

## PEST Analysis of Serbia\*

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**ABSTRACT** – *The main purpose of this paper is to examine the impact of the current Serbian macro-environment on the businesses through the implementation of PEST analysis as a framework for assessing general or macro environment in which companies are operating. The authors argue the elements in presented PEST analysis indicate that the current macro-environment is characterized by the dominance of threats and weaknesses with few opportunities and strengths. Consequently, there is a strong need for faster implementation of structural changes in order to eliminate or minimize the impact of weaknesses and threats of the current macro-environment and create more favorable business climate that would enable companies to formulate effective strategies and to raise their business performances.*

**KEY WORDS:** *Pest analysis, Serbia, business climate, macro-environment, strategic management, enterprises*

### Introduction

The main purpose of this paper is to examine the impact of the current Serbian macro-environment on the businesses entities. The paper aims to: a) indicate the importance of monitoring the macro-environment in the modern world, b) present the concept of PEST analysis as one of the key instruments for monitoring the trends in the macro-environment; c) analyze actual trends in key segments of the macro-environment of Serbia and d) identify the impact of macro-environment factors on the business performances of the Serbian enterprises.

Operations of business entities are not done in a vacuum, but in the constellation of many factors, which directly or indirectly, more or less influence the efficiency of the companies. Without taking into account the impact of relevant environmental factors, it is not possible to formulate an adequate strategy or to conduct profitable business. So, in order to be

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successful, the company and its management has to take into consideration what is happening in the environment - to examine the opportunities and threats and to respond to the changes, all leading to formulation of adequate strategy for taking advantage of opportunities and minimize threats in the environment.

The environment can be classified in different ways, but most often the division is made based on quality of effects: the positive (a lot of chances, a little threats, relatively easily predictable, without a lot of norms with limiting character) and negative (a lot of danger, full of threats, unpredictable, with lots of restrictive norms); dynamics: a stable and predictable with small changes, dynamic with large and predictable changes and turbulent - with large and unpredictable changes; and possibility of control and the degree of influence of the environment: external (macro and industry) and internal (Todorović, J. 2003).

Regarding business activities of enterprises, it is important to monitor changes occurring in the macro-environment, having in mind that those factors of the environment significantly affect the quality of the business performances. The intensive changes of business conditions are an important characteristic of the modern world. The best evidence supporting this statement is the world economic crisis and the changes that it has brought this in terms of business performances of individual countries. Examples of countries considered successful until recently (Ireland, Iceland, maybe tomorrow some other country) are facing the huge crisis that has negative and in some cases devastating effects on businesses of corporations.

In such circumstances, with increasing speed and volume of changes, which are especially characteristic for recent years, the need to conduct an external analysis, including analysis of the macro-environment, in contemporary terms becomes increasingly important and has greater influence. Having this in mind the basic objective of this paper is to examine the impact of general economic environment to the business entities in Serbia through the implementation of PEST analysis

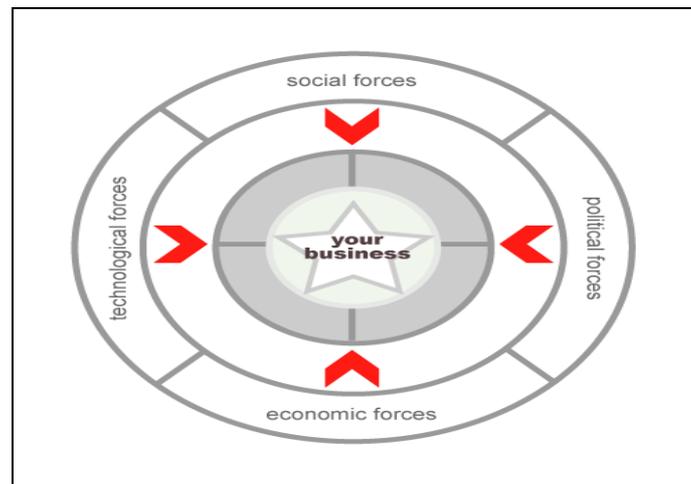
## **Literature review and methodology**

The conceptual framework of PEST analysis is used as the primary method for identifying the influence of the macro-environment on the strategic and operational management processes of economic entities. Namely, PEST analysis is a useful tool for understanding changes in the market, the business situation and defining the potential and direction of future activities (Kotler, P. 1998).

