

## Models of Czech companies' internationalization

Šárka Zapletalová

Published online: 7 March 2015

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**Abstract** The opening of markets has created the potential for small and medium enterprises expansion and investment. There have been several theories and conceptual frameworks that seek to explore a company's decision to initiate the internationalization process. International business literature most frequently deals with two main types of internationalization models: the stage model and the early internationalization model. The purpose of this paper is to review selected methodological approaches concerning internationalization processes and related internationalization models, and on this background, it aims to investigate internationalization models of Czech companies. The companies included in the study are those that have already undertaken internationalization activities and are incorporated in the Czech Republic. A total of 297 enterprises participated in the study and the main primary data collection instrument was a questionnaire-interview. The findings of the analysis of the internationalization

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### Summary Highlights

*Contributions:* The paper makes an important contribution to the issue of internationalization of Czech companies by defining the particular internationalization models. It shows the influence of selected variables on the internationalization process of Czech companies.

*Research Questions/Purpose:* What are the specifics of the internationalization process of entrepreneurial activities of Czech companies? It is possible to determine any specific model of internationalization of Czech companies?

*Results/Findings:* Testing through cluster analysis, using data from 297 Czech companies participated in the study, has confirmed the existence of five basic internationalization models of the Czech companies. The most Czech companies perform on international markets following both basic models of internationalization: the stage model and the early internationalization model. The majority of the Czech companies oscillate between these models and neither company can be characterized as having complex qualities of the models.

*Theoretical Implications and Recommendations:* Although author does not develop new theory, the work builds on prior works in the field of international business toward a theory of the internationalization of company. The results of this work contribute new insights on the internationalization process of companies in the post-communist country. In the country, where were held significant changes in the economic system 25 years ago and where the majority of companies have a history shorter than 25 years.

*Practical Implications and Recommendations:* The work represents a certain building block toward such a future development of internationalization activities of Czech companies. The necessity of active participation of Czech entrepreneurial subjects at international markets is conditioned primarily by the character of Czech economics and its foreign political orientation. Increasing the active involvement of Czech companies at international markets can be supported by government policies creating stimuli for the internationalization of companies.

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Š. Zapletalová (✉)

Department of Management and Marketing, Moravian University College Olomouc, tř. Kosmonautů  
1288/1, 779 00 Olomouc, Czech Republic  
e-mail: szapletalova@hotmail.com

process of Czech companies show that the level and degree of companies' internationalization is still relatively low. The research also shows that most Czech companies fall within the category of gradually globalizing companies.

**Abstrakt** Die Öffnung der Märkte bildete für kleine und mittlere Unternehmen ein Expansions- und Investitionspotential. Es gibt verschiedene Theorien und Konzeptionen, die versuchen, die Entscheidung des Unternehmens, ein Internationalisierungsverfahren einzuleiten, zu erforschen. Die internationale Business-Literatur beschäftigt sich überwiegend mit zwei Haupttypen von Internationalisierungsmodellen - dem Stufenmodell und dem früheren Internationalisierungsmodell. Das Ziel dieser Arbeit besteht in einer Revision der ausgewählten methodischen Ansätze der Internationalisierungsprozesse und der damit verbundenen Internationalisierungsmodelle. Auf diesem Hintergrund werden dann die Internationalisierungsmodelle der tschechischen Unternehmen untersucht. Die in die Studie einbezogenen Unternehmen sind diejenigen, die bereits Internationalisierungsaktivitäten unternahmen und in der Tschechischen Republik inkorporiert sind. Insgesamt 297 Unternehmen nahmen an der Studie teil und das wichtigste Instrument der Datenerfassung war ein Fragebogen-Interview. Die Ergebnisse der Analyse der Internationalisierung der tschechischen Firmen bestätigen, dass das Niveau und der Internationalisierungsgrad nach wie vor relativ gering sind. Die Forschung zeigt, dass sich auch die meisten tschechischen Unternehmen innerhalb der Kategorie der schrittweise globalisierenden Unternehmen befinden.

