing countries and countries in transition cannot be expected to implement the concept of a fully independent central bank whose primary goal is the minimum rate of inflation, and that the same is not required of developed countries that manage these global institutions, and so on. This means that global institutions such as the IMF, WB, ECB would have at their disposal a wider range of possible measures to be applied to particular countries, depending on the specifics of their problems. At the same time, global institutions would take into account the specific form of balance necessary for a particular country.

Having regard to the previous stage of equilibrium, the second one would be established at the level of national economies. Weights of the importance of market and economy in the equilibrium model would depend on the phase of the economic cycle and the condition of the social and environmental dimensions of society. In thus devised equilibrium model, an optimal ratio is established between different dimensions of man: homo economicus on one side, and his social and environmental dimensions on the other. In the conditions of economic prosperity, high rates of economic growth provide the realization of all the human dimensions by relatively small state interventions, meaning that the equilibrium model would be based on a greater weight of market significance. In the case of economic recession, where market dysfunctions are increasing, the equilibrium model would involve an increased weight of state participation in the re-establishment of optimal relations between different dimensions of man. Thus understood, the equilibrium model involves an interactive relationship between these two - global and national levels of balance.

## CONCLUSION

The current financial crisis has denied the principle of laissez faire, based on the self-regulating market, and re-actualized the need for government intervention. Here it is primarily the issue of the need to regulate the financial services sector, whose volume of transactions increased several times and exceeded the volume of transactions in the real sphere. Considerable costs of the financial crisis caused that special emphasis is put in this work on the basic components of the regulatory framework for preserving the stability of the financial system, which exhibited different characteristics in specific anti-crisis strategies. Since the current crisis scenario extorted increased state intervention, the question raises whether the imperative improvement of the financial regulatory framework challenged the basic postulates of neoliberal paradigm, as well as whether the solution should be sought in a convergence or a synthesis of past and current paradigms.

A universal recipe for state interference in the financial services sector does not exist, but it must be adapted to the specifics of a particular national economy, as well as of its internal and external environments. However, the fact that excessive regulation hinders operation of the market, while on the other hand deregulation contributes to the inclination of the financial system to crisis incidents, seems to lead to the synthesis and synergy of past and current paradigms. In our opinion, former development of economic thought has provided sufficient economic theories and models to formulate a universal theoretical paradigm which would, on the one hand, exert a preventive effect on the occurrence of the causes of crisis and, if the first signs of crisis appear, take an anti-crisis action by involving international and national institutions, on the other hand.

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## **IMPERATIVNO UNAPREĐENJE FINANSIJSKOG REGULATORNOG OKVIRA – CONTRADICTION IN ADJECTO NEOLIBERALNE PARADIGME**

*Globalna finansijska kriza uslovlila je masovne intervencije monetarnih i fiskalnih vlasti, poput sanacije propalih banaka, osiguravajućih društava i drugih finansijskih institucija i ubacivanja u finansijski sistem ogromnih količina novca, a sve u cilju njihovog spašavanja i sprečavanja daljeg širenja krize. U takvom ambijentu, dovedeni su u pitanje osnovni postulati na kojima počiva neoliberalizam, kao vladajuća ekonomska doktrina od 80-ih godina 20. veka. U tom smislu postavlja se pitanje da li je imperativnim zahtevima za unapređenje finansijskog regulatornog okvira izvršena suštinska relativizacija do tada dominirajuće neoliberalne paradigme.*

Ključne reči: *neoliberalizam, globalna finansijska kriza, finansijski regulatorni okvir.*

## **COST REDUCTION STRATEGY – PROCESS AND EFFECTS**

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**Abstract.** *The strategy of cost leadership, although always current, acquires special importance in the time of crisis. Cost reduction, savings program, savings measures, etc. are used as synonyms for this strategy; finally, all of these express the need to reduce costs for an enterprise. Enterprises make the cost reduction program which includes mandatory stages of reduction, reduction tools and the most appropriate strategies. The choice of tools depends on the chosen strategy, but the stages cannot be skipped or omitted within the strategies. Firstly, the present paper presents five stages through which the cost reduction program must pass, then a set of tools that can be used for reduction, and the differences between cost reduction strategy and program of layoffs.*

**Key Words:** *cost reduction strategy, stages in cost reduction, tools for cost reduction, program of layoffs, corporative culture.*

### INTRODUCTION

Carrying out any activity in an enterprise requires spending certain resources. That is why spending represents the basic mechanism that enables an enterprise to function. Spending is also a process in which there is a transmission of the resource value to the effects, while employees create new value which is added to these effects. This way, spending represents a form of resource investment in the creation of enterprise results, so it is the determinant, the driver and the consequence of the functioning of an enterprise (Figar, 2007).

The importance of spending the resources of an enterprise to achieve strategic and operational business performances imposes challenges to continually look for ways to reduce costs in an enterprise. The constant progress of technology, increasing competition in the global market, new needs of the customers that need to be met quickly, as well as the striving of an enterprise to achieve its profit function are just some of the triggers that motivate every modern enterprise to seriously analyze its costs. The analysis reveals the types of costs that should be reduced, and consequently, appropriate strategies are being defined and implemented.

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The management of modern enterprises no longer sets as the target the fixed percentage of cost reduction, but also allows managers at lower management levels to use their creativity and research in order to come up with a number of options for reducing costs (Kerr, Pauwels, 2014, 4). The concept of a continuous search for new ways to reduce costs needs to be constantly promoted at all organizational levels of an enterprise, which indicates that the enterprise has a strategic approach to this issue. This involves a series of corresponding changes in corporate culture that lead to a proactive cost reduction by an enterprise, and not only in situations when faced with difficulties in the business.

Representatives of the consulting firm Bain & Company Inc. have come to a conclusion that "... businesses with successful programs of continuous cost reduction typically achieve half of the increase in annual profits directly from cost reduction" (IOMA, 2006, 3). In addition to this, additional benefits for enterprises that have cost discipline are reflected in the opportunity of faster stabilization of their business activities in crisis situations, as well as in more certain prospects for rapid adjustment to challenging situations typical in the modern market (IOMA, 2006, 3).

There are a large number of customers with low payment capabilities all over the world. About 2.47 billion individuals or 43% of the population in developing countries live on less than two U.S. dollars per day; furthermore, one billion people will be living on less than \$ 1.25 per day in 2015, according to the UN 2012 MDG Report and World Bank estimations (Mendes, 2014, 39). This means that with the same or fewer resources an enterprise should produce both more and cheaper products in order to meet the demand of this segment of customers from the bottom of the purchasing power pyramid. Therefore, the implementation of cost reduction strategies has a continuous importance.

Cost reduction can be achieved either by performing the existing activities in the value chain cheaper, or by restructuring the value chain (Porter, 2014). Performing the existing activities with fewer resources represents the use of internal reserves, while restructuring the value chain requires radical changes, which is the longer way. Both of these actions are achieved by implementing different strategies which give priority to the reduction of different types of costs. Labour costs are almost always the first target in every cost reduction, so, in practice, the cost reduction program is often perceived as the release of employees.

This paper deals with both cost reduction strategy as a process and the effects of that process. First, possible reasons for avoiding the creation and implementation of the costs reduction strategy are listed, and then the necessity of establishing the cost-sensitive discipline in all enterprises is pointed out. This is achieved through five stages. Stages have a regular flow and no stage can be omitted or skipped. However, the behavior of different enterprises can be different at the same stage, same type of costs, so the effects can be different as well. The case studies for two companies, mentioned in this paper, confirm the previously stated facts, and all this can serve to the managers in enterprises in the Republic of Serbia as an example for the selection of a positive practice.

## 1. COST REDUCTION STRATEGY AS A PROCESS

A cost reduction strategy must be integrated into the overall business strategy of an enterprise. This is the only way employees are going to see a complete picture of the overall benefits which their individual activity regarding cost reduction is going to bring, as well as the total investment that needs to be made in order to create and implement this

strategy. The program from which all this can be considered should be made by the enterprise management that should also be the driving force of the program implementation and an example of saving the resources in carrying out its activities.

However, the enterprise management is often inclined to postpone the cost reduction strategy for a future business moment. The reasons for this behavior can be numerous: the current profit, too much effort, tradition, and increasing the number of employees (Payne, 1953, 72).

- *Existing profit.* A current profitable business may cause managers to oppose the creation and implementation of cost reduction programs. However, this attitude can cost an enterprise, given that competition is constantly advancing. This can lead to a situation in which an enterprise cannot cope with the competitors in the near future.

- *Excessive effort.* Creation and implementation of cost reduction require changes. Naturally, the change causes the fear of failure with the management and other employees. Therefore, at one point, the whole enterprise is "under pressure". That is why employees, generally, tend to avoid such a situation, justifying their attitude by the fact that they are exposed to great stress for the sake of small savings on individual resources. This attitude is wrong. Long-term perspective requires enterprises to make sure that costs savings are an integral part of the overall philosophy and culture of the firm and that it must be accepted by all employees.

- *Tradition.* Over time, the enterprise establishes a certain practice of problem solving. This practice grows up into unwritten rules which the employees blindly adhere to, regardless of the nature of the problem they are facing. Every problematic situation has its own nature and requires a separate approach, which requires additional investment of energy and time. Since many employees, including the management, are not always ready for this, tradition may appear as a serious blockage to the cost reduction program in an enterprise.

- *Increase in the number of employees.* There is often an attitude in an enterprise that the creation and implementation of cost reduction programs should increase the number of employees. As a result, management rather relies on consulting services. As cost reduction is a continuous process, choosing this option is wrong. Employees are the ones who know best where and how to save, so they should be motivated and further educated or just directed. In the long run, hiring consultants can create overdependence on them, as well as a false picture of the costs of an enterprise.

Despite the previously mentioned resistance that may arise, modern enterprises manage costs proactively and foster the appropriate cost discipline, the so-called cost-sensitive discipline. The constant challenges of competition influence an enterprise to think in the long run, and continuously develop cost reduction strategy. Accordingly, the cost reduction strategy in the modern enterprise can be conducted over the next five stages (McCormick, 2013, 47):

1. Cost estimations,
2. Adjusting to enterprise's global business strategy,
3. Selection of tools for cost reduction,
4. Cost reduction strategy implementation and
5. Measuring the effects and costs of the cost reduction strategy.

### **1.1. Cost estimation**

Cost estimation is the initial step in the process of cost reduction. At this stage it is necessary that management, based on the current market and financial situation, makes a proper assessment of the types and amount of costs that need to be reduced. This is one of the key moments in the process of cost reduction, because it determines the strategic direction in which an enterprise is going to focus its activities.

The first and, as it seems, the most logical step that each management needs to take is to collect adequate information on the current state of costs in an enterprise. *Payne* (1953, 73) recommends starting with the direct costs of production, including, first of all, the labor costs. Furthermore, the management needs to collect the data on indirect labor costs, which, in modern enterprises, make a much larger amount and a larger share in the total costs. The main challenge for managers is to achieve a reduction in labor costs, preferably without releasing valuable employees who have been with the enterprise for many years. It is particularly important that the employees do not experience the cost reduction program in an enterprise as a "program of layoffs", because this can create a huge resistance that will negatively influence the implementation of the cost reduction program. If the dismissal of a part of employees turns out to be an inevitable move in order to reduce costs, an enterprise should carefully consider the right moment to implement it. It would be suitable to carry out the release during a so-called "quiet" period - the period when there are no seasonal fluctuations in the production volume, no drastic changes in the structure of production, etc.

The procedure of collecting information in an enterprise is not an easy task. Some information is not easy to acquire, so, in this case, there is the need to find adequate ways to make it as relevant and as objective as possible. It is not important to just collect formation - it is more important to use it properly. This is the moment when creative skills of managers come into play. Creative use of the collected information on the type and amount of costs is the only reliable method. It is not recommended to apply the method of data usage that has already been implemented by an enterprise of a similar size and business activity, because chances to gain a competitive advantage, in this situation, are poor.

### **1.2. Adjusting to enterprise's global business strategy**

A cost reduction strategy must be adequately adapted to the global business strategy of an enterprise, that is, it must be integrated into a global strategy. This necessity arises from the fact that enterprises focus on different markets, different consumer segments, and different sources of resources and so on. Cost reduction team leaders form a cost reduction program very carefully trying to adapt to the global business strategy of an enterprise. Of course, the strategy of an enterprise can change due to a variety of market conditions. An enterprise which notices the decline in sales and profit, must take appropriate steps to eliminate this. One of the steps surely must be the reduction of costs, because the only cost-competitive firm can have a comparative advantage in relation to its market rivals. So, with the change of the global enterprise business strategy, cost reduction strategy must change as well. If the existing conditions require so, the focus of cost reduction programs must be redirected where it is needed the most. Therefore, a cost reduction strategy must possess the appropriate degree of flexibility in accordance with the changes in the global business strategy of an enterprise.



### 1.3. Tools for cost reduction

The area of cost reduction is constantly attracting the attention of experts. One of the researches (The E&Y & IMA, 2003) has been conducted at the request of the modern competitive economy that puts increasing pressure on enterprises to maximize their financial performance. In order to achieve this goal, enterprises must be dedicated to continuous cost reduction. The research covered a sample of 23,000 managers (members of IMA) who received an e-mail with a link to a questionnaire that should be filled in. Nearly 2,000 respondents answered by filling in the questionnaires. The main objectives of the research were (The E&Y & IMA, 2003, 1-2):

1. Investigation of the fundamental changes in the role of management accounting,
2. Analysis of the existing tools and consideration of introducing new tools and methods for cost management,
3. The impact of new technologies to replace the existing technology of management accounting and
4. Examining factors that influence the adoption of new tools and methods in enterprises.

**Table 1** *Usage of tools for cost management (IOMA, 2006, 12)*

Management Accounting Tool	Use	Under consideration	Rejected
<b>Planning: Budgeting Tools</b>			
Operational budgeting	76%	16%	8%
ABM/standard budgeting	65%	23%	12%
Capital budgeting	62%	24%	14%
<b>Decision Support Tools</b>			
Quantitative techniques	76%	17%	7%
Breakeven alaysis	62%	23%	13%
Internal transfer pricing	57%	23%	20%
Supply chain costing	31%	43%	26%
Value chain analysis	27%	47%	26%
<b>Product Costing Analysis Tools</b>			
Traditional costing	76%	15%	9%
Overhead allocations	70%	20%	10%
Multidimensional costing	35%	39%	26%
Target costing	27%	40%	33%
Life-cycle costing	32%	37%	41%
Theory of constraint	32%	41%	37%
<b>Performance Evaluation Tools</b>			
Benchmarking	53%	36%	11%
Balanced scorecard	43%	40%	17%
Value-based management	27%	41%	32%

The largest portion of the previously mentioned E&Y & IMA research is dedicated to the systematization of tools used in procedures to reduce costs in enterprises. Table 1 best illustrates the intensity of the use of certain tools that are classified into the appropriate groups, where the major usage of tools considers its use in at least 60% of the surveyed enterprises.

By analyzing the previous table, conclusions on the use of certain tools can be drawn:

- Most of the companies use operational, standard, and capital budgeting;
- Only two (quantitative techniques and graph profitability) of the five tools used in decision-making meet the requirement of being used by the majority, because they exceed the limit of 60%. One tool, transfer prices, does not exceed the limit of 60%, while the remaining two tools from this group are used irregularly, and more than 25% of the enterprises have refused their use;
- With tools for analyzing the cost price, it can be immediately concluded that the majority of enterprises use the traditional costing and the allocation of overhead costs;
- There is an interesting trend with the performance evaluation tools where no tool exceeds the limit of 60% (using the benchmarking of 53% can be characterized as a default considering the current trends in the market and striving to implement best practices, while surprisingly low use of the balanced scorecard suggests that non-financial performance measures are ignored by the companies).

Based on the research conducted in the E&Y & IMA overview (2003, 3-5), the corresponding results are published and they can be interpreted as a valuable analysis of the current state of the economies in the participant's countries (from all over the world), but also as a basis for future improvements in management accounting, with special emphasis on cost management. This research revealed that:

- Cost management plays a key role in achieving the strategic objectives;
- The priority for research participants, who are also the decision makers in their companies, is the existence of "effective" cost information;
- Despite the needs for information about costs, numerous factors that influence the reduced cost transparency have been established;
- A large number of participants who responded to the questionnaire did not take into account the possibility of introducing new tools to manage costs;
- Despite the introduction of new tools to manage costs, many of the research participants still widely use the old techniques to manage costs;
- Managers who were participants in research require the quantification of proposals for the introduction of new tools to manage costs.

#### **1.4. Implementation of cost reduction strategy**

Apart from the existence of good ideas and suggestions for cost reduction, their adequate implementation is also very important. A very important factor that requires special attention is the resistance to the implementation of the strategy by the employees and unions.

Modern enterprises, which successfully implement cost reduction strategies, use the approach which makes them different from the enterprises that cannot implement it well. These are the so-called *sustainable transformation of costs* which imply (Guarraia, Saenz, Fallas, 2012):

- Setting the goals created on the basis of external data, and not on the basis of internal benchmarking;
- Adaptation of the cost reduction strategy to the global business strategy of an enterprise;
- Introduction of appropriate measures;

- Focusing not only on the individual organizational units of an enterprise, but also on the so-called "stitches" of an enterprise;
- The resistance of employees and trade unions.
- *Setting the goals created on the basis of external data and not on the basis of internal benchmarking.* When determining to what extent the costs should be reduced, many managers fall into the trap and determine the percentage of cost reduction according to what is possible to achieve internally. In making this decision, managers rarely take into account market trends depending on which the target cost reduction should be determined. The importance of what has been previously stated is reflected in situations where there are new competitors in the market (e.g. competition from China), or new trends. This is the moment when an enterprise finds out that it cannot cope with the new competitors and new market opportunities relying on the reduction determined by internal benchmarking;
- *Adaptation of cost reduction strategy to the global business strategy of an enterprise.* Any company that does not address the issue of cost management in a timely fashion risks finding itself in a very difficult situation in the future. Therefore, cost-disciplined companies are seeking to proactively manage costs, and for that purpose exercise the adaptation of their cost reduction strategies to the global business strategy of the company. This proactive approach allows them to, following the market trends, achieve a high degree of flexibility in cost reduction, and sustainable competitive advantage;
- *The introduction of appropriate measures.* The necessity of introducing adequate measures is derived from the current practice of many enterprises that, while realizing cost reduction programs, attention is directed to only one part of the expenditure items from the income statement. Specifically, during the measurement of the cost reduction percentage enterprises rely only on the costs of "visible" resources and, thus, fail to cover the costs of "invisible" resources, i.e. calculate with an incomplete "rump" cost price. Usage of the appropriate tools for managing also the costs of the "invisible" resources, could help solve this problem;
- *Focusing not only on the individual organizational units of an enterprise, but also on the so-called "stitches" of an enterprise.* This recommendation appears as a consequence of the complexity of the enterprise's organizational structure. Organizational units can record all the costs related to them, but the question is what happens to costs which are located on the border ("stitch") between two organizational units? It is a frequent occurrence that no one pays attention to these costs, because nobody knows exactly who they belong to, or none of the organizational units want to accept them. But it is exactly with such kind of costs that lies the possibility of significant savings. K. Coyne, S. Coyne and E. Coyne (2010, 80) argue that with the reduction of these costs an enterprise can reach 30% or more in savings. In order to achieve this, it is necessary to establish control over "costs on the stitches" through greater coordination of activities among the organizational units, and their better communication with the suppliers;
- *Overcoming the resistance of employees and trade unions.* As initially stated, the barriers to successful implementation of the cost reduction strategy can be the resistance of employees and trade unions. Employee's resistance is the resistance to change and a tendency to carry out the work activities in a customary manner. Any proposal which leads to a change is unwelcome and it is being rejected. The

lack of cooperation by the employees can slow down and complicate the realization of a cost reduction program to a large extent, and the management is forced to implement the intended changes slowly and carefully in such workplaces. At first, there should be fairly simple operations that can be learnt quickly and easily and with a quality supervisor – a supervisor who can influence employees with his knowledge and charisma to accept new changes. Also, the introduction of changes in order to reduce costs can cause a strong union resistance. Enterprises manage to overcome this situation by persuading the employees individually, and the employees exert direct pressure on the unions. This way, an enterprise indirectly removes the resistance of the unions in the introduction of cost reduction programs.

### 1.5. Measuring the effects and costs of cost reduction strategy

Enterprises that traditionally rely solely on the determination of the cost reduction percentage may not be able to recognize the impact of cost reduction on the efficiency of the enterprise. Intelligent and sustainable cost reduction program includes an in-depth analysis of the business areas critical to the survival and success of an enterprise in which the reduction of costs is to be performed. Such a “smart” cost reduction strategy in areas that are crucial for an enterprise allows for the potential initiatives for cost reduction to be classified as (Kerr, Pauwels, 2014, 1-3):

1. Clear wins,
2. Worth the trade-off and
3. The last resort.
  - *Clear wins.* Partially based on the name, it can be concluded that this is about actions which clearly bring cost reduction in the right places. That way, direct influences are made on the growth of both efficiency and effectiveness. Usually, clear profits are achieved by the approach to solving a particular problem, and while solving this problem one comes to ideas for cost reduction which are the right move and carry significant results.
  - *Worth the trade-off.* The point of trade-off is in relation between costs and benefits. Namely, the initiatives for program research, which should bring benefits, have the task to analyze the costs of such programs. In case where all programs do not deliver anticipated benefits, the only ones left in the portfolio are those which represent the cost-benefit optimization.
  - *The last resort.* A large number of initiatives to reduce costs can be undertaken, but many of them can have adverse effects on business activities in other parts of the enterprise. An enterprise should apply this method of cost reduction exceptionally.

In addition to the previously mentioned benefits, certain direct benefits that the cost reduction strategy entails should also be stated. These are (IOMA, 2006, 4):

- elimination of waste and duplication of resources,
- implementation of the best programs and practices of cost reduction,
- introduction of modern technology in order to increase effectiveness,
- creation of virtual operations on the internet by following modern IT trends.

Implementing the cost reduction strategy requires an investment of adequate resources. The main question raised here is in what time the cost savings should cover the invested capital. Practice shows that this should be a short period of time, usually one year. This is

because it is not always necessary to purchase new equipment, hire a consulting firm, etc. in order to achieve significant savings. Sometimes it is only necessary to make certain corrections, adjustments in activities, to realize the planned savings. In any case, the management should stick to the economic principle here - achieve maximum effect with the minimum investments.