PEST analysis is a common conceptual framework for analyzing the macro-environment (PEST-acronym: Political, Economic, Socio-cultural, Technological):

- P - Political and institutional environment
- E - Economic environment
- S - Socio-cultural environment
- T - Technological environment

Figure 1. Scheme of PEST analysis concept



Source: *Envisioning Strategy*, [http://marketsmart.co.nz/?page\\_id=117](http://marketsmart.co.nz/?page_id=117)

There are also numerous extended variants of the PEST analysis, such as PESTEL, or PESTLE, which include as a separate element an analysis of the legal (Legal) and environmental (Ecological) as a separate element or STEEPLED, indicating that even demographic environment should be analyzed in particular (Byars, L. 1991; Cooper, L. 2000; Coutler, M. 2010).

Consideration of P - political and institutional environment implies primarily analysis of the impact of political and legal parameters, and especially some specific laws and regulations governing certain activities (e.g. environmental protection, consumer protection, antitrust law, labor law, etc.). Also, the analysis of political and institutional environment implies certain perceived political changes (the stability of government, elections, political trends, etc.) that can have a powerful impact on business activities (Thompson, J. 2002).

Consideration of E - economical environment includes analysis and forecasts of basic macroeconomic indicators and parameters (economic trends, taxes and tax administration, exchange rates, interest rates, trends in employment and unemployment rates, etc.), as well as changes in business conditions and economic policy which can have very direct influence on business conditions and economic performance.

S - socio-cultural environment involves understanding, analysis and forecast of basic socio-cultural indicators, such as customs, beliefs, attitudes, culture, lifestyle, etc. Also, analysis of the social environment includes an analysis of key demographic indicators, which are of strategic importance (population, age and gender structure of population, qualifications structure, geographic dispersion of population, income levels and distribution of income, other demographic indicators).

T - Technology segment involves understanding, analyzing and forecasting the main technological parameters, primarily the development and implementation of new manufacturing technologies, new information technologies, new materials, obsolete technology, technology transfers, etc.



The macro-environment of various countries and industries has been extensively analyzed based on the PEST analysis concepts. Starting from the author experience in the analysis of the economic environment in Serbia (Stošić et. al. 2009), and based on earlier research conducted on specific elements of the macro-environment (Stošić, I. 2007), the paper attempts to point out to the key problems of the current business climate and its effects on conducting the business and implementation of structural changes in Serbia.

Starting from the mentioned conceptual framework for the implementation of PEST analysis, and limiting to key elements and characteristics of the macro-environment, current PEST analysis of Serbia is presented below.

## **Results and discussion**

**P - Political and institutional environment** – During previous period, starting from 2001, Serbia has become a member of all key international organizations: UN, OSCE, IMF, World Bank, EBRD, Council of Europe, CEFTA and the Partnership for Peace program of NATO.

In April 2008 the Stabilization and Association Agreement (SAA) between Serbia and the European Union (EU) was signed. In early 2010 Serbia had submitted a formal request - candidacy for EU membership and had actively worked towards meeting the action plan to accelerate the gaining of candidate status. In March 2012 Serbia was finally granted candidate status for EU membership.

However, despite great progress, the existing political and institutional environment can not be considered stable enough and propulsive. In particular, from late 2000, intensive transition process characterized by the adoption of numerous new laws and establishment of a large number of new institutions (agencies, independent regulatory bodies, etc.) has started in Serbia. Only in the last four years, the National Assembly of Serbia adopted nearly 1,000 legal acts, including numerous laws. Comprehensive reform of the legislation affected the "anatomy and physiology" of the business in Serbia. Changes in this area were numerous and great, but unfortunately, often incomplete, since the adoption of new laws was not accompanied by the adoption of a number of secondary regulations, which would allow the operationalization and implementation of new legislation.

Also, current trends are strongly influenced by political factors related to the upcoming elections, the pace of EU accession and the eventual determination of the starting date for negotiations with the EU. Serbia is also significantly burdened with the problems relating to the status of Kosovo and Metohija.

For successful operation of business entities the existence of a stable, not too prohibitive political and institutional environment is crucial. Unfortunately, everything mentioned above indicates that the impact of the current political and institutional environment on the management of strategic and operational management, despite significant progress, is not too favorable primarily due to a number of changes, ambiguities of political reforms and present risks.

**E – economic environment** – Serbian economy in the period 2001–2008 was characterized by dynamic growth of Gross Domestic Product (GDP) with annual average rate 5.4%, which is mostly driven by growth of so-called tertiary sector (services), followed by increase in



international exchange and internal demand, then increase in investments based on large inflow of foreign capital due to different reasons. GDP per capita in 2008 in Serbia reached the level around 4445 EUR.

