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## **INNOVATION AND INTERNATIONALIZATION OF COMPANIES: A THEORY AND PRACTICE**

### **Abstract**

The article has a theoretical and empirical character. Its purpose is to present the relationships between innovation and internationalization of the company. Innovation and internationalization are connected.

The first part of article presents the theoretical basis for innovation and internationalization of enterprises, is based on the literature of the subject. The second focused on showing the links between these categories, presenting/using the results of research and own research.

**Keywords:** product & process innovation, internationalization, company, MNC (multinational corporation), Poland

### **Introduction**

Economists, researchers and social sciences define innovations, hence the term innovation is widely understood. This applies to all spheres of life: from new, better, more progressive solutions to economic or social life ending with the new currents

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of thought and culture. In the colloquial meaning, innovation is something new and different from existing solutions; it is associated with the change for the better.

The interest in innovation evolved over the years together with the changing world of economy. In 21st century, one can talk about change in the nature, types and forms of contemporary innovation, and even a shift of paradigm from closed to open innovation in the field of innovation.

Innovation is one of the most crucial elements of competitiveness of economy in the future. Innovation means that there is an ability and motivation to undertake a continuous search and to apply the results of this research, new ideas, concepts and inventions. Additionally, innovation encompasses boosting and developing of production and operating technologies also used in services, the application of new solutions in organization and management, advances in the development of infrastructure, and most importantly, accessibility to information (Janasz, Koziół-Nadolna, 2011).

According to the latest theories and practice, innovations are the result of numerous, complex interactions among units, organizations and business environment. The development of innovation theories and processes shows further evolution of these phenomena and together with all processes in today's economy it will result in the appearance of more complex and realistic models of innovation process.

Innovation and internationalization are two activities, which are highly connected.

The aim of the paper is to present the relationships between innovation and internationalization of the company. The study was based on the analysis of domestic and foreign literature, inductive-deductive inference, and also own research.

## **1. Literature review: A theoretical basis of innovation**

Innovation can be defined as a new or improved product or process (or combination thereof), that differs significantly from the unit's previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process)." The generic term 'unit' describes the actor responsible for innovations. It refers to any institutional unit in any sector, including households and their individual members (OECD, 2018). According to Tidd and Bessant (2009,

p. 16) innovation is referred to as being an idea of product or business that is implemented often commercially.

Hüsig (2014) defines innovation as an iterative, interactive, context-specific, multiactivity, uncertain, path-dependent process and the result of a new combination of ends and means from a certain perspective. From this perspective, someone must perceive a difference concerning the qualitative newness of an object compared to a prior status in a given context. This new combination must be realized and introduced into a specific context which is the point of reference of the prior status.

Innovation should be seen from different perspectives (Garcia, Calantone, 2002; Hüsig, 2012):

- Content/object dimension: What is new? For example, technologies, business models, structures, markets, culture, institutions, strategies, systems, products, services, resources, etc.;
- Intensity dimension: How new? The innovativeness of the innovation, however measured;
- Context/subjective dimension: New for whom, seen from which point of reference? Person, organization, firm, domain, industry, market, nation, world, etc.;
- Process dimension: When and where does the innovation process start and end?
- Normative dimension: When is an innovation successful or unsuccessful, good or bad?

The development of innovation theory can be presented from different perspectives and stages. An interesting overview was made by Greenacre, Gross and Speirs (2012). The development of innovation theory was divided into five main stages, and they singled out sub-steps.

Innovation might be analyzed through many dimensions. The first interesting classification was presented by Lopes, Kissimoto, Salerno, Laurindo and Carvalho (2012). In it they classified different factors in creating and sustaining innovation, i.e., one of them is the generation and management of knowledge cycles (Cohen, Levinthal, 1990; Nonaka, 1994; Nonaka, Takeuchi, 1995).