## 2. COST REDUCTION STRATEGY AND PROGRAM OF LAYOFFS

The first question which arises with the cost reduction strategy is: What types of costs should be reduced? When restructuring an enterprise, labor costs are, mostly, the first on the list to be reduced, and that is why the cost reduction strategy is often wrongly equated with the program of layoff. Such an understanding is supported with the applied forms of restructuring, such as:

- release of redundant employees,
  - movement of business activities to countries with cheap or cheaper labour,
  - migration of employees due to the change in the job location and
  - strategic approach.
- *Release of redundant employees* is performed directly and indirectly. Redundant employees are released directly, and indirectly there are the elimination of production lines, closure of plants, factories and subsidiaries. Both direct and indirect ways lead to a labour cost decrease, but severance pays are increasing. Finally, an enterprise sees a solution in better functioning with decreased number of employees.
  - *Movement of business activities to countries with cheap or cheaper labour* has long been known as a strategy of cost reduction through the reduction of labor costs. Today, especially important are the regions with low labor cost of engineering stuff. Low-cost engineer regions are China, the Czech Republic, India and Vietnam, medium-cost engineer regions are South Korea, Hungary, Poland and Thailand. Low labor costs mean that the salaries of engineers are only 10-20% of the salary of engineers in the United States, and the mean cost of labor to the wage to 20-50% of the salary costs of engineers in the United States (Eppinger, 2006, p. 24). Of course, care has been taken about the running costs of other categories of employees, and finally the so-called “smart” combination is made. South Korea can be an example of a successful country in creating smart combinations: uses low-cost engineering in China, limited amounts of higher-cost engineering in the U.S. or Europe for accessing to the latest technologies and markets, but has retained much of the engineering process at home (in South Korea) (Eppinger, 2006, p. 26). The ultimate goal is the production and provision of services at low cost.
  - *Migration of employees due to the change in the job location* has, until recently, been considered the traditional approach, because the workforce was moving from rural to urban areas, from underdeveloped to developed areas, from the periphery to the center. Today, employees are migrating for a job, because the present location requires fewer employees or the business activity at the location is completely extinguished. Employers are offering two alternatives: either not to leave the current location and remain jobless or to move to locations where, currently, there is a job,

but this kind of migration does not guarantee a permanent employment. The migration is an alternative that causes not only economic, but also emotional problems: the separation of families, inadequate housing at the other location, commuting, etc. The end result may be either higher cost of an enterprise or "voluntarily" job leave.

- ◆ *Strategic approach* is a holistic approach. It sees an enterprise as a whole, and cost as the total cost of an enterprise (not just by types of resources and organizational units). This is the only one of the above stated approaches that clearly shows that the cost reduction strategy is a much broader concept than the program of layoff, but it does not necessarily have to contain it. Employees are the most valuable resource of an enterprise who create and use other resources, so their release should be the last step in the process of cost reduction and only if it is inevitable. However, different enterprises behave differently, as shown by the two case studies below.

The company Merck & Co., based in New Jersey, is the world's leading manufacturer of drugs, and has been in the business for 120 years. The revenue of the company started to fall in 2004, so in 2005 the company implemented a Restructuring program that was supposed to reduce the overall costs, thereby increasing its efficiency and competitiveness. In order to achieve these objectives, five manufacturing plants and two clinical sites, as well as other property, were sold or closed. Nevertheless, the costs increased in 2006 and 2007. The "patch area" for further reduction was research and development costs, because for the period 2005-2008 these costs increased by about 20%. That is why in the new Program from 2008 the key point was *to reduce the number of employees in order to reduce company costs*. The number of senior and middle managers was reduced by 25%, and the key employees, researchers, were not spared from layoffs either. The layoff was focused on older workers who had been working for the company for more than 10 years. Some researchers employed on individual projects in Montreal were offered to move to other locations. Those who did not accept the relocation were dismissed. Also, if the project was not successful at the second location, they had to suffer the termination of the department and staying out of work (Pharma cost cutting strategies case study, 2009).

As a result of the Program implementation, research and development costs in 2008 decreased slightly compared to 2007, but were almost twice as high compared to 2000; the sales revenue decreased slightly compared to 2007, but it was at the level of revenue in 2000. Therefore, moving jobs to new locations, migration of employees because of the change in the job location, and firing employees based on the principle *first in - first out* did not reduce the costs of R&D significantly. This proves that the years of experience and acquired skills of employees in the company are not worthless assets.

The opposite example is the German car manufacturer BMW with its headquarters in Munich. At the same time when the company *Merck & Co* had a problem of high costs, in 2007, *BMW* was faced with the problem of declining productivity and the aging workforce in its factories in the United States, Germany, and Austria. But this company noted that this was a long term problem and applied a strategic approach to its solving. The forecasts showed that this company was going to be faced with the average age of the plant's workers of 47 in 2017, instead of 39 in 2007. Especially as the nation's aging is a global phenomenon: in the United States it is expected that people over 65-years-old will make up 16.6% of the population in 2020, in Germany 21.6%, and in Japan 26.2%, while this will also affect its factories in these countries. It is a fact that the healthcare costs for employees older than 65 are up to three times higher compared to the employees

between the ages of 30 and 50, and the productivity is also lower (Bauer, Mauermann, 2010). That leads to cost increase, instead of a cost reduction, so the company found itself in a situation to choose among a traditional and a modern approach to cost reduction:

- *traditional*, according to which older employees should be released or forced to retire, and
- *modern*, according to which older employees should be retained by adjusting the work to their physical abilities.

Based on the forecasts and the facts it was necessary to create a Cost Reduction Program that would allow the retention of older employees, the increase of their productivity, and reduction of the labor costs and overall operating costs. The company decided to adopt the *modern approach* and created a Program which contains (Bauer, Mauermann, 2010, 100):

- healthcare program,
- enhancing workers' skills and the improvement workplace environment,
- instituting part-time policies, and
- the change in the management processes.

Although the annual increase of productivity by 7% has been projected, the Program caused resistance among younger employees and the unemployed. However, the management did not give up the implementation of the Program:

- 70 small changes in the design and equipment that improved ergonomics were implemented at various workstations,
- ergonomically optimal job rotation, so that employees would be equally burdened,
- exercise breaks during working hours were introduced,
- the equipment was purchased (glasses, chairs, etc.) to facilitate the work of older employees.

The company invested about 40,000 euros in the Program, and the annual productivity increase of 7% was expected, as well as the increase in output from 500 to 530 units per shift, and absenteeism reduction from 7% to 2% in all BMW factories, not only in Germany.

The creation of the specific organizational culture in *BMW* contributed to the treatment of the experience of employees as a valuable resource of the company, and despite the initial resistance, all employees took part in the creation of such culture (Bauer, Mauermann, 2010):

- top management had the task to spot the problems at the factory level,
- the production managers ran an experiment,
- the line workers created the solution.

## CONCLUSION

Each enterprise should strive for structuring the most profitable portfolio of customers. Such a portfolio is usually composed of customers with different purchasing power. Report and the estimation of the World Bank show that there is a large segment of buyers with a low purchasing power, whose needs can be met only with cheaper production. That is why cost reduction has a large importance in this. The cost reduction strategy should be comprehensive i.e. it needs to refer to the reduction of all types of costs and everywhere, not only to the reduction of labor costs as it is usually practiced.



The example of *BMW* shows that the investment in older employees can be beneficial while the example of the company *Merck & Co.* shows that the retention of only young employees does not bring satisfactory results. That is why enterprises should create a climate that does not equate the program of layoffs with the cost reduction strategy. This is especially important because equating the cost reduction strategy and the layoff programs is largely present in the Republic of Serbia.

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## STRATEGIJA REDUKCIJE TROŠKOVA - PROCES I EFEKTI

*Strategija troškovnog liderstva, iako uvek aktuelna, poseban značaj dobija za vreme krize. Redukcija troškova, program štednje, mere štednje i sl. koriste se kao sinonimi za ovu strategiju, a svi u konačnom izražavaju potrebu za smanjenjem troškova preduzeća. Preduzeća sačinjavaju Program redukcije troškova, koji sadrži obavezne etape u redukciji, alate za redukciju i najadekvatnije strategije. Izbor alata zavisi od izabrane strategije, ali se etape ne mogu preskakati, niti izostavljati ni kod jedne strategije. U ovom radu je prikazano pet etapa kroz koje mora proći Program redukcije troškova, zatim set alata koji se mogu koristiti za redukciju i razlika između strategije redukcije troškova i programa otpuštanja.*

Ključne reči: *strategija redukcije troškova, etape u redukcij troškova, alati za redukciju troškova, program otpuštanja, korporativna kultura.*

## **DETERMINATION OF TRANSFER PRICING IN MULTINATIONAL COMPANIES**

*UDC 338: 334.726*

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**Abstract.** *The issue of transfer pricing in multinational companies assumes strategic importance in modern business conditions. Evaluation of performance and goal congruence of all subsidiaries and multinational companies as a whole are determined by the applied rules and methods of transfer pricing. Determination of transfer pricing in multinational companies has become more complicated with differentiation of the tax systems of the countries in which subsidiaries are located. Due to different tax rates on income, companies transfer their profit from high-tax countries to low-tax countries. According to that, the aim of this work is to indicate the importance of transfer pricing and methods of their determination in multinational companies. During the preparation of this article, analysis methods based on relevant and available foreign literature and practices, methods of synthesis and methods of comparison will be applied. The aim of this paper is to indicate to the domestic and professional public the phenomenon of transfer prices and their implications on the performance of subsidiaries and multinational companies as a whole.*

**Key Words:** *transfer pricing, multinational companies, costs, methods.*

### INTRODUCTION

Increasing instability of the environment and the complexity of technology, the need for continuous innovation and rapid decisions, have led to a more flexible organizational structure. Divisional model of organizational structuring, which is characterized by extreme flexibility and adaptability is present, especially in the organization of multinational companies. As this model is compatible for use in conditions of higher risk and suspense in the environment, its advantages in formulating and implementing the objectives of multinational companies have particularly come to the fore.

Subsidiaries within the multinational companies, that are relatively independent and functionally capable segments, also possess a high level of responsibility for both their

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own results and the results of the entire company. An important aspect of success of subsidiaries and the company as a whole are transfer prices, which is established in terms of internal transfer effects. They are determined to provide reliable and correct determination of involvement of each participant in this transfer and to measure its efficiency. Transfer pricing, in contrast to the external market price, affects the performance of subsidiaries that sell and subsidiaries that buy goods and services, but also the company as a whole.

Control-oriented accounting information system and especially accounting of liability, which provide necessary quantitative and qualitative information are essential for the effective management of multinational companies. They are primarily important for the selection and application of an appropriate transfer-pricing method. Therefore, management accounting offers a number of different methods of transfer pricing for multinational companies, as well as an information base for calculation of tax liabilities connected with the transfer of goods and services between the subsidiaries.

Accordingly, the attention of this work is the implementation of transfer pricing in multinational companies, the effects of their use on the performance of subsidiaries and the company as a whole, as well as transfer-pricing methods, with special emphasis on the role of transfer pricing in managing taxes.

## 1. THE ROLE OF TRANSFER PRICING IN MULTINATIONAL OPERATIONS

Specificity of multinational companies is shown through a large geographical coverage, excellent organizational interdependence and ability of coherent integration activities that are taken in different countries. In terms of revenues, profits, capital and available resources, these companies are extremely powerful, and their economic power is often greater than the potential and the results of many countries.

Great power of multinational companies is based on the enormous size of the company, activity on the global level and social impact derived from these; internationalization of all phases of business; centralization of decision-making; monopolistic control of the world's source of materials and energy; as well as the big potential of scientific and technical development. Therefore, multinational companies are the most important factor in the global economy, which controls more than 70% of world trade and 80% of the world's financial potential [17, 277-283].

Existing knowledge and accumulated experience of multinational companies come to the fore in situations where they use the good conditions and comparative advantages offered by each geographic location and when they integrate these different locations in the multinational network of research and development, production and sales, or marketing.

In terms of complex organizational structures, exchange rate volatility and possible political changes in the host countries, the company tasks such as coordination, control, resource allocation and performance measurement become even more complex [5, 338-350].

Internal transfer between some of subsidiaries in multinational companies, that is internalization of international economic transaction, becomes an extremely important part of international trade and the reason why these corporations are dominant on the global market [13, 15]. With increasing internalization, the issues of internal transfer pricing gain in importance.

Within the company, internal transfer of products and services often occurs, where one subsidiary appears as the seller, and the other one as the customer. Internal transfer of products and services includes an appropriate mechanism for determining the price that

will be applied, so that revenues and costs can be accurately reflected. The pricing mechanism that is used in these transactions is called transfer pricing. Transfer pricing represents the cash basis for quantifying the internal transfer of products/services [1,1075]. The specificity of transfer pricing in relation to the external market pricing is reflected in the fact that transfer pricing conditions the success of buying subsidiaries, selling subsidiaries, but also the entire company success. In this regard, it is necessary to use reliable information support during its formation.

The effect of the internal transfer of products and services on the profit of the subsidiary of the company can be both positive and negative. High transfer pricing has resulted in lower profit for the subsidiary office that buys, but a higher profit for the subsidiary that sells. The low transfer pricing has the opposite effect. Given the existence of the conflicting interests between the two subsidiaries, where the customer subsidiary is trying to lower the transfer pricing, whereas the seller subsidiary wants to sell a product or service for higher pricing, finding the optimal level of transfer pricing is very important. The policy of transfer pricing may affect the decision of the manager of the independent subsidiary whether to transfer or not.

As transfer pricing affects both revenues of the subsidiary that sells and of those that buy products and services, it determines profit, return on investment, and thus the success of managerial performances of both subsidiaries. Table 1 illustrates the impact of transfer pricing on the subsidiaries that perform internal transfer as well as on the entire company.

**Table 1** Impact of transfer price on transferring divisions and the company as a whole

ABC multinational company	
Subsidiary A	Subsidiary C
Produces component <i>a</i> and transfers it to C for transfer price of 3000 m.u. per unit	Purchases component <i>a</i> from A at transfer price of 3000 m.u. per unit and uses it in production of the final product
Transfer price = 3000 m.u. per unit	Transfer price = 3000 m.u. per unit
Revenue to A	Costs to C
Increases net income	Decreases net income
Increases ROI	Decreases ROI
Transfer price revenue = Transfer price cost	
Zero impact on ABC multinational company	

\*m.u. - monetar unit

Source: [2, 492]

Subsidiary A produces component *a* and sells it to a subsidiary belonging to the same company, subsidiary C. The transfer pricing represents revenue for the subsidiary A, so subsidiary A tries to do an internal transfer at the highest possible transfer pricing. On the other hand, the transfer pricing is the cost for subsidiary C, so subsidiary C tries to do an internal transfer at the lowest possible pricing. For the company as a whole, the revenue of subsidiary A faces with the cost of subsidiary C so that the transfer pricing has no impact on its profit.

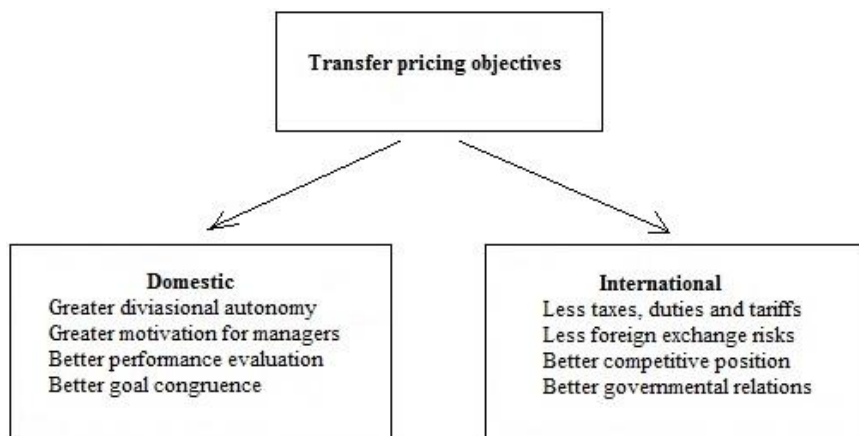
Although this internal transaction has no effect on the profit of the company as a whole, if the subsidiaries behaved in accordance with their own interests, ignoring the interest of the company as a whole, the effects would be different. In this case, the system of transfer pricing that is being applied, would also affect the profit of the entire

company. Namely, if subsidiary A determined transfer pricing of 3000 m.u. for the component whose production costs is 2400 m.u., and if subsidiary C realized that the same component could be obtained externally at a pricing of 2800 m.u., the internal transfer would not occur. The supply from the external supplier represents a cost saving for subsidiary C of 200 m.u. (3000 m.u., which is the transfer pricing - 2800 m.u. which is the market pricing). In this case, the company as a whole suffers a loss in the amount of 400 m.u. (2800 m.u. which is the market pricing - 2400 m.u., that are the costs of the production of components that are exchanged). Thus, the transfer pricing must be aligned to the interests of individual subsidiaries and the interests of the company as a whole.

The task of the management in determining the level of transfer pricing is to provide a harmonized behavior of subsidiaries involved in the internal transfer. The general rule for determining transfer pricing implies that it should be the sum of the additional costs per unit caused by the transfer of products and services and the opportunity costs per unit caused by the realization of transfer [3, 803]. Additional costs, incurred in the subsidiary that produces products in order to transfer them, cover all expenses related to the production of goods and services, as well as expenses incurred due to their transfer. Opportunity costs are those that the company has because of the realization of the internal transfer.

In some situations, there are some difficulties in implementing the rules for determining transfer pricing, due to the fact that the exact amount of opportunity costs cannot always be determined. One of the reasons is the lack of a perfectly competitive market for a particular product or service, or non-existence of markets in general. Also, other reasons that make it difficult to determine the opportunity costs are the specificity of certain products or services, the interdependence of different products and services, etc. In most cases, the general rule for determining transfer pricing is applicable. Otherwise, companies can use some other methods for transfer pricing.

During the formation of transfer pricing, multinational companies are focused on numerous goals. The following figure illustrates the basic objectives of transfer pricing in the domestic and international markets.



**Fig. 1** Objectives of transfer pricing in the domestic and international market

Source: [7, 61]

As it can be seen from the picture, multinational companies use international transfers to minimize the taxes, custom duties and the risk of changes in foreign currency exchange rate, while improving competitive position and relations with foreign countries. The goals that the companies are focused on during the formation of transfer pricing in the domestic market, although very important, become secondary when it comes to international transfers.

Business management within the borders of one country because of the necessity to adapt, because of the national environment and the external environment factors. Particularly significant are the differences in tax rates, foreign currency and customs regimes. Therefore, the question of transfer pricing and their tax implications is a strategic issue that has a strong influence on profitability, performance and competitiveness of multinational companies [15, 91-93].

Transfer pricing at multinational groups level has multiple effects. It directly impacts the business results of the group members in the supply chain. For multinational companies with global supply chains, increased conscience of transfer pricing-related issues leads to the recognition that changes in an operational structure often demand appropriate changes to the tax and legal structure to align business models [10, 375-404]. By transfer pricing, the profit is transferred from countries with high tax rates to countries with lower tax rates. It directly influences the increase in profits in countries with lower rates of income tax. Also, the transfer price may have a control part. Thus, for example, if the parent company wants to receive dividends from its subsidiaries, which is not possible because of legal restrictions, the parent company will, through transfer pricing, increase their profits and reduce the profit of subsidiaries.

Since multinational companies tend to lessen their tax obligations and maximize the profit of the system as a whole by applying transfer pricing strategies, it is logical to expect the negative fiscal repercussions of such practices on the economy of the host country. With the application of transfer pricing, the state treasury is losing, and the governments of all countries nowadays face the challenge of applying tighter regulation of transfer pricing and law strengthening whose implementation would contribute to minimizing the negative tax repercussions of such strategic behavior of corporations.

Transfer pricing also serves as a means for circumventing the payment of withholding tax. Directing money from subsidiaries to the parent company in the form of dividends and interest to which the withholding tax is paid can be avoided. Instead, the money is transferred through the sale of products and services [14]. The withholding tax is not paid for the transaction of purchasing goods and services. The higher the pricing charged to subsidiaries, the more money can be received from the country in question without the payment of the withholding tax. The same effect can be achieved if the subsidiary sells goods and services to the parent company at low transfer pricing. In this way, companies can bypass the cases when the state puts restrictions on the repatriation of profits.

Transfer pricing is not agreed on a free, open market and it may differ from the pricing that unrelated subjects agreed upon in a comparable transaction under the same circumstances. Therefore, the taxpayer is required to display the related party transactions in the tax balance at pricing "out of reach" (market pricing), that is, to implement adjustments in the tax balance based on the tax laws. Tax authorities, on the other hand, tend to adjust the pricing realized in these transactions with the pricing in transactions between unrelated parties, ie. with the pricing that is formed freely on the market. For

these purposes, many different methods are used for determining the pricing "out of reach". In determining tax liability, the tax authority takes into account the transfer pricing arranged by the unrelated persons, and not the transfer pricing arranged by the related parties.

The "*arm's length*" principle (ALP) is a guiding principle and manual in the process of determining intra-group transfer pricing, ie. the pricing of intercompany transactions and international standard related to transfer pricing. The difference between the "*arm's-length*" transfer pricing, formed by independent companies in the free market, and the transfer pricing formed by the related companies is profit, or revenue generated from the transfer goods, services or intellectual property rights. That profit is taxed and included in the tax base. The taxpayer is obliged to separately indicate the value in the tax balance sheet of the transactions in accordance with these principles. The application of the "*arm's length*" principle is based on a comparison of the conditions of controlled transactions with the conditions of uncontrolled transactions. OECD member countries consider that an appropriate alignment is achieved by establishing conditions from the commercial and financial relations between unrelated parties in comparable transactions and under comparable conditions [16].

Significant differences in tax rates on income in different countries are evident. In this regard, multinational companies use a system of transfer pricing as a tool to reduce their tax liabilities. Namely, by setting a high transfer pricing of the company, there is an increasing amount of expenses in the buying subsidiary relation located in countries with high taxes, while in the selling subsidiary relation, the amount of revenue increases. This is how the transfer of profits is done from the countries with high tax rates to the countries with low tax rates. All this ultimately results in maximizing profits after taxation at the level of a multinational company as a whole.

The effects of transfer pricing to the amount of tax paid will be illustrated on the example of a hypothetical multinational company "XYZ", that has a large number of subsidiaries around the world, among which subsidiary A (located in the country where the tax rate is 60%), which occurs as the customer and subsidiary B (located in the country where the tax rate is 30%), which occurs as the vendor [3, 802-816].

Throughout the year, production costs incurred in subsidiary B amounted to 750.000 m.u., and 2.250.000 m.u. in subsidiary A. Revenues from sales of subsidiary A were 9.000.000 m.u. Other companies imported the same quantity of similar products in the country in which subsidiary A operates for a total of 1.000.000 m.u. The company "XYZ" estimated that for the exchange of this product among its subsidiaries, the adequate transfer pricing at which the costs of internal transfers for subsidiary A amounted to 3.750.000 m.u.

The following tables illustrate the calculations of tax liabilities in a situation when the transfer pricing is equal to the external pricing at which other companies purchase a specific product, and at which the internal transfer costs amount to 1.000.000 m.u. (Table 2) and when the costs of internal transfers amount to 3.750.000 m.u. (Table 3).



**Table 2** Calculation of tax liability by applying lower transfer price

Elements	Subsidiary B	Subsidiary A
Revenue	1,000,000 m.u.	9,000,000 m.u.
Production costs	(750,000) m.u.	(2,250,000) m.u.
Transferred goods costs		(1,000,000) m.u.
Taxable income	250,000 m.u.	5,750,000 m.u.
Tax rate	0.30	0.60
Tax liability	75,000 m.u.	3,450,000 m.u.
Total tax liability		3,525,000 m.u.

**Table 3** Calculation of tax liability by applying higher transfer price

Elements	Subsidiary B	Subsidiary A
Revenue	3,750,000 m.u.	9,000,000 m.u.
Production costs	(750,000) m.u.	(2,250,000) m.u.
Transferred goods costs		(3,750,000) m.u.
Taxable income	3,000,000 m.u.	3,000,000 m.u.
Tax rate	0.30	0.60
Tax liability	900,000 m.u.	1,800,000 m.u.
Total tax liability		2,700,000 m.u.

Based on the data presented above, we can conclude that the company “XYZ” saved an even 825,000 m.u. by paying fewer tax liabilities, based on the changes in the amount of transfer pricing.

Transfer pricing can also affect the competitive position of business units abroad. Low transfer pricing leads to strengthening the competitive position of certain subsidiaries, while a high transfer pricing weakens the position. Multinational companies use transfer pricing also to provide a better bargaining position by maintaining the best possible relations with the local government and its organizations.