Nevertheless, after long period of growth, Serbian economy in 2009 stepped into recession, mostly under the influence of global financial crisis. Switching from the expansion to recession shed light on many weaknesses of domestic economy (high trade deficit, low level of competitiveness, high rate of unemployment, etc.) and emphasized issue of large budget deficit and possibilities for its financing.

Serbian economy in 2010 recorded slight recovery and first signs of recession exit, reflected mostly through growth of GDP, resurging of industrial production, increase in export, households savings, foreign currency reserves, etc.

*Table 1. Basic indicators of economic trends in Serbia in the period 2008-2011*  
Indexes – previous year = 100

	2008	2009	2010	2011
<i>Gross Domestic Product</i> <sup>1</sup> – Constant prices 2002	103,8	96,5	101,0	101,9
<i>Physical volume of production</i>				
Industry	101,1	87,9	102,5	102,1
Agriculture	108,5	101,0	99,4	100,8
Construction	104,2	80,1	93,7	117,7
<i>Wholesale and retail</i> <sup>2</sup>				
Wholesale turnover– constant prices	117,0	102,7	111,1	117,3
Retail turnover - constant prices	106,7	85,1	100,5	82,4
<i>Transportation – total</i>	100,4	85,2	106,2	108,1
Transport of passengers	102,2	86,6	101,8	109,0
Transport of goods	95,3	81,1	120,8	106,0
Postal and telecommunications	139,0	128,1	...	115,6
<i>Catering</i>	101,0	88,8	99,5	101,5
Tourists – nights	100,1	92,2	94,9	104,2
<i>External trade</i>				
Import in USD	124,3	76,0	117,4	120,3
Export in USD	124,0	70,7	104,2	120,2
<i>Employees</i>	99,9	94,5	95,1	97,2
<i>Prices</i>				
Consumption prices	111,7	108,4	106,5	111,0
Inflation – current growth	108,6	106,6	110,3	107,0
<i>Average wages net of taxes and contributions</i>				
Nominal – total	118,0	108,8	107,6	111,1
Real – total	103,9	100,2	100,7	100,3

Source: Statistical Office of the Republic of Serbia

<sup>1</sup> Estimation for 2010 and 2011; Source: Data of Serbian Statistical Office, 2012.

<sup>2</sup> Net of vehicles retail



Unfortunately, during 2011 recovery has started to diminish gradually. Since the beginning of second, and especially third quarter in 2011, almost all leading macroeconomic indicators have indicated slowing of the economy growth. At the same time, regarding the expectations of second wave of global crisis, risks of new recession have emerged. Accordingly, modest level of domestic demand in line with decrease in real wages and pensions has reflected on the decrease in turnover and limitations on possibilities for successful operations of considerable number of business entities. Financing of the ongoing production was also adversely affected, due to the high interest rates and extension of payments settlement, and number of illiquid enterprises turned to be very large. All of these worsened the situation on labor market, too, which recorded unfavorable movements in 2011.

Taking into consideration indicators of basic economic variables in 2011, the following remarks could be observed:

- Total economic activity in Serbia, after the favorable results in first quarter, when 3.4% growth of GDP was recorder, started to slow down. Consequently, 1.9% of GDP growth in 2011 was estimated, which was far below from the initial expectations.
- As the consequence of slowing down of economic activity, interruption of wages and pensions growth, as well as under the influence of uncertainty and consumption restraints, demand on domestic market in 2011 was on very low level. Beside this, particularly unfavorable movements were recorded in households' consumption. At the same time, in 2011 investments increased. The structure of domestic demand in 2011 relative to 2010 was characterized by investment growth (from 18.8% to 20.4%), mostly due to investments of Fiat and NIS, as well as investments in infrastructural projects), decrease in government consumption (from 19.2% to 18.8%) and decrease in households consumption (from 79.3% to 77.2%).
- Industrial production increased in 2011 for 2.1%. However, during the second, and especially third and fourth quarter, growth of industrial production recorded the slowdown. Accordingly, industrial production in Serbia, apart from the recorded growth in 2011, failed to reach pre-crisis level in 2008.
- The total foreign trade of the Republic of Serbia in 2011 was increased by 20.3% and amounted to USD 31,916.1 million
- In 2011 export of the goods was 11,767.7 millions USD, or 20.2% higher relative to 2010, while import was 20,139.4 millions USD or 20.3% higher relative to previous year. Export generally was affected by slowdown of economic activity worldwide, thus during the several last months in 2011 it was considerably lower.

