

INNOVATIVE ORGANIZATION, INNOVATION, AND INNOVATION UNION SCOREBOARD

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***Summary:** This paper presents an overview of the key features of innovative organization, characteristics and properties as a function of the realization of a long-term competitive advantage. The paper explains the innovation in the process of achieving improvements that lead to useful positive changes and increase the value of the work of an individual or organization. The results of Innovation Union Scoreboard for 2013 in Serbia are also presented in the paper.*

***Keywords:** Innovative organization, innovation, Innovation Union Scoreboard*

1. INTRODUCTION

The latest approaches to technological innovation complement models that perceive its emergence in connecting technical capabilities and market needs. These approaches do not rely solely on marketing and research and development (R&D), but they are considered in conjunction with all the factors that influence an organization that is still flexible and open to the environment. The model that represents the process of innovation is influenced by two main groups of environmental factors: the state of technical knowledge and usage of products and processes, as well as the needs and demand for new products and processes. Innovation Union Scoreboard (IUS) is a new tool of the European Commission for assessment and comparative analysis of the innovation performance of EU member states and associated countries and for defining the strengths and weaknesses of their research and innovation systems. This instrument should allow monitoring of the results of Innovation Union as one of the seven most important initiatives of the Europe 2020 Strategy for sustainable and inclusive knowledge-based economy.

2. INNOVATIVE ORGANIZATION

The model that represents the process of innovation is influenced by two main groups of factors from the environment: the state of technical knowledge and usage of products and processes, as well as the needs and demand for new products and processes. A key feature of innovative organizations (IO) is to achieve long-term competitive advantage.

Integrative model that links the four components of outstanding competence in achieving competitiveness of enterprises includes the following:[1]

- *managerial competence and strategic focus* - this factor holds the central position in relation to other factors, i.e. extreme competence can be achieved by the actions of top managers in the organization. Management imposes conditions in the environment, in a special way interprets the strengths and weaknesses of an organization thus influencing the awareness of employees regarding the goals of the organization.
- *resource-based competency* - a resource is anything that can be considered a strength / weakness of a particular company. Resource-based competences consist of human and material resources, both tangible and intangible, enabling the company to outperform competitive enterprise over the long term, the direct link is the environment.
- *competency based on transformations* - these are actually organizational skills that are necessary in order to successfully achieve the conversion of inputs into outputs, namely: innovations that provide the organizational ability to regenerate new products, services faster than the competition and *organizational culture* that promotes learning ability in organization.
- *competency based on outputs* – these are physical and invisible outputs (reputation, brand name). A clear distinction should be made between: innovation (radical) factors of change in the organization - created as a response to the extreme demands and changes in the environment and operational factors of change in the organization - fine adjustments aimed at achieving growth of resource competence of the organization.

Characteristics of the IO are as follows: IO is open to change; IO successfully manages change and successfully absorbs change. The basic properties of IO include: a vision of the company as a whole and its role and place, orientation towards customers and markets, reliance on technology as a resource for competitiveness, shallow organizational structure, acceptance of unorthodox ideas and solutions, internal competition, a positive attitude towards change management and the remuneration system which serves to encourage innovation.

3. INNOVATION

Innovation is the ability to achieve something in a new way. Within business process this means to achieve improvements that lead to useful positive changes and increase in the value of work. Innovation is the result of an innovative process or activity by either individuals or organizations. Innovations are generated ideas that improve existing or introduce new products or services and business processes or models that add value to customers for which they are willing to pay a certain price. Innovation must confirm and realize its value in the market.

According to Peter Drucker, innovation is entrepreneur's specific tool, i.e. it is the means by which the entrepreneur uses the change as an opportunity for the development of products or services.[2] In the case it does indeed recognize the significance and role of entrepreneurship in the overall economic, social and cultural development, Serbia has the potential and possibilities for creating a knowledge-based economy. Scientific and technical researches and evidence suggests that innovation had the most influence on the development of civilization i.e. on increasing the efficiency and life of the people.[3]

4. INNOVATION UNION SCOREBOARD

Innovation Union Scoreboard - IUS is the current European Commission's innovative tool, developed in the framework of the Lisbon strategy as well as its audit after the adoption of the Europe 2020 Strategy (IUS, 2014).[4]

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Innovation Union Scoreboard (IUS) is largely based on the methodology of the previous instrument European Innovation Scoreboard-a (EIS) and distinguishes three main types of indicators and 8 innovation dimensions, with a total coverage of 25 different indicators. Countries are classified into one of four categories based on the values of innovation indicators and analysis of the following innovative trends:

- *Innovation Leaders* which include Denmark, Finland, Germany and Sweden, whose performance is at least 20% above the EU-27 average;
- *Innovation followers* which include Austria, Belgium, Cyprus, Estonia, France, Ireland, Luxembourg, the Netherlands, Slovenia and the United Kingdom, whose performance is around the average, less than 20% above or more than 10% below the EU-27 average;
- Moderate innovators – this group consists of the Czech Republic, Greece, Hungary, Italy, Lithuania, Malta, Portugal, Slovakia and Spain. Their performance is below the EU-27 average, i.e. 10% to 50% below the EU average, and

Modest innovators- Catching-up countries, namely Bulgaria, Latvia, Poland and Romania, whose performance range is far below the EU-27 average, more than 50%. Only Lithuania has made progress from this group of modest innovators, while Poland had stepped down from a group of moderate to modest group of innovators.

