

JOINT EFFORT FOR INNOVATIVE ENVIRONMENT

Bahrija Umihanić, PhD, professor
The Faculty of Economics, Tuzla University
Bosnia and Herzegovina

Adil Kurtic, PhD, professor
The Faculty of Economics, Tuzla University
Bosnia and Herzegovina

ABSTRACT

This paper presents the results of the research into innovativeness of small and medium enterprises (SMEs) and their business environment in the regions of two neighboring countries. The aim of the research was to make Posavina (Bosnia and Herzegovina) and Vukovar-Srijem Country (Croatia) the leading innovative environment in a wider area. Related to its aim, the research focused on recognizing the key factors of the improvement of SME competitiveness as well as on identifying the ways for improving long-term cooperation of entrepreneurs and institutions that provide support to innovative activities of SMEs in the regions covered by this research.

Key words: SME innovativeness, innovative environment, strengthening innovative capacities of SMEs

1. INTRODUCTION

Innovativeness includes the implementation of new or significantly improved product (goods or services), process, new marketing or organization method in company's business practice, working environment or external relations (OECD, Eurostat, Oslo Manual, 2005, p. 46). As innovation includes creation of new or re-combination of the existing knowledge (Drucker, 1985), it needs to be an obligatory element of progress of each company. Concerning the fact that innovation is often related to higher costs, general opinion is that innovations are predetermined for large companies only. Also, OECD considers that finances can be a limiting factor for innovations in SMEs; they usually lack inside resources for implementing some innovation projects and have more difficulties than larger companies in attracting outer resources (OECD, Eurostat, Oslo Manual, 2005, p. 39). However, innovativeness is not related only to the usage of most excellent, expensive and complex technology that requires large financial resources. Innovations are an integral part of the process, marketing and organization as well, and they increase company's competitiveness. Therefore, both small and medium enterprises bear innovative activities. SMEs are a very significant activator of employment and economic growth, which they achieve exactly through their innovation activities (Keizer et al., 2002). Keizer et al. (2002) discovered that innovativeness is a result of precisely selected innovation policy, and that most innovative SMEs have three general characteristics in common: relations to knowledge centers, access to financing and high budget for research and development. It is important to emphasize that the most significant predictor of positive innovation effects is the index of market orientation. Its major components are customer orientation, competition orientation and inter-functional coordination. Therefore, it can be concluded that SMEs with strong market orientation also have better effects of innovative activities (Božić Lj., Radas, S., 2005).

2. METHODOLOGY

The research into innovativeness of industrial SMEs and their business environment on the territory of Posavina and Vukovar-Srijem County was conducted in two stages. In the first stage the data was collected from relevant secondary data bases on industrial SMEs, development agencies and science-research institutions oriented at providing support to companies in the filed of innovativeness. The second stage included the analysis of time lines and sector analysis on characteristics of SMEs which covered: scope of activities, assets, profit, number of employees, export as a part of total profit, export markets, innovation investments etc. We also did the sector analysis on the features of development agencies and science-research institutions: activities, legal status, source of financing, institution age, education structure, activities focused on strengthening innovativeness in the period 2008-2010, clients and effects of innovation activities of development agencies.

Main objective of the research is: Use theoretical and empirical research to define the potentials of SMEs that operate and are based on the territory of Posavina and Vukovar-Srijem County, as well as development institutions in the filed of innovativeness (development agencies and center, entrepreneur incubators, associations and nongovernmental organizations and chambers), which all act with the aim to increase their capacities and create conditions for networking due to improvement of SME competitiveness on domestic and foreign markets.

Special objective of the research: (1) to improve SME competitiveness; (2) achieve long-term and sustainable cooperation between SMEs and institutions that provide support to their development; (3) give recommendations for implementing development policies and instruments at the level of Posavina region, entities and Bosnia and Herzegovina as a whole, aimed at strengthening innovation capacities of industrial SMEs.

Central research hypothesis is: Identification of key innovative activities and potential of industrial SMEs on the territory of Posavina and Vukovar-Srijem County on the one hand, and capacities for providing support for innovation activities of development and science-research institutions on the other, can be a sound basis for giving recommendations regarding the creation of development policies and instruments at a state level, all aimed at strengthening innovation capacities of industrial SMEs in Bosnia and Herzegovina Federation. Besides the central hypothesis, the research included *two supporting hypothesis*. H₁: The existing innovation potential of industrial SMEs, development and science-research institutions limits the competitiveness of SMEs on domestic and foreign markets. H₂: Lack of appropriate development policies at regional, entity and state level, as well as lack of instruments for encouraging the creation of stimulating environment for innovation projects of industrial SMEs limits the capacities and networking between development institutions and industrial SMEs in Posavina and Vukovar-Srijem County.

