

## Innovation and Entrepreneurship Network

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### Abstract

*There is increasing interdependence and dependence of businesses and certain markets. The deepening ties between enterprises develop gradually the increase in competition, sharpens the economic competitiveness at the microeconomic level, ie. between businesses themselves. Companies cooperating successfully can succeed in the business network. Entrepreneurship network is a form of business association forming a group of clusters and networks. Statistical surveys show that business networking is the most important generator of innovation. Importance of innovation increases with growth of market competition. The role of innovation management is the planning, management, coordination and control of innovation processes in businesses. This paper deals with the successful implementation of innovation determinants in the context of network business.*

**Key words:** innovation, innovative entrepreneurship, business network

**JEL Classification:** L14, L26, O31

### 1 Introduction

Enlargement of the European Union market space by the new member states causes an entirely new market situation for current and also future business entities. This enlargement has many outcomes, not all of them are beneficiary. The company management must bear in mind the fact, that many of the globalization processes took place before the accession of Central European countries into the European community. On one hand, the enlargement of the EU meant an enlarged market space for the small and medium sized enterprises. However, on the other hand the risk of competition onset has risen not only in the industrial production sphere, but also in the service sector due to product innovations. The rise of production forces the business enterprises to a wider interconnection and a deeper specialization in the application of innovation.

According to OECD (2010) the enterprises play a leading role in creating innovation and their market application. Their innovation capability is now considered to be an ultimate condition of competitiveness, while innovations are the means of managing changes in an ever-changing business environment.

Researches confirm that innovation activities are not entirely the outcome of internal business enterprise processes (Lasagni, 2012), but are often the result of network cooperation (for example: Baum – Calabrese – Silverman, 2000; Flatten – Greve – Brettel, 2011). Network can be

defined in terms of social exchange theory as, a set of two or more participants among whom exchange is taking place.

Author of the regional economy theory (Rechnitzer, 2005) promotes competitiveness and networks in the context of corporate capital movement theories. He claims, that participating enterprises in a business network environment are even more encouraged to undertake innovation activities and to cooperate in the development of innovative products and services that benefit all parties.

Considering the above mentioned fact it's possible to state that a unified theory that would cover all the aspects of this complex and ever-changing issue (Holtbrugge and Welge, 2010). Several specialists in Slovakia and abroad focused themselves on possible means of business sector development. Their opinions met in one crucial point – innovations (Minárová and Malá, 2011). They are consistent in their opinion that the implementation of innovation into business practice drives forward the development of business entities, as well as a possible basis to escape the current state of economic recession. In order to make decision regarding innovations by the business management, it is crucially important to examine the economic position within the economic cycle. This issue was among others highlighted also by Bod'a and Striežovská (2010).

The subject of this paper are the issues of innovative entrepreneurship and business networking. The focus of the submitted article is dedicated to the influence of business networking on innovative capabilities of small and medium enterprises in the national economy. It turns out that the business networking brings many opportunities for innovation to its stakeholders. The aim of this article is to highlight the fact that business networks are an important element of creating and introducing innovations into the practice of small and medium enterprises. The submitted article relies on secondary sources as well as primary sources. Primary sources consist of data gained through the use of driven (controlled, directed) interview technique in the sector of small and medium enterprises. These data were obtained during the first phase of our research funded by VEGA grant. The submitted article is based on this research. Secondary literary sources are represented by scientific articles, books and publications of renowned authors.

Driven (controlled, directed) interviews were carried out since January to May 2014, on the sample of 550 enterprises in Trnava, Trenčín and Nitra self-governing regions. Individual companies in the sample were selected using the snowball method. The criteria for inclusion in the sample were: must fall into the category of small or medium enterprise, the existence of the company for at least 3 years, experience in innovation activities, at least during the last year, participation in a business network. Since the network cooperation is implemented in various sectors of the national economy, it is not possible to map them into a single nationwide research. Our attention is therefore focused on sectors that according to our previous findings are significantly involved in the innovation implementation process. These sectors are predominantly represented by food industry (bakeries, dairy industries and butcheries), engineering industry (light engineering, heavy engineering) and electronics industries (electronics, electrical engineering and power engineering). At the same time, we assume that the occurrence of business networks is higher in these sectors in comparison others, and they have the character of vertical networks. Businesses were represented by managers responsible for their participation in the business network, or for innovation.

