

# LIMITS OF I-MODELS PRINCIPLES APPLICATION ON CZECH SMEs' INTERNATIONALIZATION PROCESS

Lea Kubíčková<sup>1</sup>

<sup>1</sup> Department of Marketing and Trade, Faculty of Business and Economics, Mendel University in Brno, Zemědělská 1, 613 00 Brno, Czech Republic

## Abstract

KUBÍČKOVÁ LEA. 2014. Limits of I-models Principles Application on Czech SMEs' Internationalization Process. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 62(4): 667–676.

Internationalization process of small and medium sized enterprises is examined often in an effort to get detailed description of particular stages of this process. There are many authors who deal with the internationalization process theories. The most popular theory is so-called Uppsala Model (Johanson, Vahlne, 1977). Very popular is also a group of models based on theory of innovations, called I-models (Bilkey, Tesar, 1977). These models are based on the idea that the process of internationalization is gradual, sequential process built on innovative decisions relating to new company's needs, possibilities or new resources. The aim of this paper is to apply I-models principles on the internationalization process of Czech SMEs. There were processed data from the survey conducted in 2009–2012. The data were obtained from 385 Czech SMEs operating in the field of engineering, constructing, wood processing industry, food industry and viticulture. To apply the basic principles of the I-models to internationalization process of Czech SMEs it was necessary to determine if there are so-called Born Globals which deny the I-model's internationalization theories. It was necessary to examine motives of internationalization of Czech SMEs, to prove dependency between the number of years on the market and proactivity/reactivity of the motives for entering foreign markets. Processing obtained data did not enable to unequivocally confirm that the basic principles forming a keystone of the I-models are functional in the internationalization process of Czech SMEs.

Keywords: I-models, limits, application, SMEs, internationalization process, internationalization

## INTRODUCTION

The process of globalization leads to strong internationalization of the world economy, the result of which is, inter alia, the development of international economic relations and interdependence of countries. In the domestic market, foreign competition keeps growing. In order to succeed in this intense competitive fight, small and medium-sized enterprises must be concerned with the issue of internationalization, since it represents one of the possibilities how to face the growing rivalry. For this reason, small and medium-sized enterprises (hereinafter SMEs) are examined more and more often in an effort to get detailed description concerning particular

stages of the internationalization process, which became objects of numerous researches, e.g. Lu, Beamish (2001), Oviatt, McDougall (1994). However, all companies do not have the same conditions in entering the international field. In some business spheres, the export of SMEs is supported, which is considerably helpful, mainly in case of enterprises with insufficient funds. For some branches, an access to foreign markets is more complicated in terms of their production type. Although small and medium-sized enterprises represent an important factor in foreign trade not only in the Czech Republic, but also in other EU countries, many of these companies find it difficult to identify key success

factors in the internationalization process, as well as to specify their strengths and weaknesses in the areas determining success in foreign markets. In the professional literature, there can be found many models describing the internationalization of SMEs; the question is whether the principles of these models can be unreservedly applied to the conditions of Czech SMEs.

## MATERIAL AND METHODS

Internationalization of companies is described as their involvement in the international environment. Welch and Luostarinen (1988) understand the internationalization process as “the process of increasing involvement in international operations”. The concept of internationalization significantly differs among particular authors; e.g. in 1977, Johanson and Vahlne defined the internationalization process as a “process in which companies gradually increase their international activities”, see Johanson, Vahlne, (1977). Later, other authors such as Calof and Beamish (1995) described internationalization as “the process of business operations (strategy, structure and resources) adaptation to the international environment”, whereas Břečková (2003) understands internationalization as a process of company's involvement in international business transactions based on its form and level of participation. In connection with the internationalization process definition, it is necessary to answer the question why do enterprises decide to internationalize, what is their motivation and whether it is possible to generalize the initiating factors. This topic was researched e.g. by Thompson *et al.* (2007), Yip (2003) and many others. For instance, according to Rodriguez *et al.* (2010), the factors initializing enterprise's involvement in the internationalization process include mainly new customers searching, compensation of sale crisis in the domestic market, risk reduction through diversification into different countries, income loss compensation in specific regions by earning opportunities in other ones, cost reduction in manufacturing, research

