

Analysis of Development of Innovation and Competitiveness in Montenegro

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Abstract

This paper presents some of the results obtained during many years of work on the scientific - research projects in the field of innovation and improvement of organizational performance with aim to find an answer about Capacity for innovation of Montenegrin organizations. The paper is based on the unique database which reflects the real conditions of the Montenegrin organizations. In the paper is also analyzed report prepared by World Economic Forum (WEF) for 2014-2015 years about Global Competitiveness Index (GCI) for Montenegro. In accordance with that report and analysis of survey performed in Montenegrin organizations carried out by interview method, authors of the paper tried to give an answer about Capacity for innovation in Montenegro. Based on that analysis we found that Montenegrin organizations are focused on innovation but there still have a lot of spaces for improving in order to achieve higher level of Global Competitiveness Index.

Keywords: Innovations, Capacity for innovation, GCI, Questionnaire
JEL classification: 031

Introduction

During the last few years and especially strengthen by the most recent crisis, the model of economic development based on competition and innovation becomes more important. Innovativeness represents a necessary condition for revitalization in cases of the decline in indicators of business success. If they want to survive and dominate in domestic and global economic market, business systems need to follow the changes, it is no longer sufficient to keep pace with them, but often to be a step ahead (Leydesdorff, 1998; Porter, 2001). Organizations that learn, in which people continuously expand their capacity to create results, have the highest chances for success and progress in future. Ability to learn faster than competition can be one sustainable competitive advantage in today's business environment (Davila, 2006).

These trends, and the importance of the innovation and competitiveness in organization, gave an impetus to the authors of this study to carry out an analysis of innovation in Montenegro from the point of view report of Global Competitiveness Index for Montenegro (period 2014-2015) prepared by World Economic Forum (WEF). Global Competitiveness Index is based on 12 pillars and a specific attention in the paper is focused on the 12th pillar, called Innovation.

Innovation

Innovation is introduction of a new, previously unknown product or process or significant improvement of already existing organization scheme which leads to the development of a new generation of products and their distribution. Business system that tends to be successful and to make a progress in market aspect needs to be innovative. Creation of the new market or new category of product is the most efficient way of competing in mature markets. Innovations and innovative strategies, constant improvements and application of knowledge bring a series of advantages and their significance is reflected in the following (Pavitt, 2000; Casadesus, 2008; Bossink, 2002):

- Innovation encourages the economic growth and makes profit,
- Growth in innovations of 1% contributes to the growth of income per a citizen of about 0,05 %,
- Innovation directly influences the increase of employment and indirectly contributes to economic efficiency and profit,
- Innovative products provide the winning and retaining of a share in the market, as well as the increase of profitability in markets.

The concept of innovation can best be observed through the definition of innovation as the implementation of a new and improved idea, procedure, good, service, process which brings new benefits or quality in implementation.

Global competitiveness index

In past few decades, the World Economic Forum (WEF) is ranked as the most important institution which affirmed the problem of measuring the competitiveness of the national system. Since 2004, WEF, based on annual review and the methodology improvement for assessing competitiveness, introduced the Global Competitiveness Index (GCI), which is determined by weighting the average of 12 pillars of competitiveness, organized into three parts that are key to the different ways of managing the national economy. From the figure 1 we can see that all 12 pillars are divided into 3 groups of keys for driven economy, as following:

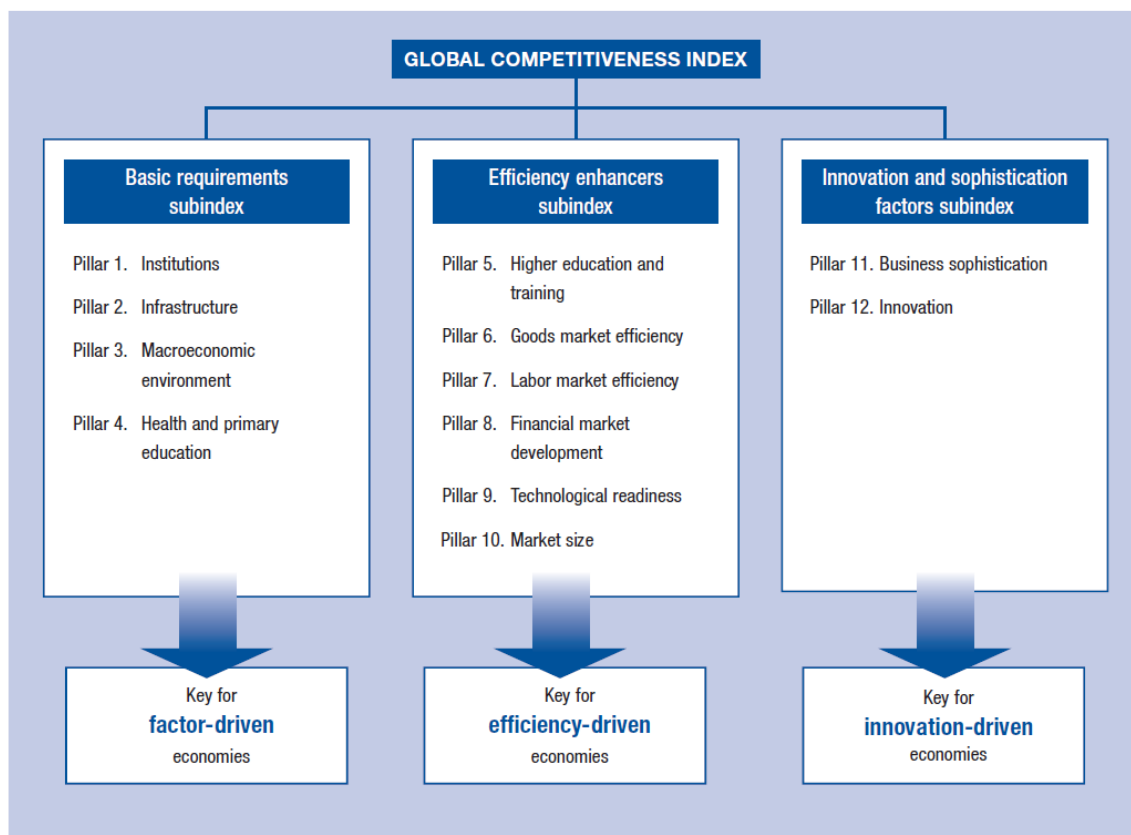
- 1) Keys for factor – driven economy
- 2) Keys for efficiency – driven economy
- 3) Keys for innovation-driven economy

The most important topic, from the point of this paper, is focused on innovation and keys for innovation driven economy. As we can see two pillars important for innovation driven economy are:

- business sophistication and
- Innovation.

Business sophistication is a topic which can be analyzed in comparison with developed countries based on statistical data about type of organizations and their main activities. It can be realized by public body who is involved in operation with statistical data about enterprises which means that Business sophistication can be exactly defined. In the other hand, pillar 12th, focused on innovation is not easy for definition. In accordance with that and with the fact that innovation is a very important pillar for innovation driven economies we are focused our attention on that pillar.

Figure 1
The 12 Pillars of Competitiveness According Global Competitiveness Index



Source: <http://reports.weforum.org/global-competitiveness-report-2014-2015/>

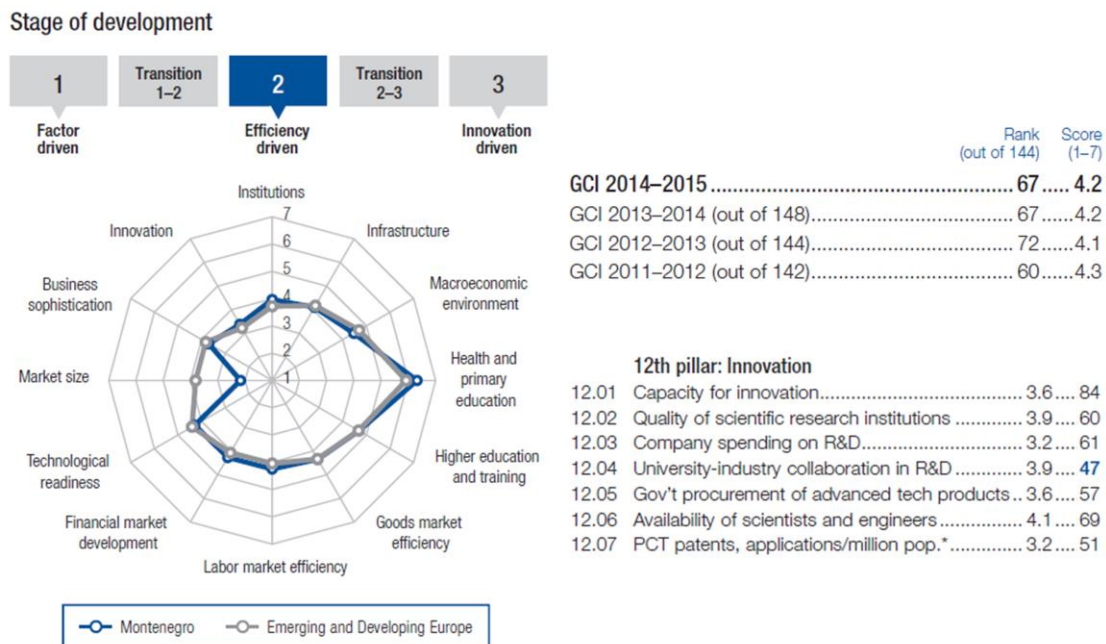
In the figure 2 are presented results of state of innovation in Montenegro for 2014-2015 years, based on the research of World Economic Forum. We can see from the figure 2 that result about Capacity of innovation is the worst because in accordance with that the Montenegro is on the 84 stage of rank in competition with 144 countries. Based on literature sources we found that the factors of Innovation system are:

- State administration
- Local administration and
- Organizations.

In accordance with that, we can say that the most important factor for Innovation system, where can be created well capacity for innovation, are organizations.

The capacity of firms and people of a nation to steadily achieve innovations in the context of changing production and market conditions is designated as innovative capacity (Belitz, 2006).

Figure 2
State of Innovation in Montenegro



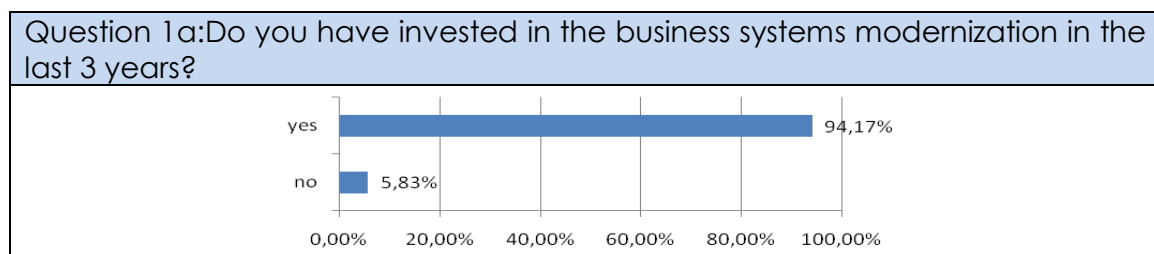
Source: <http://reports.weforum.org/global-competitiveness-report-2014-2015/>

Research methodology and results

Research was carried out by interview method. Questionnaire that is used in that occasion consisted of 91 questions, 33 of which referred to innovativeness. From the set of all Montenegrin business systems, we performed a survey on the sample of 120 business systems. For the purpose of this study a comparison was based on seven issues, which the authors believe that in terms of the goals are the most important and can contribute to obtaining the most beneficial results (Krivokapic, 2012, 2014). The following table gives a comparative view on all items.

In the Table 1 are presented results of investment in modernization of business system in Montenegro in the last 3 years. As we can see, most of surveyed organizations said that have investments in the business system modernization.

Table 1
Investment in modernization of business systems

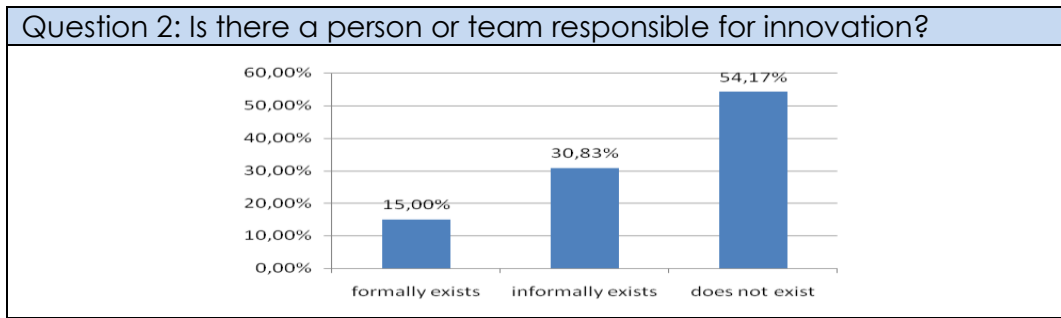


Source: Author's table

In the Table 2 are presented results about person or team responsible for innovation in Montenegrin organizations. We found that more than 50 % of surveyed organization does not have person or team responsible for innovation.

