Innovative aspects in production companies

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ABSTRACT

The innovation term covering its detailed definitions is presented in the papers, as well as the EU’s ranking of innovations is discussed. The selected aspects of increase in innovation in the European Union are presented, that pertain to small and medium companies, as well as the aspects of commercializing the innovations in 2016 year are provided, on the basis of table with innovation results.

Keywords: Innovation term, EU’s ranking of innovation, commercializing the innovation

1. INTRODUCTION

Innovation was always the very important component demanded by whole economy, by all companies. In the selected areas if innovation, the leaders in EU are are as follows: Sweden - human resources and quality of academic scientific researches; Finland - financial framework; Germany - private investments in innovations; Belgium - innovation networks and cooperation in the extent of innovation; Ireland - innovations in small and medium companies. The countries with most rapid increase in innovations are as follows: Latvia, Malta, Lithuania, the Netherlands and Great Britain.

Also in the the moderately innovative countries regional centres of innovation exist: Piedmont and Friuli-Venezia Giulia are in the Italy, País Vasco is in Spain, whereas Bratislavský kraj is in the Slovakia.
The key factor in the chase for leading position in innovations can be generally attributed to the balanced innovation system, that combines respective level of public and private innovations, efficient partnerships on behalf of innovations among companies and with academic institutions, as well as stable basics in the education and high level of scientific researches. The influence of innovation on the economy should be seen in the field of the sales and export of innovative products, as well as in terms of employment [1,2].

2. SELECTED DEFINITIONS OF INNOVATION VERSUS ITS CONCEPTUAL AND PRACTICAL TERM

Following the existence of many definitions and lacking single, commonly accepted explanation of term, many divisions exist respectively to dependant types of innovation. For the purpose of this papers several most substantial terms will be presented, respectively to the subsequent discourse. Technical innovations are most often defined and presented, that will be also the most important for us.

We can find in the literature the classification according to product, process and service innovations. Formerly, only product and process innovations were discerned, that were treated as the symptom of technical progress. Isolating third category (service innovation) is justified with i.e. the increasing role of services in contemporary market economy and the fact that services are very often the symptom and effect of technical progress. Product innovation means launching the product on market, that’s technological properties or designation differs significantly from formerly manufactured products, or its operation was significantly improved, whereas it can be simultaneously delivered to customer with objectively new or improved benefits. Process innovation means adopting new or significantly improved methods of production or for delivery of goods. Changes in the extent of organization, technology, human resources, methods of labour, equipment or combination of the above can be related with it. Service innovation means launching the service on the market, that is new or is seen as new by somebody. Thus, it is a service that offers new benefit or value to customer. Such innovation is based on the changed characteristic in the existing service, or eventually proposed new one. Service innovation is defined altogether with product innovation in many divisions.

We can also discern the innovation in the range of: source, scale, novelty rate, complexity, character and effects. In technical innovations we can discern:

Routine innovations that are based on introduced particular changes in goods or services, that are also oriented on maintaining the attractiveness of produced good,

Forced innovations, that are based on the introduction of changes caused by critical situation (economical crisis or declining product or service),

Innovations resulting from opportunity, that are most often implemented by companies with capability of spending great resources on research and development. Following such actions, companies replace current products, extend provided services, improve manufacturing and technological processes [5].

When using the definition of innovation proposed by R.W. Gryffin, we can divide the innovation according to the scale of resultant changes into radical ones (“lead to company’s break-through change, so called discrete change, and are based on totally reshaped method of
functioning the organization”) and gradual ones (“can be based on the improvement in things that are done well - so called adjustment or introducing small modifications as a response to gradual changes in the environment- so called incremental adjusting”).

Ch. Freeman divided innovations into autonomic ones (when proposed solution was not the effect of prospects) and induced ones (made as a result of demand and resulting from researches). Following the extent of effects caused by the innovation, we can divide the innovations into strategic and tactical ones. Strategic innovations pertain to long-time enterprises and serve for the execution of strategic goals. Whereas, tactical innovations pertain to all current changes in goods, manufacturing technology and organization of labour, make the increased efficiency of economy feasible and can revise the current trends. Innovations can be created by one person or group of people or institutions. According to complexity criterion, innovations can be divided into coupled ones, that are the effect of efforts made by particular number of people or organizations, wherein concertation of proceedings made by all cooperating and interested people is required, versus uncoupled ones that are the product of one person and generally cover the rationalization activity.

Despite technical innovations, Oslo Manual discerns non-technical innovations, with means of which whole innovative activity in the company is defined, that is not related with development and launching new or significantly changed goods or services on the market, including the implementation of new or significantly changed processes. It also covers main innovations in the extent of organization and management, i.e. implementation of new organizational processes or quality management systems [3,4].

3. EU’S RANKING OF INNOVATION

According to last researches, small and medium companies and commercialization of innovations combined with excellent research systems are motor power for EU’s innovations. The following countries are in the first row: Sweden, Germany, Denmark and Finland - these countries reach the results significantly above the EU’s average. Among the innovation stragglers are: Poland, Latvia, Romania and Bulgaria, that are far behind the leaders and even the EU’s average. The published EU’s ranking of innovation from 2016 year looks in the following way. The motor power for innovative growth in EU are small and medium companies and commercialisation of innovations related with perfect research systems. Whereas decrease in business activity and “venture capital” type investments in the years 2008-2012 had negative impact on the results in the scope of innovations.

Today the European Commission also published the follow-up report related with leader board. From the “State of the Innovation Union” report results that the Commission majorly fulfilled the obligations from flagship “Innovation Union” in terms of innovations [6].

The sources of success for innovation leaders

The innovative EU countries indicate particular number of strong sides in the extent on national research and innovation systems, among which innovative business and higher education plays key role. The business sectors from all leaders in the innovation reach very high indexes of expenditures on scientific researches and development as well as take leading position in filed patent applications. In such countries there is also well developed higher education sector and close relations between industry and science [5-7].
Graph 1. European leader board for innovations from 2016 year
4. CONCLUSIONS

The EU’s ranking of innovation proves that Poland has been occupying better place from ranking to ranking, but Poland loses much to the mean value of innovation for European Union countries. Unfortunately, many components of innovations, that could be beneficial in Poland, are not exploited. Author hopes that this article will be inspiration for researches on the increased effectiveness of operation in scope of innovations.

References


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