and development, distribution or purchase in using savings of scale, gaining higher profitability from larger investments, compensation of shorter product life cycle at a higher level by taking advantage of relatively homogeneous markets, gaining prestige and competitive advantage through global expansion of company's activities, increase of revenues in the markets with high barriers to entry and a production cost reduction achieved by outsourcing certain operations to countries with cheaper labor. Stremtan, Mihalanche and Pioras (2009) also dealt with determining forces which initiate enterprise's need of internationalization. These authors divided the determinants of internationalization into four basic groups, namely commercial, industrial, environmental and opportunity determinants. Another division distinguishing proactive and reactive motives is related to e.g. Czinkota, Ronkainen, Ortiz-Buonafina (2004) who defined proactive motives as those coming from internal company decisions (such as incentives to implement strategic changes in the company) and reactive motives as those which are de facto passive reflection of the business activities (stimuli that result from changing conditions in the domestic or foreign market resulting in the development of company's internationalization activities). Other authors, such as Hollensen (2008), focus specifically on internationalization motives of small and medium-sized enterprises, since it is assumed that the motives of SMEs for entering foreign markets are not identical to the motives of the large enterprises. According to Hollensen (2008), the main internationalization effort motives of small and medium-sized companies can be also divided into proactive and reactive motives, see the list of proactive and reactive motives by Hollensen in Tab. I.

There were many authors who dealt with the internationalization process of companies. One of the most popular theories is so-called Uppsala model published by Johanson and Vahlne (1977). The Uppsala model combines two different approaches to internationalization processes of companies and it is applicable

I: *The main motives of small and medium-sized enterprises to start exporting*

Proactive motives	Reactive motives
The objectives related to growth of the company and profit increase	Competitive pressure
Need of managers	Domestic market is small and saturated
The uniqueness of the product / investments in research and development	Excess capacity (full utilization of production capacity)
Opportunities in foreign markets / exclusive information on foreign markets	Unsolicited demand from abroad
Possibility of achieving savings of scale	Sales expansion of seasonal products
Tax benefits	Customer proximity and closeness (psychological and physical) to the foreign market

Source: Hollensen, 2008

to both large enterprises and SMEs. The first approach is based on an assumption that operating in a particular foreign market develops gradually, i.e. a company gradually increases its participation in international trade according to stages described by Johansson and Wiedersheim-Paul in 1975. In the first stage, the company does not show any regular export activities. In the second stage, it implements export through independent agents. In the third stage, subsidiary sale-focused companies are established abroad and the last stage represents foreign production or production unit establishment. The second way of reflection on the internationalization process of companies that Uppsala model takes into account lies in the fact that a company is gradually directed to enter new markets with higher psychic distance. It means markets that are unknown to enterprises, somehow different, foreign and culturally distant or those markets, of which a company does not have much information; in most cases, the markets are also of greater geographical distance. The psychic distance is according to Johanson and Vahlne (1977) defined as a number of factors that hinder the flow of information from and to the market. As a result, there are fewer enterprises that are able to understand those markets and numerous companies see them as a threat of uncertainty. As stated by this model, the first entered markets are those on which companies have enough information, where opportunities can be recognized and probability of failure is thus minimized. The best way to minimize the perceived uncertainty and recognize opportunities is through empirical knowledge, i.e. by means of experience based knowledge. Companies gain this knowledge mainly via personal experience in specific markets. That is why companies join foreign trade gradually, a step by step. Therefore, a company usually starts to invest in one or several neighboring markets. The Uppsala model, resulting from both described approaches, is generally based on the four core concept that takes into account four key factors: a market commitment, market knowledge, current activities and a commitment decision. These four factors are further divided into two groups: factors related to the company state (state aspects) and factors influencing changes in the company (change aspects). Among state aspects there belong market commitment (specifically, it is necessary to determine sources involved in foreign markets) and market knowledge (it is important to identify what information does a company have on foreign markets). Among change aspects current activities and commitment decision are rated. Four-core concept is interconnected and it influences itself. According to Zapletalová (2011), the main idea of the model therefore lies in differences between state and change aspects of internationalization variables. Because knowledge is considered as source, a relation between market efforts and market knowledge is direct; i.e. the better is knowledge that