**Keywords** Stage model · Early internationalization model · Model of internationalization · Process model · Innovative model

**Schlüsselwörter** Stufen-Modell · frühe Internationalisierung Modell · Internationalisierungsmodell · Prozessmodell · Innovationsmodell

## Introduction

The phenomenon of the internationalization of entrepreneurial activities first became the focus of research in international business literature over some 60 years ago. At that time, one of the first internationalization approaches known as the stage model tried to observe the transformation of organizations across borders and internationalization models. This model of internationalization has been well documented and still finds much support in contemporary business practices. However, the model is not sufficient enough to describe the growing number of companies that are providing products globally from their birth. Domestic rivalry in markets in which the companies compete generates pressure on the companies to improve and innovate (Amorós et al. 2012). The second model known as the global approach (early internationalization model and international entrepreneurship) emerged in the early 1990s as a response to the dynamic nature and performance of newly internationalizing companies, which is perceived as anomalous to the traditional patterns of company internationalization.

The transition process of the Czech economy, including its involvement in international exchange, and the developing globalization process mean that Czech companies

have rapidly begun to internationalize their activities. One of the main reasons of the interest of Czech companies to expand to foreign markets nowadays is a limited market size of the Czech Republic and, consequently, the increasing competition in the domestic market. The growing interest in doing business in foreign markets gives rise to interests in internationalization in a broader context. However, the research on international entrepreneurship and internationalization processes in Czech professional and business literature is relatively scarce; there are only few studies exploring and monitoring internationalization processes of Czech companies. Due to the absence of substantial research the author of the present study carried out a research survey among Czech companies to identify specifics of the internationalization process of selected Czech companies and tried to define and explore internationalization models of Czech companies. The findings presented in the study are the first of their kind in the Czech Republic. The main research question of the research is to find out what are the specifics of the internationalization process of entrepreneurial activities of Czech companies, whether it is possible to determine any specific model of internationalization of Czech companies.

The objective of this paper is to present contemporary models of Czech companies' internationalization. The paper is organized into three parts. The first part of the paper outlines selected theories dealing with models of internationalization. Since the paper seems to offer pioneering work on internationalization models in Czech context the focus is on two basic models of internationalization: the stage model and the early internationalization (global) model. The second part of the paper aims to present and interpret results of the survey carried out among Czech entrepreneurial subjects. Finally, the last section provides conclusion of the research and offers discussion of most important implications.

## Theoretical framework

The internationalization process of the firm and internationalization models have been recently the focus of much extensive research in the field of international management. It can be concluded that the model of internationalization attempts to typify the behavior of entrepreneurial subjects when they start their foreign operations. Internationalization research has focused on the process of increasing involvement in international markets. The first attempt to explain the behavior of companies on international markets from microeconomic point of view are believed to be Hymer's doctoral thesis on internationalization of American companies and the theory of monopolistic advantage developed by Hymer and Kindleberger, as well as the theory of international product life cycle developed by Vernon (Jarosiński 2013). Two broad theoretical streams have emerged. First, traditional internationalization theories (such as stage theory, internalization theory, transaction cost theory), have focused on the factors influencing internationalization, especially in larger companies. Second, the international entrepreneurship theories (such as strategic choice theory, learning and knowledge theory relating to international new ventures or born globals, resource-based theory, network theory), have focused on the SMEs internationalize from the outset (Wright et al. 2007). These theories on international processes or models are continually evolving and developing: this reflects constant changes in global business

environment. Despite new and emerging theories of internationalization, the stage approach (gradually globalizing company) and the global approach (born global company) still remain and are treated as most fundamental and default approaches. The newly evolving approaches and theories are usually based on these two basic frameworks which thus become a springboard for further modification and innovation.

Jones and Coviello (2005) noted that while contemporary understanding of internationalization is informed by integrating multiple theoretical perspectives, there remains a need to incorporate entrepreneurial behavior into models of internationalization. The model of internationalization might explain a company's internationalization decision, its actions and its dynamic processes. At present the international business literature most often quotes two types of models: the stage model and the model of early internationalization.

According to stage models, companies initially start selling products in their home markets and then they gradually search for new countries and markets (Baronchelli 2008). Gradual and sequential stages are based on a series of incremental commitment decisions depending on perception, expectations, experience, managerial capacity etc. (Rasmussen and Madsen 2002, p. 3). Stage models are often referred to as traditional models, and they are classified into two types: the so-called process models (the Uppsala internationalization model or the U-model) and innovative models (cf. the innovation-related internationalization models or the I-model).