The organizational strategy is also indicated as an influencing factor for innovation. For example, Tidd (2001) analyzes how complexity and uncertainty influence

the decision about different strategies and principles companies can choose to manage innovation.

Project management is another aspect that has a strong influence on innovation management (Cooper, 1990; Wheelwright, Clark, 1992).

Other dimensions such as technological innovation (Dosi, 1982; Goffin, Mitchell, 2010) and open innovation (Chesbrough, Vanhaverbeke, West, 2006) are widely described in the literature.

## **2. Literature review: The essence of internationalization of enterprises**

The second economic category which is the subject of discussion is internationalization. The process of internationalization of businesses aims to undertake an economic activity by a company in various areas outside the country. This is the process of expanding business activities of companies (of a sector or national economy) beyond national markets. To transfer the activity different methods and channels can be used, e.g. a foreign direct investment (FDI), cooperation agreements (alliances, cooperation, joint ventures, etc.) or export. It is difficult to attribute the concept of internationalization to one author as there are many views of this concept covering various types of business activities. In the economic literature as well, due to its complexity, it is difficult to find a definition that would fully characterize this process. For instance, Piercy (1985) associates internationalization with a physical creation of enterprises outside the home country. According to Pietrasieński, internationalization of a business activity should be considered as a process of its internationalization based on exporting products and increasingly on moving their production to other countries. This process is applied to an entire economy and all entities (Pietrasieński, 2005).

Dunning (1981) considers internationalization to be a kind of an investment model of a business entity in foreign markets, which can be explained by existing advantages in ownership, internalization and location when compared to companies of the host country.

The subject literature gives many examples of theories, models and stages of internationalization of a company, however, due to the aim of this article, they will not be discussed. For the purposes of the discussion, it can be mentioned that Coviello and McAuley (1999) distinguish three schools whose assumptions are used

to study the process of internationalization of enterprises: the neoclassical school of foreign direct investments, the behavioral school of stage models and the relational school of network approach.

Evolutionary models of the internationalization of companies were described in the literature (Kogut, 1983; Perlmutter, 1969; Vernon, 1966).

Rundh (2001) distinguishes three approaches to analyze the process of internationalization of enterprises:

- an incremental approach based on various stages of internationalization,
- a network approach, in which internationalization is based on cooperation networks,
- a business and strategic approach where internationalization is described as an international development resulting from an employed business strategy.

Ruzzier, Hisrich and Antonic (2006) proposed five perspectives of internationalization: process models, innovative models, a network approach, a resource approach and a theory of international entrepreneurship.

Witek-Hajduk (2010) distinguishes six groups of theories: theories of international trade (e.g. a theory of technological gap, or a theory of a product life cycle), theories of foreign direct investments (e.g. a theory of transaction costs, a monopolistic advantage theory of a company), theories of staged internationalization of a company (e.g. Uppsala model, innovative models of internationalization, Finnish models), network theories, theories of early internationalization or alternative theories of internationalization. It is interesting to draw attention to innovative models of internationalization describing a process of international expansion as an innovation introduced by a company.

### 3. Research methods

The thematic scope of the article and its aim determine the applied research approach. The theoretical part was grounded on deductive inference and comparative analysis on the basis of subject literature analysis, whilst the empirical part was based on inductive-deductive reasoning and a method of survey research based on a questionnaire.

The survey was carried out in the two groups: Polish enterprises and international companies (multinational corporations). The questionnaire survey was

conducted among the selected entities. It covered the second half of 2011 and was emailed to 94 transnational corporations and 102 Polish enterprise. 33 transnational corporations responded to the invitation to participate in the study, i.e., 35% of the chosen firms and 40 Polish enterprises, i.e., 39% of selected firms. The survey and empirical observation disclosed 57 R&D centers established by multinational enterprises in Poland. The research covered the years 2005–2011 (Kozioł-Nadolna, 2015).