Multinational companies can use transfer pricing to remain competitive in international markets or to break into new markets. When entering a new market, the company may establish a selling subsidiary. In order to win a certain market share, a subsidiary with a discounted pricing has an aggressive approach on the market. To ensure the profitability and competitiveness of the new operations, the parent company can sell products and services at a low transfer pricing to the subsidiary. In this case, the parent company is the one that absorbs the subsidiary discount.

A survey taken on a sample of 500 American multinational companies, came to the following variables on which the application of transfer pricing has the greatest impact [3, 814]:

**Table 4** Ranking the impact of transfer pricing on certain variables

Ranking of average importance score	Variable
1	Overall profit to the company
2	Differentials in income tax rates and income tax legislation among countries
3	Restrictions imposed by foreign countries on repatriation of profits or dividends
4	The competitive position of subsidiaries in foreign countries
5	Rate of customs duties and customs legislation where the company has operations
6,7,8	Restrictions imposed by foreign countries on the amount of royalty management fees that can be charged against foreign subsidiaries
6,7,8	Maintaining good relationships with host governments
6,7,8	The need to maintain adequate cash flows in foreign subsidiaries
9	Import restrictions imposed by foreign countries
10	Performance evaluation of foreign subsidiaries
11	The need of subsidiaries in foreign countries to seek local funds
12	Devaluation and revaluation in countries where the company has operations
13,14	Antidumping legislation of foreign countries
13,14	Antitrust legislation of foreign countries
15	The interests of local partners in foreign countries
16	Rules and requirements of financial reporting for subsidiaries in foreign countries
17	Volume of interdivisional transfers
18	Rates of inflation in foreign countries
19	Risk of expropriation in foreign countries where the company has operations
20	U.S. government requirements on direct foreign investments

Source: [3,814]

Almost correctly, transfer pricing can save a company millions of dollars. If not done accurately, transfer pricing can place global companies at considerable risk for audits, interest and penalties, high legal costs, even result in double or triple taxation [12, 35]. This results in an increase in the total cost, the increased total cost makes the corporation less profitable. Transfer pricing was found to be an important part of maximizing operating performance [11, 5431–5448].

## 2. METHODS OF FORMING TRANSFER PRICING IN MULTINATIONAL COMPANIES

The pricing of internal transfers that takes place in multinational companies should correspond to the pricing at which similar transactions are carried out on the external market. Possible deviations may occur due to the certain differences which may have an impact on the pricing, and which relate to the transportation costs, insurance costs, customs duties and taxes, as well as marketing costs. Landing costs (e.g. freight, insurance, customs duties and special taxes) can increase the allowable transfer price, while marketing costs are usually avoided for internal transfer and reduction of transfer price [2, 502].

Determining transfer pricing in transactions between subsidiaries of multinational companies is usually based either on costs or estimated market pricing for products and services that are traded. The most commonly applied methods for determining transfer pricing in these types of transactions are the comparable uncontrolled price method, the resale price method, the cost-plus method and the comparable profits method. The transfer pricing determined by the **method of comparable uncontrolled price** is actually a market pricing. In order for this method to be applicable, it is necessary that there is an external market for a specific product or service, i.e. that in addition to the internal sales, the multinational company also sells that product or service to the external market, or that it is being exchanged between the two independent companies. **The resale price method** includes transfer products and services at a pricing equal to the retail price reduced for a certain amount of profit that is realized by the subsidiary-vendor. **The cost-plus method** is based on the real costs, and transfer pricing is determined by adding the appropriate amount of profit to the cost of production of goods and services. **The comparable profits method** involves comparing the profitability of the company that is engaged in the same or similar activity with the profitability of the subsidiary office that uses transfer pricing [6, 399].

The issue of determining transfer pricing by applying the method of comparable uncontrolled price, the resale price method and the cost-plus method will be illustrated in the example of a hypothetical multinational company "ABC", which has a large number of subsidiaries around the world, among which subsidiary A, which occurs as the buyer and subsidiary B, which occurs as the vendor [2, 502]. Subsidiaries A and B are located in different countries. Subsidiary A procures the component  $x$  from subsidiary B. Component  $x$  can be purchased from external suppliers at a pricing of 475 m.u. Transport costs and insurance costs amount to 60 m.u. Commission expenses in the amount of 50 m.u do not need to be paid.

The transfer pricing determined by using the *method of comparable uncontrolled price* is 485 m.u., and is calculated in the following way:

Market price	475 m.u.
Transport costs and insurance	60 m.u.
Comissions	(50 m.u.)
<b>Transfer price</b>	<b>485 m.u.</b>

To illustrate the process of determining transfer pricing by using the method of retail pricing, we introduce the assumption that subsidiary B does not have external sales for the component  $x$  that transfers to subsidiary A. Let us also assume that subsidiary A sells component  $x$  at a pricing of 525 m.u. and achieves 40% profit from the purchase pricing of the sold goods.

The transfer pricing determined by using the *resale price method*, taking into consideration the above-mentioned assumptions is 375 m.u., and is calculated in the following way:

$$\begin{array}{l}
 \text{Resale price} = \text{Transfer price} + \text{Markup percentage} \times \text{Transfer price} \\
 525 \text{ m.u.} = \text{Transfer price} \times (\text{Markup percentage} + 1) \\
 525 \text{ m.u.} = \text{Transfer price} \times 1,40 \\
 \text{Transfer price} = 525/1,40 \\
 \text{Transfer price} = 375 \text{ m.u.}
 \end{array}$$

The process of determining the transfer pricing by using a cost-plus method will be illustrated by assuming that for component  $x$  which is being transferred from subsidiary A to subsidiary B there is no external market and that component  $x$  is used in the manufacture of product Y. The production costs for component  $x$  amount to 250 m.u.

The transfer pricing determined by using a *cost-plus method* taking into consideration the above-mentioned assumptions is 310, and is calculated in the following way:

$$\begin{array}{l}
 \text{Market price} = \text{Production costs} + \text{Transport costs and insurance} \\
 \text{Transfer price} = 250 \text{ m.u.} + 60 \text{ m.u.} \\
 \text{Transfer price} = 310 \text{ m.u.}
 \end{array}$$

When considering range in which the transfer price can be determined, the level of utilization of existing capacity also has to be taken into account. When the subsidiary that sells operates under conditions of full capacity utilization, the opportunity cost per unit is actually the market price of the product [6, 400]. Namely, in conditions of full capacity utilization, the seller subsidiary must give up selling the product on the external market if they decide to sell products internal, to the customer subsidiary. In this case the market price represents an upper limit for the transfer price. If the transfer price is established at a level above the market price the buying subsidiary will not be motivated to do an internal transfer. When the selling subsidiary has enough excess capacity, lower limit of transfer pricing is determined by the amount of variable costs. In the conditions of insufficient capacity utilization, the selling subsidiary will not be motivated to complete an internal transfer if the transfer price is set at a level that does not cover variable costs.

The problem of determining the lower and upper limits of transfer prices, regarding the level of capacity utilization will be illustrated in the case of hypothetical multinational company "Trend", which has a large number of subsidiaries around the world, among which are subsidiary C, which appears as the seller and subsidiary D, which appears as the buyer [4, 561].

Subsidiary C has the capacity to produce 100,000 product units. Subsidiary C sells component  $k$  to subsidiary D. Subsidiary C sells component  $k$  to the external market at a price of 38 m.u. Variable costs per component  $k$  unit are 20 m.u., and fixed costs per unit are 11 mu. Subsidiary D uses component  $k$  in the production of product P. Subsidiary D purchases annually 10,000 units of component  $k$  from the external supplier at the price of 36 m.u. per unit.

Further in the text the identification of a transfer pricing range under different assumptions will be presented.

If we assume that subsidiary C has enough excess capacity to meet the need for all 10,000 units of component  $k$  that subsidiary D has, where at the same time does not have to give up on sales to external market, lower limit for the transfer price from the selling subsidiary's point shall be determined as follows:

$$\text{Transfer price} \geq \frac{\text{Variable costs}}{\text{Per unit}} + \frac{\text{Total contribution margin on lost sales}}{\text{Number of units transferred}}$$

$$\text{Transfer price} \geq 20 \text{ m.u.} + 0 \text{ m.u.} / 10.000 \text{ units} = 20 \text{ m.u.}$$

Subsidiary D would not agree to the transfer price that is greater than 36 m.u., which is the price that external suppliers offer. In this case, the transfer price must be formed in the range from 20 m.u. to 36 m.u.

In the case when the selling subsidiary does not exploit fully its available capacity, selling products at a transfer price higher than the level of variable costs is acceptable because of the profit increase. This will happen if the transfer price forms at the level greater than 20 m.u., and lower than 36 m.u. The choice of this transfer price leads to reallocation of the profit in favor of the selling subsidiary, while for the buying subsidiary this price remains more affordable than buying at the external market, due to the difference between the transfer price and the market price [8, 411-417].

Supposing that subsidiary C is using all of its available capacity for the production and sale of components on the external market. In order to enforce internal transfer and to respond to subsidiary D's order, subsidiary C must give up on some of the sales on the external market. When determining the lower limit for transfer pricing in such a case, it is necessary to take into account the variable and opportunity costs. Subsidiary C has an opportunity cost that actually represents the total amount of lost sales. The lower limit for the transfer price is 38 m.u. and is determined as follows:

$$\text{Transfer price} \geq \frac{\text{Variable costs}}{\text{Per unit}} + \frac{\text{Total contribution margin on lost sales}}{\text{Number of units transferred}}$$

$$\text{Transfer price} \geq 20 \text{ mu} + \frac{(38 \text{ m.u.} - 20 \text{ m.u.}) \times 10.000}{10.000}$$

$$\text{Transfer price} \geq 20 \text{ m.u.} + 18 \text{ m.u.} \geq 38 \text{ m.u.}$$

Given that subsidiary D can procure the needed components on the external market at a price of 36 monetary units per unit, it is most likely that internal transfer will not occur.

If we assume that subsidiary C operates at a maximum of its capacities and that by realization of the internal transfers can be saved up to 4 m.u. on the account of variable costs, due to the reduction of the costs of sales, the lower limit of transfer pricing is 34 m.u., from the selling subsidiary perspective. It is determined as follows:

$$\text{Transfer price} \geq \frac{\text{Variable costs}}{\text{Per unit}} + \frac{\text{Total contribution margin on lost sales}}{\text{Number of units transferred}}$$

$$\text{Transfer price} \geq (20 \text{ m.u.} - 4 \text{ m.u.}) + \frac{(38 \text{ m.u.} - 20 \text{ m.u.}) \times 10.000}{10.000}$$

$$\text{Transfer price} \geq 16 \text{ m.u.} + 18 \text{ m.u.} \geq 34 \text{ m.u.}$$

Subsidiary D would not agree with the transfer price that is higher than 36 mu, i.e. the price of the external suppliers. In this case, the transfer price has to be formed somewhere in the range from 34 to 36 m.u.

## CONCLUSION

Transfer pricing is an important business area in the modern business world. Its importance emerged due to an increase in the number of internal transactions within the company. Transfer pricing must be defined and determined to allow harmonization of the objectives of both numerous subsidiaries and the company as a unique entity. In order to estimate the performance of the subsidiaries in regular and real terms, it is necessary for the appropriate methods of transfer pricing to be applied. Selecting the proper method prevents the overflow of the value from one subsidiary to another.

Enforcing internal transfers, multinational companies achieve a number of objectives that affect the business by providing: lower taxes, customs duties and charges, lower trade risks, better competitive position and better relations with other countries. Being the most important one, stress is put on the role of transfer pricing in minimization of the income tax. By shifting profits from the subsidiaries located in the countries with higher tax rates to the subsidiaries in the countries with lower tax rates, multinational companies maximize profit after taxation for the whole company. In this way, multinational companies are becoming more powerful and influential in the preferred market.

The exchange of goods and services between subsidiaries of one multinational company is done at the level of transfer prices. The level of transfer prices by which the goods and services are going to be exchanged, depends on the particular method that is applied, but also on the degree of utilization of the existing capacity of the company. When the subsidiary that sells products and services operates on the level of full employment of its capacities, its opportunity costs are equal to the market price, which determines the upper limit of the transfer pricing. In case when there is enough available capacity, the lower limit of transfer pricing is determined by the amount of the variable costs of the selling subsidiary.

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## UTVRĐIVANJE TRANSFERNIH CENA U MULTINACIONALNIM KOMPANIJAMA

*Pitanje transfernih cena u poslovanju multinacionalnih kompanija u savremenim uslovima poslovanja poprima strategijski značaj. Ocena performansi i harmonizacija ciljeva svih divizija i multinacionalne kompanije kao celine, determinisani su primenjenim pravilima i metodama formiranja transfernih cena. Utvrdjivanje transfernih cena u multinacionalnim kompanijama uslozljeno je diferenciranošću poreskih sistema zemalja u kojima su locirane divizije. Usled različitih poreskih stopa na dobit, vrši se transferisanje dobitka iz zemalja sa većim poreskim stopama u zemlje sa nižim poreskim stopama. S tim u vezi, cilj ovog rada je da ukaže na značaj transfernih cena i metoda njihovog utvrđivanja u multinacionalnim kompanijama. U toku izrade članka biće primenjene metode analize na bazi relevantne i raspoložive inostrane literature i prakse, metode sinteze i metode komparacije. Od rada se očekuje da domaćoj i stručnoj javnosti ukaže na fenomen transfernih cena i njihove implikacije na performanse divizija i multinacionalne kompanije u celini.*

Ključne reči: *transferne cene, multinacionalne kompanije, troškovi, metode.*





## THE IMPORTANCE OF INFORMATION TECHNOLOGIES FOR AUTOMOTIVE CLUSTER OF THE REPUBLIC OF SERBIA

UDC 334.75

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**Abstract.** *Enterprise networking occurs as a consequence of the globalization and the tendency to increase the ability to meet customer requirements. The functioning of networked enterprises as complex interorganizational networks in modern conditions is impossible without the implementation of appropriate information technology (IT). They provide stronger partnerships, fast and easier sharing of information, more transparency and less distorted information. The importance of the application of IT will be highlighted through the advantages of IT, as well as factors that may limit the process of their application. The analysis was conducted based on a sample of 28 enterprises which are the cluster members. The general conclusion based of the analysis is that there is a link among IT implementation and achievement of positive effects in certain business segments (Sharing information, Supply reliability, Inventory reduction, Cost reduction, Fast delivery, Product quality, Process continuity), which means that enterprises that have implemented IT generate positive effects in the observed fields. The analysis was performed by application of the following statistical tools: descriptive statistics, Fisher's exact probability test, correlation analysis and cluster analysis.*

**Key Words:** *enterprise networking, information technology, automotive cluster, correlation analysis, cluster analysis.*

### INTRODUCTION

Modern competition is imposed by the need to achieve competitive advantage through interorganizational networking. The impossibility of providing all the necessary resources, capabilities and skills in modern conditions, accelerates the development of interorganizational networks. At the same time, a large number of different networked enterprises has influenced the emergence of conflicts among competing objectives and strategies of the partners. The basic requirement for achieving effective partnership is

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teamwork. However, it is impossible to achieve this without the cooperation, coordination and collaboration among partners, the behavior known as C3 behavior (Weaver, Visich and Roethlein, 2012). C3 behavior is inevitable in the case of improvement of processes, structure, and skills at the level of interorganizational network. This behavior means that partners imply joint efforts in order to achieve common goals. C3 behavior enables the realization of creative and innovative solutions necessary to create new values, products or processes, as well as intangible value.

Many authors point out that for achieving high level of collaboration within the network it is necessary to provide interdependence among partners, long-term orientation and sharing information (Pigni, Ravarino, Saglietti, 2010). In order to provide improvements in interorganizational network, the aforementioned information sharing among partners must include sharing of strategic information, and not just transactional data (Krishnapriya, Rupashree, 2014). Therefore, the possibility of achieving cooperation, coordination and collaboration among partners is limited by the lack of IT implementation. Through sharing information among partners, different ITs increase the level of transparency within network, but at the same time ensure the creation of greater value for the consumer, through the elimination of conflicts, which proceed from sharing incorrect or distorted information. In this sense, IT, both at the level of individual enterprises, and the level of interorganizational networks, is considered as one of the sources of competitive advantage.

## 1. APPLICATION OF INFORMATION TECHNOLOGIES WITHIN INTERORGANIZATIONAL NETWORK

Information and communication technologies are an important support for the development and functioning of interorganizational networks. IT provides opportunities for enterprises to achieve full integration with their partners within the network, at relatively low cost (Baihaqi, Beaumont, Sohal, 2008). *Gerard* and *Marshall* in their study analyzed the contribution of IT and information exchange on demand between a supplier and a large number of retailers. These authors found that sharing information has led to costs reduction by 13.8%, within the network (Zhang, 2008).

Before the introduction of IT, sharing information, both among functional areas within enterprises and among the enterprises within the network, included the paper form. This way for sharing information was slow, unreliable and full of errors (Moharana, Murty, Senapati, Khuntia, 2011). In the mid-1970s first serious technical solutions appeared, and they supported the efficient functioning of supply system, such as Kanban system, the original version of Just-in-Time system delivering spare parts for Toyota from Japan to America for final processing. Almost simultaneously appeared the first control concepts on the procurement such as Material Requirements Planning - MRP I, Manufacturing Resource Planning - MRP II, Distribution Resource Planning - DRP and Enterprise Resource Planning - ERP. The appearance of these technologies enabled effective communication among partners across national borders, regardless of the distance (Higuchi, Troutt and Polin, 2005).

Increasing speed and reducing cost of communication are some of the main drives for the development of interorganizational networks. A major contribution represents facilitating personal and business contacts. The development possibilities of electronic processing and transmission of data, voice, letters, pictures and so on gave a huge contribution to reducing the cost of communication. A similar revolution, in the context of transport technologies, has enabled the achievement of significant effects, through fast and cheaper transport of goods (Đogić, Čengić, 2008).

In spite of the fact that the Internet appeared much later than the concept of interorganizational networks, the Internet has accelerated its development significantly. The Internet has affected easier design and implementation of business activity in networks. It facilitates and accelerates sharing information in real time. It speeds up and simplifies the process of market research. These are some of the reasons that contributed to Porter's claim that the Internet is the most powerful tool available to enhance operational efficiency (Milovanovic, 2004, 82).

However, there are technologies whose appearance and development was initiated by the need to establish better communication and coordination in interorganizational networks. Some of them are: Vendor-Managed Inventory - VMI, Collaborative Planning, Forecasting and Replenishment - CPFR, Continuous Replenishment Program - CRP. The above mentioned technologies can be classified into several categories, depending on whether they are applied within an organization or among several organizations and whether they are used in planning or executive actions.

**Table 1** ITs which have contributed to development networks considering their field of application

Field of application IT	Technologies which are used in planning	Technologies which are used in executive activities
Inter-organizational technologies	CPFR	EDI (Electronic Data Interchange) VMI (Vendor Managed Inventory)
Intra-organizational technologies	MRP I MRP II ERP	WMS (Warehouse Management System)

Source: Mangan, J., Lalwani, Ch. and Butcher, T., (2008), *Global Logistics and Supply Chain Management*, John Wiley & Sons, Ltd, New York.

One of the modern technologies has found its application in interorganizational networks. It is a Radio Frequency Identification - RFID. RFID technology contributes to improving the efficiency of interorganizational networks. Application of this technology has provided real-time information and transparency among all partners in interorganization networks (Jones, Chung, 2008, 119). Data in real time, which are transmitted via radio waves, provide to participants in the supply chain current information on inventory and logistics (Barac, Milovanovic, Andjelkovic, 2009, 121). RFID technology contributes to continual sharing of information throughout the network, thus ensuring coordination among all partners (Barac, Milovanovic, Andjelkovic, 2009, 12). Problems in supply chain caused by poor coordination, can be overcome by using RFID chips in all members of the chain. The *bullwhip effect* can be explained as a result of insufficient or missing communication among supply chain partners, and it can be avoided by introducing these chips.

## 2. CLUSTERS AS A FORM OF INTERORGANIZATIONAL NETWORKING

Clusters are a type of inter-organizational networks, which involve linked enterprises from similar business sectors, and are initiated by common interests for increasing competitive advantage and market position, through sharing knowledge, skills, experience, resources

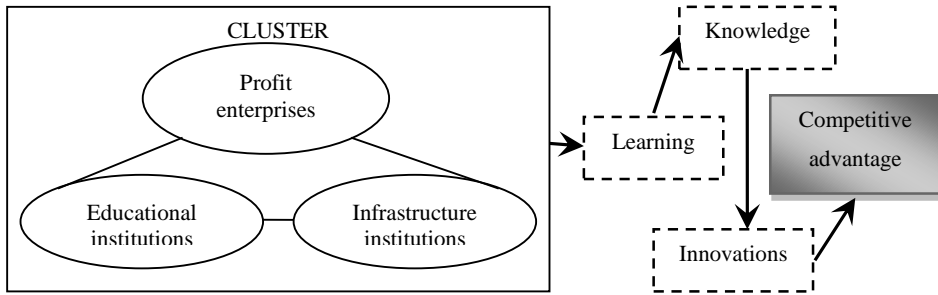
and activities (Porter, 1998). By networking enterprises through clusters the synergistic effect at the level of individual enterprises, as well as at the level of the network is achieved due to the great interdependence of all the members, quick implementation of technological, marketing and managerial skills, etc (Ilić, 2006). These inter-organisational networks, incurred by connecting material as well as immaterial resources, provide competitiveness not only at the local, national and regional level, but also in the global environment, for the enterprises involved. By entering the cluster, enterprises increase their competitiveness through increasing productivity and innovation based on networking. Networking through clusters provides for the enterprises' increase of their capabilities, resources, capacities, etc., without loss of expertise and control of business, as well as independence in performing certain activities. Within the cluster there are many different partners, such as manufacturers, suppliers, retailers, service enterprises, but also educational and scientific institutions, agencies or associations, which represent some kind of supporting institutions (Petković, Aleksić Mirić, Petrović, 2011).

A number of authors have pointed out the dual importance of enterprises networking through clusters, in terms of increased competitive advantage at the level of industry, around which enterprises are networked, as well as at the level of individual enterprises, which are parts of cluster. Ever more this kind of networking is the only way for survival of small and medium-sized enterprises, which are characterized by limitations in terms of lack of financial resources, experience, skills and material resources. Some advantages of networking through clusters are (Rapić, 2010, 154):

- Easier access to the latest knowledge and research capacities,
- Existence of a framework for cooperation,
- Reliance on existing organizational infrastructure,
- Efficient access to raw materials, specialized workforce and suppliers,
- Access to IT database in a particular area,
- Easier application of new technologies,
- Existence of competition within the cluster, thus strengthening the international competitiveness,
- Access to government programs for development of clusters, i.e. The possibility of subsidies and tax incentives,
- Achieving economies of scale and
- Joint marketing mechanism (joint participation in international fairs).

Often mentioned elements as a base of realization of competitive advantages are: ideas, knowledge, information, efficiency, inventiveness and innovation, quality products and services, lower operating costs, differentiation of products and services compared to competitors, flexibility, agility, velocity in satisfying market demand, etc (Ilić, 2006). Clusters are structured in a manner that provides establishing cooperation and undisturbed sharing of information among partners. Enterprises networked through clusters by learning, sharing knowledge, experiences, information and innovation are able to overcome problems that arise in the process of carrying out the activities (Rapić, 2010).

These innovations that arise as a result of the developed knowledge, interconnections and relationships, represent a competitive advantage of clusters, as shown in Figure 1. Previous studies have shown that networking through clusters has increasing importance and role in the growth and development of enterprises, with the emphasis that in some cases these inter-organizational networks provide greater benefits for small and medium-sized rather than for large enterprises.



