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Innovation Processes as a Stimulant of Internationalisation Process of Firms

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ABSTRACT

Objective: The study focuses on the links between innovation and internationalisation of the firm. The aim of the research is to determine the impact of innovative processes on the process of internationalisation of the firm.

Research Design & Methods: For the needs of the implementation of this study, the available literature of the subject and its constructive critics was used.

Findings: The concept of innovation, innovation potential and innovativeness are discussed, taking into account the different approaches and changes (trends) as to their interpretations. Innovative activities in foreign markets seem to be a natural consequence of the innovation processes carried out by the firm, which is perfectly illustrated by I-models (innovation-related models).

Implications & Recommendations: Undertaking innovative activity by firms results in the introduction of these businesses to international markets, and innovations become the main element of innovation-based internationalisation models as well as international entrepreneurship models. In contemporary economic conditions, innovation processes and business internationalisation processes become increasingly visible and co-dependent, creating a new dimension of entrepreneurship – international entrepreneurship.

Contribution & Value Added: The article concentrates on one of three dimensions of international entrepreneurial orientation (IEO), which is innovativeness. It shows how the implementation of new ideas and new solutions stimulates the internationalisation process of the firm, which per se is treated as one of five forms of innovation – entering or opening new markets.

Article type:	original literature review
Keywords:	Innovation; innovation process; innovativeness; i-models; international business; internationalization
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INTRODUCTION

Innovativeness is an important factor of formation of firms able to accept challenges posed by contemporary economy. Skilful creation and use of innovative potential translates into firm innovativeness and enables the growth innovation processes. One of the effects of conducting innovative activity is an influence on the business internationalisation process. Innovations are becoming one of the key elements of innovation-based models of internationalisation (I-models) of firms for which internationalisation is one of the types of innovation.

MATERIAL AND METHODS

The study focuses on the links between innovation and internationalisation of the firm. The aim of the study is to determine the impact of innovation processes on the business internationalisation process.

For the needs of the implementation of this study, the available literature of the subject and its constructive critics was used. The article is based on the literature review and its critics. The most popular concepts and models were selected.

The article is divided into four main parts. At first the basic definitions important for the undertake research theme were discussed, among them: (i) innovation, (ii) innovativeness and (iii) innovative potential. Secondly, the innovation process in general is presented. Thirdly, the link between innovation and internationalisation was introduced, therefore innovation-related models (I-models) of internationalisation of the firm was discussed. Fourthly, learning and innovation processes in the firm internationalisation process are presented, based on the previously elaborated I-models. A new model linking learning and innovation processes and international business is proposed.

LITERATURE REVIEW AND THEORY DEVELOPMENT

Innovation, Innovativeness and Innovative Potential

Nowadays, to assess the competitiveness of national economies *the Global Competitiveness Index (GCI*) is used, developed by *the World Economic Forum* and for the first time applied in 2005 (Schwab, 2013). The structure of this index is based on 12 pillars. Based on those pillars, economies of individual countries are classified into three stages of development, in which the economy is driven by: basic requirements (factor-driven economies), factors improving efficiency (efficiency-driven economies), and innovativeness (innovation-driven economies). Economies with the highest level of development are driven by innovations and other conditions of the business environment. Thus, for the countries aspiring for the classification of the economy on the highest level of competitiveness, it is crucial to acknowledge the weight of innovativeness (Schwab, 2013, pp. 4-10).

Innovation is one of the main motives and factors not only for economies, but also for businesses. In the literature of the subject, there is a great variety of definitions referring to innovative activity. They refer to innovation as an achieved outcome (object)

and to the process approach, undertaking all kinds of actions aiming at the introduction of innovation (Table 1).

On such a foundation (innovation as a process and as an outcome) two notions occur, the notion of **innovativeness**, namely, the ability of effective implementation of innovative activity, and the notion of **innovative potential** understood as "the ability to continuously transform knowledge and ideas into new products, processes and systems for the benefit of the firm and its stakeholders" (Lawson & Samson, 2001; Saunila, Pekkola & Ukko, 2014, pp. 234-249). Among the scientific discourse, there is no univocal and ultimate understanding of those notions. The most important is understanding what innovation itself is. The notion of **innovation** is very capacious and in fact it is a considerable challenge for those who explore this problem (Schumpeter, 1912; 1939; Van de Ven, 1986; West & Farr, 1990; Rogers, 1983, p. 11; Kotler, 1994, p. 322; Utterback, 1971, p. 77; Levitt, 1960, p. 2; Myers & Marquis, 1969; Birkinshaw *et al.*, 2008, p. 825).

Extreme attitudes to the understanding of innovation can be noticed when analysing the views of the classics of this issue, such as Schumpeter (1912) and Rogers (1983). Differences regard not only the subject, but also the scale of the originality of solutions. Schumpeter perceived innovation as the application of a solution, for the first time on world scale, with regard to "introduction of a new good, introduction of a new method of production, opening of a new market, conquest of a new source of supply of raw materials or half-manufactured goods and implementation of a new form of organization" (Schumpeter, 1912, p. 66). He also introduces the distinction between ingenuity, idea, concept and innovation. Ingenuity is a result of individual creativity, without economic significance, whereas innovation is a decision of economic character, consisting of the application (adaptation) of a concept in practice (Schumpeter, 1939, pp. 85-87).

Alternatively, Rogers (1983, p. 11) stresses that "innovation is an idea, practice, or object that is perceived as new by an individual or other unit of adoption. It matters little, so far as human behaviour is concerned, whether or not an idea is "objectively" new as measured by the lapse of time since its first use or discovery. The perceived newness of the idea for the individual determines his or her reaction to it. If the idea seems new to the individual, it is an innovation. Newness in an innovation need not just involve new knowledge. Someone may have known about an innovation for some time but not yet developed a favourable or unfavourable attitude toward it, nor have adopted or rejected it". A similarly subjective view as for understanding what innovation is, was propagated by Kotler (1994, p. 322) who claimed that it refers to any good, service or concept which is perceived by someone as new.