#### **4. Relationships between innovation and internationalization – results**

Innovation and internationalization are the two strategic factors which are closely related. Despite the fact that these relationships are complex, one can try to present them in a simple way, that is, considering the direction of these relationships. What influences what? Does internationalization influence innovation? Or does innovation influence internationalization of a company? Considerations about these relationships are complex because both analyzed categories are very broad. There are various forms of innovation as well as different levels or models of internationalization.

Therefore, it should be emphasized that the links or relationships between innovation and internationalization are not simple and oftentimes are not characterized by a cause and effect chain.

It can be said that companies generally seek to maximize profits and stimulate growth by implementing different strategies, e.g. selling products and services on foreign markets (internationalization), raising or improving innovation of their products or services or by using mixed strategies (Kyllaheiko, Jantunen, Puumalainen, Saarenketo, Tuppur, 2011).

So far, the research has concentrated on various aspects of the aforementioned categories. The following selected results of the research provide a general answer to questions of whether the process of internationalization affects the creation of innovation and whether innovative enterprises internationalize their businesses.

A theoretical basis to the links between transnationalization and innovation can be found in the evolutionary theory of the companies (Nelson, 1992; Nelson, Winter, 1985). The impact of innovation on internationalization has been explored in various studies from the 1960s (Hufbauer, 1966; Posner, 1961; Vernon, 1966). From

these studies we can draw a general conclusion that innovation of companies and countries determines their export, followed by the tendency to FDI.

The impact of internationalization on the process of innovation was studied by Dymitrowski (2014) on a sample of 438 companies located on Polish territory. He confirmed a hypothesis that the higher the degree of involvement of enterprises in the process of internationalization, the higher the number of innovations. The author diagnosed key components of the process of internationalization exerting an impact on the formation of innovation, for instance, forms of internationalization, resources created by internationalization and relationships with entities on foreign markets.

Another interesting research on innovation and internationalization relationship was conducted by Mlakar and Ruzzier (2011). They confirmed that internationalized companies were more innovative than non-internationalized companies. Internationalization strengthens the ability of a company to improve successfulness of innovations, but companies with lower levels of internationalization can not reap benefits from innovations.

Ripollés Meliá, Blesa Pérez and Roig Dobón (2010) in their survey on Spanish internationalized firms operating in the service sector proved that innovation orientation accelerates internationalization of firms and allows them to implement more activities and opportunities for high control of entry modes on foreign markets.

The research of Frenz and Ietto-Gillies (Frenz, Ietto-Gillies, 2007) revealed that companies being part of transnational corporations have a higher propensity to introduce innovations than companies that do not belong to a network.

However, the study of Ruzzier, Hojnik and Lipnik (2013) conducted on 108 Slovenian internationalized companies confirmed the hypothesis that companies introducing more innovative products are more internationalized. On the other hand, the same study rejected the hypothesis that companies implementing more innovative processes are more internationalized. The research of Kafaouros, Buckley, Sharp and Wang shows (2008), that the efficiency of innovative activity is determined by the internationalization of a company.

Researchers also came to negative conclusions. Fernandez Olmos (2011) found that the process of innovation in DOC Rioja (Spain) wineries was not identified to be a driver of export activity and a determinant of internationalization. The author

suggested that the focus should be on research and development of product innovations rather than on innovation processes if they seek to affect export activity.

The author of article carried out research in two groups: Polish enterprises and international companies. Transnational corporations internationalized their business activities in various fields and forms (in Poland in the form of FDI). Polish companies internationalized their business primarily through the export of products and services. On the basis of the research the author has already carried out, it can be stated (Kozioł-Nadolna, 2013) that TNCs are more involved in the process of internationalization than Polish companies.

Polish and transnational organizations involved in the process of internationalization were asked about the number and type of innovations they implemented in the years 2005–2011. To the question if a given entity launched a technologically new or developed product during the period 2005–2011, 30% of companies answered no, whereas 70% replied yes. The number of innovations ranged from 1 to 30 innovative products. In the studied period, 37% of enterprises did not introduce any process innovation, while the remaining 63% introduced at least one new technological process or developed the existing one.