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## **2 Results and Discussion**

### **2.1 Definition of innovation in relation to business**

The concept of innovation in the economic literature is associated with J.A Schumpeter, who in the 30s of the last century focused on the analysis of the business environment in which enterprises are able to implement new development patterns. These changes were marked as innovations. They were therefore understood in the scope of their application that have characterized the development of industrial enterprises.

Innovations were understood for a long period of time only as the introduction of new products or technologies. However, nowadays is such narrow conception of this notion obsolete and the term innovation is rather understood in a broader scope. Innovation relate to the enterprise as a whole and to all its activities from the perspective of key business trends. Crucial factors which incite the need, creation and implementation of innovations are stated in the following part of the article:

- Access to new markets and the acceleration of competitiveness,
- Globalization in trade, which increases the standardization of products, but with the respect to local conditions resulting in individualization (so-called. Glocalization)
- Internationalization of entrepreneurship,
- Businesses interested in obtaining capital energy and raw material resources,
- The increasing demand for highly-skilled experts
- Differentiation and atomization of consumer demand.

Small and medium enterprises are even more important in the new knowledge-based economy. Mainly because they are the most flexible. Therefore they are able to adequately respond to market demands and swiftly adapt to different requirements, and thus introduce the most innovative products, innovative technologies and approaches to address the needs of their customers and business partners.

Innovations in entrepreneurship process are manifested in three essential forms:

- As process innovation,
- As system innovations
- As a product innovation.

Process innovations are reflected in making the technological processes more efficient with the aim to strengthen the orientation on new products, for which the demand is growing.

System innovation pertain the whole business as a unit and require the implementation of new or improved procedures throughout the width of the business entity.

Product innovations are intended to create entirely new products (e.g. products, services, information technology solutions, etc.), or are aimed to increase the technical and economic parameters of existing products.

Innovative entrepreneurship can therefore be described as a business based on technology innovation - business, where products or services depend to a large extent on the application of scientific or technological processes and skills. This can mean the application of the latest technologies resulting in a completely new product or service, or the application of an already existing technology in a new innovative manner. The essence of innovative entrepreneurship is the application of research results and technological knowledge to market products and services. Innovation is essential, but critical factors affecting the success are the existence of a market and quality of management.

The above mentioned classification of innovation, respectively innovative approaches is based on different understanding of innovations as such. It is possible to observe a diversion from the "original" concept of innovation to a "new" understanding of innovation. This diversion is illustrated in Table 1.

**Tab. 1 Comparison of innovation understanding**

<b>Factor</b>	<b>Initial understanding of innovations</b>	<b>New understanding of innovations</b>
Effect	Short term and dramatic	Long term, lasting, non-dramatic
Tempo	Big steps	Small steps
Protagonists	Narrow circle of stakeholders	Every employee
Principle	Individual ideas and effort	Team spirit, teamwork, systematic
Success	technological innovations, new inventions and theories	know-how of enterprise and market, focus on people and their knowledge
Organization	Specialists, gradual work progress	interdisciplinary teams, parallel work progress
Exchange of information	secret and inside information, complicated information channels	open access to information, free sharing of information
Feedback	limited	intensive

Source: <http://www.ipaslovakia.sk/slovak/ipamagazin/inovacie/inovacie.asp?strana=3>, modified by authors

From Table 1 it is evident that the original understanding of the term innovation has been concentrated on innovative changes in the products, which were only brought by creative workers. The new understanding of the term innovation has a greater focus and only a change of the company products is not considered as an innovation, but also in the process itself and the company itself.

Since innovations are based on scientific research activities it is necessary to understand the innovation process holistically, i.e. from the beginning to the end. According to this philosophy, we can divide the process of innovation into six phases:

- science,
- research,
- development,
- production,
- the introduction of innovated product to the market,
- Purchase of innovated products by customers.

If a small or medium sized enterprise wants to achieve long term success, its business activities must be based on purposeful innovations. Besides the fulfillment of their basic objectives (reimbursement of costs, profit) entrepreneurs do seek to create new, differentiated values in order to introduce something new to the market and thus meet the growing and more challenging demand.