a company has of the market, the larger is its effort on the particular market. Knowledge of the market is a prerequisite to decision influence both on market activities engagement and a technique of current activities performance. Currently, the Uppsala model has been often criticized. Its critics point out that it is not valid especially in case of very large multinational enterprises, companies with extensive international experience and those with high-technology equipment. For example Björkman and Forsgren (2000) see the major problem of this model in its emphasis on organizational learning as a driving force of corporate internationalization and in a fact that the model does not take into account the way empirical knowledge influences organizational behavior. Nordstrom (1991), another objector, claims that current development trends totally disprove the basic assumptions of the Uppsala model since the world has moved towards homogenization of the business community, especially thanks to the advance in communication and transportation which creates global markets. Nordstrom's second argument represents a fact that companies currently have had easier access to information on markets. Thirdly, numerous enterprises have been increasingly operating on a global level and see the world as a homogenous market without borders. The internationalization process is similarly seen by Johanson and Mattson (1988) who argue that the level of market internationalization has an impact on the internationalization process of particular companies, so that companies operating in highly internationalized markets may skip the first few stages in the internationalization process. In context of the criticism, the Uppsala model was fundamentally revised by its authors Johanson and Vahlne in 2009. Although the basic structure of the model remains the same, the company is no longer seen as an object without relations; now, it is understood in the context of business networks. After revision, even the 4 key factors of the model were changed – a group of state aspects includes knowledge, opportunities and a position of a subject in a system. The change aspects group contains relations in the process of decision making about joining effort plus learning, creating and building trust. The main idea of the revised model lies in the fact that the internationalization process of a company is determined by its relations in the trading system; i.e. a company enters foreign markets on the basis of its relations with key partners from home and abroad – it either follows its partner when he decides to penetrate foreign markets or uses some of its business network partners' knowledge and opportunities.

The Uppsala model can be categorized among so-called stage models where the internationalization of companies is seen as a process that takes place in different stages dependent on each other. To

enter the next stage, a company has to achieve the previous prerequisite step.

This group of models also includes models based on the theory of innovation called I-models. Elementary principles of I-models are based on the idea that the process of internationalization is a gradual, sequential process built on innovative decisions relating to new needs, possibilities and resources. I-Models understand internationalization as a process of gradual innovative decisions that lead to adaption to new ways of functioning on the market. The process is very often initiated by unsolicited orders from abroad; it is rarely designed as part of the strategic plan. Among these models the most famous one was published by Bilkey and Tesar (1977). The model contains 6 stages of the internationalization process and it is based on export reactive motives. This model is suitable for SME, its internationalization stages of the process defined by Bilkey and Tesar are following:

- 1<sup>st</sup> stage – a management is not interested in export activities,
- 2<sup>nd</sup> stage – the company's management responds to an unsolicited demand – reactive motive – but it does not put any effort into other active export,
- 3<sup>rd</sup> stage – the management is actively seeking export opportunities,
- 4<sup>th</sup> stage – the company develops an experimental export activities to the psychologically closest foreign markets,
- 5<sup>th</sup> stage – the company already has experience in exporting to the nearest foreign markets,
- 6<sup>th</sup> stage – on the basis of closest market experience, the management tries to expand its export activities to psychologically and geographically more distant markets.

Czinkota (1982) understands the internationalization process similarly as Bilkey and Tesar. He de facto adopts the idea of 6-stage internationalization process. Other authors such as Cavusgil (1980) and Reid (1981) describe only 5 internationalization stages in retaining the same principles.

Stage models are based on behavioral theories, and as it is evident from the above-mentioned models (the Uppsala model or I-Models) they divide the company's internationalization process into phases (different developmental stages). These phases describe the internationalization process as a process of growth distributed into separate stages which differ in their level of international business activities involvement and level of knowledge and experience. The principle of this approach lies in the idea that during the various stages of internationalization process, a company gradually increases its involvement in international trade and thereby gains empirical knowledge and experience. According to proponents of this

approach, extent of internationalization is unambiguously influenced by company size, time of its existence, experience in foreign markets etc. In comparison with the first two mentioned models, these ones are characterized by greater dynamism and the fact that do not put their attention only on direct foreign investment, but to all export activities. The group of stage models has its supporters and opponents who verified its suitability for small and medium-sized enterprises in practice. The criticism highlights the inability to explain the behavior of large multinational companies and insufficient understanding of factors starting the company's internationalization process. The most criticism, that stage models earn, arises because it completely omitted a possibility of so called born globals. However, most authors such as Bilkey and Tesar (1977) or Gankema, Snuit and van Dijken (2005) find the stage model applicable, mainly for internationalization behavior of SMEs research.