Process models such as the U-model are mostly associated with the research of Johanson and Wiedersheim-Paul, and Johanson and Vahlne. These models (Johanson and Wiedersheim-Paul 1975; Johanson and Vahlne 1977, 1990, 2003, 2006, 2009) emphasize stepwise and highly deliberative nature of internationalization that is comparatively slow, owing to incremental adaptation to environmental conditions (Knight et al. 2004, p. 646). Within the concept of process models internationalization is seen as an organizational learning process. Johanson and Wiedersheim-Paul distinguish between four different modes of entering an international market, where the successive stages represent higher degrees of international involvement (Johanson and Vahlne 1977, 2009; Johanson and Wiedersheim-Paul 1975):

1. No regular export activities.
2. Export via independent representatives.
3. Establishment of an overseas sales subsidiary.
4. Overseas manufacturing units.

The research by Johanson and Wiedersheim-Paul has probably also been the chief source of inspiration for the development of several innovative models such as e.g., the innovation-related internationalization models which attempt to explain the internationalization process from an innovation-related perspective. The internationalization decision is here considered as a series of innovation decisions for the company. Models of this type draw on Roger's stages of the adoption process (Andersen 1993). In innovative models (Bilkey and Tesar 1977; Cavusgil 1980; Czinkota 1982; Reid 1981) the decision to start international operation, most frequently export, is an innovation in relation to operations on a home market.

Innovation adoption describes the selection of an innovation, among a series of options, as the most acceptable alternative, at a given point in time (Zaltman and Stiff

1973). The employment of the innovation adoption framework in export decision making was first investigated by Simmonds and Smith (1968) but most significant contribution and advances were made by Bilkey and Tesar (1977). These authors came to the conclusion that the process of export development involves several distinct stages and that there are various different factors affecting decision making at each stage. An extensive volume of research has examined the way in which companies progress along the internationalization continuum. According to the research there has always been a sequence of discrete stages which control the "stop and go" (Dalli 1994) scenario, which is a stepwise process exemplifying the evolution of international involvement. Between each set of stages there is an implicit expectation that there exist fairly stable periods during which companies can consolidate and generate an appropriate resource base to respond to fortuitous environmental conditions which allow the companies to proceed to the next internationalization stage.

Both the U-models and the I-models can properly be regarded as behaviorally oriented. Based on the arguments of the authors, the gradual pattern of the firm's internationalization process draws on two assumptions: (1) the lack of knowledge by the company, especially the lack of experiential knowledge, and (2) uncertainty associated with the decision to internationalize. The arguments for the gradual pattern are discussed thoroughly in the paper by Johanson and Vahlne (1977). Other authors then either explicitly or implicitly build on Johanson and Vahlne's contribution.

Modern empirical findings worldwide show that many enterprises do not follow an incremental stage approach but it is often reported that they start their international activities from their birth. Therefore the 1990s brought a new model of internationalization entrepreneurial activities: it is the early internationalization which thus contradicts traditional stage models. The model of early internationalization is closely connected to the concept of born global companies. The literature on internationalization defines these companies as born global companies; they are specified as "the companies that view the world as their marketplace from the outset and see the domestic market as a support for their international business" (McKinsey & Co. 1993). Knight and Cavusgil (1996, p. 11) claim that born global companies are "small, technology-oriented companies that operate in international markets from the earliest days of their establishment." And finally, Oviatt and McDougall (1994, p. 49) approach a born global company as "a business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sales of outputs in multiple countries."

A key characteristic of born global companies is their early and strong global orientation; managers in such companies view the whole world as a potential market. Rapid changes in information technology, production, and communication strategies create various opportunities for the born global phenomenon to grow, as it is documented in previous research (Rennie 1993; Knight 1997).

The aforementioned definitions and interpretations of the phenomenon of internationalization emphasize three criteria that enable us to distinguish between gradually globalizing companies (companies following stage models) and born global companies (companies with early internationalization models): the closeness between inception and the first international market entry (the speed of internationalization), geographic scope (global) of internationalization and the importance of international sales.