Table 2

The existence of the person or team responsible for innovation

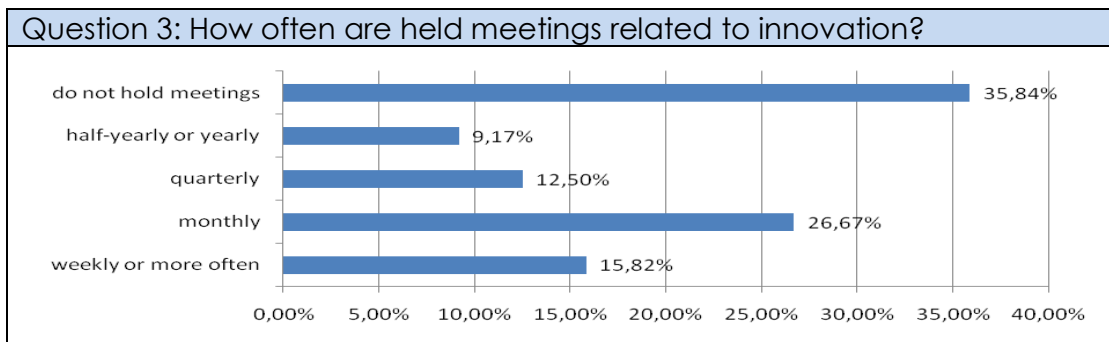


Source: Author's table

We also tried to find an answer about frequency of meetings which are focused on innovations in Montenegrin organizations. We can see in Table 3 that 35,84 of surveyed organizations doesn't have meetings focused on innovations.

Table 3

The frequency of innovation related meetings

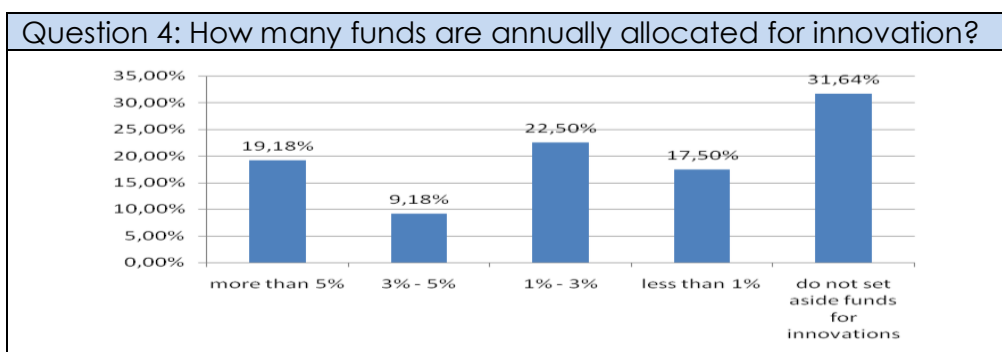


Source: Author's table

Results of survey focused on funds allocated for innovation are presented in Table 4. We can see that 31,64 % Montenegrin organizations doesn't set aside funds for innovations.

Table 4

The funds allocated to innovation

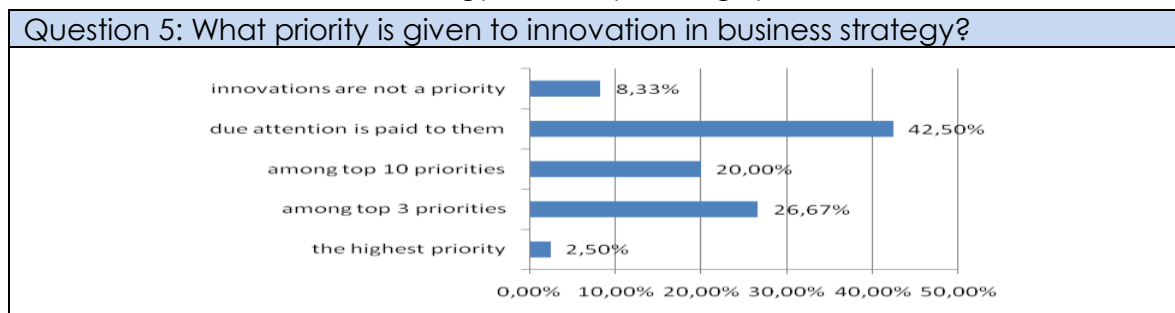


Source: Author's table

In the Table 5 is presented results about Place of innovation in the strategy of the operating system in Montenegrin organizations.

