

**RESEARCH OF INNOVATION POTENTIAL IN B&H IN THE
FUNCTION OF THE ABSORPTION CAPACITY OF INNOVATIONS**

Darko Petković
University of Zenica
Fakultetska 3, 72000 Zenica, B&H

Hazim Bašić
Mechanical Engineering Faculty Sarajevo
Vilsonovo šetalište 9, 71000 Sarajevo, B&H

Sanja Prodanović
Faculty of Economics East Sarajevo
Alekse Šantića 3, 71420 Pale, B&H

ABSTRACT

Rapid changes around the world imposes on all organizations today an imperative to be better, faster, more creative, more competitive and better business and they should be constantly innovative. This highlights the need for their development based on innovation strategic planning process, the result of knowledge and innovation in / outside the organization, creating a favorable social environment and economic development, which is based on innovation. Research on the degree of innovation in Bosnia and Herzegovina to date has not yet been done. In this paper, preliminary results of research innovation potential of the country, as well as the relationship between innovation potential and absorptive capacity will be presented. The sample on which the conducted research and analysis consisted of: education, scientific research, research and development institutions, as well as utility companies and product types (small, medium, large).

Key words: Innovation, Innovation potential, Innovativeness', Bosnia and Herzegovina

1. INTRODUCTION

The gradual slowdown of business activities around the world due to the current of economic crisis and long-term cumulative internal problems of the national economy, the alarm highlighted the development of potential solutions to improve the performance of organizations, so that they can survive in the modern market conditions. One potential solution is to support the development and growth of the innovation potential of the country with the help of strategic planning innovation processes and priority positioning thereof. During the recession, the global economy, it is evident that growth and productivity improvement depends on exactly the same to their ability to invest in restructuring, qualifications and innovation, Fig. 1, [2]. Innovation has become one of the priority strategic factors, and innovation process is an essential part of the business model and development of every country. It is a dynamic category that includes assessment of the future prospects of innovation activities. It may manifest itself in the form of new or significantly improved products, processes and business systems, and innovation is the result of an innovative process or activities of any individual or organization. Successful management of innovation connects three key functions: research and development, production and marketing, [1,4,7]. Innovational potential is ability to develop new solutions (product, process, service), from a concept to its first commercial application, and the

efficiency of the innovation process requires the existence of a proper system of management and organization of this area.