In the context of discussing why some companies join the global trade slowly and other ones quickly while some companies seem to be directly "born" for the global market, several professional publications appeared, e.g. Oviatt, McDougall (1994), Knight, Cavusgil (2004). In these publications, the authors presented evidence for the existence of another specific type of exporters. These companies were called "**Born Globals**", companies that focus on international and even on a global market immediately after its foundation, which means that these companies have not undergone any stages of development, but skipped all of them. In mentioning the so-called Born Globals (hereafter BG's), it is necessary to add that professional literature is not unified since several authors such as Knight (1997) or Harveston *et al.* (2000) define BG's as companies with an export ratio of more than 25%, which was achieved within 3 years from the date of foundation. However, this definition may seem rather general and vague today, because if such a small Norwegian company exports 30% of its products in Sweden and Denmark (within 3 years from creation), it could be hardly called global. It is therefore necessary to clearly define what type and number of markets should company enter and what part of its production should be exported to fulfill the definition of "Born Global". Nowadays, most of small and medium-sized enterprises usually export more than 25% of their production. Therefore other authors such as Luostarinen and Gabrielson (2004) defined Born Globals as companies whose export represent at least 50% of sales during three years since their foundation. Luostarinen and Gabrielson also introduces another category of enterprises called "**True Born Globals**" which is used for companies that export more than 50% of their production within three years of the establishment simultaneously on multiple continents.



## RESULTS

The aim of this paper is to apply I-models principles on the internationalization process of Czech SMEs in using collected primary data. It is necessary to determine whether there can be found any companies that could be labeled as Born Globals among Czech SMEs and which would disprove I-models internationalization theories. Furthermore, in context of I-models basic principles, there is a need to prove dependence between a number of years on market and a fact whether the company's motives to foreign trade activities are of reactive or proactive origin since according to the I-models, companies should be motivated to enter foreign markets by reactive motives at first and after some time, proactive internationalization motives should follow. To fulfill this aim, there were processed the data from partial surveys performed under the guidance of the author in 2009–2012 among 385 Czech SMEs active in various business fields. Information on the performance of Born Globals was collected in the field of engineering, construction, wood processing industry and food industry. In addition, these fields were supplemented by data from partial survey in a very specific industry – viticulture, where a total of 66 SMEs were interviewed, but only 12 subject of these already joint the internationalization process. None of the researched subjects met the definition of Born Global. During the investigation, which was focused only on SMEs operating in the construction industry, 27% of interviewed subjects said that the companies were established for a purpose of trading on the foreign market. Almost identical situation was detected in the field of engineering where the investigation revealed a total of 26% of businesses that met the definition of Born Global. Among Czech food SMEs, 39% of the surveyed subjects met the definition of BG; the ICT sector showed even more representation of Born Globals, 42%. The survey results indicate that the frequency of BG depends on the sector in which SMEs operate. Due to the limited sample of respondents in each sector, it is not possible to unambiguously state that BGs in any of the examined sectors predominate. However, it is certain that these companies need to be expected among Czech SMEs as they are represented across sectors (with the exception of wine companies<sup>1</sup>).

When identifying companies that meet criteria for inclusion in the group of Born Globals, it is necessary to mention the fact referred in the literature review – these companies should not embody so called “international experience”, a characteristic defined for example by Eramilli

(1991) by means of geographic operational range determining breadth of corporate experience (i.e. the a number of different countries where a company runs its activities) and length of experience (a number of years for which a company has been active in the international area). In this context, BGs could be seen as inexperienced, because “length of experience” of those enterprises, which were established and directly started to operate in foreign markets, is very low. However, empirical studies such as the one of Oviatt and McDougall (1994) suggest that key employees of BGs often have very extensive experience with international business activities from their previous jobs. Therefore it was necessary to verify this fact in case of Czech SMEs. Questions in one of the sub-surveys, the Czech SMEs in the food industry to be specific, were focused on managers' experience in foreign trade before their company entered foreign market. Most of the surveyed food industry Born Globals stated that the company management had a “very good”, “good” or “satisfactory” experience in international trade before the SMEs joint foreign markets. Therefore it is possible to agree with the statement resulting from empirical studies on BGs and claim that even in the case of Czech SMEs (particularly in the food industry), “length of experience” index does not represent a weakness since it is compensated by previous experience of BGs' key personnel. It can therefore be concluded that key employees of Czech SMEs that meet the BG criteria, as well as key employees of Born Globals elsewhere in the world, are experienced in international business activities thanks to their previous employment and this fact refutes the theory of small international experience.