**Fig. 1** Achieving competitive advantage through cluster  
(Konkurentnost privrede Srbije, 2003, 305)

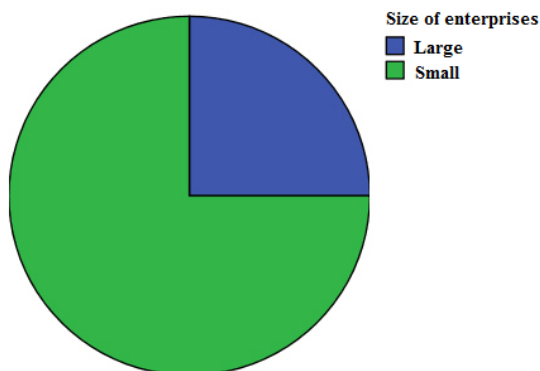
In addition to the aforementioned benefits, there is one more, frequently mentioned, and it is reflected in the cluster's role as a source of information. However, achieving all these benefits of inter-organisational networking through clusters is limited by the lack of adequate IT to provide sharing of information among both, partners within the cluster, and beyond it. IT enables the undisturbed information flow, timely and accurate, or sharing of information in order to facilitate the rapid adjustment of associated partners to market demands while minimizing costs. In this regard, the clusters are imposed by the requirements regarding the introduction of IT, which will ensure easier performing of activities within these complex networks (Ilić, Stojanović, 2009).

The use of IT and communication solutions in open economies contributes to linking two or more economies of the region within a country or more regions from a number of countries (Ilić, 2006). This statement proves that the IT provides a higher level of communication and cooperation within the cluster, but also may provide a higher level of collaboration with partners from other regions or even other countries.

### 3. APPLICATION OF INFORMATION TECHNOLOGIES WITHIN THE AUTOMOTIVE CLUSTER IN THE REPUBLIC OF SERBIA

On the territory of the Republic of Serbia there are more than 50 clusters. In order to analyze the importance of IT for the need of interorganization networking in the form of clusters, the authors have chosen the automotive cluster of the Republic of Serbia. The choice of this cluster is justified by the fact that the automotive industry is one of the most complex, given the number of participants and suppliers of various parts, and there is certainly the need to establish coordination and sharing of information. Clusters from the mentioned area have a large number of partners that base their processes on lean principles, and the principles of the *Just-in-Time* and *Just-in-Sequence*, which is impossible to achieve without the implementation of appropriate IT (Thun, Printing & Hoenig, 2011, 5511). At the moment when the empirical research was conducted the automotive cluster of the Republic of Serbia had 43 enterprises. In order to carry out empirical research, a structured questionnaire was used. Data were collected by sending questionnaires to email addresses of the owner or manager of enterprises that are part of the automotive cluster. Respondents participating in the survey answered questions related to the use of IT, the benefits of their implementation, as well as the reasons why until today the enterprise has not launched implementaion IT.

Concerning the way managers answered the questions, due to the fact that the sample was small, for the evaluation of the effects it was needed, instead of the classical evaluation of Likert scale, that managers add the dichotomous responses, too (whether the effect exists or not). Due to that, a more detailed statistical analysis and application of certain tools, which will be particularly highlighted and explained in our further research, was possible. Of all the enterprises that were found in the sample (28), 12 belong to the group that implements some of the IT, or about 43%. The sample included 7 large and 21 small (and medium) enterprises (Figure 2). The same structure of the sample exists when it is about distribution of enterprises according to the origin of the majority of capital, in favor of enterprises with greater domestic capital.



**Fig. 2** The structure of enterprises in the sample by size

The structure of the sample depending on the implementation of IT and enterprise size is shown in Table 2. The table displays absolute and proportional participation.

**Table 2** Crosstabulation: Enterprises by size and IT implementation

		Enterprise size		Total	
		Large	Small		
IT	Applied	Count	4	8	12
		% within IT	33.3%	66.7%	100.0%
		% within Cluster Number of Case	57.1%	38.1%	42.9%
IT	Not applied	Count	3	13	16
		% within IT	18.8%	81.3%	100.0%
		% within Cluster Number of Case	42.9%	61.9%	57.1%
Total		Count	7	21	28
		% within IT	25.0%	75.0%	100.0%
		% within Cluster Number of Case	100.0%	100.0%	100.0%

In order to determine whether there is a connection or relationship between IT applications and the size of the enterprises it is necessary to apply the  $\chi^2$  test. However,  $\chi^2$  test is limited with the fact that frequencies have to be at least equal to 5 (which is not the case in this study). This has caused the application of the Fisher's exact probability test of the null hypothesis. This test is performed exclusively at the table contingency  $2 \times 2$ ,

when the value of symbols can be displayed dichotomous, (in this case: applied IT – not applied IT, and enterprise size: large - small or are not large). In this case, the null hypothesis can be formulated as: *"There is no correlation between the size of the enterprise and the implementation of IT"*, and as an alternative: *„There is a correlation between the size of the enterprise and the implementation of IT“*. The results of Fisher's exact test showed that the significance level is 0.328, which is greater than 0.01, and means that the null hypothesis should not be rejected, or that between the observed variables there is no dependency.

The structure of the sample depending on the implementation of IT and the origin of the majority of capital is shown in Table 3. The table shows absolute and proportional participation, as in the previous case.

**Table 3** Crosstabulation: Enterprises by capital origin and IT implementation

		Origin of capital		Total	
		Large	Small		
IT	Applied	Count	6	6	12
		% within IT	50.0%	50.0%	100.0%
	% within Cluster Number of Case		85.7%	28.6%	42.9%
	Not applied	Count	1	15	16
% within IT		6.3%	93.8%	100.0%	
% within Cluster Number of Case		14.3%	71.4%	57.1%	
Total	Count	7	21	28	
	% within IT	25.0%	75.0%	100.0%	
	% within Cluster Number of Case		100.0%	100.0%	100.0%

When it comes to the relationship between these two variables, the same method as in the previous case has been used. The null hypothesis is formulated as: *"There is no correlation between the origin of the majority of capital and the implementation of IT"*, and the alternative as: *"There is a correlation between the origin of the majority of capital and the implementation of IT"*. However, the use of Fisher's exact test showed that in this case the null hypothesis should be rejected, and that the observed variables are interdependent.

Table 4 shows the descriptive statistics as a result of managers evaluation, where managers declared what are, from their view, the advantages of IT. The *Process continuity* received the highest average grade (3.6429). Based on these results it appears that managers are aware of the importance of IT for the *Process continuity* in the cluster.

However, in the past year in the enterprise Fiat, around which enterprises are gathered in the automotive cluster, there has been production cease three times and disruption of the process continuity. Given that 57% of enterprises in the sample said that they do not apply IT, this can be one of the reasons for disrupting the continuity of the production process in enterprises around Fiat. The greatest standard deviation or variance in responses of managers is present with *Cost reduction* (1.31535), as the benefits of the IT implementation.

**Table 4** Descriptive statistics – benefits from IT implementation

	Sample size	Min	Max	Mean	Std. deviation
IS *	28	1.00	5.00	3.4643	1.26146
SR	28	2.00	5.00	3.2857	1.24297
IR	28	2.00	5.00	3.1071	1.19689
CR	28	2.00	5.00	3.2143	1.31535
FD	28	2.00	5.00	3.4286	1.28894
PQ	28	1.00	5.00	3.1429	1.29713
PC	28	2.00	5.00	3.6429	1.19301

Table 5 presents descriptive statistics for the reasons why 16 enterprises from the sample had approached the IT implementation. The highest average grade was given by the managers to the reason *Lack of financial resources* (4.3750). In addition, it is the only reason that, by the managers, does not deserve grades 1 and 2 (min grade is 3). However, as in the structure of enterprises that do not apply IT there is a larger number of small (and medium) enterprises, the fact that *Lack of financial resources* was most often cited by the managers as the reason for missing implementation of IT is not a big surprise. The reason is that, in contemporary literature, *Lack of financial resources* is usually mentioned as one of the key constraints for survival and development of small and medium-sized enterprises. The highest standard deviation in responses of managers is noticeable for the reason *The possibility of carrying out all tasks without introducing IT*, which indicates a discrepancy in attitudes of managers of enterprises that do not apply IT about their usefulness and needs.

**Table 5** Descriptive Statistics – Reasons for not implementing IT

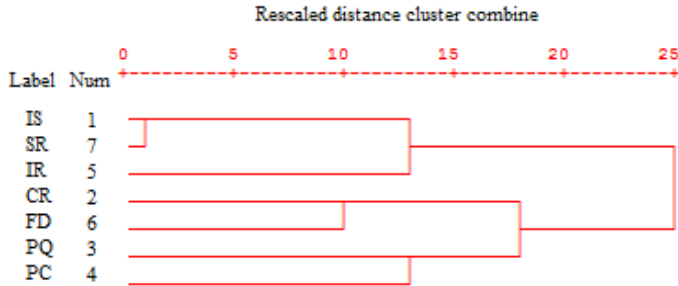
	Sample size	Min	Max	Mean	Std. deviation
Inadequately trained employees	16	2.00	5.00	3.6875	.87321
Lack of financial resources	16	3.00	5.00	4.3750	.71880
No technical possibilities for the application of technology	16	2.00	4.00	2.5000	.63246
The possibility of carrying out all tasks without introducing IT	16	2.00	5.00	3.4375	1.31498

To determine whether the effects of the implementation of IT are interconnected (referring to the attitudes of managers of the existence and significance of the effects of applying IT), correlation analysis has been applied. More specifically, the correlation analysis shows that between the assessment of effects of implementation of IT there is a positive quantitative correlation, since all correlation coefficients are positive. The degree of correlation is not uniform, but it can be generally concluded that the effects of the application of IT are interconnected (Table 6). Strongest connections can be seen between *Sharing information* and *Process continuity* (0.796), *Supply reliability* and *Product quality* (0.537), *Information sharing* and *Fast delivery* (0.525), as well as between *Fast delivery* and *Process continuity* (0,520).

\* IS – information sharing, SR – Supply reliability, ID – Inventory reduction, CD – costs reduction, FD – Fast delivery, PQ – Product (service) quality, PC – Process continuity.



Similar results proceeded from the application of *Hierarchical Cluster Analysis*. The aim of this analysis is grouping or linking the observed variables, in this case the effects of the IT application. The dendrogram shows the way these effects are interconnected (Figure 3).



**Fig. 3** The dendrogram based on hierarchical cluster analysis

**Table 6** Correlation analysis: IT implementation effects

	IS	SR	IR	CR	FD	PQ	PC
Correlation Coefficient	1.000	.455(*)	.393(*)	.323	<b>.525(**)</b>	.266	<b>.796(**)</b>
IS Sig. (2-tailed)	.	.015	.039	.094	.004	.171	.000
Sample size	28	28	28	28	28	28	28
Correlation Coefficient	.455(*)	1.000	.221	.418(*)	.341	<b>.537(**)</b>	.371
SR Sig. (2-tailed)	.015	.	.258	.027	.076	.003	.052
Sample size	28	28	28	28	28	28	28
Correlation Coefficient	.393(*)	.221	1.000	.386(*)	.426(*)	.269	.220
IR Sig. (2-tailed)	.039	.258	.	.043	.024	.166	.260
Sample size	28	28	28	28	28	28	28
Correlation Coefficient	.323	.418(*)	.386(*)	1.000	.368	.389(*)	.367
CR Sig. (2-tailed)	.094	.027	.043	.	.054	.041	.055
Sample size	28	28	28	28	28	28	28
Correlation Coefficient	.525(**)	.341	.426(*)	.368	1.000	.461(*)	<b>.520(**)</b>
FD Sig. (2-tailed)	.004	.076	.024	.054	.	.014	.005
Sample size	28	28	28	28	28	28	28
Correlation Coefficient	.266	<b>.537(**)</b>	.269	.389(*)	.461(*)	1.000	.331
PQ Sig. (2-tailed)	.171	.003	.166	.041	.014	.	.086
Sample size	28	28	28	28	28	28	28
Correlation Coefficient	<b>.796(**)</b>	.371	.220	.367	<b>.520(**)</b>	.331	1.000
PC Sig. (2-tailed)	.000	.052	.260	.055	.005	.086	.
Sample size	28	28	28	28	28	28	28

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

The dendrogram was constructed by using Ward's method, where Euclidean distance was used as the criterion. From the dendrogram it can be seen that the strongest connection is between *Information sharing* and *Process continuity*, and at the next level *Fast delivery* joins them. On the other hand, there is a strong link between *Supply reliability* and *Product quality*, and while weakly linked are the effects *Inventory reduction* and *Costs reduction*.

If the dependence of the orientation of managers regarding the effects of IT application in relation to the ownership of capital, the size of the enterprise and the application of IT is analyzed, it can be concluded that the first two independent variables (ownership of capital and enterprise size) do not affect the managers' attitude on the usefulness of IT, for any of the above effects. However, when it comes to the impact of IT application, the analysis shows that its presence in the enterprises is affected by the attitude of managers on the effects of application. Statistically significant influence occurs for the following effects: *Inventory reduction*, *Cost reduction* and *Product quality*. Tables 7, 8, 9, and 10 show where dependence exists (the table for *Product quality* is missing since the results for this effect are the same as in the case of *Cost reduction*).

**Table 7** Crosstabulation: Enterprises by the effect Inventory reduction and IT implementation

		IR		Total	
		Yes	No		
IT	Applied	Count	9	3	12
		% within IT	75.0%	25.0%	100.0%
	Number of Case		69.2%	20.0%	42.9%
	Not applied	Count	4	12	16
% within IT		25.0%	75.0%	100.0%	
Number of Case		30.8%	80.0%	57.1%	
Total	Count	13	15	28	
	% within IT	46.4%	53.6%	100.0%	
	% within Cluster Number of Case	100.0%	100.0%	100.0%	

**Table 8** Fisher's Exact Test

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig.
Pearson Chi-Square	6.892(b)	1	.009	
Continuity Correction(a)	5.029	1	.025	
Likelihood Ratio	7.182	1	.007	
<b>Fisher's Exact Test</b>				<b>.010</b>
Sample size	28			

**Table 9** Crosstabulation: Enterprises by the effect Costs reduction and IT implementation

		CR		Total	
		Yes	No		
IT	Applied	Count	9	3	12
		% within IT	75.0%	25.0%	100.0%
	Number of Case		75.0%	18.8%	42.9%
	Not applied	Count	3	13	16
% within IT		18.8%	81.3%	100.0%	
Number of Case		25.0%	81.3%	57.1%	
Total	Count	12	16	28	
	% within IT	42.9%	57.1%	100.0%	
	% within Cluster Number of Case	100.0%	100.0%	100.0%	

**Table 10** Fisher's Exact Test

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig.
Pearson Chi-Square	8.859(b)	1	.003	
Continuity Correction(a)	6.711	1	.010	
Likelihood Ratio	9.304	1	.002	
<b>Fisher's Exact Test</b>				<b>.004</b>
Sample size	28			

In order to complete the analysis it seems necessary and justified to include the cluster analysis of enterprises in the sample, in terms of their grouping into clusters depending on the effects of the IT application. In this case clustering was performed by using the *K-mean cluster*. In addition, tables are presented from which can be seen the average grades of the effects of IT application (Table 11), and the number of enterprises belonging to the clusters according to these assessments (Table 12).

**Table 11** Final cluster centers

	Clusters	
	1	2
IS	4.15	2.87
SR	4.15	2.53
IR	3.69	2.60
CR	4.15	2.40
FD	4.31	2.67
PQ	4.00	2.40
PC	4.38	3.00

**Table 12** Custer size

Cluster	Size	
	1	2
	13	15
Total	28	

Based on the above tables, it can be concluded that the enterprises that belong to the first cluster are considered to have significant effects of applying IT, unlike enterprises that belong to the second cluster. Based on table 12, it can be seen that the first cluster is smaller (13) compared to the second, which includes the enterprises where the effects of IT are considered less important.

Finally, in order to accept a general conclusion that the IT application is associated with the achievement of positive effects in the observed fields, correlation analysis has been used (to indentify connection between the use of IT and belonging of enterprises to previously shown clusters). For the same reason as in the previous cases, Fisher's exact probability test has been used again (Tables 13 and 14). In this case, the null hypothesis can be formulated as: *"There is no correlation between belonging to clusters and application of IT"*, and as an alternative: *"There is a correlation between belonging to clusters and application of IT"*.

**Table 13** Crosstabulation: Enterprises by cluster affiliation and IT implementation

		Cluster affiliation		Total	
		Cluster 1	Cluster 2		
IT	Applied	Count	11	1	12
		% within IT	91.7%	8.3%	100.0%
		% within Cluster Number of Case	84.6%	6.7%	42.9%
	Not applied	Count	2	14	16
		% within IT	12.5%	87.5%	100.0%
		% within Cluster Number of Case	15.4%	93.3%	57.1%
Total	Count	13	15	28	
	% within IT	46.4%	53.6%	100.0%	
	% within Cluster Number of Case	100.0%	100.0%	100.0%	

**Table 14** Fisher's Exact Test

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig.
Pearson Chi-Square	17.279(b)	1	.000	
Continuity Correction(a)	14.242	1	.000	
Likelihood Ratio	19.733	1	.000	
<b>Fisher's Exact Test</b>				<b>.000</b>
Sample size	28			

Based on the previous tables, precisely basis on the significance level in the table that refers to the result of Fisher's exact probability (table 14), which is 0.000, and that means less than 0.01, it can be concluded that the null hypothesis should be rejected. This means that there is a positive correlation between the use of IT and managers' awareness about the effects that it provides.

## CONCLUSION

The importance of the application of IT was highlighted through the advantages of IT, as well as factors that may limit the process of their application. The automotive cluster of the Republic of Serbia, as a form of enterprises networking, is a source of competitive advantage, especially for small and medium-sized enterprises that do not have the possibility, due to limited resources, to survive independently in modern conditions. In addition, the automotive cluster enables connection of local enterprises with successful partners from other countries, which ensures the exchange of knowledge, experience and skills. In this way, the automotive cluster, besides being a source of competitive advantage for individual enterprises, included within the network, certainly contributes to greater regional development and survival of the automotive industry in the Republic of Serbia. Like other forms of networking, automotive cluster functioning cannot be imagined without appropriate IT.

The aim of the research was to examine the usefulness of IT implementation, in terms of the effects that occur as a result. On the other hand, the aim was to examine the reasons for rejection of IT and the possibility of their elimination.

The most important effects of applying IT are *Process continuity*, *Sharing information* and *Fast delivery*, which does not mean that the application of IT should only be expected in those areas. However, regardless of this "average" determination of managers, there are a lot of others who do not believe that the use of IT can contribute to accomplishment these and other aforementioned effects, and that indicates a fairly high standard deviation.

Regarding the factors that contribute to the lack of application of IT the most significant are: *Lack of financial resources* and *the possibility of carrying out all tasks without introducing IT*. Since the second reason has very high standard deviation, it can be concluded that some enterprises really have a problem with the *Lack of financial resources*, but there are those whose managers believe that the implementation of IT is not a necessary condition for successful management in modern conditions.

The results of the analysis, which could be seen as promoters of IT application, are related to the correlation analysis. According to the results of this analysis, it is concluded that the effects of the application of IT are interconnected, which means that it can be expected that they, in fact, provide synergistic effects. Apart from a few exceptions, the correlation coefficients that show the connection between the effects of the application of IT, range from about 0.380 to as much as 0.796.

Although the results generally confirm the relationship among the use of IT and the expected effects, based on the application of *Fisher's exact test*, it was found that there is a direct correlation in the case of *Inventory reduction*, *Cost reduction* and *Product quality*.

Finally, the confirmation that the enterprises whose managers consider IT implementation as significant and justified are mainly those that apply IT, provides cluster analysis, and also testing hypotheses based on *Fisher's exact probability test*. This means that enterprises that have implemented IT are realized utility, or had the opportunity to realize the positive effects of the application of IT. On the other hand, most of the enterprises that have not yet implemented IT are not even aware of the significance of IT for achieving positive effects and improving the quality of business. This conclusion is fully consistent with the view of managers of enterprises that have not yet implemented IT. According to their opinion one of the most important factors for the lack of implementation is the belief that "*It is possible to carry out all the tasks without the introduction of IT*".

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## **ZNAČAJ INFORMACIONIH TEHNOLOGIJA ZA AUTOMOBILSKI KLASTER REPUBLIKE SRBIJE**

*Umrežavanje preduzeća javlja se kao jedna od posledica trenda globalizacije i težnje za povećanjem sposobnosti radi ostvarenja zahteva potrošača. Funkcionisanje umreženih preduzeća, kao složenih interorganizacionih mreža, u savremenim uslovima nije moguće bez implementacije adekvatnih informacionih tehnologija (IT). Kako poslovni klasteri predstavljaju jedan od oblika umrežavanja preduzeća, u cilju povećanja konkurentne prednosti i tržišne pozicije, u radu će biti analizirana primena IT u klasterima, na primeru automobilske klastera Republike Srbije. Analiza je sprovedena na bazi uzorka od 28 preduzeća, članica klastera. Generalni zaključak koji se nameće na osnovu rezultata analize jeste da postoji veza između implementacije IT i ostvarenja pozitivnih efekata u određenim segmentima poslovanja (Razmena informacija, Pouzdanost snabdevanja, Smanjenje zaliha, Smanjenje troškova, Brza isporuka, Kvalitet proizvoda i Kontinuitet procesa), što znači da preduzeća koja su implementirala IT ostvaruju pozitivne efekte u posmatranim oblastima. U postupku analize primenjeni su statistički alati: deskriptivna statistika, Fišerov test tačne verovatnoće, korelaciona analiza i klaster analiza.*

**Ključne reči:** *umrežavanje preduzeća, informacione tehnologije, automobilski klaster, korelaciona analiza, klaster analiza.*

## **ANALYSIS OF PERFORMANCE TO DIRECT TAXES IN THE TAX SYSTEM OF THE REPUBLIC OF SERBIA**

*UDC 336.22*

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**Abstract.** *Direct taxes are a very important group of taxes revenues. They refer to the personality of the taxpayer and directly affect its economic strength. They are a stable and plentiful source of public revenues. In order to assess their role in the tax system in Serbia, it is necessary to observe the goals which can be achieved by their implementation. The intention of the legislator is to provide resources to achieve fiscal and other goals. Determining the performance of direct taxes in the tax system in Serbia can be based on the criteria of equity, efficiency and yield.*

*The aim of this study is to measure the performance of direct taxes in the tax system in Serbia, in order to make more appropriate conclusions about their role and importance in the provision of the budget. In this way, we will point to the need for reform of direct taxes in the tax system of our country and the need to decrease the importance of indirect or consumption tax.*

**Key Words:** *direct tax, equity, efficiency, yield, public revenues.*

### INTRODUCTION

Tax pluralism, i.e. the existence of a large number of tax forms, is the main characteristic of modern tax systems. However, some of these taxes have large importance, role and participation in the tax revenues, so these are the basic tax forms, while others are property tax. The most important tax forms include: sales tax (VAT), personal income tax, corporate income tax, excise, duties and property taxes. These taxes can be classified as direct and indirect taxes. Direct taxes are charged to taxpayers and cannot be evaded, while indirect taxes are not charged to a third party rather than the individual taxpayer. John Stuart Mill was an English economist who defined direct and indirect taxes: "The direct tax is one which is demanded from a person who wants to pay for it. Indirect taxes are those which are demanded from a person who charged them from another person." [10] There are many definitions of direct taxes. Some of them claim that direct taxes qualify by the fact that the taxpayer and the

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tax destinator are the same person. Others assume that they are taxes that the taxpayer paid directly to tax authorities and relate to persons and to corporations.