Such trends in international trade had an impact on continuation of decrease in deficit and improvement in cover of import by export. In 2011 trade deficit was 8,362.7 millions of USD or 20.5% more than in 2010. At the same time, coverage of import by export was equal as in previous year at the level of 58.5%.



Although in 2011 certain positive trends in export were recorded, products of lower level of manufacturing traditionally dominated. More specifically, in 2011 structure of export was dominated by products for the further reproduction 60.8% (12,253.4 millions of USD), then consumption goods 19.7% (3,972.1 millions USD) and equipment 13.4% (2,690.7 millions USD). The main export markets for Serbia in 2011 were Germany (1,329.7 millions USD), Italy (1,307.5 millions USD) and Bosnia and Herzegovina (1,191.2 millions USD).

In 2011 value of import also significantly increased. The products for the further reproduction dominated in the import structure according to the product use (12,253.4 millions USD) with 60.8% share, followed by consumption goods (3,972.1 millions USD) and equipment (2,690.7 millions USD) with shares 19.7% and 13.4% respectively. Unclassified goods participated with 6.1% (1,223.2 millions USD). The main import partners were Russian Federation (2,657.1 million USD), Germany (2,176.3 millions USD) and Italy (1,801.7 millions USD).

The biggest international trade exchange was realized with countries that signed the free trade agreements with Serbia. The EU member countries participated in Serbian international trade exchange with more than 50% (primarily Germany and Italy, then Austria and Hungary). More specifically, the largest surplus was recorded with Montenegro, Bosnia and Herzegovina and Albania. The largest deficit was recorded in trade with Russian Federation due to the import of oil and gas, then China, Germany and Hungary.

- Current account deficit in 2011 was larger for 885 millions EUR relative to the previous year and recorded the value of 2,967.8 millions EUR, mainly due to the increase in trade deficit and to the certain extent due to the increase of net outflows of income, more specifically net outflows of interest and income of foreign direct investments.

The total balance of payments in the 2011 recorded the 1,801.5 millions EUR surplus, while 928.7 millions EUR deficit was recorded in the same period in 2010.

- External Serbian debt by the end of December 2011 was around 24.125 billions EUR. The external debt of public sector was 10.8 billions EUR, wherein over the 80% belongs to central government. The debt of private sector was 13.3 billions EUR, wherein around two thirds was created by the companies and one third by banks.

- Prices of consumption goods in December 2011 relative to 2010, increased for 7.0%, while average annual growth was 11.0%. With such increase, at the end of 2011 interim inflation reached the upper limit of targeted inflation (6%). The key driver of inflation decrease, which was quite high in 2011 especially in the first half of the year, was diminishing of cost pressures on prices of manufactured food, decrease in inflation expectations and low level of aggregate demand.

- Restrictive monetary policy implemented at the end of 2010 and the beginning of 2011, was relaxed in the second half of the year 2011. This was observable throughout decrease in reference interest rate (as well as change in policy of reserves). Namely, National Bank of Serbia in Jun 2011 decreased reference interest rate (due to the diminishing inflation pressures) and at the end of the December 2011 it was 9.75%.

At the end of 2011 foreign reserves of the Republic of Serbia were at satisfactorily high level (covering about eight months of imports, and about 430% of the money supply M1) and