In order to determine what motives prevail among Czech small and medium-sized enterprises, a questionnaire survey among Czech SMEs was performed under the leadership of the paper's author during the years 2010–2012. Individual surveys were successively focused on various industries – engineering, construction, food and wood industry. In form of written inquiries, there were identified main themes which led small and medium-sized enterprises to enter the internationalization process. In total, information on the motives of internationalization was obtained from 385 Czech SMEs. Data from individual sectors were processed separately, but overall it can be stated that SMEs from various sectors actually share the same motives to enter foreign markets, just their order can differ. Small and medium-sized enterprises across all sectors most frequently mention among the chief

1 The situation in the area of viticulture is specific. Small and medium enterprises are not interested in entering foreign markets, from 66 companies only 12 were exporting, mainly in Slovakia (67%), followed by Germany and Poland, i.e. to neighbouring countries. Only 17% of respondents said that sales from foreign trade operations represent more than 30% of turnover and the export turnover ratio of other respondents was even smaller. Export activities are therefore only marginal in wine SMEs. The most frequent customers abroad are retailers.

motives of internationalization foreign demand for company products or services, insufficient demand in the domestic market, customer portfolio extension, efforts to increase company turnover, sales and to create new contacts abroad. These motives are both proactive (i.e. leading small and medium-sized enterprises to internationalization of their internal decisions) and reactive. For example the most frequently mentioned motive – foreign demand for company products or services – belongs to reactive motives as it follows the changing conditions in the foreign market. Although in the engineering sector, the most important motive (mentioned by 68% of engineering SMEs) for internationalization is not the foreign demand, but one of proactive motives – turnover increase. According to the respondents from the wood industry SMEs, there prevails a foreign demand motive mentioned by more than 80% of cases. The same motive also predominates at food companies; it was put at the first place by 43% of respondents. Survey of SMEs operating in the construction industry showed that 35% of respondents identify foreign demand as the main motive of internationalization, while motive number 2 was the possibility of extending the customer portfolio (19% of respondents) and third most frequently mentioned motive for entering foreign markets was competitive pressure in the domestic market (12% of respondents). Also in the textile industry, SMEs put foreign demand on the first place (65% of respondents) among motives of entering foreign markets. Thus it is not possible to unequivocally say that reactive motives prevail in all mentioned sectors as suggested by the theory of I-models.

A comparison of detected most frequently mentioned motives of internationalization of Czech SMEs with worldwide SMEs' internalization motives presented in the professional literature as the most often mentioned showed to be very interesting. According to Hollensen (2008), it is possible to include among main motives of small and medium-sized enterprises for internationalization objectives related to company growth and profitability increase, material needs, tax benefits and others. In addition to these proactive motives there are also reactive motives such as competitive pressure, saturated or small domestic market, overproduction etc. The comparison of most often mentioned internationalization motives of Czech SMEs with motives presented by Hollensen (2008) is shown in Tab. II. It shows that **reactive motives of internationalization slightly predominate in the case of Czech SMEs.**

After defining motives of Czech SMEs for entering the internationalization process, it was necessary, in accordance with the defined target, to prove dependency between the number of years on the market and proactivity/reactivity of the motives leading a company to foreign trade activities. In 2012, a survey focused on SMEs in the engineering sector was performed under leading of the paper's author since in this sector proactive motives for entering the internationalization process predominated, which would deny the I-principles models. Data from 84 engineering SMEs were processed in an effort to prove a relationship between the number of years on the market and proactivity/reactivity of the motives leading a company to foreign trade activities. To determine the relationship between the number of years that companies

II: Comparison of internationalization motives as referred by Czech and foreign SMEs

Most frequent internationalization motives of SMEs in the world	
Proactive motives	Reactive motives
The objectives related to growth of the company and profit increase	Competitive pressure
Need of managers	Domestic market is small and saturated
The uniqueness of the product / investments in research and development	Excess capacity (full utilization of production capacity)
Opportunities in foreign markets / exclusive information on foreign markets	Unsolicited demand for company products from abroad
Possibility of achieving savings of scale	Sales expansion of seasonal products
Most frequent internationalization motives of Czech SMEs	
Proactive motives	Reactive motives
Turnover increase	Foreign demand for company products
Profit increase	Insufficient demand in the domestic market
Customer portfolio extension	Czech Republic's entry into Schengen area
Enlarging company's scope	Competitive pressure on the domestic market
	Excess capacity (better utilization of production capacity)
	Better conditions for business abroad

Source: Hollensen, (2008) and data from own research

operate in the market and their individual motives of internationalization, non-parametric tests examining dependence of rank variables were used.

There were chosen following proactive motives: turnover increase, competitiveness improvement, customer portfolio extension, specialization deepening and production costs reduction. As reactive motives there was chosen foreign demand, better conditions for business abroad and new entrepreneurial opportunities.