The speed of internationalization can be described by two different time spans (Varma 2009), namely by: the time span between founding and the first foreign market

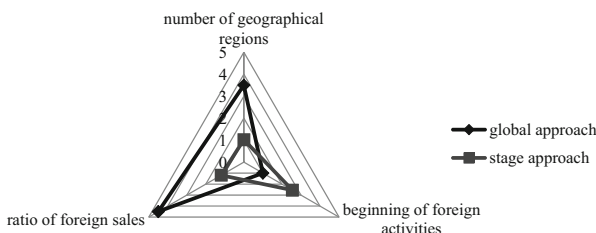
entry and the time span between the first and the following market entries. Rennie (1993), Knight and Cavusgil (1996), and Kandasami and Huang (2000) postulate a time span of 2 to 3 years from the time of founding. The time span between the first and the second foreign market entry is mentioned only by few authors (for example by Lindqvist 1991). Generally, most researchers agree on that fact that this time span should be shorter than between founding and the first foreign market entry.

The geographic scope of internationalization of born global companies can be measured by the criteria such as the number of countries, the number of cultural clusters and the number of geographical regions in which the company currently operates. Kandasami (1998) suggests that the born global company should plan its activities in least five countries. Some authors claim that a further distinction between cultural clusters and geographical regions is necessary so as to clarify the physical and geographical distance of foreign markets from the home market. Therefore, according to Lummaa (2002), speaking of born global companies requires activities at least in two cultural clusters and geographical regions.

The importance and gravity of international sales can be measured by the proportion of foreign sales to the total sales of a company; Kandasami and Huang (2000) suggest a minimum ratio of 10 % of foreign sales compared to total sales. In contrast Madsen et al. (2000) recommend that at least the ratio of 25 % is necessary for a born global company to be established. According to Rennie (1993), a company is considered a born global if it internationalizes within 2 years from founding and generates more than 75 % of its sales internationally. Knight (1997), on the other hand, maintains that for a company to be defined as born global it is inevitable that it operates abroad within 6 years from its founding and gains over 25 % of its sales from foreign markets. The differences between these approaches might be due to the nature of home markets on which the researchers base their research. Rennie's investigation (1993) was carried out in Australia, which is a relatively small local market that is situated far from major, global markets. Such a small market and its rather isolated location does not allow companies to develop sales at home rapidly. Knight's research (1997) focuses on the US market; consequently, however, it comes out that the US companies operating in large local markets face a lower need to operate abroad in early stages of their lives.

Since the focus of the study is on Czech companies facing a relatively small market, born global companies will be classified according to the following criteria (Fig. 1):

1. The time span between founding and the first foreign market entry is 3 years.
2. The company must exert its activities in two geographical regions at least.
3. The sufficient ratio of foreign sales 75 %.



**Fig. 1** Criteria for the assessment of the approach. Source: Adapted after Varma (2009)

Although the above mentioned models of internationalization have been in existence for the past two decades, the research referring to and describing internationalization models in the Czech Republic does not have a long history. The present research thus focuses on identifying and describing internationalization models of Czech companies.

In order to fulfill the aim of this study, the following hypotheses were suggested:

*Hypothesis 1:* The internationalization model is influenced by the level of knowledge of the target foreign market.

*Hypothesis 2:* The internationalization model is influenced by the number of years of the international management experience at the first international entry.

*Hypothesis 3:* The internationalization model is influenced by the age of the company at the first international entry.

*Hypothesis 4:* The internationalization model is influenced by the size of the company at the first international entry.

*Hypothesis 5:* The internationalization model is influenced by business activities.

## Methodology

As stated above, only few studies have so far investigated the phenomenon of internationalization in the Czech Republic. This study presents selected findings of the empirical research that focused on the internationalization process of Czech companies. The research was carried out in the Czech Republic between March 2013 and April 2013.