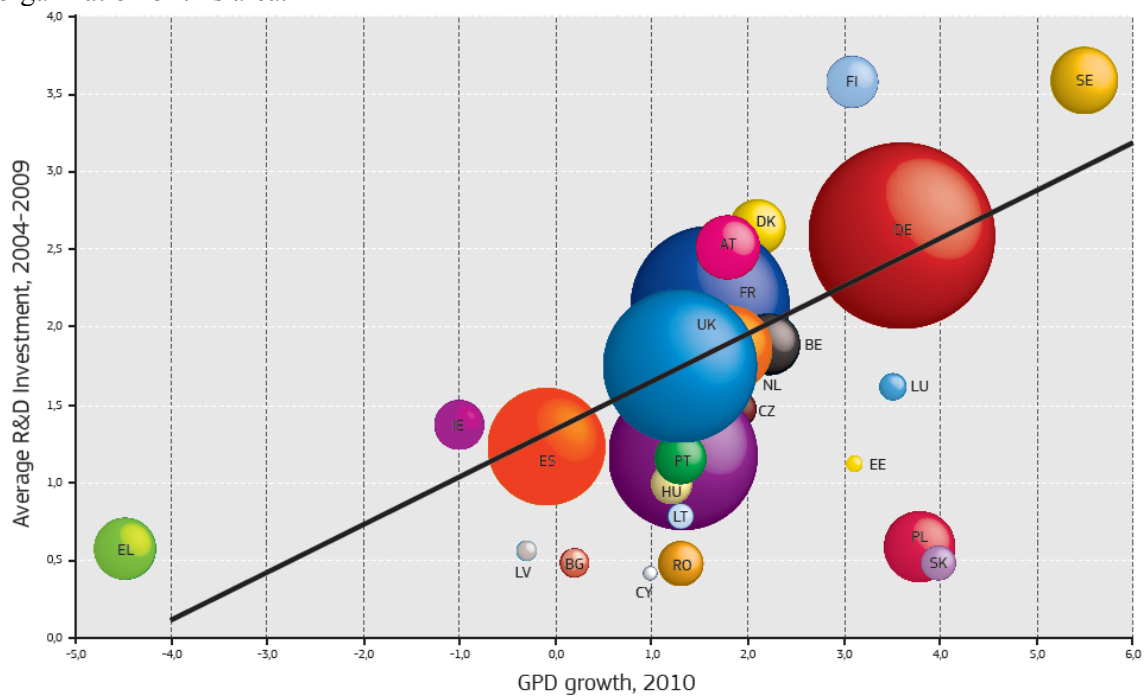


Figure 1. R&D investment and economy recovery [2].

2. RESEARCH METHODOLOGY

The process of primary data collection about the state of innovation potential in B&H was conducted by using a questionnaire and consideration of the overall economic situation in B&H by examining the number of studies that analyze the current state of B&H economy. The questionnaire was designed in such a way that each of the studied qualitative terms quantified using the appropriate scale. The research was carried out and measured the level of innovation of various organizations in B&H through the analysis of their innovation capacity, strategies, methods and models that lead to the creation of innovation. The sample consisted of 72 different organizations in B&H, namely: education, research, service companies and different size of production companies. Organizations have responded to 24 questions organized into three parts according to selected factors of innovation through a unique on-line questionnaire. The preliminary results of research are concerned on the relationship between innovation potential and absorption capacity in organizations in B&H.

3. INNOVATION POTENTIAL IN BOSNIA AND HERZEGOVINA

Innovation policy and innovation are realized in the system, and if we look at any country in particular, it is a matter of a specific national innovation system. National innovation system is a set of organizations, institutions and their relationships as a function of generation, diffusion and application of scientific and technological knowledge [3,6]. National innovation capacity coverage developed innovation infrastructure, innovation environment in industrial clusters and links between innovation infrastructure and clusters. Recent years, in the fields of science, technology and innovation (STI), policy development and R&D of B&H had some progress [5,8], especially after adoption of the Strategy for development of science in B&H 2010-2015. However, disintegrated B&H policy contributes to marginalization of research activities. Also, because of the decentralized system of research and no formal mechanism for STI statistics, data about R&D in are not readily available.

Evaluating ideas and monitor their development is very important for the development of innovation and the introduction of a system of rewarding employees in the organization get more motivated for work, willing to offer new ideas and thereby participate in the construction of organizational culture where innovation is highly appreciated. According to the study, more than half of organizations (60%) stated that reward innovation in the largest volume increase in salaries, bigger bonuses or one-time cash prizes. Also, the system of immaterial evaluating innovation percentage is smaller in scope

(possible faster promotion 33% and public acclaim and / or recognition by management 42%), but no less important. Therefore, it can be concluded that the combination the material and immaterial evaluation system of ideas is still the best way to encourage innovation, as well as supportive environments for new ideas and creativity of employees. On the other hand, the problem of the lack of a formal system for evaluating ideas and innovation within the organization highlighted the 30% of the institutions. Only 38% of institutions have internal competence development system, Fig. 2(a), and the capacity to collect information about the competition, Fig. 2(b).

According to the results of this study, 64% of the organizations participated in the survey, independently conducted research activities. Also, most organizations implement RDI activities in cooperation with other organizations in the same activity (53%) and the use of long service organizations / institutions / private companies (43%), while only 1,5% of organizations do not conduct any type of research and innovations activities.