At a significance level  $\alpha = 0.05$ , there can be traced dependence among operation period in the foreign market, one of the proactive motives (competitiveness improvement) and two reactive motives of internationalization (better conditions for business abroad, new entrepreneurial opportunities abroad), respectively only in case

of using the Spearman's coefficient (Tab. III) and Kendal correlation tau (Tab. IV), but not in correlation gamma (Tab. V) that best reflects the potential high incidence of discordant pairs, which must be taken into account in this case. Therefore, it is not possible to unambiguously talk about dependence on foreign market operation period in case of competitiveness improvement. It is thus possible to prove the just dependence of two reactive motives of internationalization. This conclusion however does not correspond to the I-model according to which companies with longer foreign market operation period should choose proactive internationalization motives. On the basis on available data it cannot be unequivocally stated that the basic principles of the I-model are valid for Czech SMEs.

### III: Spearman correlations

Variable	Spearman correlations							
	Highlighted correlations are significant at significance level $p < 0.05000$							
	PR Turnover increase	PR Competitiveness improvement	RE Better conditions for business	PR Customer portfolio extension	RE Foreign demand	RE New entrepreneurial opportunities	PR Specialization deepening	PR Production cost reduction
Foreign market operation period	-0.144519	-0.037309	-0.012444	0.149234	0.110818	-0.023101	-0.087736	-0.175836

Source: Own calculations

### IV: Gamma Correlations

Variable	Gamma Correlations							
	Highlighted correlations are significant at significance level $p < 0.05000$							
	PR Turnover increase	PR Competitiveness improvement	RE Better conditions for business	PR Customer portfolio extension	RE Foreign demand	RE New entrepreneurial opportunities	PR Specialization deepening	PR Production cost reduction
Foreign market operation period	-0.240702	-0.064976	-0.019815	0.229648	0.169379	-0.035409	-0.170341	-0.353535

Source: Own calculations

### V: Kendall's Tau Correlations

Variable	Kendall's Tau Correlations							
	Highlighted correlations are significant at significance level $p < 0.05000$							
	PR Turnover increase	PR Competitiveness improvement	RE Better conditions for business	PR Customer portfolio extension	RE Foreign demand	RE New entrepreneurial opportunities	PR Specialization deepening	PR Production cost reduction
Foreign market operation period	-0.133075	-0.034354	-0.011459	0.137417	0.102043	-0.021271	-0.080789	-0.161912

Source: Own calculations

## CONCLUSION

The main aim of this paper was to apply the basic principles of the I-models to internationalization process of Czech SMEs. First, it was necessary to determine whether there are such Czech SMEs that could be included among so-called Born Globals and which deny the I-models' internationalization theories. On the basis of the survey among Czech SMEs and due to the limited sample of respondents in each sector, it is not possible to unambiguously state that BGs in any of the examined sectors predominate, but it is certain that and it is necessary to take them into account, because they occur in all surveyed sectors (except for the wine industry). This fact therefore contradicts the basic principles of the I-models.

However, to make view on the application I-models in terms of Czech SMEs complete, it was also indispensable to demonstrate the relationship between market operation period and proactivity/reactivity of the motives leading a company to foreign trade activities since according to the I-models, companies should be motivated to enter foreign markets by reactive motives at first and after some time, proactive internationalization motives should follow. Dependence could have

been demonstrated only in case of two reactive motives of internationalization – better conditions for foreign business and new entrepreneurial opportunities. This finding does not correspond with the I-model according to which companies with longer foreign market operation period should choose proactive internationalization motives. It is therefore not possible (even in case of internationalization motives monitoring) to unequivocally say that the basic principles of the I-model are valid for Czech SMEs.

Processing of the data obtained from the Czech SMEs did not enable to unequivocally confirm that the basic principles forming a keystone of the I-models are functional in the internationalization process of Czech SMEs. The conclusions could have been influenced by relatively small sample of surveyed small and medium-sized enterprises, by the method of primary data collecting and the fact that surveyed companies did not provide the author all necessary information to determine particular context. Consequently it is not possible to reliably refuse the basic principles of mentioned models in the Czech SMEs setting, but, as it was said, it is not possible to confirm them either.