The coverage of direct and indirect taxes varies from country to country [Đurović-Todorović, Đorđević, 2011a, p.26]. In most countries, direct taxes include: personal income tax, corporate income tax and property tax. However, in some countries it is different. Thus, for example, in Switzerland inheritance tax is a direct tax; in the Eastern European countries VAT paid by state-owned companies was included in the group of direct taxes, while in the U.S. gift tax is a direct tax.

A positive feature of direct taxes is that they are a stable and plentiful source of government revenue. Also, they relate to individual taxpayers and satisfy the principle of fairness in taxation. However, their implementation and payment causes the decrease of the economic potential of the taxpayer, and there is resistance to taxation and tax evasion. In the end, they are very complex and complicated to administer.

The abundance of this group of tax forms is very heterogeneous and varies from country to country. In OECD countries, the average is forty percent, while in Serbia, and most of the under-developed countries, this share is two times less [Đurović-Todorović, Đorđević, 2011b, p.109].

The data show that Denmark has the largest share of direct taxes in GDP (30%), followed by Sweden (19.7%), the UK (15.7%) and Belgium (15.3%). Eastern European countries and Serbia have the least share (6.1%). The reason for the low yield of direct taxes in Serbia is the low economic power of the taxpayer and the necessity of the reform of direct taxes.

In the first part of the paper, the criteria for measuring the performance of direct tax will be discussed. The other parts relate to measuring the performance of direct tax in Serbia in relation to fairness, efficiency, and yield. The last part of the paper is the conclusion.

## 1. CRITERIA FOR MEASURING THE PERFORMANCE OF DIRECT TAXES

To review the role and importance of a tax form in the tax system, it is necessary to consider the goals that can be achieved by its implementation. The intention of the legislature during the introduction of direct taxes in the tax system in Serbia was to achieve fiscal and non-fiscal goals. These are taxes that directly burden the citizens and companies depending on their economic viability. They provide significant funds for the state, but also for achieving various non-fiscal goals (social and economic). Direct taxes satisfy the principle of fairness, efficiency, and yield.

The use of *personal income tax* in the tax system in Serbia has not given the expected results. That was the reason for its constant questioning and challenging. It is believed that even today, this tax does not realize the goals as expected. The main cause is the current taxation system. A mixed system of income tax means schedular taxation of individual income and annual taxation of total income for persons who earn income in excess of the statutory. This system has a number of disadvantages and, as such, cannot realize the needs of a modern state. Therefore, it is necessary to perform the evaluation of the existing system of taxation, in order to determine the direction of further changes.

The system of *corporate taxation* is quite harmonized with the corporate income tax systems in developed economies. First of all, this system was created by model-tax profit in the European Union. In the case of personal income tax there is not one model of



taxation for all member states in the EU, but there are several tax systems with numerous modalities. Corporate income tax in Serbia charged corporations. They pay tax based on the tax balance. Tax authorities make a decision on the amount of tax. The tax is paid at the rate of 15%, although for many years it was 10% and that was one of the lowest corporate tax rates in Europe. The aim was to attract foreign investment and put less burden on the economy by tax levies. In the system of corporate taxation in Serbia there are many deductions and exemptions, but it is necessary to increase their number in order to balance regional development.

*Property tax* belongs to the group of direct taxes, but some types of this tax have characteristics closer to indirect taxes. Thus, for example, property tax in the statics burdens the property owners directly, but the property transfer tax is an indirect tax and it is usually paid by the buyer. In the case of inheritance tax and gift tax in various jurisdictions there are different tax treatments. The property tax system in Serbia has many disadvantages, such as insufficient yield, progressiveness, non-compliance with the principle of fairness, the basis for taxation is determined by the actual market value of the property, poor tax collection, etc.

Determining the performance of direct taxes in the tax system in Serbia can be based on various criteria, some of the most important are:

- 1 fairness,
- 2 efficiency, and
- 3 yield.

**The principle of justice** requires that all citizens of a country should pay taxes in proportion to their ability. Under the principle of fairness of taxation, the principle of universality and the principle of uniformity can be extracted. The principle of universality of tax liability means that the tax should be paid by all citizens, except for the poor. Because of that, modern tax laws provide a number of exemptions for these groups. Uniformity in taxation is the second part of the idea of fairness and it applies to taxation which is done according to the economic strength of the taxpayer. In modern financial theory the prevalent view is that the uniformity in taxation can be achieved by adopting a progressive tax rate, if those who have greater economic power pay not only absolutely but also relatively higher amounts of taxes.

The theoretical basis of the principle of fairness in taxation is made on the principle of utility and the principle of ability to pay taxes. According to the principle of utility, the fair tax is that one that provides to each taxpayer as much as they paid in taxes. In practice, it is impossible to benefit directly because the costs that the taxpayer has, have no direct compensation. Given that taxes are used to meet general social needs, there is compensation, but it is expressed in an indirect way. Respecting the second principle, the fair tax is the tax in which each taxpayer participates in the total income of the state in proportion to his economic strength.

In accordance with the principle of ability to pay taxes, the request for horizontal and vertical fairness in taxation can be formulated. *Horizontal equity* means that taxpayers with the same ability to pay should be treated the same. This means that those who earn the same income during the year, regardless of the source of origin of that income, pay (absolute and relative) the same amount of tax. *Vertical equity* means that taxpayers with different ability to pay should be treated differently. This means that those who earn a higher income level for the year pay a higher amount of tax.

*Proportional income taxation distorts the vertical equity, because those who realize higher levels of income are taxed at the same rate as those who have lower levels of income. The vertical equity in taxation is achieved by applying progressive tax rates. The progressive taxation may be direct or indirect. The direct progression represents a way of taxation in which the law prescribes progressive tax rates for a given level of income. Indirect progression is reflected in the progressive effective, not in the statutory income tax rate, which is achieved through various tax incentives and exemptions.*

**Efficiency** means the efficient allocation of resources, and cost efficiency in tax collection. It is a typical economic criterion of taxation which is realized by those taxes that have the least possible impact on the economic decisions of businesses. The direct taxes reduce disposable income, and they cause effects on the behavior of economic entities.

If all taxpayers were equal and if the same tax treatment applied at all of them, a flat tax would be the only efficient tax as any other would create various distortions. Tax is without distortions if there is nothing that an individual or company can do to change their tax liability. Distortions are associated with attempts by individuals or firms to reduce their tax liability. In this context, the direct taxes belong to the group of distorting taxes. Taxes with distortions affect economic decisions and spoil efficient choice. They can affect the choice between present and future consumption, the choice between leisure and work and, in accordance with this, the income effect and the substitution effect may be considered. Among economists, the prevailing view is that direct taxes should be as allocatively neutral as possible.

As for the efficiency costs of tax collection, this criterion will be met by minimizing the cost of direct taxes. This refers to the cost of public administration, as well as the costs incurred by taxpayers when paying taxes. The general rule is that the more complicated the tax form, the higher the application costs. The tax form is more complicated if a larger number of tax rates and higher tax benefits and exemptions are applied within it. Tax authorities require certain funds to perform and they cannot be expected to collect tax revenue with no costs at all. It is desirable to achieve the lowest possible cost, but it certainly should not be the key criteria for the introduction of the tax.

Administrative costs cannot be avoided, because the tax procedure involves the engagement of people and equipment, as well as certain material costs, but they can be minimized. In many modern countries it is estimated that the taxpayers' cost are larger than the cost of public administration. This refers to the costs incurred based on the tax book keeping, filing tax returns and other documents, payment of tax advisors, etc.

*Direct taxes cannot fully satisfy any of the above mentioned aspects of efficiency. First, they are distorting and cause inefficient allocation of resources. Also, when it comes to minimizing costs, it is very difficult to reduce the cost of public administration or costs incurred by taxpayers when paying taxes. As for the first reduction, the tax authorities may impose certain internal and external measures [Popović, 1997, p. 313]. Internal measures refer to the various procedures to improve the organization of tax administration, and staff training with the use of information technology. Also, ceding specific tasks to private companies, the tax administration reduces the cost of performing those tasks. External measures are related to the simplification of tax rules that usually cause the growth of administrative costs. However, as the costs would be enormous if all of the data were checked, the tax administration checks only a random sample and thus reduces costs.*

**Yield** of direct taxes as a criterion for assessing their performance relates to the total amount of income that their application realized. Due emphasis on the importance of this

criteria, its share of total tax revenues, as well as its share of GDP, is often observed. It depends on macroeconomic factors, the basic parameters of the tax and the collection rate [Arsić et al, 2010, p. 46].

The most important macroeconomic factors affecting the yield of direct taxes are the employment rate, the volume of production, the value of the property, the savings, the movement of the price of capital and assets, etc. The yield of direct taxation crucially depends on tax parameters such as: tax rate, the level and intensity of tax progression, the amount of non-taxable income, the value of property subject to taxation, the business results of enterprises, the number and extent of tax exemptions, etc. Financial capacity does not depend directly on the tax system which is applied. The same level of yield can be achieved by any system of taxation, by choosing appropriate tax parameters. Finally, the yield of direct taxes depends on the level of collection which is determined by the performance of the tax administration and the level of tax moral. Based on this, one criterion can be extracted for measuring the performance of direct taxes, which manifests itself through the opportunities for tax evasion.

*The principle of abundance can be met by direct taxation, given that significant funds for the budget can be collected through these tax forms. Direct taxes exist as a group of basic tax forms in all tax systems of modern countries, and according to that we can talk about their abundance. In developed economies, the economic power of taxpayers is at a high level, and a large amount of revenue can be collected through direct taxes. However, in less developed economies, the importance of direct taxes, in terms of yield, decreases.*

## 2. MEASURING THE PERFORMANCE OF DIRECT TAXES IN SERBIA IN RELATION TO EQUITY

Direct taxes may be considered fair if they burden taxpayers progressively and if the tax authority is concerned about the personal characteristics of the taxpayer and his economic power. However, fairness is a very questionable concept and it can be measured by comparing the statutory and effective tax rates.

**Table 1** Legal and effective rates of personal income tax in Serbia in 2013

Types of income	Legal rates (%)	Authorized expenses / deductions	Effective rates (%)
Income from real estate	20	20%	16
Other income	20	20%	16
Capital income	15	/	15
Capital gains	15	/	15
Income from copyright, rights related to copyright and industrial rights	20	34% 43% 50%	13.2 11.4 10
Income from agriculture and forestry	10	/	10
Income from self-employment	10	/	10
Salaries	10	11,000 dinars	7.98

Source: Law on Personal Income Tax Law, Official Gazette of the Republic of Serbia

If we look at the personal income tax in Serbia in terms of fairness, we have to compare the legal tax rates and the actual tax rates. Table 1 shows this comparison.

As can be seen from the table, four different statutory rates are applied on eight types of income, which range from 10% to 20%. The number of effective tax rate is slightly higher. Effective tax rates are either equal to legal rates, if there are no deductions and exemptions, or they are usually lower than the statutory tax rate. Effective tax rates are the true indicator of the real tax burden.

The current income tax system in Serbia significantly violates the principle of horizontal equity. Differentiated modes of taxing income from different sources, namely primarily different statutory tax rates and sets of reliefs and exemptions, result in different effective tax rates on personal income tax.

As the horizontal equity is achieved only when the effective tax rate on all forms of income is equal, a large number of effective tax rates and their range indicate the absence of horizontal equity in taxation. This means that the current system of income tax in Serbia taxes two persons with similar economic power by significantly different tax burden, depending on the structure of their income. Since the revenues from all sources are taxed proportionately, the assumptions of vertical equity in taxation are not provided. There is a slight indirect wage progression in taxation only in earnings, due to the non-taxable amount.

Because of the schedular components of personal income tax in Serbia, a degree of vertical equity is negligible. In order to provide the specific degree of vertical equity, a corrective element in the form of annual personal income tax at progressive rates was introduced. It is estimated that the effect of annual personal income tax on vertical equity in taxation is very limited, mainly due to the relatively high tax-free amount (the triple average annual salary paid in Serbia in the year that taxation is done for). Also, the high set limit above which higher tax rates are applied (six times the average annual salary paid in Serbia in the year that taxation is done for) further mitigates the effects of annual personal income tax on vertical equity. This is supported by the fact that in 2011 only about 20.199 people, which is about 1% of all taxpayers, filed the tax return of the annual personal income tax [9].

We will see that the principle of fairness is not satisfied if we look at the corporate income tax in Serbia and make a comparison with the EU countries.

If we analyze the data in table 2, we can see that in the majority of EU countries the effective tax rate is lower than the prescribed rate. However, the differences among the member countries are lower if you compare real rates that when it is done with a nominal tax rates. Otherwise, the tendency to reduce differences between the statutory and effective tax rates over time can also be seen from this table. The difference between these two rates is the largest in Belgium (33.99 to 4.8%), France (33.33 to 8.2%) and Denmark (25 to 7.4%). Such a large difference in prescribed and effective tax rates suggests that the corporate income taxes of these countries present a number of tax incentives and exemptions, which resulted in a decrease in the effective tax rate.

As for Serbia, the corporate tax rate was 10% until 2013 and then it changed to 15%. This rate is still one of the lowest in Europe, and it is lower than the rates that apply in most countries of the region. With the retained system of the investment tax credit, which reduces the tax liability up to one-third, the effective tax rate in Serbia of 10% is still among the lowest ones in Europe. However, the increase in the tax rate to 15% does not reduce the tax competitiveness of our country [12].

**Table 2** The difference between the statutory and effective tax rate of corporate tax in Serbia and selected EU countries in 2013 (in %)

State	Legal rates	Effective rates	State	Legal rates	Effective rates
Great Britain	28	23.2	Ireland	24	11.9
Germany	30-33	22.9	Romania	16	10.4
Italy	31.4	22.8	Serbia	15	10
Netherlands	20-25	20.9	Cyprus	10	9.4
Spain	30	20.9	France	33.33	8.2
Poland	19	17.7	Estonia	21	8
Hungary	10/19	16.7	The Czech Republic	19	7.4
Sweden	26.3	16.4	Denmark	25	7.4
Finland	26	15.9	Slovakia	19	7
Austria	25	15.7	Latvia	15	6.5
Portugal	12.5/25	14.99	Belgium	33.99	4.8
Slovenia	20	14.8	Bulgaria	10	4.6

Source: www. worldwide-tax. com, www. iiea. com/blogosphere/effective-eu-corporate-tax-rates (11.4.2013)

The property tax system in Serbia has the differentiation in tax rates and various tax exemptions and we can say that it is an unfair system.

### 3. MEASURING THE PERFORMANCE OF DIRECT TAXES IN SERBIA IN RELATION TO EFFICIENCY

The analysis of the effectiveness of direct taxes involves the analysis of the two components of efficiency:

- The impact of direct taxes on the efficient allocation and
- Efficiency from the standpoint of minimizing the cost of collecting the tax.

The first aspect of efficiency, which refers to the impact of direct taxes on the efficient allocation, is disrupted due to the fact that these taxes are distorting. Applying direct taxes affects directly the economic strength of the taxpayers, which in turn encourages their distorting behavior. What will be the level of the distortion depends on the tax burden that taxpayers suffer because of the introduction of the tax.

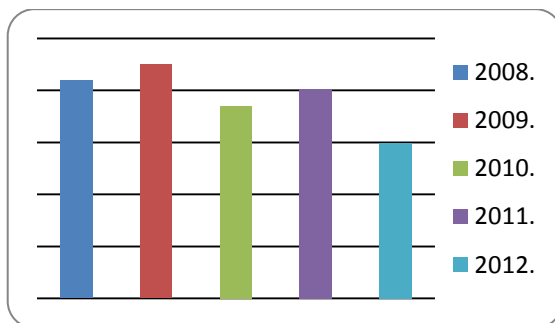
The table below shows the fiscal burden of GDP direct taxes.

**Table 3** Share of direct taxes to GDP in Serbia, 2008-2012.

Years	GDP (in million RSD)	Direct taxes (in million RSD)	Direct taxes (in %)
2008	2,661.4	111,665.5	4.19
2009	2,720.1	122,460.6	4.50
2010	2,881.9	106,786.6	3.70
2011	3,175.0	128,149.6	4.03
2012	3,267.1	109,130.7	2.99

Source: Public Finance Bulletin, January 2013, The Ministry of finance of the Republic of Serbia, available at: <http://www.mfin.gov.rs/UserFiles/File/bilten%20javne%20finansije/bilten-201301.pdf>, calculations performed by author

The fiscal burden of GDP direct taxes has reduced since 2009. In 2012 it was 2.9%. This fact is encouraging, given that it is every country's interest to burden its economy and citizens as less as possible by fiscal tax, which will result in reducing distortion.



**Fig. 1** Share of direct taxes to GDP in Serbia, 2008-2012

Source: Public Finance Bulletin, January 2013, The Ministry of finance of the Republic of Serbia, available at: <http://www.mfin.gov.rs/UserFiles/File/bilten%20javne%20finansije/bilten-201301.pdf>, calculations performed by author

One of the proposals to reduce the fiscal burden is the reduction of contributions for compulsory social insurance, while the average tax burden on wages remains the same or increases slightly. The decrease in revenue from social security funds would compensate for the larger transfers from the national budget. The reduction of the fiscal burden on labor would affect favorably the demand for labor, which would ultimately contribute to increasing employment and investment, and reducing undeclared work [Arsić et al, 2010, p.22-37].

Although the total fiscal burden on labor in Serbia is somewhat higher than the average in Central and Eastern Europe, its impact on the international competitiveness of the country is neutral. The following table shows the fiscal burden to 100 RSD of net earnings in the neighboring countries.

**Table 4** Fiscal burden earnings in selected countries in 2010

States	Fiscal burden of salaries
The Czech Republic	68.1
Slovakia	55.3
Poland	71.2
Greece	58.0
Bulgaria	47.8
Slovenia	69.2
Spain	55.3
Portugal	48.4
Serbia	63.6

Source: M Arsic., Altiparmakov N., Randelović S., Budić A., Vasiljević D., Levitas, T., (2010), Poreska politika u Srbiji-pogled unapred, Sega USAID project, Beograd, str. 35.

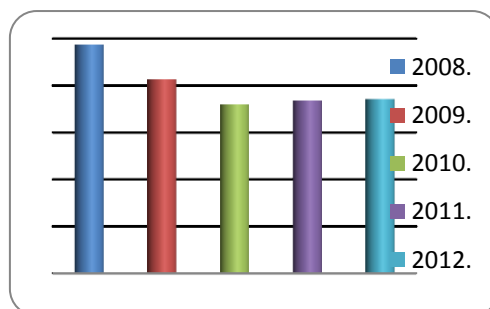
Another aspect of observing efficiency refers to minimizing the cost of tax collection. Expenses for staff in tax administration are a part of the total administrative costs. On the basis of the following views it can be seen that the salaries of employees in public administration account for a significant portion of the total budget expenditures, and that they have been increasing over time, but their share in total expenditure has declined from 24% to 18.5%, which is likely to result in improvement of tax administration.

**Table 5** Share of expenses for employees in public administration in total expenditures in Serbia, 2008-2012

Years	Total expenses (in millions RSD)	Expenditures of public administration	
		in millions RSD	in %
2008	740.826,3	180.382,1	24.35
2009	890.612,3	184.157,0	20.68
2010	1.058.635,4	190.383,0	17.98
2011	1.167.835,4	215.076,9	18.42
2012	1.288.922,6	238.671,6	18.56

Source: Public Finance Bulletin, January 2013, The Ministry of finance of the Republic of Serbia, available at: <http://www.mfin.gov.rs/UserFiles/File/bilten%20javne%20finansije/bilten-201301.pdf>, calculations performed by author

The latest tendencies in the work of tax administration are: increase of the autonomy in the work of tax administration, privatization of certain functions (introduction of the partial lease), making adequate strategy with priorities, increasing the tax culture, continuous staff training and the creation of high-quality IT support at work [2].



**Fig. 2** Share of expenses for employees in the public administration in total expenditures in Serbia, 2008-2012 (in %)

Source: Public Finance Bulletin, January 2013, The Ministry of finance of the Republic of Serbia, available at: <http://www.mfin.gov.rs/UserFiles/File/bilten%20javne%20finansije/bilten-201301.pdf>, calculations performed by author

With fiscal reform in 90s of the twentieth century, the tax administration reform has started. The Republican tax administration was formed in the form of the Board for public revenue. Management had difficulty functioning due to the lack of information system of automatic data processing. At that time, a number of tax laws have been passed and it has led to even more difficult work of the Board and reduction in public revenue.

The reforms that followed did not change significantly the earlier basic concept of the tax administration. They have only aimed to increase the level of the tax administration's efficiency.

One of the main goals of the fiscal reform in 2001 was to highlight the reorganization of tax administration in accordance with the tax administrations of the countries with developed market economies. It may be noted that the tax administration since then has experienced many changes in terms of organization, which is an effort in the direction of its introduction into series of tax administrations of modern states.

To achieve fairness and efficiency at the same time is almost impossible, because these are conflicting criteria. Tax authorities will have to sacrifice efficiency for greater fairness and vice versa. The conflict between efficiency and equity is as old as taxation.

This conflict can be resolved in various ways. One of them is the choice of the tax rate, or the number and amount of the tax rate, as well as the decision whether the rates should be proportional or progressive [Rosen, 2005, p.182].

#### 4. MEASURING THE PERFORMANCE OF DIRECT TAXES IN SERBIA IN RELATION TO YIELD

If we analyze the yield of direct taxes in Serbia, we will see that they collect a much smaller amount of funds for the budget than it is the case in developed market economies.

The yield of *personal income tax* in Serbia is relatively low. The share of personal income tax in total tax revenues in Serbia is around 11.5%, although it has reduced in the last few years, so that in 2012 it was 5.6%.

**Table 6** Share of personal income tax in total tax revenue, 2007-2012  
(in mil. RSD and in%)

Years	Total revenues (in million RSD)	Revenues of personal income tax	
		In million RSD	In %
2007	581,841.5	61,409.5	10.5
2008	639,600.3	72,000.0	11.3
2009	698,756.2	81,321.2	11.6
2010	655,971.0	76,019.0	11.6
2011	726,400.0	79,100.0	10.9
2012	750,100.0	42,300.0	5.6

Source: Data from the Budget of the Republic of Serbia for 2007-2012; calculations performed by author

Such a small share of the personal income tax in the total tax revenue of our country indicates a dominant share of indirect taxes (VAT, excise and customs), which is characteristic of underdeveloped countries. This state of public finances was also caused by many other factors, such as government regulation, political conditions, the economic environment, etc.

The share of personal income tax in total tax revenue in Serbia was 5.6% in the last year, and it is significantly less than the European and world average. Not only is it a lack of plentiful source of revenue for the State, but with such an income tax, it may be difficult to achieve other, non-fiscal goals. We almost cannot talk about reduction of the regressive effect as a result of the application of indirect taxes.



The taxes of income from work have a dominant share in the total revenue from the personal income, which is around 90%, while the capital gains account for only about 10%. The wage tax makes up for about 80% of the total individual income tax, although in the last year it was reduced to 55%, as can be seen from the following review.

A small yield of personal income tax is the result of adverse effects of macroeconomic factors, the amount of the tax rate and degree of recovery.

Regarding macroeconomic factors that affect restrictively revenue growth of personal income tax, it is a low employment rate. A small number of employees reduces the number of taxpayers, just as the low income adversely affects the yield of personal income tax over a low tax base, which often does not exceed the tax-free minimum.

Low revenue yield of the personal income tax is a consequence of the tax rate. The average effective and top statutory tax rate on personal income in Serbia are low compared to other countries. The average effective tax rate is 12.45%, which is significantly lower than in the EU, while the top statutory tax rate on personal income in Serbia is 20%.