Innovations concern a change applied in practice, which leads to differentiating it from a concept, invention or idea, that is an unfulfilled vision of a new state of affairs, at least from the point of view of the implementing entity. Moreover, innovation is a change perceived as beneficial. Therefore, innovation is characterized by catchiness of the change, application in practice, as well as contribution towards development, positive effect and benefits (Kosała, 2014a, pp. 86-87).

This positive dimension arises from a conscious undertaking of actions, and thus, in consequence, its aim is to achieve benefits. However, it could happen that innovation is

Table 1. Definitions of innovation in different innovation literatures

Type	Innovation as a process	Innovation as an outcome
Traditional innovation literature	"…the development and implementation of new ideas by people who over time engage in transactions with others within an institutional order." (Van de Ven, 1986, p. 590) "Innovation ecosystems – the collaborative arrangements through which firms combine their individual offerings into a coherent, customer-facing solution." (Adner, 2006, p. 98) "The invention and implementation of a management practice, process, structure, or technique that is new to the state of the art and is intended to further organizational goals." (Birkinshaw *et al.* 2008, p. 825) "The process of bringing any new problem solving ideas into use." (Kanter, 1984, p. 20) "Innovation development is a highly uncertain process in which entrepreneurs, with financial support from investors, undertake a sequence of events over an extended period of time to transform a novel idea into an implemented reality." (Van de Ven & Polley, 1992, p. 92)	"An invention which has reached market introduction in the case of a new product, or first use in a production process, in the case of a process innovation." (Utterback, 1971, p. 77) Profit-building new and novel products, production processes, and marketing schemes. (Levitt, 1960, p. 2) "The first or early use of an idea by one of a set of organizations with similar goals." (Becker and Whistler, 1967, p. 463) "For a patent to be granted, the invention must be nontrivial, meaning that it would not appear obvious to a skilled practitioner of the relevant technology, and it must be useful, meaning that it has potential commercial value." (Jaffe *et al.*, 1993, p. 580) "Any thought, behavior or thing that is new because it is qualitatively different from existing forms" (Barnett, 1953, p. 7) Radical change in business processes (Davenport, 1994, p. 137)
Knowledge based conceptualisations of innovation	"The production or emergence of a new idea." (Gupta *et al.*, 2007, p. 886) An "innovative solution" to a certain problem involves "discovery" and "creation," since no general algorithm can be derived from the information about the problem that generates the solution "automatically." (Dosi, 1988, p. 1126) Innovation as a three-step process: idea development, problem solving, and implementation (Myers and Marquis, 1969) "The intentional introduction and application within a role, group, or organization of ideas, processes, products or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, the group, organization or wider society." (West and Farr, 1990, p. 9) "Activities are deemed innovative if they differ significantly from current or recent activities. In organizations, innovations may change the incumbent skills, standard practices, technology, services, and products of the firm." (Greve and Taylor, 2000, p. 55) "An interactive process initiated by the perception of a new market and/or service opportunity for a technology-based invention which leads to development, production and marketing tasks striving for the commercial success of the invention."(Garcia and Calantone, 2002, p. 112) "Organizational innovation is often a process of creating new social connections between people and resources they carry, so as to produce novel combinations." (Obstfeld, 2005, p. 100)	*Not clearly defined*

Source: Quintane, Casselman, Reiche, & Nylund, (2011, p. 930).

a kind of unbeneficial change. In practice, most often, it means improper change management, innovation process management, which may occur at each stage of this complex process.

Other dilemmas concerning the issue of innovativeness refer to process and resultant approach to innovation. This dualism can be found in Schumpeter's definition. Innovation as a result is defined as a product, process, software, idea, concept, method, or system. As a process, innovation stands for the entirety of actions aiming at the achievement of innovation in the resultant meaning.

In the economic practice it is assumed that "innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organisation or external relations. The minimum requirement for an innovation is that it must be new (or significantly improved) to the firm - the first to develop and those that have been adopted from other firms or organisations" (Oslo Manual, 2005, p. 46).

However, implementations of the already existing solutions ,being a novelty only for the implementing entity, can be also considered innovation. It is worth emphasizing that although the solutions which are new in the world scale, are certainly prestigious and ground-breaking, they definitely do not discredit the economic significance and weight of innovative solutions of imitative character. In fact, in the innovative activity, the principle should be adopted that it is better to implement every innovation than not to implement any (Kosała & Wach, 2011a; 2011b; 2013).

Every action in the innovative activity, even the smallest one, favourably influences development. The problem rather concerns the proper choice of innovation, depending on the stage of development on which a given entity is and the potential it has, than the implementation itself.

Undoubtedly, to achieve a satisfactory level of innovativeness it is necessary to competently introduce changes, but also to create an organism which will enable high efficiency in all activities undertaken within that scope.

Understanding innovation, ranging from replacement of existing solutions and its utilization for the first time in the global scale, to the introduction of small modifications, new only from the point of view of an individual entity, results in a possibility or rather a necessity to create classifications of innovation which can convey the real picture of the weight of the implemented innovation. This is, among others, owing to works created over the years, with the development of scientific knowledge on innovations, that the bases for the classifications of innovation were worked out, according to numerous criteria, such as: the subject, the scope of originality, the source of innovation (stimulating innovation), complexity, the place of occurrence, the scale of the size and the scope of effects they bring, the area of activity, the area of knowledge or practice, the psychosocial conditions of the people implementing innovation, technological and capital intensity. The classifications created based on these criteria become a suggestion of possible directions of actions within the scope of innovative activity, at least for enterprises interested in their development or the growth of their competitiveness via innovations. The proper determination of the goal - innovation - enables efficient and effective conducting of innovation processes (Kosała & Wach, 2014).

Innovation Processes and Their Conceptualization

Innovation process can be characterized as any undertaken actions aiming at the development and implementation of an innovative solution (Van de Ven, 1986; Kanter, 1984).