In accordance to the research objectives, the sample was stratified and it includes three stratum: (a) SMEs which operate and are based on the territory of Posavina (50 SMEs at least) and Vukovar-Srijem County (50 SMEs at least); (b) development institutions (development agencies and centers, business incubators, associations and nongovernmental organizations, and chambers) which operate on the territory of Posavina and Vukovar-Srijem County; (c) universities, two-year colleges and research institutions. For each stratum the criteria were defined which need to be fulfilled by sample units. Therefore, SMEs in the sample had to fulfill the following criteria: to fulfill the criteria of the accepted definition of SME for the territory of the domicile state; relative presence of SMEs from certain municipalities in the sample should match their presence in the economic structure of Posavina region; companies with 10 or more employees from Vukovar-Srijem County; established companies (operative for more than 3.5 years); at least 60% of SMEs in their activities need to have at least 20% of the total profit realized through export, priority is given to those which export to Vukovar-Srijem County or Posavina.

Three questionnaires were created for the purpose of the research, and they were used for data collection. The postulates for contents and structure of the questionnaires were research objectives and expected results, as well as the need for comparison with some of the relevant researches into innovativeness of SMEs in the European Union. Different researches into innovativeness of enterprises were analyzed for this purpose, among which Innovation Union Scoreboard (previously

named European Innovation Scoreboard), Community Innovation. All three researches start with the assumption that innovation capacity of certain enterprise can be achieved if certain requirements are fulfilled, and that innovation capacity is measured through different aspects of enterprise's performance. The framework used by Innovation Union Scoreboard was also used as the conceptual framework for this research, and it can be presented in the form of the following model: main drivers of innovation performance (enablers) – external to the firm, 3 dimensions; Firm activities, 3 dimensions; Outputs, 2 dimensions. The questionnaires were created in such a way that they “overlap” in their structure, so that the following could be identified: the level of understanding the needs for intensifying innovation activities in Posavina region, the existing level of business relations, interest in strengthening business relations as well as possible obstacles to that. Prior to conducting a survey on the specified sample, the questionnaires were tested on a smaller group of experts and business people, in order to eliminate any potential lack of clarity or precision. The questionnaires were prepared for electronic data processing, with the usage of code list.

Each research stage demanded the use of specific research methods and instruments. In data collection stage we used methods of descriptive analysis, causal and functional analysis, structural and comparative analysis, and methods of synthesis, induction and deduction, historical method and comparative method. Through the application of data processing method, the research results are presented in tables and graphs, while trends and models for the prediction of growth of innovative capacities of SMEs, capacities of service providers, networking factors and other indicators were processed by the use of statistical program SPSS for Windows Vers.11. The collected data on the profile of enterprises and the profile of development institutions, innovation activities of SMEs, effects of innovation activities, recommendations for improvement of innovation activities of SMEs were analyzed by the following methods: statistical methods – average value, correlation (linear, non-linear, multiple, partial), statistical analysis of time series, and dynamic methods (rate of growth and fall, linear and non-linear trend).

3. RESEARCH RESULTS

The research conducted by the previously described methodology brought numerous results. Due to the limit restrictions, only the most important shall be given as follows: The profile of innovative SME has been created for Posavina region and Vukovar-Srijem County, with the special emphasis on the potential for increase in innovativeness that would lead to better cross-border cooperation in these regions; The profile of development agencies that provide support to strengthening SME innovativeness has been created; Training topics have been identified, which are relevant for increase in innovativeness of SMEs and development institutions. Their implementation shall contribute to SME competitiveness in both regions; The portfolio has been identified of special needs of SMEs for counseling or consultant services that will improve SME competitiveness in both regions; The methodology used enabled the possibility for comparison between SMEs in Posavina region and Vukovar-Srijem County, as well as internationally; The ways have been suggested for direct business contacts between innovative SMEs in both regions covered by the research: On the basis of identified needs and abilities of SMEs and development institutions, the model for their networking has been proposed, aimed at strengthening innovativeness and competitiveness of SMEs in the region; The guidelines have been given for the creation of development policies for local government in Posavina region and Vukovar-Srijem County, and of instruments for encouraging the creation of stimulating environment for innovative projects of SMEs.

4. CONCLUSION

The empirical research into SMEs innovativeness and the capacities of development institutions in the regions of Posavina and Vukovar-Srijem County has completely satisfied the main and special objectives. By using the method of statistical-mathematic analysis, and especially the correlation method, the main and three supporting hypotheses were confirmed. The hypotheses evidence can be found in the original Research Report. The value of this research can be seen in the fact that profiles have been identified for innovative SMEs and development institutions in both regions, and that the ways for their connecting and networking have been proposed, aimed at strengthening SME innovativeness and competitiveness in order to improve the capacities for cross-border cooperation. A

special importance of this research lies in the fact that the methodology applied is compatible to all relevant frameworks for the research into SME innovativeness in the EU, which enables the comparison of the research results in international context.

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