The low level of the collection of personal income tax, also negatively affects its bounty. The number of annual tax returns for income tax is negligible, only 1% of all taxpayers. The reason for this is that in Serbia penalties for failure to file tax returns are sufficiently low, and a large number of taxpayers choose to pay the fine, rather than a high amount of tax. In addition to the low level of the collection is the fact that in our country there are still a number of activities taking place outside the legal flows.

*The corporate income tax* has existed in Serbia since January 1992 and it is considered a basic tax form. By abundance, it is located just behind the consumption tax and the personal income tax.

**Table 7** Share of corporate income tax in total tax revenue, 2007-2012  
(in mil. RSD and in%)

Year	total tax revenue (in mil. RSD)	Corporate income tax	
		in mil. RSD	In %
2007	581,841.5	27,297.2	4.6
2008	639,600.3	34,024.4	5.3
2009	698,756.2	44,306.9	6.3
2010	655,971.0	21,971.0	3.3
2011	726,400.0	35,000.0	4.8
2012	750,100.0	39,400.0	5.2

Source: Data from the Budget of the Republic of Serbia for the period 2007-2012; calculations performed by author

Unlike in developed countries where the share of this tax in the structure of tax revenues is 9.3%, in our country this percentage is much lower. What is disturbing is the fact that the revenues from the corporate income tax in Serbia have decreased from 6.3 % in 2009 to 3.3 % in 2010. This decrease is a result of poor performance of many companies, which is manifested as a result of adverse economic conditions in the country and the impact of the economic crisis, whose negative effects can be felt around the world. In the last two years, these revenues are showing some growth, so they were 5.2% in 2012.

The share of *property taxes* in total revenue budget is much lower than in OECD countries. Tax liability of the property tax is relatively small, and this fact is good for the

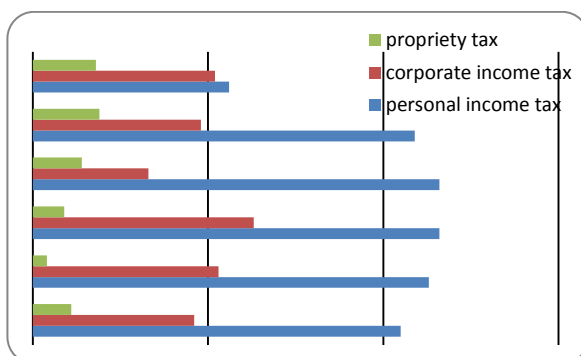
owners of the most valuable assets. If you look at the chart below, we can see that revenue from property taxes in the period 2007-2010 did not exceed 1.5%, while it amounted to only 0.5% of total tax revenue in 2008. Revenues from this tax are starting to grow and account for almost 2% in 2011 and 2012.

**Table 8** The share of property taxes in total tax revenue, 2007-2012  
(in mil. RSD and in %)

Year	Total tax revenue (in mil. RSD)	Property taxes	
		in mil. RSD	In %
2007	581,841.5	6,745.1	1.15
2008	639,600.3	2,945.7	0.46
2009	698,756.2	6,845.8	0.97
2010	655,971.0	9,641.0	1.46
2011	726,400.0	14,049.6	1.93
2012	750,100.0	13,900.7	1.85

Source: Data from the Budget of the Republic of Serbia 2007-2012; calculations performed by author

The property tax base is greatest in the richest parts of the country and the collection of taxes is a way in which the local governments provide the missing funds. Also, it is possible to transfer resources from rich to poor municipalities, which would favorably affect the financing system of cities and municipalities.



**Fig. 3** The share of direct taxes in total tax revenue, 2007-2012

Source: Data from the Budget of the Republic of Serbia for 2007-2012; calculations performed by author

Property tax was one of the most neglected forms of taxation in Serbia until a few years ago. Property tax is 5% of total revenues of cities and municipalities. It has become the source of local government revenue since 2007. By that time, the property tax had a character of the assigned revenue.

## CONCLUSION

Based on previous research, we have shown that measuring the performance of direct taxes in Serbia is possible through the analysis of the criteria of equity, efficiency and yield.

The principle of vertical equity of the tax system in Serbia is disrupted by proportional taxation, because persons who earn higher levels of income are taxed at the same rate as persons who have lower levels of income. The current system of personal income tax violates the principle of horizontal equity. Differentiated modes of taxing income from different sources, i.e. different statutory tax rate and the number of deductions and exemptions result in different effective rates. Also, the system of corporate taxation in Serbia does not satisfy the principle of fairness in taxation, as the effective tax rate is lower than statutory. The property tax system in Serbia has the differentiation in tax rates and various tax exemptions and we can say that it is an unfair system.

Regarding the principle of effectiveness, direct taxes in our country cannot satisfy any of the aspects of efficiency. First, they are distorting and cause inefficient allocation of resources. Also, it is very difficult to reduce the cost of public administration or the cost of taxpayers.

Finally, the principle of abundance in taxation is not satisfied, since the direct taxes, in underdeveloped countries, collected a very low level of income. This is confirmed by the example of our country, because these tax forms provide less than 15% of total tax revenue. This shows that the tax system in Serbia is very regressive.

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## **ANALIZA PERFORMANSI DIREKTNIH POREZA U PORESKOM SISTEMU SRBIJE**

*Direktni porezi predstavljaju veoma važnu grupu poreskih prihoda. Njihova glavna karakteristika je to što se odnose na ličnost poreskog obveznika i direktno pogađaju njegovu ekonomsku snagu. Oni predstavljaju stabilan i izdašan izvor prihoda budžeta jedne države. U cilju sagledavanja njihove uloge u poreskom sistemu Srbije, neophodno je posmatrati koji se ciljevi njihovom primenom mogu ostvariti. Namera zakonodavca je obezbeđenje sredstava za ostvarenje fiskalnih i vanfiskalnih ciljeva. Određivanje performansi direktnih poreza u poreskom sistemu Srbije može se izvršiti na osnovu kriterijuma pravičnosti, efikasnosti i izdašnosti.*

*Cilj ovog rada je merenje performansi direktnih poreza u poreskom sistemu Srbije, radi donošenja što adekvatnijih zaključaka o njihovoj ulozi i značaju u obezbeđenju sredstava budžeta. Na taj način ukazaće se na potrebu reforme direktnih poreza u poreskom sistemu naše zemlje i na neophodnost smanjenja značaja indirektnih, odnosno poreza na potrošnju.*

*Ključne reči: direktni porezi, pravičnost, efikasnost, izdašnost, javni prihodi.*

## WELLNESS SPA – A SPECIFIC FORM OF HEALTH TOURISM

UDC 338.48-6:615.8

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**Abstract.** *Health tourism implies a temporary change of place of residence for the purpose of preventive health care, rehabilitation, the use of different types of cosmetic services, as well as most complex medical procedures. According to the level of health services within health tourism, those that stand out as specific aspects of health tourism are medical, traditional spa tourism (thermal/mineral springs tourism), spa and wellness tourism. Traditional spa tourism is becoming increasingly intertwined with other aspects of health tourism, wellness in particular. Modern spas, through the provision of treatment and other professional services, are increasingly promoting wellness, so that today spa industry is considered to be part of the wellness sector. Wellness is one of the new trends, not only in health tourism, but also in modern tourism. It is defined as a state of complete physical, mental and social well-being and includes attitudes and actions that prevent disease, improve health and the quality of life and lead to physical and mental balance.*

**Key Words:** *health, health tourism, spa, wellness, treatment and recreational function.*

### INTRODUCTION

The fast pace of life in the modern society leads to dissatisfaction, conflict and stress. The high level of stress increases the risk of colds, heart attack and various types of cancer. In addition, stress is connected with obesity, high blood pressure and a number of cardiovascular diseases. „Migraine headaches, rheumatoid arthritis, chronic fatigue, receptiveness to allergies, and other maladies are also related to chronic stress. Stress may both suppress the body’s immune system and lead to hormonal imbalances that increase production of abnormal cells“ (Godbey, 2009, pp. 3-4).

For these reasons, the need for rest or recreation is nowadays more pronounced and important. However, it is not enough just to relax, but it is also necessary to confront the fatigue. If one takes into account that the decrease in physical activity in the labour process leads to chronic mental fatigue, then rest has to be physically active - recreational. The need

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for recreation is necessary in people's permanent residence, at workplace, at home, or in other locations that are away from their place of residence. From the public health perspective, recreation has all the positive features that are characteristic of sports, as well as a few advantages - wider application possibilities both in terms of the age and health condition. Recreational tourism is of great importance for the preservation of health; therefore, in recent times there have been many discussions related to health tourism as a special form of tourism. In a narrow sense, health tourism implies trips that are organized for health reasons, without excluding the effects of spending related to meeting secondary needs of the tourist industry. According to Tabacchi (Ross, 2011) medical tourism represents „any kind of travel to make yourself or a member of your family healthier.“

All persons traveling for health reasons are not necessarily patients with serious illnesses. In a broader sense, medical tourism today includes classical healing by the factor of nature for the purpose of improving health, as well as therapies that are needed for man to preserve good health and fitness (wellness, sport, recreation, healthy meals, entertainment, etc.), as well as treatments in specialized health facilities that offer quality staff and medical equipment for the most complex medical procedures.

Therefore, what is implied under health tourism in a wider context is a temporary change of permanent residence for health prevention, rehabilitation, use of various spa treatments, as well as the most complex medical procedures. Based on this, three groups of service users who meet their health care needs in various ways have been formed over time:

- The first group - consumers of traditional medical tourism related to natural resources such as the healing properties of thermal mineral water, mud, peloids, waves, the climate and so on.
- The second group - clients of wellness, which is a set of procedures for achieving physical and mental well-being with the use of natural factors, physical activity, fitness, therapies of classical and alternative medicine, etc.
- The third group - patients with serious health problems which require complex medical treatments using the services of specialized medical facilities and superior medical personnel (Spasojevic, Susic 2010).

Therefore, according to the level of health services that clients use, as special aspects of health tourism, there are treatments by natural factors - spa tourism (balneotherapy, climatotherapy, thalassotherapy, etc.), wellness and medical tourism. In this context, medical tourism should be viewed as a subset of health tourism. „While health and medical tourism could be separated on the seriousness of illness and disease and the consequent level of physical and surgical intervention required, this ignores how an individual constructs their own embodiment, condition and treatment, as well as how some treatments may traverse simple categorisation“ (Cook, 2008, p. 8).

Medical tourism includes medical screening, hospitalization and surgery, while in other forms of health tourism the primary goal is to use different treatments to improve health and hedonistic enjoyment in spas and centers of alternative therapies (Henderson, 2004, p. 113). Therefore, the difference between medical and health tourism is only in the ways in which people improve their health. So, even though it involves complex medical procedures, medical tourism can be considered a specific market niche of health tourism.

Health tourism, in the strict sense, in addition to the basic natural factors (mineral water, peloid, clay and climate), involves the use of other factors which improve the condition of the body as a whole. Modern balneology treatments include factors such as changes in the environment, dietary regimes, active and passive mental and physical relaxation. If

necessary, other forms of treatment such as medication and physiotherapy are also used during balneotherapy (Stankovic 2009). So, the main goal of health (and wellness) tourism is to improve physical health on one hand, and to improve and maintain mental, psychological and emotional well-being on the other hand (Danna, Griffin, 1999, p. 361).

Modern health destination visitors are more mobile, less bound to the facility where they are staying, they eagerly visit local events, attractions and museums, are interested in the culture and traditions, gastronomy, even sports; travel facilities often include experiences of Eastern medicine-acupuncture and other forms of stimulation, sauna, Kneipp cures and more, as well as a healthy diet. In particular, all the more evident trend is the shift from the traditional thermal treatments towards more complete and broader health-recreation tourism. Therefore, there is a need for sketching a new approach that will emphasize preventive health tourism as a form of medical tourism. Qualitative and quantitative changes in the tourist demand and supply at the end of the 20th and throughout the 21st century have contributed to health tourism stepping out of the initial frame (natural healing factor) and increasingly involving in a variety of other services such as massage centers, beauty care, fitness, diet therapy, psychotherapy, anti-stress therapy, relaxation and so on.

Therefore, modern health tourism is a form of tourism undertaken in order to promote, stabilize and, if possible, restore former physical and mental state with the use of natural healing factors, health services, sports and recreation as well as wellness facilities, implying thereby that people using these services do not have permanent residence at that location or destination.

## 1. TRADITIONAL SPAS AND SPA CENTRES AS HEALTH TOURISM DESTINATIONS

There are numerous steps that can be taken to prevent ill health caused by stress. One of these ways is to visit different types of spas - spa centers. Today the term spa is not only a synonym for a spa in the traditional sense, but for institutions that use different therapies to regain health, slow down the aging process and relax a person. Spas in general are nowadays associated with two basic functions: treatment and recreational function.

### **1.1.Traditional spas - thermal/mineral springs spa**

The term thermal/mineral springs - mineral springs spa should be linked to the destination located near medicinal thermal and mineral water, mud, etc. The waters of these thermal springs have different therapeutic and recreational properties and are used for the treatment of many diseases. In Europe, thermal/mineral springs are still a significant resource and the basis for the development of health - spa tourism (Global Wellness Institute, 2014). The use of thermal/mineral resources in European countries has a long tradition and medically qualified professional staff is used for the treatment of a range of physical and mental conditions. The treatment is carried out so that a combination of balneological treatments and other therapies maximally improve the patient's health condition (Erfurt-Cooper Cooper, 2009). Apart from Europe, onsen mineral waters in Japan, thermal mineral pools and aqua parks in South America, China, Taiwan etc. are also used for swimming and recreation, and to a lesser extent for treatments.

Therefore, traditional spas are sanatogenous areas and ideal places for meeting one's different recreational and health needs. These destinations have numerous and varied

natural features with significant health and recreational functions that give rise to increasing tourist demand.

As already pointed, thermal mineral springs, rare gases and mud (peloid), climatic conditions, clean air and rich vegetation belong to natural elements, which are the basis for the development of spa tourism. In the past, these elements had a much larger role in the treatment of various diseases, as well as for the recovery after injury or disease. Today, spas around the world have completely changed their concept of medical treatment, as well as their appearance. They are less of hospitals and rehabilitation centers for older clientele, and more of multipolar centers with a variety of tourist supply.

Generally speaking, the following types of thermal/mineral resources can be divided as follows, according to their use:

- Geothermal Springs or Hot Springs, with water that has healing properties,
- Mineral Springs with cold and hot waters that are used for balneological purposes;
- Saline Springs with geothermal waters which contain a high percentage of salt and are used in health and wellness treatments,
- Extreme Hot Springs, with water which needs to be mixed or cooled for safe use (Erfurt-Cooper, 2010, p. 1)

European Spas Association (ESPA) recognizes the following spas according to the characteristics of natural resources which have a beneficial effect on human health:

- Mineral spas;
- Brine spas;
- Thermal spas;
- Peloid spas;
- Spas at the seaside and in a healthy climate;
- Kneipp spas.

Traditional spas in many countries today are an indispensable segment of the health care system, important cultural heritage and an important economic factor for development. According to the Law on the spas of the Republic of Serbia (RS Official Gazette 80/1992): "A spa is an area where there is a benefit of one or more of natural healing factors and that meets the requirements in terms of the development and equipment for their use. A spa is a natural resource of public interest controlled by the government. Natural healing factors in terms of this Act shall include: thermal and mineral water, air, gas, mud (peloid), whose medicinal properties are scientifically tested and proven. "

Traditional spa tourism is connected to thermal/mineral springs. According to Hall, "spa tourism is a component of health tourism that relates to the provision of specific health facilities and destinations which traditionally include the provision of mineral waters" (Hall, 2011, p. 3).

The importance of this aspect of medical tourism is growing with the increasing elderly population in the total population and ever more present awareness of the need to preserve health. The essence of the strategy of development of modern spas is a tendency to activate self-awareness of the responsibility for one's own health and create offers that are user-oriented. Growing needs and a comprehensive approach towards the user have resulted in a complex offer defined as well-being. This term implies the renewal of the mind, body and soul, which is the essence of the orientation of modern spa tourism.



According to the conclusions of the International Congress on spa tourism held in Galicia in 1999, the concept of strictly specialized and unipolar spa centers is now obsolete. There are two important features of the modern spa - spa tourism:

- health and recreation, as well as tourist facilities and services that are intended for people of different ages are based on short-term stays and suppress the traditional and other classic spa treatments;
- the contemporary development of spa tourism is increasingly based on a wide range of attractions (health services, recreational activities, monumental, event, conference tourism, entertainment and arts facilities, casinos, etc.) which are used to attract a more heterogeneous structure of guests (Jovicic 2008).

According to the new concept, the features of traditional spas are people-oriented regardless of their age and state of health, since the emphasis is on prevention. Staying in these centers is the most convenient for busy people who can not go on longer holidays, and wish to be in a good mood and excellent health, despite a lot of work.

The basic concept of the offer of spa products is "Health with the help of water" but also beauty, pleasure and the opportunity to renew their internal energy. Spas are not only useful for the treatment of diseases or their prevention. These are ideal places for rest and relaxation, recovery of health and strength in contact with unspoiled nature, surrounded by peace and quiet, away from the stress of the modern lifestyle:

- Traditional clinics to take the cure or the waters,
- Hot spring spa resort with medical as well as leisure and wellness facilities,
- Modern aqua parks using mineral spring water to attract families as well as individuals, both locals and foreigners; and
- Treatments for healthy and not so healthy visitors (Erfurt-Cooper, Cooper, 2009, p. 9).

The significance of traditional thermal/mineral springs lies in the fact that in more than 100 countries around 27,000 spa facilities were built in addition to thermal and mineral springs for the provision of various health and recreational services. These spa facilities and institutions around the world generated revenues of approximately 50 billion dollars in 2013. However, only ¼ of these facilities (6500) provided classic spa services, but nevertheless generated about 2/3 of the total global revenue of this industry. Most of these buildings were intended for recreation, swimming and different entertainment activities. The most numerous objects of this type (onsen) are in Japan (about 17,000) and China. Traditional spa tourism is the most developed in Europe, where, in 2013, about five thousand institutions and facilities generated approximately 45% of the total global revenue of this form of tourism (Global Wellness Institute, 2014).

Despite many changes, traditional spa tourism is still considered an important component of modern medicine. The biggest changes spa tourism has experienced occurred in Germany, France, Austria, etc. The changes are mainly due to the fact that employees have been given the right to be absent from work for the purpose of medical treatment, without affecting their holiday.

According to the new development trend of health tourism in the Republic of Serbia, spas can be divided into three basic categories:

- *spas-hospitals* receiving patients whose costs are covered by their health insurance (they are not market-oriented and tourist-oriented);
- *tourist spas*, which, in addition to offering treatment and rehabilitation, offer other forms of rejuvenation and health preservation (treatments that are carried

out here are designed as tourist services and are offered on the tourism market, thus representing a mixed type of spas in terms of funding sources)

- *market-oriented spas*, which are organized as wellness spa centers (destinations).
- Most spas in the Republic of Serbia are of mixed type.

### 1.1. The concept of modern spa centres

In contemporary literature spas are increasingly called spa centers, due to the abbreviation of an old Latin saying *Salus per aquam* (health with the help of water). In this view, it follows that treatments in spa centers are based on the healing properties of water and peloids (mud). According to the European Spas Association the word spa stands for "a mineral source or a healing place where there is a mineral spring", but this is also the name of a Belgian health resort with numerous thermal springs that have attracted visitors since the 17th century. However, ISA - International Spa Association in 2004 provided their own definition: "A spa is an institution dedicated to improving man through a wide range of professional services that promote the renewal of mind, body and spirit" (www.fitnese.com.). Similarly, in the report of The Global Spa Economy 2007, spas are defined "as establishments that promote wellness through the provision of therapeutic and other professional services aimed at renewing the body, mind, and spirit" (Global Wellness Institute, 2014, p. 3).

Thus defined spas - spa centers are the most numerous in the United States. Specifically, health (spa) services of different levels are provided in about 23,000 health, recreation, accommodation and other facilities (Global Spa & Wellness Economy Monitor, 2014, p. 7). Most of these facilities are based on providing beauty treatments, and less on traditional spa services, as is the case today in Europe. In fact, the demand for spa and wellness services is focused more on improving the exterior (obesity, beauty), and less on solving health problems and the preservation of health. This is illustrated by the fact that daily spas, resorts, hotels and medical spas in the USA (professional health care services - botox injections, laser hair removal, etc.) generate about 95% of revenue, whereas in classic spas it amounts to only 5%. In the USA, about 80% of total spa capacities belong to day spas that offer a variety of massages, food therapies, aromatherapy, hydrotherapy and alike. (Erfurt-Cooper, Cooper 2009). It follows that the "spa industry is a melting pot for a range of products and services that enhance health and well-being" (Cohen, 2008, p. 5).

Therefore, practice has shown that the term "spa" can not be compared with the traditional concept of a "spa" since the mentioned spa centers are not necessarily related to thermal mineral water. For instance, within the spa center division just the medical spa and mineral spa use thermal mineral water. After all, in the Republic of Serbia, especially in larger cities, following global trends, numerous spa and wellness centers having nothing to do with the use of thermo-mineral water spa have been formed.

ISPA, International Spa Association was founded in 1991 as a worldwide federation of professional organizations of the spa industry, and as already noted, it defines a spa as a place dedicated to the promotion of the quality of life through a variety of professional services to support the renewal of mind, body and spirit. Depending on the level, quality and types of therapy International Spa Association - ISPA distinguishes between several types of spas:

- *Club SPA* - the offer is based primarily on fitness and the daily use of spa services,
- *Day SPA* - the offer is based on the daily use of services, mostly beauty treatments of the face and body, massages, sauna, etc.

- *Destination SPA* – where there is a choice in creating healthy habits. This transformation is achieved with the help of professional spa services, fitness, educational programs, healthy food and special interests,
- *Medical SPA* - Medical spas are a combination of a clinic and day spa centre and treatments are carried out under the supervision of professional staff. In these centers, apart from spa services, there is a choice of conventional and special treatments and services.
- *Mineral springs SPA* - spa centers that use mineral, thermal or seawater for the purpose of hydrotherapy treatments. This type of spa centres is the most typical for the European spa and wellness sector. The basis of this offer, besides the use of thermo-mineral waters, consists of various massages, sauna and other treatments.
- *Resort/hotel SPA* - spa centers within hotels and resorts, with fitness and wellness components under the supervision of professional experts. These centers are often located within luxury hotels that have large capacities and richer clientele (e.g. business people). Also, their offer includes day spa services for the local population. These spa centers, apart from spa and wellness services, offer a wide range of other recreational and sports activities: golf, swimming, water sports, tennis, horseback riding, skiing and others.

In addition to these types of spas, scientific literature also recognizes *Cruise ship* spas (treatments on cruise ships, which include fitness and wellness components, as well as programs of proper and healthy diet), *Cosmetic Spa* (providing cosmetic treatments that are not too invasive), *Airport Spa* - located on significant international airports and usually provide relaxing massages.

From the previous division, it follows that spas can be defined as centres that promote wellness by providing therapeutic and professional services in order to renew the body, mind and spirit. As they are not related to thermo-mineral and other natural resources, the number of these spas is constantly increasing and rose from 72,000 in 2007 to 106,000 in 2013. Observed by types, Day spas with around 60,000 objects and Resort/hotel spas with around 22,000 are the most numerous. In other words, these two types accounted for over 85% of the total number of spa centers in the world. There were around 6,500 spa centers related to thermal mineral water (mineral springs spas). Observed by continents, spa centers are the most numerous in Europe and Asia where, in 2013, there was about 2/3 of the global spa centre supply. The largest number of spa centers in 2013 was located on the territory of the United States - about 23,000, China around 9,500, followed by Japan with 6,000, etc. In Europe, the leaders in the number of spa centers are Germany (5,500), France, Great Britain and others. The previous analysis shows that spa centres are becoming an increasingly important segment in the health tourism supply. According to the data for 2013, spa centers employed around two million people and generated a turnover of over \$ 94 billion.