Alongside the development of knowledge, the shortening of technological cycles, an increasing speed of economic development, elaboration of more and more complex and technologically advanced products, changing behaviours and expectations of consumers or the globalization of economy, the attitude to innovation processes has also changed. As we can conclude, an early, quite simplified attitude to innovation processes had to be superseded by more advanced, and thus more complex forms. In this context, Rothwell and Zegveld (1985) point out five generations of innovation models, which express progress in conceptualizing innovation (Tidd, Bessant & Pavitt, 2005):

- the linear models (need pull and technology push),
- the coupling models (interaction between different elements and feedback loops between them),
- the parallel lines models (integration within the firm, upstream with key suppliers and downstream with demanding and active customers, emphasis on linkages and alliances),
- the continuous innovation models (integration and extensive networking, flexible and customized response).

There are two waves of linear models. In the initial, linear representation of innovation processes (linear - supply or demand - model) (Rothwell & Zegveld, 1985), the main role in the initiation and progress of innovation process was sought in the scientific and technical progress or in market and social needs, leaving a passive role to the recipient of innovation (Trott, 1998, p. 19). In this context, Hauschildt (1993, p. 18) points out seven elements of innovation process: idea, discovery, research, development, invention, introduction, and ending with the successful ongoing utilization.

A very interesting modified linear concept is the funnel theory of Leonard and Sensiper (1998, p. 117), who focus on six elements of innovation process: idea generation, development, testing, ship or adopt, sales or implementation, after sales service/ continuous improvement. These elements are influenced by divergent and convergent thinking.

The third generation of innovation process models is known as the coupling models based on particular stages. The linear models were replaced by more complicated, complex, dynamic (coupling, interactive) innovation process models which include numerous interactions and couplings, considering both supply and demand conditionings in the phase of the creation and diffusion of innovation. Owing to such an approach, there is simultaneous adaptation of the findings of science to the market needs, as well as directing research towards the expectations of the market and, in effect, bigger effectiveness of the conducted research. Utterback (1971, p. 78) uses a very simplified approach, reduces the innovation process to only three stages, namely: (i) idea generation subprocess, (ii) problem-solving subprocess and (iii) implementation and diffusion subprocess.

The innovation process models of the fourth generation are known as the parallel lines models or the integration models (Tidd, Bessant & Pavitt, 2005). Innovation is perceived as a result of the combination of the activity in the area of science, production and demand, including information feedback. Innovation process in the interactive model approach leads to obtaining information being a result of the feedback between technical capabilities (generated by science and technique) and needs (generated by the market or production), as well as a result of interaction between science, technique and implementation activities inside the firm (Martin, 1984, p. 34).

Commitment of numerous entities (suppliers, users, co-operators, business environment, institutional environment) to the implementation of innovation processes via internal activities of enterprises, as well as the use of the achievements of electronics and IT in order to introduce new methods of management and communication with the environment, which are characteristic for the models of integrated and network systems, lead to higher effectiveness of innovation.

The speed of changes, specialization and the globalization process have contributed to the development of new concepts of innovation processes, in which the source of success become the ones in which numerous entities participate, based on interactions and feedbacks, with granting a dominant role in innovation process to the market (Table 2).

At present, it is assumed that innovation process is of supply-demand character, but at the same time it is characterized by constant interactions and feedbacks between science, innovations and the economy (Pomykalski, 2001, p. 35; Kosała, 2013, p. 100). Innovation processes is not only of a multi-entity but also of international character. The search for original solutions in the conditions of globalization requires communication, cooperation and involvement of entities in the international scale. It concerns both the development and adaptation of products and services delivered to the global market, as well as winning resources which influence an increase in the effectiveness of innovation processes.

Only firms characterized by the following features can cope with innovative activity (Seidler de Alwis, Hartmann & Gemünden, 2004; Hauschildt, 1993, p. 78):

1. Openness.
2. Level of organization.
3. Information management.
4. Awareness of conflicts.
5. Recruiting requirements.
6. Competences and responsibilities.

A new dimension of innovativeness implies functioning on the international market in which networks of suppliers from all around the globe are created, and enterprises respond to individual needs of customers in the global scale (Prahalad & Krishnan, 2008, pp. 6-24). At the same time, conducted research indicates a positive impact of innovativeness of enterprises on the growth of their internationalization (Bell, Crick & Young, 2004, pp. 23-56; Chetty & Stangl, 2010, pp. 1725-1743; Knight & Cavusgil, 2004, pp. 124-141).

Table 2. The characteristics of the generation of innovation systems development

Generation of innovation processes		Duration	Characteristics
1	Innovation "pushed" by science *(technology push)*	1950s - 1960s	– linear model of innovation processes (supply model), – innovations arise as a result of the development of technologies, – considerable share of R&D works in innovation processes, – negligible significance of transformation processes, – negligible role of the market in innovation processes.
2	Innovation "pulled" by the market *(market pull)*	1960s - 1970s	– intensifying competition, – growing role of marketing and the market (demand model), – innovations are created in response to market needs, – reactive role of R&D in innovation processes.
3	Coupled innovation model (science + market) (*coupled)*	1970s - 1980s	– oil crisis, reduction of resources, – works focused on the growth of effectiveness of economic activity, – occurrence of "coupled" innovation model combining the features of previous technology push and market pull models, – defining base for the benchamrk course of innovation process (sequencing with feedback loops).
4	Integrated innovation models, interactive *(intergrated)*	1980s - 1990s	– economic recovery, – concentration of enterprises on major markets and products, – era of production diversification and niche strategies, – emergence of Japan as the main competitor (the skill of fast and effective creation of innovation), – introduction of Japanese experiences (integration of activities, collatarelity of works on the structure and technology, inclusion of suppliers in the process of new product development), – complex innovation process including parallel and sequential actions performed at the high level of integration in the cross-section of individual functions and cooperation with external partners.
5	IT systems	1990s	– competition based on the intruduction of new products on the market, – economic activity focused on the introduction of innovations (effectiveness of building and managing organization, organizational culture, employee motivation system), – supporting innovation processes management with computer technology, – integrated learning system based on the fast-learning organization concept (system thinking, model models, common vision, team learning, personal expertise), – iteration learning method enabling proceedings on a high level of complexity and chaos, – faster learning than competition, constant monitoring of this phenomenon.
6	Self-learning systems	Beginning of 21st century	– focus on knowledge-based management and learning with the use of IT tools (information transfer, decision-making process), – innovation management (creating new knowledge, storing, finding, dissemination, application with high use of creativity), – high structural efficiency of an enterprise, creating changes in the organizational culture, – sustainable concern about technology and intellectual resources, – success of innovation depends on thoughtful management of human behaviours against technology, – development of products transforms into constant, repeating learning process, focused on delivering value to customers, – necessity to overcome social, organizational, technical, structural, strategic, management problems.