Small and medium sized enterprises operate within the market environment in various areas of business, ranging from self-employed persons and micro enterprises represented by artisans, through small industrial companies, service companies, business enterprises, to enterprises engaged in intermediary activities. Business entities whose area of business is to reprocess new ideas and solutions (innovation) to the level of commercial maturity and establish them on the market play a special role within the abovementioned enterprises. These entities are referred to as innovative or innovative businesses.

Innovative SMEs are most often grouped near the centers of large enterprises or industrial districts. They are most commonly located in the heart of the business incubators, which provide them with a number of services and benefits. These are:

- Operational and logistics services: office and business premises, information and communication technology, office equipment, internet, supplying, cleaning
- Consulting services: professional legal, economic, technical and other consultations, expert advice, brokerage of business contacts, contacts with financial institutions and the possibility of participating in concessional financial support programs.

With such a concentration of several innovative micro and small enterprises at one distinctive place a desired synergic effect may occur. It means an effective and efficient mutual cooperation with occurrence of the so called “cross-selling” activities and the magnet effect. In this case the cluster of enterprises within the business incubator acts as a magnet, significantly increasing their attractiveness on the market, increasing their relevance to potential business partners, investors and cooperating entities.

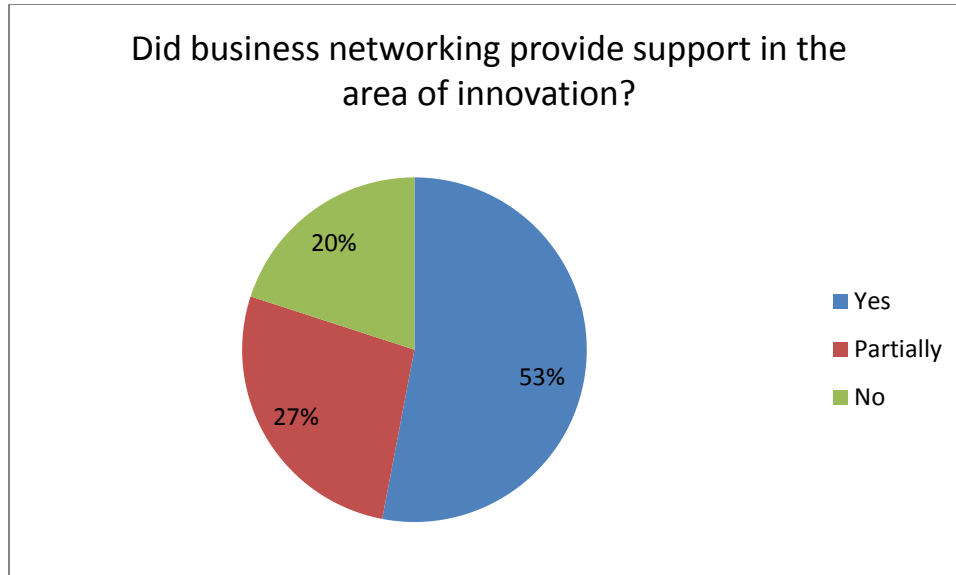
Innovative development, especially in the case of small and medium-sized enterprises requires an appropriate business environment and institutional support (business incubators, industrial parks). Business incubators in Slovakia also proved to be a viable institute preventing unnecessary business failures of the nascent micro and small enterprises due to fierce market competition. Their mission is to create certain business connections between the new emerging innovative enterprises and the subsequent later commercialization of their own products on the market. Business incubators have enormous significance for the development of small and medium-sized enterprises. The effects also involve employment, technological progressivism, the economic development of micro-regions.

## **2.2 Selected results of empirical research**

In the following part of the submitted article we will focus on selected findings from research conducted within the VEGA project 1/0381/13. Not all results are listed due to limited space.