## SUMMARY

Internationalization of companies is described as their involvement in the international environment. There are many models dealing with the internationalization process of companies. One of the most famous models are so-called I-Models. Elementary principles of I-Models are based on the idea that the process of internationalization is a gradual, sequential process built on innovative decisions relating to new needs, possibilities and resources. I-Models understand internationalization as a process of gradual innovative decisions that lead to adaption to new ways of functioning on the market. The process is very often initiated by unsolicited orders from abroad; it is rarely designed as part of the strategic plan. Among these models the most famous one was published by Bilkey and Tesar (1977). The model contains 6 stages of the internationalization process and it is based on export reactive motives. The aim of this paper is to apply I-models principles on the internationalization process of Czech SMEs. There were processed data from the survey conducted in 2009–2012. The data were obtained from 385 Czech SMEs operating in the field of engineering, constructing, wood processing industry, food industry and viticulture. To apply the basic principles of the I-models to internationalization process of Czech SMEs it was necessary to determine if there are so-called Born Globals which deny the I-model's internationalization theories. It was necessary to examine motives of internationalization of Czech SMEs, to prove dependency between the number of years on the market and proactivity/reactivity of the motives for entering foreign markets. Processing obtained data did not enable to unequivocally confirm that the basic principles forming a keystone of the I-models are functional in the internationalization process of Czech SMEs. In 2012, a survey focused on SMEs in the engineering sector was performed under leading of the paper's author since in this sector proactive motives for entering the internationalization process predominated, which would deny the I-principles models. Data from 84 engineering SMEs were processed in an effort to prove a relationship between the number of years on the market and proactivity/reactivity of the motives leading a company to foreign trade activities. To determine the relationship between the number of years that companies operate in the market and their individual motives of internationalization, non-parametric tests examining dependence of rank variables were used. There were chosen following proactive motives: turnover increase, competitiveness improvement, customer portfolio extension, specialization deepening and production costs reduction. As reactive motives there was chosen foreign demand, better conditions for business abroad and new entrepreneurial opportunities. At a significance level  $\alpha = 0.05$ , there can be traced dependence among operation period in the foreign market, one of the proactive motives (competitiveness



improvement) and two reactive motives of internationalization (better conditions for business abroad, new entrepreneurial opportunities abroad), respectively only in case of using the Spearman's coefficient and Kendal correlation tau, but not in correlation gamma that best reflects the potential high incidence of discordant pairs, which must be taken into account in this case. Therefore, it is not possible to unambiguously talk about dependence on foreign market operation period in case of competitiveness improvement. It is thus possible to prove the just dependence of two reactive motives of internationalization. This conclusion however does not correspond to the I-model according to which companies with longer foreign market operation period should choose proactive internationalization motives. On the basis on available data it cannot be unequivocally stated that the basic principles of the I-model are valid for Czech SMEs.