Source: Kosała (2014b, pp. 75-76) based on Baruk (2006, pp. 120-122).

Innovation-related Issues in Business Internationalisation Modelling

When managing innovation processes in firms, emphasis is put on decisions regarding the areas of innovative activities. They may refer, in accordance with the existing classifications, to numerous spheres. One of the most commonly applied divisions of innovation activity, is the use of the criterion of the subject they concern.

Table 3. The comparison of stages models (U-model) with innovation-based models (I-model)

Criterion		U-model	I-models
Types of scientific explanation		**Genetic historicism**	
Analytical assumptions	Unit of analysis	No restrictions (SMEs, Large enterprises)	SMEs
	Time	Unlimited	Limited
Causation	Model type	Causative cycles	Explanatory chain
	Explanatory variables	One variable: knowledge of the enterprise	A lot of variables, mostly concerning organizational factors
Scientificity / Utilitarity	Assumptions with regard to enterprise behaviour	Based on behavioural theories, incremental decision-making process with no or little impact of competitive and market factors	
	Correctness of defining the variables	Examples of possible indicators, no operating definitions	Unclear arguments for the classification of procedures or operationalization of explanatory variables
	Accuracy of delimitation between stages	Considerable generality and ambiguity	Basically intuitive argumentation and reasoning
Usefulness / Intuitiveness		Axiomatic logics. Uselessness for the needs of management and government policy.	
Conformity between: – theory and operationalization – conceptual and operating definitions		Unclear	Some discrepancies, no testing of validity
Specification of variables adopted to determine the impact on the development process		No variables except for causative cycles	Lack of complete list of variables, unclear argumentation why and how variables should differ between stages
Empirical setting		Case studies: measurement of independent variables based on the observation of dependent variables	Cross-section analyses, unclear causality of internationalization phases from their determinants
Tautologies		Some difficulties in delimitation of theoretical concepts	In some cases independent and dependent variables are almost identical
Testing alternative explanatory variables		none	

Source: Wach (2012, p. 106) based on Andersen (1993, p. 221 & 226).

Thus, innovative activity may concern the introduction of new or improved products or production processes, utilization of new raw materials, materials or half-products, organization of production processes, changes in the methods of sales or purchases, as well as opening new markets. There are many approaches explaining the internationalisation of the firm (Wach, 2014a; Wach & Wehrmann, 2014; Daszkiewicz & Wach, 2014), however innovation plays a particular role in two of them, namely (i) innovation-related models and (ii) international entrepreneurship. Schumpeter (1934), as one of the first in the literature, linked innovation and internationalisation, as in his view one of five types of innovation is opening a new market.

Entering new markets, also the ones outside the country, implies internationalisation which becomes one of the types of innovation, and the internationalisation process becomes the process of the adaptation of innovation (Wach, 2012, p. 105; Witek-Hajduk, 2011, pp. 48-51).

The introduction of the issue of innovations among the problems of business internationalisation bore fruit in the development of the concept of innovation-related internationalisation models (I-models) being a variety of stages models (Table 3). Innovation-related internationalisation models refer to behavioural theory and the phase internationalisation process, differing, however, in the approach to the mechanism of the internationalisation process (Table 3). Innovation-related models take into account the stages in the internationalisation process, focusing on the proper introduction of innovations at each stage (Wach, 2012).

One of more often quoted innovation-based internationalization processes is the model proposed by Biey and Tesar (1977) which consists of the following stages:

1. the firm does not show interest in export,
2. the firm passively fulfils unsolicited orders from abroad but does not analyze actively export opportunities,
3. the firm managers actively analyse export opportunities,
4. the firm undertakes “experimental” export to neighbouring countries with small mental distance,
5. the firm is an experienced exporter and tries to optimally adapt to the conditions of the environment on foreign markets,
6. the firm managers examine the conditions of export to the states more distant in terms of mental distance.

Another proposed innovation-based model of the internationalisation process is the model by Cavusgil (1980, pp. 273-281), including the following stages:

1. domestic marketing,
2. pre-export engagement,
3. experimental / involvement stage,
4. active involvement stage,
5. committed involvement stage.

Cavusgil (1980) discusses that at the first stage, the firm operates only on the local market, then gathers information and evaluates the possibilities of undertaking export to focus at the next stage on the domestic market, initiate indirect export to two foreign markets at the most, usually being in the neighbourhood and characterized by small mental distance in comparison with the home country. Successful experiences result in

undertaking regular export activity to other countries, for example by creating a foreign branch. The last stage of the internationalisation process means the inclusion of foreign activity on the permanent basis in the operations of the firm (Witek-Hajduk, 2011, pp. 48-51).

Other commonly known innovation-based internationalisation models are (Wach, 2012, p. 105): the 6-stage model by M.R. Czinkota (1982), the 5-stage model by S.D. Reid (1981), the 4-stage model by T.R. Rao and G.M. Naldu (1992). The mentioned models pay attention to ultimate undertaking of export activity in spite of low interest in export at the initial stage.