Table 5

Place of innovation in the strategy of the operating system

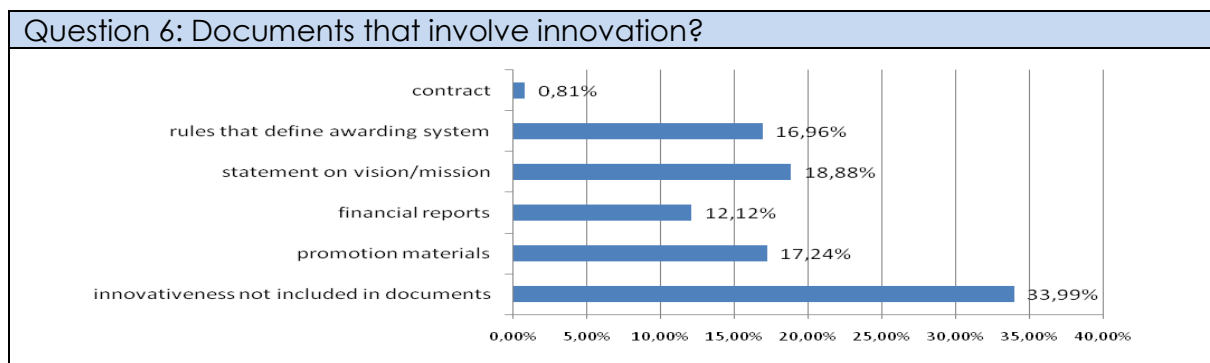


Source: Author's table

When we analyzed are there any documents that include innovation in surveyed Montenegrin organizations, we found that 33,99 % of surveyed organizations don't include innovativeness in their documents.

Table 6

Documents that include innovation

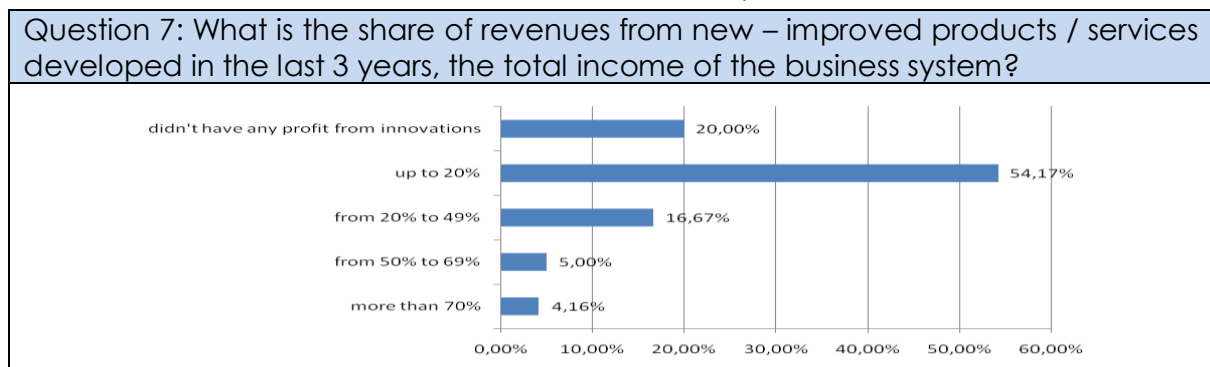


Source: Author's table

In the Table 7 is presented analysis of share of revenues from innovation in the total income of business systems in last 3 years in surveyed Montenegrin organizations.

Table 7

Share of innovation in the total income of business systems



Source: Author's table

With this defined results and views, we enter into the analysis and conclusions presented in the next section work.

Conclusion

We performed a survey in 120 Montenegrin organizations and found that there are a lot of fields for improving its innovation. Based on that survey we found that even, organizations invested in the modernization of their business system (mostly in equipment), most of them don't have person or team responsible for innovation. Most organizations allocated less than 5 % of funds per year to the innovation while just 19,18% allocated more than 5 %. The very serious fact is that more than 30% organizations don't allocate any funds for innovation. There were also found that innovation is important for organizations but they mostly don't include innovation in their documents. Based on this survey we found that it is not so bad situation in Montenegrin organizations in relation to innovation but there still have a lot of spaces for improving in order to achieve higher level of Global Competitiveness Index. However, increasing the innovation capacity and improving business processes innovation system, create a predisposition for the development of a number of new products / services, and thus greater chance of their commercialization. In order to improve innovation in organizations they need to: develop a strategy for the company which will be an integral part of innovation activities and to develop organizational structures and processes that support innovation activities. Having in mind that sample for the research is just 120 organizations it is necessary to expand it in order to have a more objective and reliable results. In the future work we plan to expand the sample for research and to analyze which type of Montenegrin organizations (production or service) has a higher capacity for innovations.

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