IUS includes innovation indicators and trend analyzes for 27 EU member states, as well as the associated countries: Croatia, Iceland, Macedonia, Norway, Serbia, Switzerland and Turkey. On the basis of the aggregate indices of national innovation performance Summary Innovation Index which contains 25 IUS indicators is calculated.

IUS indicators include:

1. Indicators of support:

- Human Resources - highly qualified and trained resources;
- research system - the international competitiveness of scientific basis;
- Finance and support - available finances as drivers of innovation and government support for conducting research and innovation activities.

2. Indicators of activities of a business entity:

- investment by business entity - different forms of investment business entity in innovation;

- connectivity and entrepreneurship - the efforts of the business entity and entrepreneurs to cooperate among innovators, as well as with the public sector;
- capacity of intellectual property - different forms of intellectual property protection.

3. Indicators of effects of innovative activities:

- innovators - the number of businesses that have introduced innovations to the market (products / services and processes) or within the organization and marketing;
- economic effects - economic effects on employment, exports and sales that occur as consequences of innovation activities.

5. THE RESULTS OF INNOVATION UNION SCOREBOARD FOR 2013 IN SERBIA

It is exactly knowledge and innovation that the European Union's long-term competitiveness is based on, and the allocations for research, development and innovation are very high. In the financial perspective for the period 2007-2013 in FP7 there were 40 billion EUR available for research and development, while the Framework for Competitiveness and Innovation Program (CIP) disposed of 3.6 billion EUR. For the next financial perspective (2014-2020), the EU has planned even greater assets.

In Serbia, only every seventh company implements innovative activities, and every fourteenth realizes innovative collaboration with other firms or institutions. In the previous period in our country commenced implementation of various measures aimed at linking science and industry, such as: activities related to reorganization of scientific and technological institutes, the establishment of centers for transfer of technology and network technology brokers. The establishment and commencement of operation of the Innovation Fund has significantly improved support for high-tech new firms. One of the greatest weaknesses in the field of innovation is the weak link between research institutions and Chamber of SMEs. SMEs fail to perceive scientific research institutions as potential partners, while researchers in CSME fail to spot their target group, thinking that there is lack of interest for new technological achievements in our economy. Although data on the business infrastructure in the Republic of Serbia are neither systematized nor is there a single register, through secondary sources we can determine that there are 92 industrial zones and parks, as well as 23 business incubators.[5] According to the Innovation Union Scoreboard in 2013 Serbia belongs to the third group of countries - countries that represent the moderate innovators, with innovation performance below the average. If the innovation index (SII), as the average EU-27 for the year 2012 amounted to 53.9 then the value of the overall index of innovation for Serbia of 28.2 is significantly below that average. Increase innovation is calculated for the period from 2008 to 2012 and has an average growth level in EU of 1.6%. Relatively adequate values in Serbia are evident human resources 0.37 (the EU average is 0.56), research system 0.22 (the EU average is 0.48), public finance and support 0.56 (the EU average is 0.58), innovators 0.53 (the EU average is 0.57) and the effects of innovation activities 0.49 (the EU average is 0.60). Weaker values are recorded in capacities of intellectual property 0.02 (the EU average is 0.56), investment business entities 0.30 (average 0.41 EU) and the connection and entrepreneurship 0.34 (the EU average is 0.53).

High growth rate is evident in investment in research and development of the public sector (government sector and the higher education sector) 19.1%, as well as in investments in research and development of business entities 9.6%, public-private publications 4.5%, commodity brands and the income from licenses and patents from abroad 21.1%. A steep decline was recorded in the export of services in high-expertise areas of 6.9% and within the share of foreign students who have earned a doctorate in Serbia 4.6%. Increase in performance regarding connectivity and entrepreneurship, capacity of intellectual property rights, public sector support and the effects of innovation activities is above average, while other dimensions are below the EU average. Serbia has the growth of 6.8% in innovation performance compared to the previous year, which is significantly above the EU-27 average, which was 1.62% for the same period.

Analysis of innovation performance is the starting point for further research and for decisions on possible actions to direct innovation activities in businesses in Serbia, especially where the support activities of the state are necessary, consistent with the objectives and priorities set out in policy documents.

6. CONCLUSION

Innovation is any technological or non-technological advancement that creates added value. It is exactly knowledge and innovation that the European Union's long-term competitiveness is based on, and the allocations for research, development and innovation are very high. Economy of the Republic of Serbia is still characterized by a low level of innovation. According to the results of the European Union called Innovation Union Scoreboard for the year 2013, Serbia is ranked third in the group of countries that represent the moderate innovators, with innovation performance well below the EU average. Small and medium enterprises and entrepreneurs in Serbia do not sufficiently recognize the importance of innovation for improving operations; thus they invest too little in them. Only every seventh company implements innovative activities, and every fourteenth realizes innovative collaboration with other firms or institutions. Results of innovation performance represent a starting point for further research and decision-making on possible actions in order to direct innovation activities into businesses entities in Serbia.

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