In this place, it is worth paying attention to a relatively new problem concerning international entrepreneurship, namely identification, recognition and use of business

Table 4. A chronicle development of selected definitions of international entrepreneurship

International Entrepreneurship is defined (...) as the development of international new ventures or start-ups that, from their inception, engage in international business, thus viewing their operating domain as international from the initial stages of the firm's operation. **(McDougall, 1989)**
The study of the nature and consequences of a firm's risk-taking behaviour as it ventures into international markets. **(Zahra, 1993)**
.... a business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and sale of outputs in multiple countries. **(Oviatt & McDougall, 1994)**
New and innovative activities that have the goal of value creation and growth in business organization across national borders. **(McDougall & Oviatt, 1996)**
A combination of innovative, proactive, and risk-seeking behaviour that crosses or is compared across national borders and is intended to create value in business organizations. **(Oviatt & McDougall, 2000)**
It is associated with opportunity seeking, risk taking, and decision action catalysed by a strong leader or an organisation. **(Knight, 2000)**
international entrepreneurial orientation reflects the firm's overall pro-activeness and aggressiveness in its pursuit of international markets. **(Knight, 2001)**
International Entrepreneurship is the discovery, enactment, evaluation, and exploitation of opportunities –across national borders – to create future goods and services. **(McDougall, Oviatt & Shrader, 2003)**
... [an] evolutionary and potentially discontinuous process determined by **innovation,** and influenced by environmental change and human volition, action or decision. **(Jones & Coviello, 2005)**
... the discovery, enactment, evaluation and exploitation of opportunities – across national borders – to create future goods and services. **(Oviatt & McDougall, 2005)**

Source: Wach & Wehrmann (2014, p. 13).

opportunities occurring in the international trade to create new products or services (Oviatt & McDougall, 2005). In the research field, international entrepreneurship "has become an important research domain at the intersection of entrepreneurship and

international business" (Oviatt & McDougall, 2000 cited in; McDougall-Covin *et al.*, 2014, p. 2; Wach & Wehrmann, 2014, p. 10). Considering the development of the definitions of international entrepreneurship (IE), it is worth observing that it combines the issue of innovativeness and internationalization (Table 4). Currently the international entrepreneurship approach tries to combine the entrepreneurial internationalisation with the innovation process (innovation-related internationalisation models). It seems that this research stream within the IE will gain attention in the resent future. Jones and Coviello (2005) state that entrepreneurial internationalisation (international entrepreneurship) is an evolutionary and potentially discontinuous process determined by innovation. Moreover, Oviatt and McDougall (2005), stress that this innovative approach leads to creating future goods and services, which is *per se* a definition of innovation as an outcome. Moreover, Hagen, Denicolai and Zucchella, (2014, pp. 111-114) promote the role of innovation in international entrepreneurship, especially at the global level.

An interesting issue within international entrepreneurship is the research stream concerning international new ventures (INVs) which implicitly concern ventures based on innovations and high technologies. The problem of international entrepreneurship, taking on significance in the new economic conditionings, requires, for example, the deepening of knowledge about the entrepreneurship of emigrants (Drori, Honig & Wright, 2009). Globalization increases the phenomena of migration and influences undertaking ventures in the international dimension, creating opportunities for further investments.

Learning and Innovation in the Firm Internationalisation Process

Each of the undertaken directions of innovative activities may in consequence constitute an element of firm internationalization. One of the main motives for internationalization is winning new markets (international expansion or international growth), both supply and delivery markets.

In the case of innovations referring to opening new markets, it implies winning new recipients for the products and services offered by the enterprise. This type of innovations in the practical dimension influences, among others, the broadening of the borders of geographical range of the firm and, in consequence, crossing the domestic borders, which translates into its internationalisation.

Contemporary available tools and means of communication have impact on the opportunity of the firm occurrence on international markets, in the global scale, almost with immediate effect. The use of contemporary information technologies (ITs) as well as information and communication technologies (ICTs) for international distribution and sales of products and/or services becomes not only a chance, but, in many cases, also a necessity to operate in the international or global scale.

At present, among enterprises operating based on the use of IT/ICT technologies, the awareness of high probability of the occurrence of "unexpected success" of their venture becomes common. Thus, such innovative activities influence the growth of firm internationalisation. A similar phenomenon of early entry on international markets are observed among **young innovative firms**, ambiguously defined in the literature, as firms (Cieślik, 2011, pp.7-8):

- functioning on the market for not longer than 5-8 years,
- conducting activity of innovative character, that is firms functioning in innovative sectors (high-tech or medium high-tech industries), such as pharmaceutical industry, biotechnology, production of new materials, IT and ICT technologies,
- having technological advantage at least in the national, if not international scale.

Among motives for internationalisation of small, innovative firms, the following are distinguished (Cieślik, 2011, pp. 7-8):

- identification of attractive, catchy idea of innovative business,
- winning new supply markets,
- access to key resources,
- access to sources of finance,
- strengthening a strategic character of own assets,
- building goodwill, strengthening the firm image,
- co-dependence between individual motives.

In the literature of the subject, the following forms of internationalisation of the firms are mentioned (Wach, 2012, pp. 76-90; Wach, 2008, pp. 47-54), **exporting** modes**, contractual modes and investment modes** (Figure 7). Each of the mentioned forms of internationalisation enables to win new markets, and the choice of a specific one depends on the enterprise potential and its goals (Wach, 2014, p. 23). When introducing innovations aiming at winning recipients on the international markets, enterprises undertake activities within the scope of the internationalization forms mentioned in the literature.

Among young innovative firms, specific forms of internationalisation are preferred, different from the strategies of large entities (described above, compare Figure 7), and these are, among others (Cieślik, 2011, pp. 27-29): (i) **pre-exporting activities** (international patent protection of inventions; international registration of trademarks; sales of finished goods, materials and subassemblies; certificates, approvals for distribution on foreign markets; foreign domain, like.com, www site in foreign languages; participation in international fairs, conferences, international trade associations); (ii) **exporting modes** (import of finished goods, materials and subassemblies; import of services; export of services); (iii) contractual **modes** (various forms of hiring of foreign personnel; granting licence for a protected solution to a foreign entity; obtaining licence for a protected solution from a foreign entity; international cooperation regarding R&D; international cooperation in the area of production; international cooperation in the area of marketing and distribution); **(iv) investment modes** (participation of a strategic investor's equity in an innovative company in the host country; creating representations and branches abroad; creating foreign affiliated companies with mixed capital, creating subsidiaries with 100% control of ownership).

Until recently, the problem of internationalisation and innovativeness were treated separately. Globalisation and changes in the contemporary economy provoke thet these two areas are treated dependently (Etemad & Keen, 2012; Zucchella & Siano 2014). A new economic dimension requires the combination of entrepreneurship, innovativeness and internationalization. It enables to achieve a new level of competitiveness by using

opportunities, an ability to create innovations, conduct innovation processes and use resources at the global level (Hagen *et al.*, 2014, pp. 111-114, Kosała, 2014b, pp. 65-68).