## 2. THE MODERN CONCEPT OF WELLNESS

The imposed pace of life caused by technological progress contributed to the occurrence of wellness as the concept that allows the satisfaction of certain human needs for rest and relaxation. Wellness represents a higher level of awareness of one's own health, whose primary role is that of maintaining the body and mind, physical and mental relaxation, fitness and preservation of inner peace.

Wellness occurred as a product of the new age and needs of the modern man to rest in nature after hard and stressful work, through physical activity, healthy food in a healthy natural environment and favorable social environment. The term wellness was first used in 1961 by Halbert Dunn in his book "High level wellness" combining the abbreviations of two English words: wellbeing, which means good mood, and fitness, the ability for physical activity (to be fit). So, wellness appeared in order to satisfy certain human needs for active rest and relaxation imposed by the manner and pace of life in modern society.

As the most significant segment in health tourism supply, wellness started developing in the 1990s in European countries, especially in those which had already had significant health spa offer, such as Germany, Italy, Austria, Switzerland, Hungary and others. Bearing in mind that traditional spas (spa and thermal/mineral springs) are destinations for treatment, rest and relaxation, they can also represent significant centres of wellness tourism and contribute to its development. On the other hand, wellness enables spas to reshape their image and become important destinations for wellness tourism (Global Spa Summit, 2010). Therefore, the concept of wellness is often equated or used in conjunction with spa treatments (Spasojevic, Susic 2011).

The concept of wellness in scientific literature is interpreted in different ways. In Europe, the beginnings of the wellness concept are linked to Greek and Roman culture, when some parts of the population (mostly men, athletes, soldiers, wealthy people, etc.) were interested in health, fitness and hygiene, as well as socializing, which resulted in the use of public baths and fitness temples. The wellness concept, as currently being discussed in scientific literature, aims to prevent disease through the promotion of health, education and encouragement. Today, it is considered to be an adequate method for the prevention and preservation of health in the aging society (Weiermair, Steinhauser, 2003, p. 5). In addition, wellness encompasses a holistic approach to nutrition and aims at mental and spiritual harmony of man (Erfurt-Cooper, Cooper, 2009). So, not only does it include exercise and movement, but wellness also fills the entire human life with a certain content that may assist in solving everyday problems (Bartoluci, et al. 2007, p. 196). Unlike Western medicine, which focuses on disease and pathology, wellness is based on well-being and the absence of disease and weakness in man. Basically, wellness can be equated with "health" which was defined as early as 1948 by the World Health Organization (WHO) as "a state of physical, mental and social well-being and not merely the absence of disease or infirmity." Therefore, there are many definitions which explain the concept of wellness in a similar way, but most of them emphasize that it is a state of optimal well-being combined with energy, vitality, strength, stamina and fitness.

According to Hettler (1976) wellness is "an active process through which people become aware how to fight for successful existence. Wellness is a state of complete well-being; a lifelong journey towards holistic health" ([www.hettler.com](http://www.hettler.com)). It is a continuous process that asks man to devote time to himself and his existence. So, wellness is an ongoing process of learning and cognition that allows one to build a lifestyle that leads to a more successful and longer life. The basic concept of wellness is based on the emphasis on positive and proactive approach to life that will increase and enhance all the dimensions of human existence. Generally speaking, wellness means a healthy balance of mind and body, resulting in a general positive feeling and quality of life. Therefore, we can say that wellness represents the opposition to disease, i.e. a positive component of good health (Bartoluci, et al. 2007, p. 198). Thus, the main objective of wellness is to improve the mental, physical and spiritual balance. But, wellness is also the ability to

"find your desired balance between family, work and environment" (Weiermair, Steinhauser, 2003, p. 6).

Despite significant differences in the definition of the wellness concept, several common features can be distinguished:

- Wellness is multi-dimensional,
- Wellness is holistic,
- Wellness changes over time and along a continuum,
- Wellness is individual, but also influenced by the environment,
- Wellness is a self-responsibility (Global Spa Summit, 2010, p. 2).

From these characteristics it can be concluded that the concept of wellness can be expanded and that, in addition to physical, mental and social dimensions, it can also include sexual, emotional, cultural, spiritual, educational, professional, financial, environmental, ethical and existential dimensions. The holistic concept indicates that the normal functioning of wellness implies the presence of all those dimensions. It is interesting to note that the environment wellness is not of a personal nature, but involves the respect of nature and all the beings surrounding it. It also implies the awareness of the individual about the importance of the environment for the health and survival of the human species. Each individual must be aware that clean water, clean air and other components of the environment are the necessary prerequisite for the health of mind and body.

In developed countries of the world today wellness has become a lifestyle that includes various aspects of human well-being and happiness. In other words, wellness is a higher level of awareness of human needs, where the health of the individual is the wealth which one has yet to learn to deal with (Bartoluci, et al. 2007, p. 199). Therefore, the explanation of wellness comes down to Maslow's concept of "the hierarchy of needs." People whose primary needs ("deficient needs") are of psychological, financial and social character, such as food, drink, housing, social contacts, etc are turning to other values and motives of the so-called "needs to increase" social recognition and self-realization (Hrabovski-Tomic, 2006, p. 20). Today, it is primarily the case of individual values and motives, which both men and women consider to be extremely important.

Wellness is an interactive process, which involves the acceptance and implementation of healthy and proper choices in life, with the aim of creating a successful and balanced lifestyle. The basis of the philosophy of wellness consists of: *process, acceptance, choice and success*. The *process* means that in every moment of a man's life there is an opportunity to improve the way of life and lifestyle. The *acceptance* implies that every man, naturally and continuously, seeks new information and more knowledge about the ways to improve one's life. The *choice* means that there are several options before a man and one should choose the one that seems most advantageous. The *success* depends on the achievements in life.

Closely related to wellness is wellness tourism. In accordance with the general definition of tourism, wellness tourism is a collection of all relationships and phenomena resulting from the travel and stay of people in destinations that allow the preservation or improvement of their health. It includes their stay in specialized institutions that offer professional knowledge and individual care, as well as a service package which includes fitness, care, healthy food, relaxation/meditation and mental activities/education" (Mueller & Kaufmann 2001, p. 3).

Wellness tourism can be treated as a special form or niche market of health tourism. "Wellness tourism is a collection of all relationships and phenomena arising from the

travel and stay of people whose main motive is to preserve and improve their health. They require a thorough package of services that includes professional knowledge, fitness, beauty care, healthy nutrition or a diet, relaxation or meditation, physical and mental activity and education" (Mueller, Kaufmann, 2001, p. 3). A few available studies suggest that those who practice this type of holiday seek not only a physical change of location but also the way to greater self-awareness and satisfaction.

Unlike traditional spa tourism, wellness tourism is related to clients in good health, who try to maintain their existing health status through a variety of treatments. According to some opinions, wellness is a more comprehensive and broader concept than the concept of spa. The concept of wellness, as already noted above, can be expanded so as to include sexual, emotional, cultural, spiritual, educational, professional, financial, environmental, ethical and existential dimensions in addition to physical, mental and social dimensions (Cohen, 2008). While the spa can be based on only one of the elements of wellness (emotional, intellectual, physical, social, etc), the holistic concept of wellness can not function if one of these elements (dimensions) is missing. According to Hettler, elements or dimensions of wellness and health function as a whole, like a wheel on a bicycle or a car. As with the bicycle, if all the wires or dimensions function at an optimal level, the wheel will roll easily, i.e. the man will live happily and harmoniously. On the other hand, if a wire or dimension is weak, there will be a balance disorder ([www.hettler.com](http://www.hettler.com)).

The increased demand for wellness is especially pronounced at the beginning of the 21st century. The promotion of wellness centres, holistic resorts, spa centers, spiritual pilgrimage and alternative medical treatments is becoming more aggressive. According to many authors, the reason for that expansion in most cases is the result of the process of globalization, a social and economic crisis in developed countries, the breakdown of traditional religion and community fragmentation. In addition, the development of science and medicine has led to the better preserved body, physical health and fitness, whereas in the field of mental, emotional and psychological health satisfactory results have not been achieved.

On the basis of numerous programmes and wellness content, a new form of tourist supply addressed to more affluent customers is being created in tourism. Actually, wellness includes "travel with the intention of achieving balance and harmony of mental, emotional, physical and spiritual value of man" (Health and Wellness Tourism, 2004, p. 9). "The broadest scope for the development of wellness is provided by health tourism supply, as it already possesses certain objects, facilities and professional staff for providing wellness services" (Bartoluci et al. 2007, p. 199). However, in addition to spas and other natural healing resorts, wellness facilities can be developed by other tourist centers and facilities that are in the function of health, entertainment, relaxation and other similar activities.

The largest number of wellness and spa programmes is based on the natural potential, considering the fact that the environment itself reduces stress and helps relax man. Besides natural and attractive scenery (mountains, spas, rivers, seas, etc.), other facilities used for the development of wellness tourism are indoor and outdoor facilities for sports and recreational purposes, facilities for prophylactic services (massage, sauna, etc), facilities for medical care (diagnosis, therapy, etc) and so on. (Spasojevic, Susic, 2011). The organizational form of wellness in which classical medical methods are complemented by the principles of alternative medicine, wellness philosophy, eastern methods of treatment, as well as the use of natural medical resources, is called medical wellness in scientific literature. The basic requirement for providing medical wellness services is medical supervision.

Despite being a new product, wellness within health tourism generates by far the largest turnover. According to the data of the Global Wellness Institute, 2014, the number of clients who used the services of wellness centers in 2013 was estimated at around 585 million. The total consumption in wellness amounted to 494 billion dollars. In national wellness tourism, there were around 490 million users of wellness services, or about 85% of the total wellness traffic around the world. The share of domestic in global wellness tourism was around 70%, which indicates that the consumption of foreign tourists is considerably higher. The highest participation in wellness traffic is of the so-called secondary tourists, the clients for whom wellness is not the main motivation for travel. It is estimated that the share of secondary wellness clients accounted for 87%, 84% in consumption (Global Wellness Institute, 2013). Of the total number of users in the world, Europe accounted for over 35%, North America 30%, Asia and the Pacific about 25%. The number of employees in wellness tourism is estimated to be about 14.5 million. The total economic effects of wellness tourism (multiple effects) are estimated at \$ 1.5 billion.

## CONCLUSION

Today, different scientists claim that the accumulated stress is the number one disease of our time. A significant number of people, particularly the employed, suffer from physical, mental and emotional overload, which threatens to destroy their bodies. Numerous studies have shown that people with chronic accumulated stress live shorter and suffer from anxiety and depression. Therefore, it is now considered that escape is one of the main motives of tourist movement (Goeldner, Ritchie, 2006). „Escape from an everyday personal or physical environment to one perceived to be likely to give to the traveller all the elements of life he or she feels are missing from those everyday experiences“ (Erfurt-Cooper, Cooper, 2009, p. 6). The fulfillment of the desire for a healthy lifestyle is an essentially important motive for many tourist trips. The increasing need for rest and relaxation, and not only for treatment, have contributed to the transformation of classic spa tourism into the broader concept of health tourism, which, in addition to natural factors, includes other therapeutic methods in the treatment and prevention. There are many things that can be taken to prevent ill health caused by stress - one of them is a visit to spa centers, spas, resorts and wellness centers.

The tendency to enjoy a relaxing environment turned into a global movement with a significant difference compared to the traditional concept of health spas as a destination mainly for specialized rehabilitation. The new emphasis lies in preventing disease and maintaining good health rather than treatments with high expectations concerning the improvement of health, even if there are no health problems. Therefore, there is a growing awareness of the usefulness of combining the classic spa with modern therapies such as wellness. By using modern treatments as well as traditional rehabilitation therapy, with a holistic approach to creating harmony in man, not only the needs of the body are met, but also those of the mind and soul, i.e. psychological needs.

Traditional spas (thermal/mineral springs spa) are becoming destinations that promote wellness by providing therapeutic and other professional services in order to renew the body, mind and spirit. For these reasons, traditional spas within wellness centers, apart from health treatments, include cosmetic treatments, sports, fitness, relaxation, aromatherapy, reflexology, etc in their offer. Many traditional spas are already firmly grounded within the

growing wellness industry. The tradition of spas as places for healing, rejuvenation, relaxation and well-being, makes spa centers based on the use of the water from mineral springs increasingly important wellness destinations. On the other hand, traditional spas are trying to distinguish themselves from spa wellness centers and retain the characteristics of exclusivity in various ways, such as medical staff, traditional therapy treatment, certification of buildings, etc.

Modern spa and wellness centers do not promote a healthy lifestyle and health preservation for the tourist clientele only, but also for the local population. Spa and wellness centers today offer everything a modern man needs: treatments for the face, body and soul, or therapies that aim to relax and enjoy. The programmes in these centers, in addition to classical balneotherapy, include: aromatherapy massage, traditional Chinese, Indian, Thai and other massages, hot and cold volcanic stones, acupuncture, various electro therapies, physiotherapy, diets, cosmetic surgery, as well as more complex medical procedures.

Wellness, as already pointed out, is the concept of preserving and improving health that encompasses all the areas of healthy movement, physical exercise, a balanced diet, relaxation and overcoming stress in order to achieve the feeling of satisfaction. It is a journey with the basic motive to achieve balance and harmony of mental, emotional, physical and spiritual values of man. Unlike Western medicine, which focuses on disease and pathology, wellness is based on well-being and the absence of disease and weakness in man. In fact, modern spa wellness offers not only their own treatments, but also combines spas and spa therapy, thus offering a specific product that will improve both physical and mental state of man. „Spas and wellness resorts may therefore be conceptualised in cultural/sociological terms as modern day temples where people can experience rituals, learn to deepen their personal wellness practices, raise their consciousness, become open to enhanced ways of being and deepen their experience of being alive“ (Cohen, 2008, p. 8).

Wellness nowadays focuses on people who are genuinely interested in health, healthy lifestyle, and its improvement and preservation. But wellness is also the possibility to combine recreation, fun and adventure with the medical protection for the purpose of restoring their life energy. Thus, wellness aims to improve the physical, mental and general health status of the individual, so it can be identified with health tourism.

The increase in the number of old population and the high cost of health services in developed countries, as well as the growing need to use travel to improve one's psychological condition, restore and preserve the life energy, but also radically improve their health are all the factors that have influenced the development of spa, health and wellness tourism in the new, mostly unknown tourism markets (Southeast Asia, South Asia, South America, etc). That is why today the tourist market of medical tourism promotes package holidays where, in addition to medical treatment, various forms of recreation, relaxation and entertainment, more complex medical examinations and procedures are on offer.

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## WELNES SPA – SPECIFIČAN OBLIK ZDRAVSTVENOG TURIZMA

*Zdravstveni turizam podrazumeva privremenu promenu mesta stalnog boravka radi zdravstvene preventivne, rehabilitacije, korišćenja različitih vrsta kozmetičkih usluga, kao i najsloženijih medicinskih zahavata. Prema nivou zdravstvenih usluga, u okviru zdravstvenog turizma, kao posebni vidovi izdvajaju se medicinski, trdiconalni banjski turizam (thermal/mineral springs turizam), spa i wellness turizam. Tradicionalni banjski turizam sve više se prepliće sa drugim vidovima zdravstvenog turizma, posebno sa wellnessom. Savremene banje, kroz pružanje terapijskih i drugih stručnih usluga, sve više promovišu wellness, tako da se danas spa industrija smatra sektorom wellnessa. Wellness je jedan od novih trendova, ne samo u zdravstvenom turizmu, već i u savremenom turizmu. Definiše se kao stanje potpunog fizičkog, mentalnog i socijalnog blagostanja i uključuje stavove i aktivnosti koje sprečavaju bolest, poboljšavaju zdravlje i kvalitet življenja i dovode do fizičke i psihičke ravnoteže čoveka.*

*Ključne reči: zdravlje, zdravstveni turizam, spa, wellness, lečilišna i rekreativna funkcija.*



## THE INFLUENCE OF THE COMPETITION POLICY ON STATE AID AND PUBLIC SECTOR WITHIN THE EUROPEAN UNION SINGLE MARKET

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**Abstract.** *A competitive and well-functioning market is imperative for the efficiency of the economy. First, competitive markets help correct distortions in the structure of production and thus raise productivity levels, and secondly, stronger competition provides an increased incentive for producers in the form of lower prices, higher quality and increased variety. Competition policy deals with the restriction of all non-economic behavior entities that cause market distortions. The paper provides general features of the European Union competition policy, as well as its historical development, basic elements and methodological framework. Further, this paper provides reforms, tendencies in development and examples from the jurisprudence of the EU competition policy, with a special review of article 81 (prohibition of the restrictive agreements, cartels) and article 82 (prohibition of abuse market dominance) of the EC Treaty.*

**Key Words:** *Competition policy, European Union, restrictive agreements.*

### INTRODUCTION

Since ancient times and the Middle Ages, there were many legal forms that prevented disruption of effective competition through market anomaly embodied in the monopolistic actions of certain manufacturers. The earliest document of ancient Rome in the area of competition policy is related to the control of prices and unfair competition. Competition is one of the first areas of the economy which is regulated launched around the world, primarily in the United States at the end of the nineteenth century and in Europe through the principles of English common law on restricting trade. The first modern antitrust law is known as the Sherman Act of 1890, which is the precursor of modern competition law and about the prohibition of monopolization and cartelization of the market between large firms and criminal justice sanctions characters.

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Competition policy is often associated with anti-trust legislation, and, in addition to regulating monopolies, it aims to prevent the occurrence of all forms of behavior of economic entities that could potentially jeopardize the efficiency of an economy and the way of implementation of competition policy. Defining the basic principles of competition policy is important for the simple reason that the proper implementation of the same and continuous improvement in terms of the legislation in this area, leading to the prevention of the occurrence of restrictive agreements and abuse of dominant position. This allows for the successful functioning of the free market and almost completely conducts a function that is selective, allocative, distributive and informational. Also, a proper enforcement of competition policy to prevent market distortions due to inadequate legislation can lead to damage at the expense of effective competition and the damage at the expense of consumers in terms of higher prices, poorer product range, as well as the deteriorating quality of products and services. Besides the impact on customer satisfaction, growth and productivity of the company together with other macroeconomic policies, competition policy operates on the global competitiveness of the country, which means that the antitrust laws complement instruments of law and economic theory. This indicates the importance of standardization of the basic postulates of competition policy which is being implemented at the level of the European Union, which helps establish a stronger, more compact and fairly cohesive Single Market of the European Union. The competition policy in a large area of the European Union must therefore be balanced and flexible, which is achieved by a correct view of short-term and/or long-term changes in market structure. The aim of such a defined competition policy is to prevent the abuse of dominant position, the creation of allocative inefficiency and loss of general social welfare on the one hand, and the loss of economies of scale and production efficiency due to restrictive policies (competition), on the other hand.

## 1. COMPETITION AND THE COMPETITION POLICY

The belief in the kind of economic competition as a tool that leads to proper distribution of social welfare is an act that comes from countries in which the economy operates on the principles of free markets. Competition is most often defined as a struggle for superiority, as to the commercial world, it means striving for the realization of greater profits, and taking a better position in the market compared to direct rivals. Regardless of the various types of definitions of competition, the question always rises of whether it occurs by itself, through market forces, or is determined by an organizational prince, who was imminent for the establishment of an adequate business in a given market area. Theoretically speaking, by the language of neoclassical economists, each competitor strives for its desired, it is the natural form, perfect competition, where a lot of businesses participating in the offer, but none has an advantage in terms of dictating the market conditions or the amount of sales price. Perfect competition, which is almost non-existent in the real world in its original form, is recognized by Adam Smith who spoke about the "invisible hand" of the market, theorists explain how to maximize the wealth of the consumer. Competition is, because it focuses on the efficient allocation and distribution of social welfare, in terms of providing consumers with the required amount of products and services while minimizing costs. On the other hand, imperfect competition, which is precisely regulated by competition policy through legislative form, embodied in the monopolies and cartels, implies a restriction in the distribution of products and services at higher prices and under worse market conditions. It

is said that it "secretly" brings suboptimal and inefficient allocation of society's resources and becomes the personification of their abuse. Regulation of competition means drawing positive features of competition that are embodied primarily in stimulating economic entities as many entrepreneurial initiatives and innovations that besides creating a wide range of products and services, lead to a reduction in unit costs due to economies of scale. The benefit is mutual if the competition is used properly. Perfect competition can be harmful, because there is no initiative to offer training which comes just from the rivalry between economic entities, and it creates monotony which causes dissatisfaction of customers themselves and thus lower profits.

To achieve the positive effects of competition, there is a competition policy whose methodological and institutionalized framework paves the way for equitable distribution of social wealth. It is necessary for the simple reason that the market can not only neutralize the behavior of business entities who use competition to realize extra profit. Its institutionalization involves the intervention of regulatory authorities of the State or of those economic integrations of which it is a member, for which there are a number of reasons. The competition policy acts preventively, because it prevents anti-competitive behavior of market actors, who in order to constantly make extra profit market category in the foreseeable future. Preventing maneuvers of large companies that market their actions to confuse other players, the competition policy eliminates the abuse of dominant position and abuse in size in order to achieve business goals at the expense of others. Policymakers competitors have a difficult task which consists in detecting and putting under the legal framework of all possible forms of fraud used by business entities in order to get a larger share of the pie. The whole process involves a kind of neutrality and the policamakers have to resist the political and corruptive pressures. The competition policy formation and its implementation is often associated with several key elements of each market and the single market of the European Union. These are:

- Wealth consumers – the technical part of competition policy applies to promote it as a direct link between performance improvement of products and services and customer satisfaction.
- Protection consumers – implies the action of competition policy to protect individuals from large business entities and their unpopular market moves that generate extra profits. Also, this element of competition policy refers to the protection of consumers from political influence.
- Redistribution of wealth – the competition policy attempts to inhibit a smaller number of business entities in pursuit of appropriation of most of the wealth and therefore political action that is undemocratic when it comes to monopolies and cartels.
- Protection of small and medium enterprises means protecting "young" industry as an incentive for the development of a large number of small enterprises in order to maintain competition.
- Regional, social and industrial aspects – this element relates to the role of competition policy as an instrument for the development of backward regions and an instrument for preventing the occurrence of unemployment due to the closure of those sectors that can not stand politics run by monopolies in this market segment.
- Market integrations – this element is primarily a European phenomenon where competition policy shows its true scope of activities by eliminating barriers to trade on the territory of the European Union. Such an action of the competition policy contributes to the development of the single market of the European Union (SEM).

As shown in the previous text, several elements of competition policy imply its various forms that correspond with the reasons for their application. The most frequent meet several dimensions of competition policy, such as policy cartels, monopolies and mergers. Thus, for example, firms may join in the application of restrictive practices by forming cartels. These agreements, which may be implicit and informal, may result in setting the price above the real, market prices (price fixing), or mutual sharing of markets between the cartel participants where each company in its market segment appears as a kind of monopoly. Agreements may include direct competitors in the market (horizontal agreements) or companies that operate at different levels of the production/distribution process (vertical agreements). The existence of monopoly (one firm that dominates the market) on the other hand, or oligopoly (a small number of large companies that dominate the market) may also have adverse effects on competition. The most commonly seen misuse of position in the market is through lower rates, thus removing other competitors (the so-called predatory pricing), or the behavior that leads consumers to the fact that no matter how high the prices, they have no other alternative but to pay for the desired product or service. Mergers and joint ventures are, however, less harmful to competition because they can achieve cooperation with the authorities in respect of the assessment of the market or industry sector in which it is best to make this concentration as a function of satisfying the demand and maintain the market. These three dimensions of competition policy are its pillars regardless of political or social conditions it is applied in, as the main focus of competition policy is the elimination of agreements that significantly prevent, restrict and hinder the efficient operation of "natural" competition.