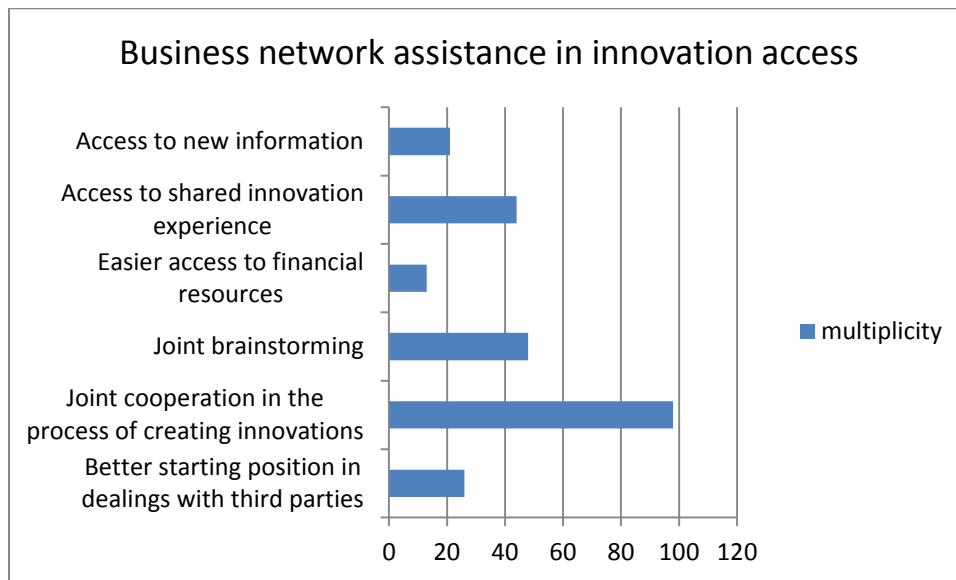
On the sample of 550 small and medium sized enterprises from Trnava, Trenčín and Nitra region we tried address the issue, whether the enterprises detected any support from the business network they participate in regarding innovation. The findings are presented in graph 1. 53% of all enterprises gave a positive answer to this question (133 enterprises in absolute numbers). 27%

of all enterprises (67 enterprises in absolute numbers) detected partial support of the network. A negative answer was provided by one fifth of the enterprises (50 in absolute numbers). According to their answers they did not felt the benefits of participating in a business network in the area of innovation.



**Graph 1 Did business networking provide support in the area of innovation?**

Source: primary survey



**Graph 2 Business network assistance in innovation access**

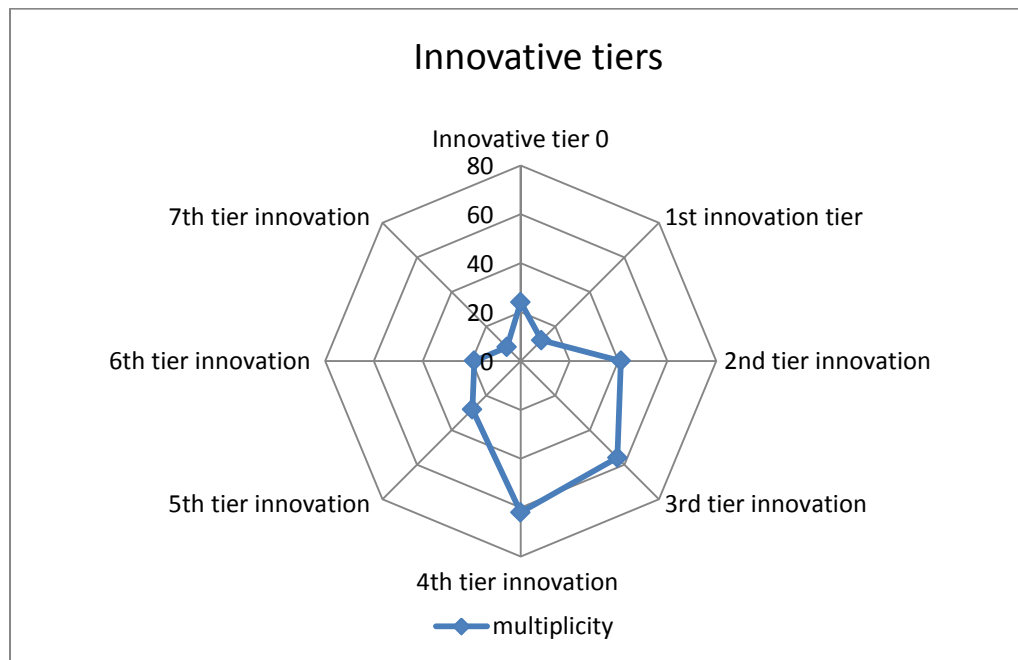
Source: primary survey

Note: businesses could also mention several factors at once

Those enterprises that detected the support of business networking were further questioned about the factors, respectively areas in which they identify this support. Each enterprise could state up to two areas. The most important areas of assistance according to respondents:

- Joint cooperation has clearly shown as most important in innovation design
- Joint brainstorming ended up on second place,
- Opportunity to access shared innovation experiences concludes the three major areas of support.

Better starting position in dealing with third parties ended up on fourth place only by a narrow margin. Its rank quite surprised the research team, as the assumed a stronger influence of this factor. One fifth of the answers was recorded in the area of accessing new information. Business networking is perceived as least beneficiary in the area of easing the access to financial resources. Innovative tiers according to Valet's classification can be observed in graph 3.



**Graph 3 Innovative tiers according to Valet's classification**

Source: primary survey

Note: detailed version of Valet's classification can be found in Bartes (2008)

Innovative tier 0, or regenerative change according to Valet is a restoration of the original qualities and the effort to keep the company intact. A quarter the enterprises involved in the survey are included in this tier.

1<sup>st</sup> innovation tier, or quantitative change causing quantitative expansion of the company as for example new human resources. Research has shown that it is the second least occurring tier of innovation.

2<sup>nd</sup> tier innovation relates to changes in the structure, for example in the form of production processes and technologies reorganization. This tier ended up on third place from the top.

3<sup>rd</sup> tier innovation means a change of quality, but it is only a minor qualitative change. In our case it is the second most important innovation tier.

4<sup>th</sup> tier innovation represents new variants of products, services and business processes. This tier of innovation became ranked on 1<sup>st</sup> place within the surveyed enterprises.

5<sup>th</sup> tier innovation is referred to as the new generation, because it brings qualitative changes in all major areas. Less than a third of enterprises participating in the research reached the fifth degree of innovation.

6<sup>th</sup> tier innovation is aiming to change the concept of the company. This tier of innovation is implemented by less than one fifth of enterprises participating in the research.

7<sup>th</sup> tier innovation is also described as the new genus. It represents a complete change. This tier was identified seven times within the sample group.

Following findings and recommendations arose during the controlled interviews with managers responsible for innovation and network collaboration:

- The most significant motive of SMEs for networking is the acceleration of the activities of multinational companies,
- More pronounced saving of production and distribution costs,
- Facilitating the identification of business opportunities through the network,
- Atomization of business risk,
- Simpler implementation of innovations in the production, marketing and entrepreneurship,
- Business networking also brings a synergistic effect, which benefits the participating businesses,
- Creation of business networks in the sample is derived from the concentration of geographically close plants.

### 3 Conclusion

Small and medium sized enterprises encourage competitive dynamics. They affect the activities of large enterprises directly or indirectly particularly in the area of improving efficiency and the application of innovations. The subject of the submitted article is the issue of innovative entrepreneurship in the context of business networks. In this paper, we showed the importance and role of innovation in small and medium sized enterprises. Possibilities offered by innovation for the successful management of business entities in the business environment were also a part of the research. Results of the research partial phase point to the fact that the business network and participation in business network encourages, promotes and develops innovative activities of participating small and medium sized enterprises. The major factors that support this process are joint cooperation in the process of creating innovations and access to information sharing. In terms of industry sectors, the sample was dominated by two, food industry (dairy industries and bakeries), a division of engineering (light engineering) and one class of electronics industry (electronics). Most enterprises ranked in the fourth tier of innovation. In conclusion we can state that small and medium sized enterprises, which focus on improving their competitiveness through innovation, are more attractive for business partners in terms of possible collaboration, and they are classified as successful. In our research, the foreground is dominated by a vertical form of business networking focused on supply chain.



## Acknowledgements

The submitted article is a partial outcome of the VEGA research grant 1/0381/13 "Evaluation of the innovative potential of business networks in the early stages of its functioning", funded by the Ministry of Education, Science, Research and Sport of the Slovak Republic

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