Business internationalisation in the context of innovation can be treated as only one of the kinds of innovation (entering a new market - innovation according to Schumpeter), but also as a source of innovation, inspired by new experiences gained in the international activity to create new solutions with regard to product, process, organization of production, or marketing. Enterprises which have come into existence on the international market, when functioning on it, start noticing chances and opportunities to introduce next innovations, considering the complexity of the environment. Cultural differences which may influence the development of new products and their launch to individual national markets become a new spectrum of inspiration. A consequence of such activities is the growth of innovativeness and competitiveness of the enterprise. We may assume that in the contemporary economy, innovation processes are in dependence with internationalisation processes (Figure 1).

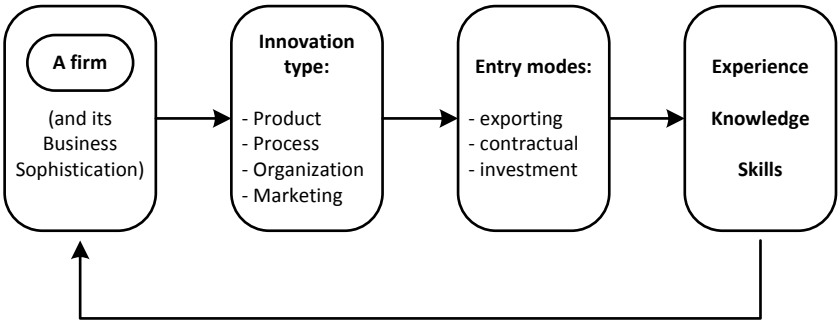

Figure 1. Innovation and learning process in internationalised firms
Source: own study.

CONCLUSIONS

Innovation is a goal which is implemented through innovation processes (innovation as an outcome). These, in turn, gain in effectiveness by the proper creation of innovative potential, which, in consequence, enables the growth of innovativeness which allows to co-create innovation-driven economies.

What becomes a natural consequence of the conducted innovation processes is undertaking activity on foreign markets, thus, internationalisation of the firm. This, in turn, forces or generates the implementation of further changes based on the functioning in new conditions. They may be direct innovations (arising from correctly conducted innovation process in the internationalization dimension) or indirect ones (creating new opportunities through functioning in unknown and previously not foreseen conditions).

Globalisation of the world economy is a phenomenon which exists in the awareness of almost all market participants. In the dimension of individual enterprises it timidly accelerates to become a common phenomenon. We can claim that business internationalisation is one of the kinds of innovations, implemented at a specific stage of

organisational development. Therefore, it requires well-thought-out actions, in accordance with the art of innovation management. Building innovation potential taken the international aspect is a new dimension of an enterprise. Understanding it will enable organizations to undertake effective actions, predicting resistance and breaking barriers.

On the basis of the inquiry of the literature, a thorough analysis of references, and the observation of cause-and-effect relationships, we can mention the following conclusions:

1. Entering a new market, including foreign markets, is treated as one of the forms of innovation, which in the entrepreneurship theory is already emphasized by its classical school, the foundations created by Schumpeter.
2. Entering a new market may also be treated as a source of innovation which inspires to undertake further innovations with regard to product, process, organization of product or marketing, the creation of a new value based on new knowledge, experience or skills which become the property of the firm undertaking various forms of internationalisation. It also enables to derive from a bigger potential of the environment, namely the global market, for global firms (Wach, 2014b).
3. Each of the internationalisation forms enables to win new markets, and the choice of a specific one depends on the firm potential (including its innovative potential), learning processes and organizational goals.
4. Depending on the motive of internationalisation, the entry modes preferred by young innovative firms are different than the strategy of large entities, paying attention to bigger efficiency of operation, bigger labour intensity of undertaken actions being outside the main stream of the activity of large concerns (Cieślik, 2011, pp. 27-29).
5. International entrepreneurship, as a very young research discipline at the intersection of entrepreneurship theory and the international business theory, undertakes research threads explaining internationalisation from the angle of innovation processes, which definitely confirms the thesis that the topic is important and will be developed in the future (Hagen, Denicolai & Zucchella, 2014; Wach & Wherman, 2014).

Undertaking innovative activity by firms results in the introduction of these businesses to international markets, and innovations become the main element of innovation-based internationalisation models as well as international entrepreneurship models. In contemporary economic conditionings, innovation processes and business internationalisation processes become more and more visible and co-dependent, creating a new dimension of entrepreneurship – international entrepreneurship. What is more, international entrepreneurship as a relatively new issue, requires in-depth studies. A challenge may be, for example, making an attempt to develop models of the effective use of the international enterprise potential considering the kind of innovation and the form of internationalisation. An interesting area for further research works will also be undertaking actions with regard to international entrepreneurship considering the phenomenon of migration of entrepreneurs immigrants (motives, kinds of innovation, forms of internationalisation, etc.), which is gaining its popularity and is known as transnational entrepreneurship (TE) that is an emergent research field combining

migrant entrepreneurship studies and international entrepreneurship studies (Drori *et al.*, 2009).

REFERENCES

Adner, R. (2006). Match your innovation strategy to your innovation ecosystem. *Harvard Business Review*, 84(4), 98-107.

Andersen O. (1993). On the Internationalisation Process of Firms: A Critical Analysis, *Journal of International Business Studies*, 24(2), 209-231.

Barnett, H.G. (1953). *Innovation: The Basis of Cultural Change*. New York, NY: McGraw-Hill.

Baruk, J. (2006). *Zarządzanie wiedzą i innowacjami*. Toruń: Wydawnictwo Adam Marszałek.

Becker, S.W., & Whisler, T.L. (1967). The innovative organization: a selective view of current theory and research. *Journal of Business*, 40(4), 462-469.

Bell, J., Crick, D., & Young, S. (2004). Small Firm Internationalization and Business Strategy: An Exploratory Study of Knowledge-Intensive and Traditional Manufacturing Firms in the UK. *International Small Business Journal*, 22(1), 23-56.