## REFERENCES

- BILKEY, W. J., TESAR, G. 1977. The Export Behavior of Smaller Wisconsin Manufacturing Firms. *Journal of International Business Studies*, 8(1): 93–98.
- BJÖRKMAN, I., FORSGREN, M. 2000. Nordic International Business Research. *International Studies of Management & Organization*, 30(1): 6–25. [online]. Available on: <http://www.jstor.org/stable/40397466>.
- BŘEČKOVÁ, P. 2003. Expanze českých malých a středních firem na zahraniční trhy. In: *Odborná konference doktorského studia s mezinárodní účastí*. [online]. Brno, 2003. Dostupné z: <http://www.fce.vutbr.cz/veda/dk2003texty/pdf/5-1/np/breckova.pdf>. [cit. 2012-09-03].
- CALOF, J. L. and BEAMISH, P. W. 1995. Adapting to foreign markets: explaining internationalization. *International Business Review*, 4(2): 115–131.
- CAVUSGIL, S. T. 1980. On the Internationalization Process of Firms. *European Research*, 8(6): 273–281.
- CZINKOTA, M. R. 1982. *Export Development Strategies*. New York: Praeger Publishers.
- CZINKOTA, M. R., RONKAINEN A., ORTIZ-BUONAFINA M. *The export marketing imperative*. Mason, OH: Thomson.
- HARVESTON, P. D., KEDIA, B. L., DAVIS, P. S. 2000. Internationalization of born global and gradual globalizing firms: The impact of the manager. *Advances in Competitive Research*, 8(1): 92–99.
- ERAMILLI, M. K. 1991. The Experience factor in foreign market entry behaviour of service firms. *Journal of International Business Studies*, 22(3): 479–501.
- HOLLENSEN, S. 2008. *Essentials of global marketing*. Harlow, Essex, England: Pearson Education.
- GANKEMA, H. G. J., SNUIF, H. R. and DIJKEN, K. A. VAN. 2005. The internationalisation process of small and medium sized enterprises: An evaluation of the stage theory. In: DONCKELS, R. and MIETTINEN, A. *Entrepreneurship and SME research: on its way to the next millennium*. Ashgate, USA: Brookfield, Vt., 185–199.
- JOHANSON, J., MATTSSON, L. G. 1988. Internationalization in Industrial Systems – A Network Approach. In: HOOD, N., VAHLNE, J. E. *Strategies in global competition: selected papers from the Prince Bertil Symposium at the Institute of International Business, Stockholm School of Economics*. New York: Croom Helm.
- JOHANSON, J., VAHLNE, J. E. 1977. The Internationalization Process of the Firm – A Model of Knowledge Development and Increasing Foreign Market Commitments. *Journal of International Business Studies*, 8(1): 23–32.
- JOHANSON, J., VAHLNE, J. E. 1990. The mechanism of internationalisation. *International Marketing Review*, 7(4): 11–24.
- JOHANSON, J., VAHLNE, J. E. 2009. The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsidership. *Journal of International Business Studies*, 40(9): 1411–1431.
- JOHANSON, J., WEIDERSHEIM-PAUL, F. 1975. The Internationalisation of the Firm-Four Swedish Cases. *Journal of Management Studies*, 12(3): 305–322.
- KNIGHT, G. A. 1997. *Emerging paradigm for international marketing: The born global firm*. Doctoral dissertation. Michigan (USA): Michigan State University.
- KNIGHT, G. A., CAVUSGIL, S. 1996. The born global Firm: A Challenge to Traditional Internationalization Theory, Advances in International Marketing. *Journal of International Business Studies*, 35: 124–141. DOI: 10.1057/palgrave.jibs.8400071.
- LU, J. W., BEAMISH, P. W. 2001. The internationalization and performance of SMEs. *Strategic Management Journal*, 22(2): 565–586. [online]. [cit. 2012-09-09]. Available on: <http://iba8010kelly.alliant.wikispaces.net/file/view/The+internationalization+and+performance+of+SMEs.pdf>.
- LUOSTARINEN, R., GABRIELSSON M. 2004. Born Finnish perspective of international entrepreneurship. In: DANA, L. P. *Handbook of Research on International Entrepreneurship*. Cheltenham, UK and Northampton, MA, USA: Edward Elgar Publishing, 383–403.
- NORDSTRÖM, K. A. 1991. *The Internationalization Process of the Firm: Searching for New Patterns and Explanations*. Doktorafhandling. Stockholm: Stockholm School of Economics.
- OVIATT, B. M., MCDOUGALL, P. P. 2005. Toward a Theory of International New Ventures. *Journal of International Business Studies*, 25(1): 45–64.
- REID, S. D. 1981. The decision-maker and export entry and expansion. *Journal of International Business Studies*, 12(1): 101–112.

- RODRIGUEZ, V., BARCOS, L. and ÁLVAREZ, M. J. 2010. Managing risk and knowledge in the internationalisation process. *Intangible Capital*, 6(2): 202–235. [online]. Available on: <http://www.intangiblecapital.org/index.php/ic/article/viewFile/162/122>. [cit. 2012-09-14].
- STREMTAN, F., MIHALANCHE, S., PIORAS, V. 2009. On the internationalization of the firms – from theory to practice. *Annales Universitatis Apulensis Series Oeconomica*, 11(2): 1025–1033. [online]. Available on: [www.oeconomica.uab.ro/upload/lucrari/1120092/48.pdf](http://www.oeconomica.uab.ro/upload/lucrari/1120092/48.pdf) 2009. [cit. 2012-08-20].
- THOMPSON, A., STRICKLAND III, A. J., GAMBLE, J. 2005. *Crafting and executing Strategy: the quest for competitive advantage*. 14<sup>th</sup> ed. McGraw-Hill International Edition.
- WELCH, L. S., LUOSTARINEN, R. K. 1988. Internationalization: Evolution of a Concept. *Journal of General Management*, 14(2): 36–64.
- YIP, G. S. c2003. *Total global strategy II: updated for the internet and service era*. Upper Saddle River, N. J.: Prentice Hall.
- ZAPLETALOVÁ, Š. 2011. Vybrané evoluční teorie procesu internacionalizace podnikatelských aktivit. *Acta academica karviniensia*, 3: 186–194. [online]. Available on: <http://www.opf.slu.cz/aak/2011/03/zapletalova.pdf>. [cit. 2012-08-24].