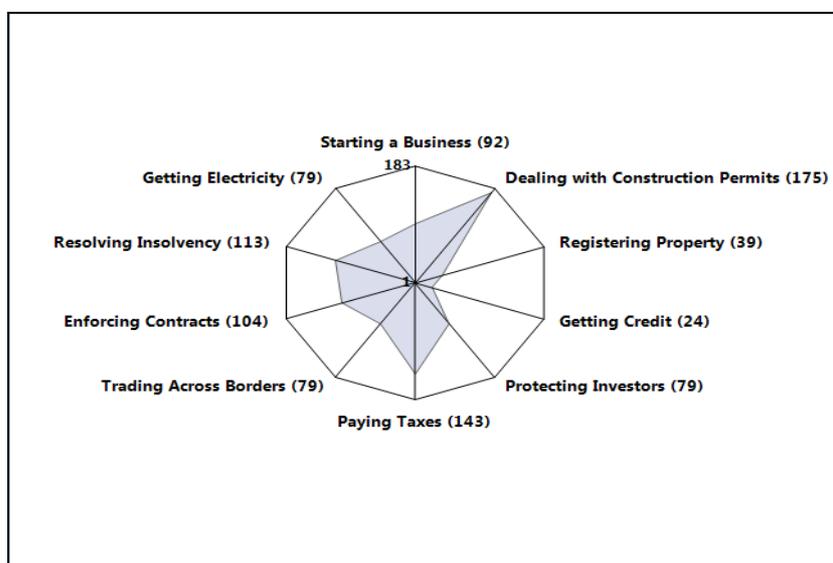


amounted to 12.06 billion EUR, with the net foreign reserves of the National Bank of Serbia (net of foreign currency by banks mandatory reserve, as well as withdrawals from the IMF) stood at around EUR 6.66 billion.

Previous 2011 was characterized by high short-term volatility, but the exchange rate at the annual level was stable, with minimal intervention of the National Bank of Serbia (net sales of 45 million EUR, mainly in December). In 2011 Serbian currency dinar lost significantly less than the value of other currencies in the region (the Hungarian currency has depreciated by 11.7%, Poland 10.8%, Turkey 3.8%, Czech Republic 3.5% and Romania 2.5%).

Trend of dinar nominal depreciation started during the global financial crisis was followed by the real depreciation of dinar in 2009 and 2010, which improved the competitiveness of enterprises in the sector of tradable goods and led to a significant increase in exports to the EU. On the other hand, real depreciation adversely affected the balance of companies which have taken foreign currency loans without hedging foreign currency risk. The inflation rate is higher than the target, and the growth of unit labor costs have led to real appreciation of the exchange rate in the second half of 2010, which adversely affected the competitiveness of the economy. Although it is likely that National Bank of Serbia (NBS) will not allow sudden changes in exchange rates and that the trend of nominal depreciation will continue in the future, the high exchange rate fluctuations, which are significantly higher than Serbia in the region (Vlastimir Vuković, and Aleksandar Zdravković, 2011) and NBS problems with inflation control have the negative impact on businesses operating abroad and financed by borrowing abroad.

Figure 2. Global Ranking of Serbia in terms of business conditions



Source: <http://www.doingbusiness.org/~media/FDPDKM/Doing%20Business/Documents/Annual-Reports/English/DB12-FullReport.pdf>

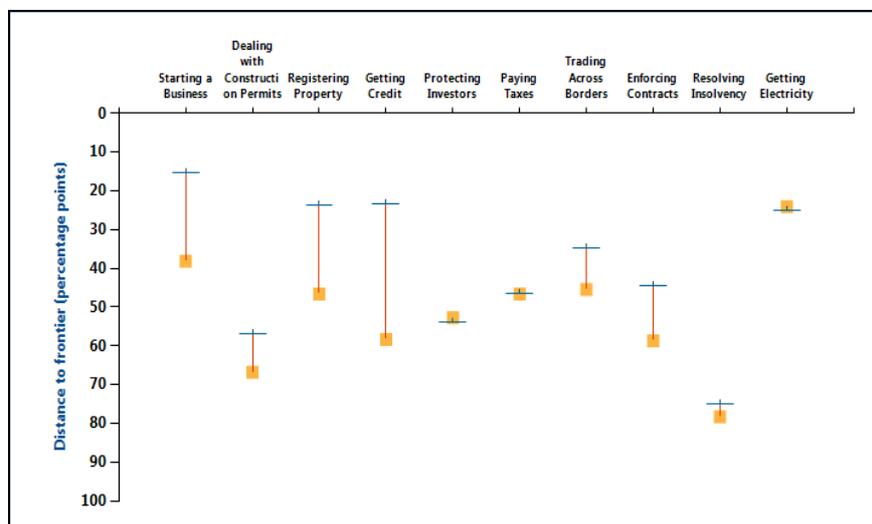
The current economic and market environment in Serbia is not very favorable and competitive compared to other countries in the region. Surveys of the World Bank, presented



the report "Doing Business 2012", where conditions were analyzed based on 10 parameters in terms of ease of doing business (starting from the commencement of business, securing permits, hiring, lending to business opportunities through the protection investors, contracts, and the closure of businesses) indicate that the business environment in Serbia in 2011 is ranked at 92<sup>nd</sup> position among 183 countries.