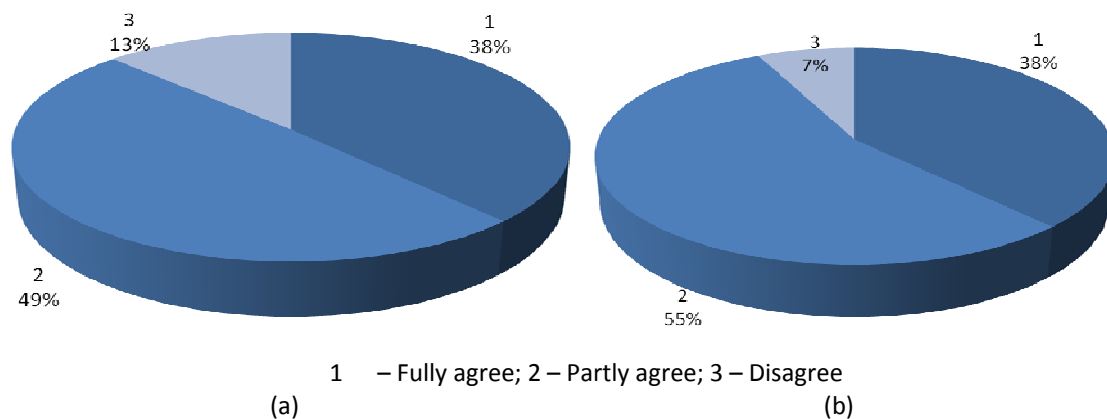


Figure 2. (a) 'In the institution, there is an internal competence development system'; (b) 'The institution has the capacity to collect information about the competition.'

42% of institutions have flexibility in capacity planning and organization of the innovation process, Fig. 3(a), and the ability to develop and adapt products/services better than competition, Fig. 3(b).

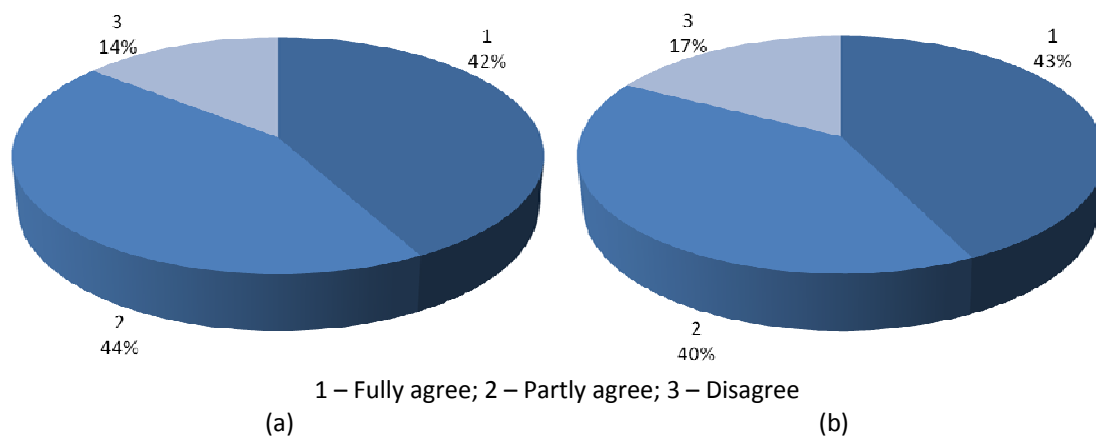


Figure 3. (a) 'There is flexibility in capacity planning and organization of the innovation process in the institution;'; (b) 'There is the ability in the institution to develop and adapt products / services to achieve the effect of the first on the market.'

Also, according to our research, 56% of the organizations indicated that the strategy of innovation and implementation of RDI activities there is as an integrated part of the business strategy and that it is thus known to all employees, and only 3% of them, this strategy exists separately the business strategy, as worrisome indicators.

The ability to create and apply adequate control mechanisms of the innovation process in the institution exists in only 16% institutions, Fig. 4(a), but the institution structure which can help development innovation is recognized in 59% institutions, Fig. 4(b).

