PROPOSAL OF THE MODEL OF INNOVATIVE SCORECARD FOR COMPANIES IN GLOBAL ENVIRONMENT

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Abstract

Side effects of globalization are becoming growing and intensifying competitive pressures. Therefore naturally arises the question of to what extent and how the individual business operators are able to withstand these pressures and remain competitive. In the foreground to be so increasingly as a source of benefits by innovative capabilities of companies, increasing quality of human resources, research and technologies that are considered key to the growth of European competitiveness.

Innovation has always played an important role in the economy. Their role, however, recently radically changed. Currently, no one doubts the drastic changes taking place in the economy, but also need to map out innovative processes and phenomena in the context of globalization of the company. These new emergent phenomena are collectively referred to as a manifestation of the emerging information society, new economy, knowledge economy and also strongly supported the emergence of a global environment.

Innovation plays a crucial role in the ongoing economic transformation of developing countries, as well as countries with developed infrastructure. Innovation is becoming an essential element of the global economy. Undoubtedly play a crucial role in education but also research and development. Innovation strategy focuses on creating and developing the conditions for the innovation process, concentrating on system solutions and innovative environment to develop innovative infrastructure.

The aim of the present article is to outline a possible methodology for the functioning of the innovation scorecard for companies, which now mostly operates in a global environment.

Key words: Innovation, innovative environment, global environment, competitive ability

1. INTRODUCTION

Term “innovation” has become one of the fundamental terms in economic theory [1]. It is unquestionable that innovations are fundamental for competitive ability of both companies and states [2]. Even though there are processed many conceptual documents and innovative regional strategies in the Czech Republic, Czech lags behind EU and global world and this lag is getting bigger every day.

Innovations are existentially connected with a business sphere and they are primarily a business phenomenon. Business subjects, in a competitive market environment, try to find and use new business opportunities and provide next development of their business via innovation. Innovations are way how to survive and achieve business success in the global economy.

Business subjects that are under pressure of maintaining their competitive ability are driving power of innovations. There are many influential factors that are or can be supported or regulated from state and other institutions. Role of state is very important in the context of innovative processes.

Michael Porter, guru in the research of competitive advantages, says that prosperity of state depends on abilities of domestic sectors to innovate and improve. Porter is convinced that role of state institutions is crucial for innovative effort in industry and services. He says that state institutions should play roles of “challenger and accelerator”. They should push companies to increase their aspirations and companies should stimulate demand for sophisticated products. They should also create an environment with highly educated and specialized labor force for new sectors and create an infrastructure for business.
We can watch that countries with advanced innovative politics are more successful in a global scale, especially Asian economies such as Singapore and Taiwan. Singapore represents an example of complex and conceptual approach of state. This little economy with 5 million people was, like the Czech Republic, until recently the engine of growth of foreign investment in production using cheaper costs for employees and effective production. However, Singapore has begun successful transformation in 1990s in knowledge-based economy supported by innovations. In 2001 Singapore reached Germany and France in GDP and in 2011 Singapore reached incredible 15% of GDP. The economy should grow by 5% every year form 2011 to 2015. This year will government of Singapore issue R&D projects equivalent of 3% GDP (Czech Republic in 2009 – 1,53%). The government is planning to spend 12,4 billion USD, over the next five years, for research especially in areas of biomedicine, natural environment, alternative energies and digital medias. [3]

![Fig. 1 Basic entities of innovative ecosystem in Singapore](image)

2. DEFINITION OF TERM “INNOVATION“

"Innovation is renewal and enlargement of range of products and services with markets created by new methods of production, delivery and distribution, establishment of changes in management, organization of work, labor conditions and qualification of labor force." [5]

According to Organisation for Economic Co-operation and Development (OECD 1997, 2005) are innovations focused on technological innovations of products (products and services) and processes: Technological product and process innovations (TIPP). “TIPP includes technologically implemented new products, processes and significant technological improvements of products and processes. TIPP were implemented once they were brought to market (innovated product) or used in production process (innovation of production process). TIPP includes a lot of scientific, technological, organizational, financial and business activities.” [6]