In World Bank reports 2008 Serbia occupied 86<sup>th</sup> position in 2008, 90<sup>th</sup> position in 2009, 90<sup>th</sup> position in 2010, and 88<sup>th</sup> position in 2011. Of particular concern is that changes in terms of improving business conditions in Serbia are very slow in almost all areas of business, except for start-ups, registering property and getting credit. While other Western Balkan countries (notably Macedonia, Albania and Croatia), according to the World Bank assessments, progress in terms of business conditions, Serbia stagnated or falling behind.

Figure 3. Improvement in conditions for business in Serbia in the period 2005-2011



Source: <http://www.doingbusiness.org/~media/FPDKM/Doing%20Business/Documents/Annual-Reports/English/DB12-FullReport.pdf>

The existing unfavorable ranking of Serbia in terms of business conditions is caused by many factors, including the following:

- For the establishment of enterprises in Serbia 7 different procedures are required, averaging 13 days. In addition, the rank of Serbia, when it comes to establishing and developing business enterprises lowered in 2011 year (92<sup>nd</sup> position) than in the previous year (81<sup>st</sup>). It is obvious that the conditions in other countries for the establishment of enterprises, particularly SMEs, significantly improved compared to Serbia. Last registered reforms and changes in the legislation, which decreased 11 required procedures, and shortened the time required for the establishment by 23 days, were carried out in 2009;
- In obtaining various types of permits for construction, power connections, telephone, approvals from inspections and other agencies necessary to launch the business, companies are faced with 19 procedures, for which fulfillment is needed



to spend on average 279 days. In this respect, Serbia is lagging behind the average for Central and Eastern Europe and holds the highly unfavorable 175<sup>th</sup> place among 183 countries in the world;

- In terms of registering property Serbian recorded enormous progress. Registering property now requires 6 procedures and takes on average 11 days instead of the previous 91 days. Thanks to reforms in 2011, the registration has been reduced, allowing Serbia to improve its ranking from 98<sup>th</sup> to 39<sup>th</sup> position;
- When it comes to getting credit, Serbia has a very solid position and in terms of this indicator has the highest rank among all the indicators that are analyzed by experts of the World Bank (24<sup>th</sup> place);
- In terms of investor protection Serbia holds 79<sup>th</sup> position and in that respect is better ranked than many neighboring countries. However, because of the implementation of further reforms in this area, Serbia has deteriorated its rank over the previous year for five positions (Macedonia, Bosnia, and Croatia);
- Republic of Serbia is among the countries with a complex system of taxes – annually it is required to make payments 66 times. For the preparation, calculation and payment of taxes and other obligatory giving, companies even spend 279 hours and in addition the total system is not transparent enough. No significant changes were registered in this regard over the last three years, and in this respect Serbia is at 143<sup>rd</sup> unenviable position!
- In terms of foreign trade liberalization Serbia takes 79<sup>th</sup> position (one lower than year before), but since 2007 no significant reforms have been registered in this area;
- Processes of business terminations and the companies shut down still take too long and cost too much. Yet in this field are observed certain changes, which improved the rank of Serbia – from 101<sup>st</sup> position in 2009 to 86<sup>th</sup> position in 2011;
- The efficiency of the legal system is not satisfactory. To charge disputed claims arising from commercial contracts in Serbia, one should spend on average 495 days and go through 36 procedures, and costs of liquidation of receivables from insolvent companies is very high (on average about 31%). No changes are registered in this regard over the last three years!

It is disturbing that the analysts at the World Bank Report "Doing Business 2012," noted the progress in relation to previous report on only one area (the registration of ownership of property). In the same period, the FYR Macedonia has made reforms in four areas and improved its ranking from 34<sup>th</sup> to 22<sup>nd</sup> position. Rank of Montenegro remained unchanged despite the reforms in three areas. B&H has made reforms in two areas, but it was still the lowest ranked country in the Western Balkans in terms of business conditions. Albania has made reforms in one area and deteriorated its rank in the previous year by 5 places. Croatia has made reforms in one area and worsened its ranking over the previous year in one place.

*S - socio-cultural environment* – Among many factors surrounding this segment we will retain our focus on only two of them, which are especially important in understanding the impact on the consumers purchasing power and consumption models (Kotler, 1998), which



are related to trends in earnings and consumption, as well to the movement of employment and unemployment.