Bikey, W.J., & Tesar, T. (1977). The Export Behaviour of Smaller-Sized Wisconsin Manufacturing Firms, *Journal of International Business Studies*, 8(1), 93-98.

Birkinshaw, J., Hamel, G., & Mol, M.J. (2008). Management innovation. *Academy of Management Journal*, 33(4), 825-845.

Cavusgil, S.T. (1980). On the internationalization process of firms. *European Research*, 8(6), 273-281.

Chetty, S.K., & Stangl, L.M. (2010). Internationalization and innovation in a network relationship context. *European Journal of Marketing*, 44(11/12), 1725-1743.

Cieślik, J. (2011). Internacjonalizacja młodych innowacyjnych firm. Warszawa: Polska Agencja Rozwoju Przedsiębiorczości.

Czinkota, M.R. (1982). *Export development strategies: US promotion policies,* New York, NY: Praeger.

Davenport, T.H. (1994). Managing in the new world of process. *Public Productivity and Management Review*, 18(2), 133-147.

Daszkiewicz, N., & Wach, K. (2014). Motives for Going International and Entry Modes of Family Firms in Poland. *Journal of Intercultural Management,* 6(2), 5-18.

Dosi, G. (1988). Sources, procedures, and microeconomic effects of innovation. Journal *of Economic Literature*, 26(3), 1120-1171.

Drori, I., Honig, B., & Wright, M. (2009). Transnational Entrepreneurship: An Emergent Field of Study. *Entrepreneurship Theory & Practice*, 33(5), 1001-1022.

Drucker, P. (1992). *Innowacja i przedsiębiorczość – praktyka i zasady.* Warszawa: PWE.

Etemad, H., & Keen, C. (2012). Rapid Growth and Rapid Internationalization: The Case of Smaller Enterprises from Canada. *Management Decisions*, 50(4), 569–590.

Garcia, R., & Calantone, R. (2002). A Critical Look at Technological Innovation Typology and Innovativeness Terminology: A Literature Review. *Journal of Product Innovation Management*, 19(2), 110-132.

Greve, H.R., & Taylor, A. (2000). Innovations as Catalysts for Organizational Change: Shifts in Organizational Cognition and Search. *Administrative Science Quarterly*, 45(1), 54-80.

Gupta, A.K., Tesluk, P.E., & Taylor, M.S. (2007). Innovation At and Across Multiple Levels of Analysis. *Organization Science*, 18(6), 885-897.

Hagen, B., Denicolai S., & Zucchella A. (2014). International entrepreneurship at the crossroads between innovation and internationalization. *Journal of International Entrepreneurship*, 12(2), 111-114.

Hauschildt, J. (1993). *Innovationsmanagement*. München: Vahlen.

Jaffe, A.B., Trajtenberg, M., & Henderson, R. (1993). Geographic localization of knowledge spillovers as evidenced by patent citations. *Quarterly Journal of Economics*, 108(3), 577-598.

Jones, M., & Coviello, N. E. (2005). Internationalization: Conceptualising an Entrepreneurial Process of Behaviour in Time. *Journal of International Business Studies* , 36(3), 284-303.

Kanter, R.M. (1984), Innovation: Our Only Hope for Times Ahead?, *MIT Sloan Management Review* 25 (4), 51-55.

Kanter, R.M. (1988). When a thousand flowers bloom (pp. 169-211). In B.M. Staw & L.L. Cummings (Eds.), *Research in Organizational Behavior* (vol. 10). Greenwich, CT: JAI Press.

Knight, G.A., & Cavusgil, S.T. (2004). Innovation, Organizational Capabilities, and the Born-Global Firm. *Journal of International Business Studies*, 35(2), 124-141.

Kosała, M. (2013). Rozwijanie kreatywności jako fundament innowacyjności. *Horyzonty Polityki*, 4(6), 95-114.

Kosała, M. (2014a). Innowacje jako źródło przedsiębiorczości (chapter 4). In J. Targalski (Ed.), *Przedsiębiorczość i zarządzanie małym i średnim przedsiębiorstwem* (pp. 85-104). Warszawa: Difin.

Kosała, M. (2014b). Innowacyjność w warunkach nowej gospodarki – trendy, kierunki badań (chaper 3). In K. Zieliński (Ed.), *Formy i przejawy współczesnej przedsiębiorczości w Polsce* (pp. 61-82). Warszawa: Difin.

Kosała, M., & Wach K. (2011a). Regionalne determinanty rozwoju innowacyjności kształtujące strategie małych i średnich przedsiębiorstw (chapter 7). In J. Targalski & K. Zieliński (Ed.), *Strategie rozwoju małych i średnich przedsiębiorstw. Ujęcie teoretyczne i empiryczne* (pp. 121-154). Kraków: Fundacja Uniwersytetu Ekonomicznego w Krakowie.

Kosała, M., & Wach K. (2011b). Regionalne determinanty rozwoju innowacyjności przedsiębiorstw. *Zeszyty Naukowe Uniwersytetu Ekonomicznego w Krakowie*, 866, 19-36.

Kosała, M., & Wach, K. (2013). Czynniki determinujące dyfuzję innowacji na poziomie makro, mezo i mikro (chapter 1). In K. Zieliński (Ed.), *Makroekonomiczne i sektorowe uwarunkowania rozwoju przedsiębiorczości* (pp. 113-129). Katowice: Wydawnictwo Naukowe Śląsk.

Kosała, M., & Wach, K. (2014). Linking Regional Knowledge Laboratory and Growth of SMEs - Empirical Investigation in Southern Region of Poland. *Prace KGP PTG*, 26, 113-131.

Kotler, Ph. (1994). *Marketing*. Warszawa: Gebethner i Ska.

Lawson, B., & Samson, D. (2001). Developing innovation capability in organisations: a dynamic capabilities approach. *International Journal of Innovation Management*, 5(3), 377-400.

Leonard, D., & Sensiper, S. (1998). The Role of Tacit Knowledge in Group Innovation. *California Management Review*, 40(3), 112-125.

Levitt, T. (1960).Growth and profits through planned marketing innovation. *Journal of Marketing*, 24(4), 1-8.