Multinational companies did not really innovate their marketing and organizational methods – only 39% of them did so. It stems from the fact that in Poland MNCs located mainly their production departments dealing with technological aspects of innovative process, while marketing stays at their head offices. In this case, the companies implemented from 1 to 3 non-technological innovations.

## **5. Discussion and conclusion**

The relationship between innovation and internationalization is studied by researchers all around the world, however, these concepts are not yet widely exhibited in Polish literature.

The results of the author's own research prove that the number of innovations introduced by the companies involved in the process of internationalization is higher among Polish companies than in MNC (more involved in the process of internationalization).

Polish enterprises introduced more innovations than multinational corporations involved in the internationalization process.



The number of innovations that both groups tend to introduce is the main difference. Polish companies introduced more innovations than transnational corporations. All the entities taking part in the survey launched a brand new or improved product on the market, however, the number of innovations differed considerably, i.e., from one to forty-seven innovative products. Most enterprises (45%) introduced from 6 to 10 innovative products, 30% of the respondents – more than 10 but less than 15 new products, and 10% – less than 5 innovations; 15% implemented over 16 innovative solutions in the studied period.

Similarly to TNCs, the number of innovations differed substantially, i.e. from one to forty-seven innovative products. 5% of all Polish companies did not introduce any process innovation, while the remaining introduced at least one.

Polish companies introduced non-technological innovations more often than multinational enterprises – 62% of them did so.

Among all the surveyed companies, 9% were not going to adopt any innovative solution (product, process, non-technological innovation) in the years 2012–2014. This may be due to a defensive strategy adopted because of economic recession or taking a conscious decision about not launching innovative products outside the mother country. As for Polish enterprises, 8% of them declared so.

Studies conducted in Scandinavian countries confirmed these results – the share of foreign affiliates in the innovative activity of enterprises, in general, was lower than that of domestic enterprises (Ebersberger, Loof, 2005, pp. 43–45). The research conducted in Poland (Jasiniak, 2012), on Polish and foreign companies in the Łódź region, also show that foreign companies are less innovative than domestic ones (especially those operating on the international market).

Hence, there is a question of why transnational corporations, more involved in the process of internationalization, introduce less innovation to the Polish market. This may be due to the fact that innovation activity of companies (including R&D) is based on the global research network, i.e., a network of research and development centers around the world, and not within branches, e.g. in Poland. TNCs may have adopted a defensive strategy during the period of economic recession or a deliberate strategy aiming not to introduce innovative products outside the home country.

In contrast, the biggest barrier for innovative activities of Polish companies involved in the process of internationalization is the lack of financial resources, whilst for MNCs it is a high risk of success of an innovative project.

It seems that further research on the links between innovation and internationalization of an enterprise is required to better understand these relationships as well as to explore other areas. Therefore, the author intends to undertake further studies to formulate a wider definition of the relationships between innovation and internationalization.

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## INNOWACYJNOŚĆ A INTERNACJONALIZACJA PRZEDSIĘBIORSTW – TEORIA I PRAKTYKA

### Streszczenie

Artykuł ma charakter teoretyczno-empiryczny. Jego celem jest próba przedstawienia relacji (zależności) między innowacyjnością i internacjonalizacją przedsiębiorstw. W artykule zaprezentowano teoretyczne podstawy innowacyjności i internacjonalizacji przedsiębiorstw i skupiono się na ukazaniu powiązań między powyższymi kategoriami, wykorzystując wyniki badań własnych i innych autorów.

**Słowa kluczowe:** innowacje produktowe i procesowe, internacjonalizacja, przedsiębiorstwo, korporacja transnarodowa, Polska

**Kody JEL:** F23, O30

### Cytowanie

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