*Table 2. Business conditions in Serbia and the countries in the region*

Criterion/Country/Rank	Serbia	Macedonia	Montenegro	B&H	Albania	Croatia
Starting a business	92	6	47	162	61	67
Dealing with construction permits	175	61	173	163	183	143
Getting electricity	79	121	71	157	154	56
Registering property	39	49	108	100	118	102
Getting credit	24	24	8	67	24	48
Protecting investors	79	17	29	97	16	133
Paying taxes	143	26	108	110	152	32
Trading across borders	79	67	34	108	76	100
Enforcing contracts	104	60	133	125	85	48
Resolving insolvency	113	55	52	80	64	94
Business conditions	92	22	56	125	82	80

*Source: World Bank: Doing Business, 2012.*

The existing level of wages and pensions is among the lowest in the region. The average net wage paid in 2011 totaled 37 976 RSD, or about 360 EUR, and average pension totaled 21 189 RSD, or about 200 EUR.

The major part of personal income population is primarily spent on the basic essential needs (about 58% of salaries and pensions are being spent on food, drink and accommodation), which has a limiting effect on the development of a number of productions for the domestic market. This fact is not making a market of Serbia being too attractive for foreign investors.

At the same time, under the influence of uncertainty and refraining from spending in times of crisis, and in terms of weakening the purchasing power to demand and restructuring essential needs, the demand on the domestic market was low in 2011. As a result, the turnover of retail trade was, comparing 2011 to 2010, decreased by 7.3% in current prices and by 16.7% in constant prices. Neither the improved conditions of sale (through deferred payment of up to 90 days) nor available consumer bank credits failed to stop the high real decline in volume of turnover in retail trade.

Serbia has a low employment rate (only 49% of the population aged 20-64 years is employed, while the EU average is 68%) and high unemployment (23.7%, which represents one of the greatest economic and social problems of our society). Economic crisis had a large negative impact on the labor market of Serbia in the last three years. As a result, the total



number of formally employed in 2011 was 1746 thousand, which represent the reduction of about 260 thousand compared to 2008, while the unemployment rate, according to the Survey of labor force in the Republic of Serbia, reached a record level of 23.7% in November 2011.

**T - technological environment** – The latest Innovation Union scoreboard report, which is intended to assist in monitoring of the implementation of leading initiative "European Union 2020 innovation" through a comparative assessment of innovation performance of the EU27 member states and the relative strengths and weaknesses of their research and innovation system, shows that Serbia is a country with the largest relative increase in public spending in R&D in 2011<sup>3</sup>. Serbia doubled its public investment in R&D in 2011, reaching 0.65% of GDP<sup>4</sup>. Also, Serbia has increased the allocation for this purpose by 22% over the past 5 years, more than any other country in Europe (average growth among the EU27 countries was 4%, while the most successful EU states in 2011 Luxembourg and Portugal had 19% and 13% growth respectively).

However, allocations of enterprises for research and development in the past five years have been declining (8% EU average). Industrial growth and employment are dependent on the part of industry that can not rely solely on their own resources, knowledge and innovation in order to fully benefit from certain competitive advantages (production, location, infrastructure, etc.) and contribute to structural adjustments in the manufacturing sector industry of national economy. It is unrealistic to expect that this sector will be able to create conditions for the production, with high added value that depend on long-term research and development projects or application of process and organizational innovations, without adequate and controlled support from the state.

Innovation gap of Serbia is best illustrated by the fact that Serbia is at the 29<sup>th</sup> position out of 34 European countries and belong to the last group of countries with a modest system of innovation and with even modest impact on their economy. Weakness of Serbia is the intellectual property, including patents, registered under the international agreement on patents. Revenue from overseas patents and licenses of Serbia is at the 46% of EU average.

In terms of innovation relative advantage of Serbia lies in human resources, transparency, quality and attractiveness of the research system and the effects (results). When it comes to education, Serbia has above-average results by the percentage of young people between 20 and 24 who have completed secondary education, while in terms of people between 30 and 34 with tertiary education Serbia is at 59% of EU average. In a new national research project cycle (2011-2014) a total of 11,615 researchers are involved, of which 1,714 of them are young researchers under 30 years of age who were included in the project for the first time. One third of the national scientific capacity for is to be engaged within large interdisciplinary projects<sup>5</sup>.

Information and communication technology (ICT) is the infrastructure of the knowledge-based society. The speed of transition to knowledge-based society depends on the quality

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<sup>3</sup> Maastricht Economic and Social Research Institute on Innovation and Technology, 2012.