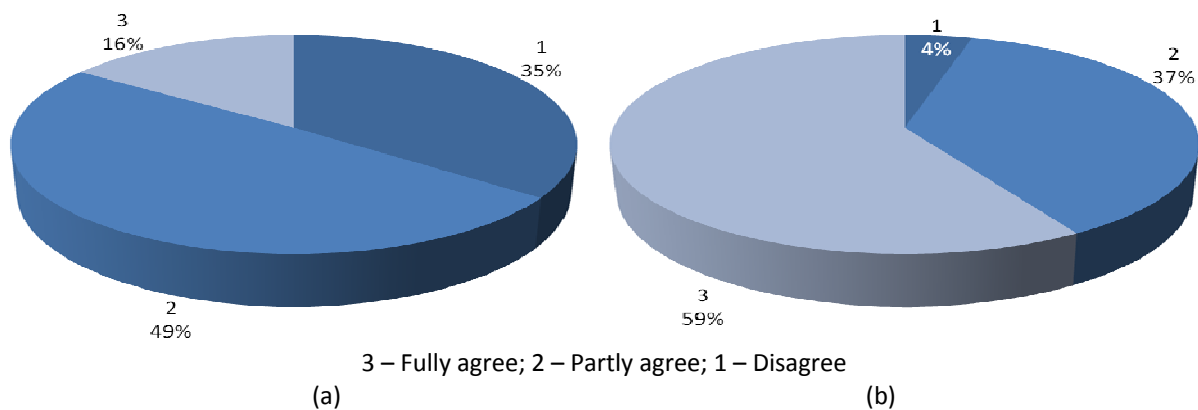


Figure 4. (a) 'There is the ability to create and apply adequate control mechanisms of the innovation process in the institution;' (b) 'Institutional structure helps to develop innovation and encourage them.'

Only 15% of the organizations stated that in their innovation strategies positioned as one of the three main priorities, and 14% of them stated that innovation is not a priority in their business strategy.

4. CONCLUSION

Investigation of innovation potential of B&H, which is running in 2012., found that most of the organizations that participated in the survey devoted considerable attention to innovation in their business and have developed systems of internal evaluation of ideas and innovations. In managing of innovation, the biggest problem is the constant change of business environment where business system needs to be constantly adjusted. Innovation has to be managed on an integrated manner, and manage all phases of the innovation process. There is definitely no one best way to manage innovation, because the differences are not only is the industry in terms of markets and technology, but also their specific characteristics which limit the ability of management innovation process in an organization. It is possible to conclude that the success of innovation is essential proper combination of strategy, structure, systems, staff and the environment. Preliminary results of this study indicate that all organizations need to efficiently develop their innovation capacity through better integration of innovation processes in their own business and carry out their strategic planning in an effective way. All organizations need to put more effort to build a significant own innovation strategy, processes and absorption capacities.

5. REFERENCES

- [1] Drucker P., Inovacije i preduzetništvo: praksa i principi, PS Grmeč Beograd, 1996.
- [2] EU Member States and Associated countries Innovation Union progress at country level 2013, European Commission, Directorate-General for Research and Innovation, Brussels, 2013. (http://ec.europa.eu/research/innovation-union/pdf/state-of-the-union/2012/innovation_union_progress_at_country_level_2013.pdf#view=fit&pagemode=none)
- [3] Horvath T., Dorid G., Antoljak V., Mitrović M., Račić D., Radman G., "Istraživanje hrvatskog kvocijenta inovativnosti - Završni izvještaj," Sense Consulting, VERN', Zagreb, 2011.
- [4] Kima D.-Y., Kumarb V., Kumarb U., "Relationship between quality management practices and innovation," Journal of Operations Management, vol. 30, no. 4, p. 295–315, 2012.
- [5] Mini Country Report/Bosnia and Herzegovina, under Specific Contract for the Integration of INNO Policy TrendChart with ERAWATCH (2011-2012), Technopolis Group, 2012.
- [6] Car M., "Systems and processes of cognition, work rationalization, innovating, entrepreneur and ergonomics", 11th International Research/Expert Conference "Trends in the Development of Machinery and Associated Technology" TMT 2007, pp. 515-518, Hammamet, Tunisia, 05-09 September, 2007.
- [7] Stošić B., Menadžment inovacija: ekspertni sistemi, modeli i metodi, FON, Beograd, 2007.
- [8] Umihanić B., Kurtić A., "Joint effort for innovative environment", 15th International Research/Expert Conference "Trends in the Development of Machinery and Associated Technology" TMT 2011, pp. 885-888, Prague, Czech Republic, 12-18 September 2011.