## 2. STATE AID POLICY- ARTICLES 87 AND 88. (FORMERLY ARTICLES 92 93 OF THE ROME AGREEMENT)

State aid policy is one of the most original policies of the competition policy of the European Union. It mainly allows monitoring of government policy in supporting their national companies. It represents, in some way, braking system strategy of industrial sectors leading to distortion of competition in the Single Market of the European Union. The observation that the single market of the European Union threatened not yet thoroughly tested policy of state power is quite true, considering that only with the help of state authorities, injury to competition in a market that is free of barriers "may be justified". Thus, the policy of state aid remaining as the only secret weapon for dominance in a market that has no physical, regulatory, or fiscal barriers. Many state policies are perceived as an instrument for the fragmentation of the market, which is justified by the holders labeled "State." This type of policy is very different from any other that has a national context, and is not considered a traditional part of the competitive domestic policy. Promoted by the Directorate of competition, it, however, differs in their characteristics, from the Commission's policy of restrictive practices, monopolies and mergers with regard to its regulatory objectives being related to the government or the state, not the company. Department G is responsible for the implementation and control of these policies within the Directorate for Competition. It is divided into seven units: coordination unit, horizontal aid, regional aid, industrial/sectoral assistance, public utilities and services, a unit of analysis and unit reports.

The Tenth Report on Competition Policy from 1981 talks about the politics of state aid, which can cause distortions in the market and accordingly perform its evaluation and possible

ban, in order not to be repeated by the national government. However, regardless of this statement, properly used state aid policy can be good in achieving the objectives of the Treaty, such as market integration, the reduction of economic and regional disparities or coordination with other forms of competition policy. Therefore, according to Article 87 of the Treaty on European Union, any aid granted by a Member State or its state resources which distorts or may distort competition by favoring certain undertakings or their products, contrary to the Common Market to the extent that impairs the exchange between countries member States except in accordance with the provisions of the Treaty., It does not contradict the Common Market in these cases:

- When state aid has a social character and when it is allocated to individual consumers without discrimination based on the origin of products,
- When the state aid is granted in the case of recovery of the consequences of a natural disaster or other extraordinary circumstances,
- When the aid is granted to certain regions of Germany that were damaged in the division of West and East to the extent it is necessary to compensate for the lag due to the division of the state.

There are also cases where the policy of state aid is in line with the common market.

- When state aid is to promote the economic development of an area (region) where the standard of living is below normal, or where there is serious underemployment. In doing so, the Commission considers the situation to be bad enough in a region that has less than 75% of the gross national income per capita relative to the EU. Help to create employment may be granted by the Commission only if it is linked to the achievement of the initial investment and does not exceed a certain percentage of the price of the employee, which is calculated for two years. Also, the support for the employment cannot be given if it is not maintained in the next five years and is prohibited for those companies whose costs are reduced because what is important is not the goal, but the impact of the measures on competition.
- When state aid is used to promote a specific project of common European interest or the removal of a severe economic disruption in a Member State.
- When state aid is used to facilitate the development of some important regions, if it does not violate the terms of exchange to the extent contrary to the common interest. However, support for the shipbuilding industry that existed prior to the entry into force of the Treaty of Rome, to the extent that is introduced due to the lack of tariff protection, was progressively reduced under the conditions which apply to the elimination of customs duties, subject to members of the Rome Agreement relating to the common commercial policy to third countries.
- If state aid is used to promote culture and preservation of cultural and artistic heritage, if it does not affect trading conditions and competition in the Union, and if isn't contrary to the interests of the market.
- Other categories of assistance that the Council establishes a qualified majority on a proposal from the Commission.

When it comes to making decisions about whether a state aid is contrary to the competition or not, there is firstly the process of notification that includes the publication and delivery of state aid policy implemented by the government in a given industry sector or area in order to see whether such strategy leads to distortion of trade between member countries. The process usually has a time lag that occurs between application of the state

aid and sending a notification to the Commission. Commission tasks the rapporteur of case to submit facts relating to state aid policy that has been implemented in some of the states within two months. In most cases, this period is enough to know about a given state aid and if it is positive and approved, then such a decision is published in the Commission's Official Gazette. The Commission carries out an investigation for not more than six months of a negative or conditional decision published in the Official Gazette L series. The Commission has the opportunity to conduct an informal investigation into the politics of state aid that allows it more credibility if it all ends favorably because its decisions do not have to be reviewed by the court. In this respect, Article 88 is mainly a continuation in a legal sense, of the previous process by defining the activities of the Commission and the Court regarding the decision. Specifically, it points out that the Commission is permanently in cooperation with member states granted aid review and suggest measures to improve the development and operation of the common market, where if it finds that aid granted in accordance with the common market is pursuant to Article 86 and is abused, the Commission shall decide to revoke. If by any chance the member states do not apply this decision the Commission or interested party can send a complaint to the Court, which has a deadline of three months for having an opinion about the fairness of state aid. Control of the behavior of companies and businesses on the market that may receive government assistance in any way must be implemented in order to avoid distortion of competition by favoring certain market participants. That is why Article 87 regulates the conditions for granting state aid while Article 88, defines the state aid granted.

State aid control has not become a domain of concern of the Directorate for competition until the late eighties, due to the fact that after 1968 and the establishment of a customs union, there was a removal of tariff barriers. State assistance in maintaining competitiveness was required by businesses who now have a wide market available. Cases related to state aid have been a slow process due to the fast-growing cases of restrictive practices that needed to be processed. It was not until the recession in 1973 that the Commission was forced to understand the importance of state aid. With the inability to deal with high inflation, rising unemployment, a drop in demand and non- competitiveness, states have started to increase in public spending in order to provide protection of the industrial sector from the negative effects of the recession. At this point, the Commission was faced with a number of notifications, but not the importance of partnership with the member states themselves. That is why the revitalization of this part of the competition policy of the European Union was made in 1985 by an act of state aid, which in addition to the legal and statistical significance was established as a trend in the movement of state aid, which is an average of all member states at that time, to the beginning of the nineties, amounted to 15% of public expenditure and 4% of GDP. The Act also defined three principles related to the provision of state aid:

- Certain state aid is not always fair ;
- The effectiveness of the policy must be established,
- Transparency of all aspects of state aid must be a priority.
- Three subspecies of this policy have emerged through evolution of state aid policy:
  - Regional policy of state aid,
  - Sectoral policies state aid
  - The general policies of state aid.



Regional policy of state aid has its legal basis in Article 87 of the Treaty, and it refers to the state aid that promotes economic development in the region where there is low standard of living and high unemployment. This provision means that during the course of providing assistance that facilitates the living conditions in a given region cannot get to the imposition of conditions of exchange, which can jeopardize effective competition in the EU market. These two aspects of regional policy are very difficult to match, but despite that, it makes on average a quarter of the total assistance provided to the State in the territory of the member states of the European Union. This policy contains four principles on which its implementation by the Directorate for Competition is based and that were adopted in 1971 in the resolution of the regional aid:

- A consistent policy of regional aid in accordance with the needs and development of the region, in comparison with the best of them. This means helping regions facing declining industrial development and their approach towards leading development centers in the member states, so that people have equal opportunities to live and work. Toward that end, forming regional maps to help proper distribution;
- Transparency of regional aid;
- The possibility of its quantification;
- Specificity of assistance for each region separately.

Sectoral policies state aid refers to aid for the development of certain economic activities, mostly in the industrial sector or a region where the industry as a sector dominated. It is awarded only in the event that the regular operations of the market cannot be achieved given the economic objective. In support of this, the Commission has defined the criteria for the application of this principle, which should be distinguished from the criteria for the award of any sectoral aid from those that apply to the sectors in crisis. Regarding the first criterion, sectoral assistance must:

- Be necessary,
- Re-establish a long-term economic solvency of the company,
- Be reduced with the passage of time,
- Be clearly linked to the restructuring of a given sector,
- Be proportionate to the problem that needs to be resolved, so that the distortion of competition is reduced to a minimum,
- Prevent migration of industry problems and unemployment from state to state,
- Be approved in the function of facilitating the social and economic cost change companies if the reform process was time consuming.

If this aid is granted for sectors in crisis, it may not act in such a way that a company or a sector come in a better position than the other competitors, but only to stabilize the situation in the sector or company, respectively. When assigning sectoral forms of assistance, there are special rules for certain so-called most important areas. In the automotive sector, it is obligatory to apply for help if the value of the investment project exceeds 50 million, or if the amount of the assistance exceeds 5 million. Assistance is awarded for innovation in the amount of 10% of total costs, but only in case of industrial and technological risks. Regarding the area of research and development, assistance may be approved for large projects of European importance, especially when it comes to the science sector. If the results of scientific research can be utilized without discrimination, then the costs may be covered 100%, but if they can distort competition, then the cover of cost is 25%. SME assistance may be granted in order to achieve the objectives as well as the European interest, with

the help of financial investments must not be higher than 7.5% (except in the case of companies with fewer than 50 employees and whose turnover is less than 7,000 000 euros and the balance is less than 5 million Euros when it is 15%), while for the advancement of knowledge of not more than 50%. It is important to note that the European Commission believes that small and medium-sized enterprises are those with fewer than 200 employees and an annual turnover of less than EUR 40 million or an annual balance sheet of less than 27 million euros.

Category general state aid policy contains all the help and assistance schemes which can not be classified in the sectoral and regional. Although it is more difficult to identify than the previous two, it is spread over almost the whole of economic life of the Union. To better clarify this concept, the Commission and the Directorate of Competition issued a lot of regulations and legal framework, including the legal framework of the Union State aid for research and development in 1985. After 1993, when the Act on State Aid for growth, employment and competitiveness was passed, this policy is increasingly treated as a horizontal policy of state aid, whose primary role was related to small and medium-sized enterprises. These companies, according to this Act, could receive government assistance only to the extent of 100.000 ECU for three years.

### 3. COMPETITION POLICY FOR PUBLIC SECTOR ENTERPRISES AND ACTIVITIES OF GENERAL INTEREST - ARTICLE 86.

An important aspect of the relationship government- industry refers to the regulation of the sectors which are state-owned. Here the accent is primarily on sectors such as manufacturing and electricity, gas distribution, water supply, transport, postal services and telecommunications. After the advent of state aid policy, the Commission wanted to, enforce competition rules also in the area of so-called natural monopolies. In fact, for many years, none of the investors dared to step into the sectors of public interest given the high initial cost, and the state is used to charging fees for the provision of these services. It was only with the advent of liberalization and privatization during the Thatcher era (privatization of British Telecom and the companies supplying gas) that they went into solving the problems that existed in all economies- existence of an enterprise for activities of common interest with special rights in the operations approved by the state. Previous resistance to the implementation of competition among enterprises of the public sector has brought a number of problems:

- The quality of services is often not at the satisfactory level;
- Inefficiency is often a feature of the sector;
- Throughout the European Union, prices for the same services of public sector enterprises are significantly varied;
- There was a significant technological backwardness in this area;
- Unequal conditions that exist for companies in the public sector in various Member States and the aggravated interconnection in order to reduce costs and rational operations.

The task of the Commission consisted of literal confiscation of exclusive state control over these areas, due to the fact that the importance of introducing competition was great, because it not only helps the technological development of these areas, but there are also social and financial implications, such as new jobs and reducing costs of citizens. The

Commission therefore defined Article 86, which primarily aims to point out one important fact, which is that no matter what the state, public sector enterprises shall not in any way hinder competition in the area in which they operate. This article very broadly interpreted the concept of the company and the state: in addition to public companies, it includes companies engaged in activities of common interest, enterprises with special rights and fiscal monopolies (exclusive rights granted by a state enterprise where it becomes a monopoly in order to guarantee state revenue- example is the tobacco industry). The concept of public enterprise refers to an enterprise that where a determining influence directly or indirectly, a state or local community through ownership, financing or managing board in which a company does not have to be independent from the state, but may belong to its economic activity. Special or exclusive rights are granted in objective and indiscriminatory manner, so that businesses of this title is to eliminate competition. However, such measures are not entirely prohibited between Member States if a law of the existence of such a company or enter into a concession agreement. Exclusive right pertains to monopoly, while special rights to something of a more complex nature. However, the rights under Article 86 cannot be awarded if they are not in accordance with Articles 81 and 82. Accordingly, the Court expressly prohibits assignment of these rights, for example in the field of telecommunications and television frequencies, with a special focus on geographic zones and signal interference of other media, which performs the abuse of dominant position by state television. In order for a company to perform activities of general interest, the Commission has defined three criteria that must be met cumulatively:

- Continuously meet the needs of the widest range of users, products and services;
- Equal conditions for all;
- Providing services at a cost without a significant profit.

Nonetheless, according to the provisions of Article 86, there are situations which the Court found to be caused by excluding the competition if such a state is absolutely necessary. Such is the case with distribution of electricity if costs have to be too high a price is too low. The Court ruled that the production, transport and distribution of electricity, at a single price for all consumers and by the same criteria, specific area, and throwing the competition disrupted the market situation. Something similar is also in the provision of postal services but only those which are of general interest with regard to the fulfillment of specific requirements of consumers that competition may be justified. Companies of general interest cannot perform all activities profitably, which is made up by so-called shifting resources from those activities that provide universal and uniform for all users, which makes up any loss.

### **3.1. Telecommunications**

The trigger that activated the work of the Commission in the telecommunications industry comes from two sources. First, as a result of the increased number of complaints about the abuse of the exclusive rights of national enterprises in the use of telecommunications equipment, and secondly, because the industrial sector has shown significant potential for the development of the competition and has done quite the impact on the flow of the European economy. Moreover, globalization and technological innovation also contributed. . Either way, the telecom sector has long been eager for the competition due to the heavy dominance of national monopolies upon the use of certain frequencies which led to transactions in the telecommunications market making almost 5% of the GDP of the European Union , which

is marked by the division of the market "the biggest" no possibility of creating a single market and the sector. The Strategy Committee has taken pursuant to this "Green Paper" in 1987 which is the regulatory framework consisting of three levels:

- The first level included the liberalization process, which included changing the entire telecommunications services to the European Union in 1990. (Satellite services and equipment, cable television, wireless services and network infrastructure, telephony and fixed network infrastructure, fax, modems and connection devices-receivers and routers).
- The second level of strategy involved the harmonization of standards in the market of communication or at least a process of standardization of the legislative framework in the Member States. hereby proclaimed aim of the Commission on the common principles of public networks and services, was confirmed by the Council Directive to regulate open network in 1990.
- Last, but not the least, for competition directorate is the third level that brought the innovations regarding the implementation of the competition rules in this sector, and the Regulation on the control of mergers in the case of telecom. Also, this level is possible with the application of Article 86 of easy investigation into the abuse of a dominant position by the largest mobile operators such as French and German telecoms.

Although the process of liberalization across all Member States already flowed, with an emphasis on all elements of such a strategy, through the mediation of the Commission, yet there was a broad framework of different targets that had to be achieved simultaneously:

- Publicize Single Market and its telecommunications infrastructure and services;
- Research and development innovations across the market;
- Unique fee for the development of services at a reasonable price;
- Financial stability;
- Contribution to economies of scale by leading companies;
- The primacy of European companies in terms of services in the global market.

Regardless of the contradictory goals and the possibility of politicization of the same, the Committee has succeeded in using their instruments to complete the entire story of the liberalization of the industry and continue to efficiently redirect the positive impact of the Single Market through its legislative tools to the competition. Continued development of this sector is reflected in the adoption of the Digital agenda, which follows the strategy of the Telecommunications until 2020, where the emphasis is put on the regulation of electronic communications and electronic commerce through a number of on-line services. The significant potential of the field of telecommunications is reflected in the fact that internet service European providers in major economies in the last five years make up 21% of GDP. The Commission's policy has played a significant role in the media sector in terms of transparency of the licensed rights to the television activity, especially for playing music online. In recent years, it was governed by the dominant position of Slovak and German telecoms and the Portuguese national operator. The Commission's implementation of the provisions of Articles 81, 82 and 86 carried by a member in the case of the largest Internet search engine Google in particular in the case of its application of AdWords relating to advertising campaigns. In the field of electronic media the decisions regarding the sector of e-book sales as fast-developed part of the digital economy were adopted. This is primarily thought to regulate the offer price and the prevention of distortion of

competition from major publishers such as Pearson Group, Macmillan, CBS Corporation. For the purpose of delimiting the rights of telecast of the strongest football leagues, the European Commission has adopted a program to prevent the distortion of competition. The importance of the role played by the Regulation on the control of mergers, which prevented musical productions such as Universal and EMI in setting up digital music platforms that are uncompetitive in pricing of listening and transfer of the music.

### 3.2. Energy

During the late eighties the Commission began with the strategy of liberalization and increased competition in this sector which was characterized by fragmented markets and high barriers to entry. Accordingly, the Commission has introduced a number of measures, which opened a new era in energy policy. The focus has been on electricity and gas. Globalization and technological progress have not become active in this sector so much, but on the other hand the various systems of production and distribution hampered the Commission to work with Member States. Thus, Germany's energy situation was quite complex given that there were a number of companies both large and small, while for example in France, there are only two state-owned enterprises for electricity and gas. In some countries, such as France, there are state-owned companies that had a monopoly in the sector and control, but in the UK for example, the energy model consisted of concluding contracts with foreign energy suppliers. The Commission due to all of this started making plans on the internal energy market on the European Union level. The arbitrary role of the Commission in this sector began in 1990 with the liberalization process that has brought the Council Directive on the promotion of transparent price of gas and electricity to the Directive on the transport of energy through the Member States. The plan of the process consisted in the opening quarter of the competitive market in January 1997, for those users who consume more than 100 gigawatt hours of electricity a year, which would mean that they themselves may be their energy supplier. The other part of the market for smaller users will get the prefix "competitive" when the conditions for it appear (for 20 gigawatt hours per year after 2000, a manual 9 gigawatt hours per year after 2003). It also proclaims the pillars on which the energy policy of the Union stands:

- Increase competition- involves the efficient allocation of resources across the single market through the implementation of competition rules, the creation of a regulatory framework for investment and punishment of the abuse of a dominant position. Thus, the Commission conducted an investigation of the Bulgarian Energy Holding of misconduct in the electricity distribution for enterprise customers;
- Sustainable development with environmental policy where state aid plays an important role in eliminating the negative effects on the environment and society that result from inadequate operating of companies, such as for example, help to companies in the UK to buy environmentally profitable vehicles in terms of emissions or help companies to use the waste to produce heat (Austria);
- Security of energy sector of the European Union is largely dependent on imports as they are producing only 48% of energy in comparison to their needs. Energy dependence differs through member states, so Denmark has become the sole exporter of energy, while the other Baltic countries are dependent on a single source of gas distribution. This sector of the EU also featured great needs for investment in infrastructure improvements. The Commission continues here with the investigation

and enforcement of competition law which was confirmed in the case of the Russian Gazprom- who used their position in the market to determine the pipeline map, map supply and price discrimination by tying the price of gas with the price of oil, and Czech national supplier of lignite (CEZ) who discriminated against power plants across the country; When talking about the distribution of gas two models are present. The first consisted of self-selection of suppliers by the user and in accordance with the network characteristics by determining the appropriate price and other terms of the unified distribution and gas prices throughout the EU, where the company is bound by long-term contracts than thirty years.

### 3.3. Transport

Common transport policy of the European Union was defined by articles 74-84 and accordingly, until the eighties little progress has been made in this sector in the field of competition. Initially, these members have allowed the Commission to use its authority in a competition conducted by road, rail and river transport and the regulation of maritime and air traffic remained due to their complexity so the national authorities of the Member States retained their jurisdictional law in these areas. However, the 1987 decision of the Council of Ministers adopted the rules of competition in the field of maritime and air transport industries. The Commission has had the difficult task of breaking the strong state monopolies and international cartels that controlled everything related to aviation industry and with transport ranging from manufacturing to route flights. Strong companies in the transport sector have lost their reputation because they were not cost-competitors. This, in addition to knowledge of the violation of the competition, discouraged potential customers more and more. Step by step, modeled on the American system of deregulation in this area, the Commission has failed to create a competitive market where every carrier formed a proposition. This enabled harmonization in the performance of all transport activities from passenger transport to logistics because it enabled everyone to do business equally. Strategy for the revitalization of transport at EU level in 1996 enabled the efficient monitoring of state aid and prevented manipulation by price and quality. The main objectives of this strategy are:

- The fight against uneven regulation and barriers to entry,
- Prevention of concentration in the airline sector,
- Equitable distribution of state aid to rail transport,
- Providing equal services and fiscal incentives in maritime traffic by port authorities

## CONCLUSION

The European Commission has continued to promote competition policy in 2015 to highlight its importance in the functioning of the EU market. The most important asset of this policy in promoting the single market is anti-cartel policy, the implementation of the regulation of mergers and state aid control policies. After the promotion of the twentieth anniversary of the founding of the European single market and cooperation between the Commission and the national courts of the European Network of competition, there has been a systematic and continuous work to improve the legal framework for specific sectors such as financial services, energy, telecommunications and postal services, the pharmaceutical industry, the market of "smart" phones and electronic shopping, music and IT industries,

and transport. The economic and financial crisis has led to a significant increase in market share of country life businesses with the result that the state aid only in the banking sector from October 2008 to December 2012 amounted to 1.6 trillion euros, or 13% of the GDP of the European Union.

The contribution of state aid policy is crucial for the survival of the integrity of the single market, which led to the fact that member states create a sustainable strategy for state aid policy until 2020. This will help the European Commission to better identify market distortions and direct the "good government assistance," according to regions and companies that will find the proper way to take advantage of these investments. In the end, the Commission launched an ambitious program entitled "Modernization of the State aid" which aims to assist member states in the legal and economic regulation of this aid through budget framework, in a manner that will correct its policy of public expenditure transparency contributing to the development of investment projects of European interest.

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## UTICAJ POLITIKE KONKURENCIJE NA DRŽAVNU POMOĆ I JAVNI SEKTOR U OKVIRU JEDINSTVENOG TRŽIŠTA EVROPSKE UNIJE

*Kompetitivno i dobro organizovano tržište je imperativ efikasne ekonomije. Prvo, zbog toga što konkurentna tržišta pomažu u korekciji distorzija u okviru proizvodne strukture, što vodi povećanju produktivnosti, i drugo, što jača konkurencija uzrokuje podsticaj proizvođača na smanjenje cena, veći kvalitet i povećanje raznolikosti. Politika konkurencije ima za cilj restrikciju neekonomskih oblika ponašanja privrednih subjekata koja dovode do tržišnih distorzija. U radu će biti prikazane osnovne karakteristike Politike konkurencije Evropske unije kao i njen istorijski razvoj, osnovni elementi i metodološki okvir. Pored toga ovaj rad prati reforme, tendencije u razvoju i primere iz sudske prakse Politike konkurencije Evropske unije sa osvrtom na članove 81. (zabrana restriktivnih sporazuma, tj. kartela) i 82. (zabrana zloupotrebe dominantnog položaja) Ugovora o EU.*

Ključne reči: *Politika konkurencije, Evropska unija, restriktivni sporazumi.*





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