<sup>4</sup> Coordination of Research Policies with the Western Balkan Countries, 2011.

<sup>5</sup> Ibid.



and scope of application of ICT in all spheres of society (business, public and private life). The positive trend of development of information and communication technologies, however, the development of ICT is still not sufficiently robust to Serbian reached the EU27 average and the advanced countries in the region<sup>6</sup>. The research results of the Statistical Office show that Serbia has over 2.4 million Internet users in 2010, an increase compared to 2009 by 2.3%. The greatest use of the Internet is in companies (97%) which is approximately the level of the EU27 average (98%) and most EU countries. However, the use of the Internet in households (39%) is significantly below the EU27 average (70%) of all member states except Bulgaria (33%). Concerning usage of internet by individuals Serbia has a slightly better position (44%), although it is significantly below the EU27 average (71%) and all EU members. Besides the increase in the use of the Internet, the same trend follows areas of e-business and the introduction of e-government<sup>7</sup>.

## Conclusion

For current and c business of enterprises it is of particular importance to consider the changes occurring in the macro-environment, as the factors of the environment significantly affects the quality of the business.

This paper is an attempt to systematically, through the conceptual framework of PEST analysis, examine issues regarding the impact of macro-environment on strategic and operational management processes of economic entities in Serbia. The current state of key elements of the macro-environment in Serbia based on observation and analysis performed by authors can be summarized as follows:

*Table 3. PEST Analysis of Serbia - key elements*

Opportunities	Threats
<b>P - Political and institutional environment</b>	
The EU accession process – candidate status	Political instability - the electoral cycle
The adoption of numerous laws harmonized with EU practices	Problems related to the status of Kosovo and Metohija
Obtaining a Schengen visa	Implementation and enforcement of laws
Strengthening accountability and efficiency of executive authorities	The high level of corruption
	Political influences in governing state-owned enterprises
<b>E - Economic environment</b>	
A satisfactory level of macro-economic stability	Turbulent business environment
The increased interest of foreign investors	Recession risk
The development of agriculture, energy, infrastructure	Slow and incomplete structural reforms
Reindustrialization of Serbia	The high budget deficit and its financing
Encouraging entrepreneurship and SMEs	The level of public spending

<sup>6</sup> Ministry of Finance, Republic of Serbia, 2011a.

<sup>7</sup> Statistical Office, Republic of Serbia, 2012.



Opportunities	Threats
	Loan terms
	The growing public and external debt
	Fluctuations of exchange rate
	Poor results of privatization
	The high level of informal economy
	Low energy efficiency
<b>S - Socio-cultural environment</b>	
The existing human capital	The low employment rate and high unemployment rate
	Declining of population and its aging
	The low purchasing power and living standard
	Worsening situation of vulnerable groups
	Social Inclusion
<b>T - Technological and environment</b>	
Increased public investment in R & D	The lag in innovation
Advances in ICT technologies, increased use of electronic commerce	Low private sector investment in R & D
Increased investments in the modernization of industry	"Brain drain"
The level of education, open research systems	

Unfortunately, the performed PEST analysis of Serbia indicates that the impact of the current macro-environment is not very favorable for the business. Namely, the elements presented in PEST analysis indicate that the current macro-environment is characterized by the dominance of threats and weaknesses with few opportunities and strengths. Consequently, there is a strong need for faster implementation of structural changes in order to eliminate or minimize the impact of weaknesses and threats of the current macro-environment and create more favorable business climate that would enable companies to formulate effective strategies and to raise their business performances.

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## PEST analiza Srbije

**REZIME** - Glavni cilj ovog rada je da ispita uticaj trenutnog srpskog makrookruženja na preduzeća kroz implementaciju PEST analize kao okvir za procenu opšteg ili makro okruženja u kojem posluju. Autori raspravljaju o tome da elementi predstavljeni u PEST analizi ukazuju na to da trenutno makro okruženje karakteriše dominacija pretnji i slabosti sa nekoliko mogućnosti i prednosti. Shodno tome, postoji snažna potreba za bržu implementaciju strukturnih promena u cilju eliminisanja ili minimiziranja uticaja slabosti i pretnji trenutnog makro okruženja i stvaranje povoljnije poslovne klime koja će omogućiti kompanijama da formulišu efektivne strategije i da poboljšaju svoje poslovne performanse.

**KLJU:NE REČI:** Pest analiza, Srbija, poslovna klima, makro okruženje, strategijski menadžment, preduzeća

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