These definitions make it clear that there are different kinds and ways toward innovations. There are innovations of technological nature (based primarily on research) and non-technological innovations such as innovations in the area of organization and management (new forms labor organization, quality management, process management etc.), market innovation, business model innovation and presentation innovation (complex term for innovations in design and marketing). Last mentioned types of innovations are
subjects monitored by EU and they have been included to evaluation materials for European Innovation Scoreboard. Some innovative areas can be categorized as both technological and non-technological innovations. Currently, typical example of such innovation comes from ecology. [7]

Main source of innovations (mainly technological) is research and development but especially non-technical kinds of innovations profit from creativity of businessman and qualified employees.

### 3. INNOVATIONS IN COMPANIES AND MODEL ELEMENTS

From a company’s point of view, innovations are processes that have these results:

- new incomes from upgraded or new products and services
- Save of incomes through more effective operations
- Profit raise through the change of business model

Nowadays, the ability to innovate is considered to be a fundamental condition for the development. The conference about the use of new business opportunities in a competitive environment was held in Oslo and it was called “Innovation in science, technology and industry”. They discussed model that was foundation for the Innovative Scorecard, according to activities of companies in individual phases of innovation process that was divided to following stages.

**Fig. 2** Phase of innovative process [6]

The research that was conducted to create the model took place in innovative companies in USA, Japan and EU. This research was based on segment of nano-technological companies built on innovations. The main hypothesis of this research was a fact that standardization of the process and industrialization lead to a higher production. In other words, innovation companies have standardized innovation process and they use “best practice” regardless of the sector, size of a company and state.

These problem areas were discussed in the research [6]

- Sources of the innovative ideas - internal vs. external
- Access to innovative ideas by employees.
- Motivation of employees and stimulus for generation of ideas
- SW and ICT support of creation of ideas
- Processes of rating innovative ideas
- Cooperation with third parties – especially Universities
- Types of cooperation
- Cooperation with other third parties - especially companies from the same sphere and forms of this cooperation.
- Incomes from products which were created from innovations
- Number of patents, national vs international.
- Incomes from patents or licenses.
• Business model changes through the innovations and their financial expression.
• Efficiency growth of operations through the innovations

These problem areas were operationalized into questions that were used to query managers of nano companies. After the collection of data, data matrix was created. The elements of model were based on the analysis of collected data. The elements of model were quantified via pyramid indicator of innovative scorecard of companies that want to do business and succeed in global environment.

4. REASONS AND PERSPECTIVES OF INTRODUCTION OF INNOVATIVE SCORECARD IN COMPANIES

Innovative activity is successful just in case of appropriate response by the market, e.g. in a form of higher sales, in a form of satisfied customers, strengthening of image and creation of a better relations with interested groups of company. Simultaneously, it has to respect source options of a company, financial requirements of owners and creditors and innovative activities can’t jeopardize stability of the organization.

We can’t perceive these innovations like the product upgrades. It is possible to change company processes and products as well as the whole specialization and direction of the company. From this point of view, we are separating innovations to strategic ones, product ones and process ones. All these innovations create whole innovative frame of the company. Each innovation contributes to a whole success of the company and it is possible to express them as a hierarchal pyramid (see Figure 3), where every higher innovation means higher level of realized value. [8]

![Hierarchical view on the innovation parts (Strategic, product, process): Source [8]](image)

In order to understand management of product innovations, you have to understand the whole process of product introduction to the market from the research phase to the phase of commercialization. Strategic innovation comes from the management of the crucial financial indicators, creations of the joint projects, strategic cooperation, strategic alliances and long-term investments plans which are connected with higher level innovations. [9]
5. CONCLUSION

Main goal of the article is to propose procedures and tools of innovation that lead to a progress of innovative processes and company strategies, which contribute to a better efficiency of the whole management system and his function.

Elastic and high-quality innovative policy is fundamental for the development of companies in a hyper-competitive environment. Companies which won’t permanently and systematically innovate don’t have a chance to survive in a global environment.

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LITERATURE