Martin, M.J.C. (1984). *Managing Technological Innovation and Entrepreneurship*. Englewood Cliffs, NJ: Prentice Hall.

McDougall, P.P., & Oviatt, B.M. (2000). International entrepreneurship: the intersection of two research paths. *Academy of Management Journal*, 43(5), 902-906.

McDougall-Covin, P., Jones, M.V., & Serapio, M.G. (2014). High-Potential Concepts, Phenomena, and Theories for the Advancement of Entrepreneurship Research. *Entrepreneurship Theory and Practice*, 38(1), 1-10.

Myers, S., & Marquis, D.G. (1969). Successful industrial innovation: a study of factors underlying the innovation in selected firms.Paper No. NSF 69-17. Washington, DC: National Science Foundation.

Obstfeld, D. (2005). Social networks, the teritus iungens orientation, and involvement in innovation. *Administrative Science Quarterly*, 50(1), 100-130.

Oslo Manual (2005). *The Oslo Manual. Guidelines for Collecting and Interpreting Innovation Data*.. Third Edition. Paris: OECD/Eurostat.

Oviatt, B.M., & McDougall, P.P. (2005b). Defining international entrepreneurship and modeling the speed of internationalization. *Entrepreneurship Theory and Practice*, 29(5), 537-554.

Prahalad, C.K., & Krishnan M.S. (2008). *The new age of innovation*. New York Chicago San Francisco Lisbon London Madrid Mexico City Milan New Delhi San Juan Seoul Singapore Sydney Toronto The McGraw Hill Companies.

Pomykalski A. (2001). *Zarządzanie innowacjami.* Warszawa – Łódź: PWN.

Quintane, E., Casselman, R.M., Reiche, B.S., & Nylund P.A. (2011). Innovation as a Knowledge-Based Outcome. *Journal of Knowledge Management*, 15(6), 928-947.

Rao, T.R., & Naldu G.M. (1992). Are the stages of internationalization empirically supportable. *Journal of Global Marketing*, 6(1-2), 147-170.

Reid, S.D. (1981). The Decision-Maker and Export Entry and Expansion. *Journal of International Business Studies*, 12(2), 101-112.

Rennie, M.W. (1993). Global Competitiveness: Born Global. *The McKinsey Quarterly*, 4(1), 45-52.

Rogers, E.M. (1983). *Diffusion of innovations*. New York, London: The Free Press.

Rothwell, R., & Zegveld W. (1985). *Reindustralization and Technology*. London: Longman.

Saunila, M., Pekkola S., & Ukko J. (2014). The relationship between innovation capability and performance: The moderating effect of measurement. *International Journal of Productivity and Performance Management*, 63(2), 234-249.

Schumpeter, J.A. (1912). *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*. Cambridge, MA: Harvard University Press.

Schumpeter, J.A. (1934), Theory of Economic Development, Harvard University Press, Cambridge, MA.

Schumpeter, J.A. (1939). *Business Cycles: A Theoretical, Historical, and Statistical Analysis of the Capitalist Process*. New York, NY: McGraw-Hill.

Schumpeter, J.A. (1960). *Teoria rozwoju gospodarczego*. Warszawa: PWN.

Seidler de Alwis, R., Hartmann E., & Gemünden, H.G. (2004). *The role of tacit knowledge in innovation management*. Competitive Paper submitted to the 20th Annual IMP Conference in Copenhagen, 2th - 4th September 2004.

Schwab, K. (2013). *The Global Competitiveness Report 2013–2014: Full Data Edition.* World Economic Forum.

Tidd, J., Bessant, J., & Pavitt, K. (2005). *Managing Innovation: Integrating technological, market and organizational change.* 3rd ed., Wiley.

Trott, P. (1988). *Innovation management and New Product Development*. Edinburgh: Prentice Hall.

Utterback, J.M. (1971). The process of technological innovation within the firm. *Academy of Management Journal*, 14(1), 75-88.

Van de Ven, A.H. (1986). Central problems in the management of innovation. *Management Science*, 32(5), 590-607.

Van de Ven, A.H., & Polley, D. (1992). Learning while innovating. *Organization Science*, 3(1), 92-116.

Wach, K. (2008). *Skutki akcesji do Unii Europejskiej dla polskich przedsiębiorstw*. Kraków: Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie.

Wach, K. (2012). *Europeizacja małych i średnich przedsiębiorstw: rozwój przez umiędzynarodowienie*. Warszawa: PWN.

Wach, K. (2014a). Theoretical Framework of the Firm-Level Internationalisation in Business Studies (chapter 1). In Duréndez, A., & Wach, K. (Eds.) (2014). *Patterns of Business Internationalization in Visegrad Countries – In Search for Regional Specifics* (pp. 13-32). Cartagena: Universidad Politécnica de Cartagena.

Wach, K. (2014b). The Role of Knowledge in the Internationalisation Process: An Empirical Investigation among Polish Businesses (chapter 7) In D. Kiendl-Wendner & K. Wach (eds), *International Competitiveness in Visegrad Countries: Macro and Micro Perspectives* (pp. 173-158). Graz: Fachhochschule Joanneum.

Wach, K., & Wehrmann C. (2014). Entrepreneurship in International Business: International Entrepreneurship as the Intersection of Two Fields (Chapter 1). In: A.S. Gubik & K. Wach (Eds.), *International Entrepreneurship and Corporate Growth in Visegrad Countries* (pp. 9-22). Miskolc: University of Miskolc.

West, M.A., & Farr, J.L. (1990). Innovation at work. In M.A. West, & J.L. Farr, (Eds), *Innovation and Creativity at Work: Psychological and Organizational Strategies* (pp. 3-14). Chichester: Wiley.

Witek-Hajduk, M.K. (2010). *Strategie internacjonalizacji polskich przedsiębiorstw w warunkach akcesji Polski do Unii Europejskiej*. Warszawa: Oficyna Wydawnicza Szkoły Głównej Handlowej w Warszawie.

Zucchella, A., & Siano, A (2014). Internationalization and innovation as resources for SME growth in foreign markets: a focus on textile and clothing firms in the Campania Region. *International Studies of Management and Organization,* 44(1), 21-41.

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