The internationalization of entrepreneurial subjects has been researched with the method of oral questioning and the main instrument was a questionnaire. In order to ensure a representative sample, the questionnaire was submitted to the selected top managers and directors of enterprises. The instrument used in the survey was a structured questionnaire containing 16 questions of varying degree of complexity relating to the area internationalization (entry mode in the first entry to foreign markets, the rationale behind the first foreign market entry, international experience of the firm's management staff, knowledge level of foreign markets etc.). The questions are based on information offered due to personal communication with selected experts from business and universities and on the basis of previous researches.

In some questions, particularly those related to entry mode choice and market choice, simple and complex scales were used, mostly the Likert-type scale (5=strongly agree to 1=strongly disagree). The entry mode choice draws on 25 specified criteria. The reliability of measurements was acceptable: the total reliability reached the value of  $\alpha=0.865$ , standardized item  $\alpha=0.865$ . The market choice draws on 16 specified criteria. The reliability of measurements was acceptable: the total reliability reached the value of  $\alpha=0.799$ , standardized item  $\alpha=0.803$ . The criteria (for the entry mode choice and also for the market choice) are based on information from expert publications and on the basis of previous researches.

In addition to the interview questions the questionnaire also included 5 questions related to the company background itself (the type of a business sector, the contemporary size of company measured by the number of employees and the level of revenue,

the company size at the initial stage of foreign market entry, the year of company foundation, and the year of the first foreign market entry).

The companies under research were selected with the method of non-probability purposive sampling, or more precisely on the basis of assumption and occasional selection. The companies included in the study have already started their internationalization operations, they are incorporated in the Czech Republic and all of them are private companies. The research then covered 400 companies. A total of 297 valid questionnaires was collected, which provided a response rate of 74 %. There was a wide range of industries that participated in the research: in the sample, there were 54 % of companies representing manufacturing and 46 % of service companies. The companies differed as to their size assessed by the number of employees so that 53 % of the sample consists of small companies, 29 % medium ones and large ones 18 %.

This exploratory study is based on the information from two groups of variables. The first group was related to the internationalization process. The group was investigated with the help of these measures: the number of target markets penetrated at their first foreign market entry (hereinafter referred to as number of markets); the number of years between the founding of the company and the first foreign market entry (hereinafter referred to as timing of entry); foreign sales as a percentage of total sales in the first year of implementation of international activities (hereinafter referred to as percentage of foreign sale), the level of knowledge of the target foreign market (hereinafter referred to as knowledge level), the number of years of international management experience at the first foreign market entry (hereinafter referred to as international experience).

The second group of variables measured effects of company characteristics: the company size at the first foreign market entry (hereinafter referred to as the company size); the company age at the first foreign market entry (hereinafter referred to as the company age at the first foreign market entry); the branch of business activity (hereinafter referred to as business activity); and the company age.

## Results and discussion

The research findings were interpreted in two steps. First, several basic characteristics such as the timing of foreign market entry, geographical diversification, entry modes, foreign sales in the first year of operation in abroad of the internationalization process of the Czech companies were identified. Potential internationalization models of the Czech companies were then defined using cluster analysis. Second, phase factors influencing the choice of specific internationalization model by the Czech companies through categorical data analysis were defined.

The findings show basic characteristics of the internationalization process of entrepreneurial activities in the Czech Republic:

1. *The speed of internationalization:* The companies entered the foreign market for the first time after 3 years from founding the company; this stands for 44 % companies. The companies which entered the foreign market for the first time within 3 years from the time of founding stand for 56 %. The average time needed for a Czech company to enter foreign markets since its foundation is 8 years.



2. *The geographic scope of internationalization:* The investigated Czech companies operated during the initial stage of internationalization process approximately in one market (mostly in Slovakia, Poland and Germany), in one geographic region (mostly in Europe), in one geographic sub-region (mostly in sub-regions of Eastern Europe and Western Europe) and in one cultural cluster (mostly in cultural clusters of Eastern Europe and German). The research findings among Czech companies clearly show that the typical Czech diversification strategy is realized by a concentration strategy. The concentration strategy is dominant in most companies regardless of their age and size.
3. *The importance of foreign sales:* The average ratio of foreign sales to total sales is for Czech companies 20.78 %. It is possible to claim that at least the ratio of 75 % is necessary for establishing a born global company—the criterion was fulfilled by 6 % companies.
4. *The entry modes:* This study shows that Czech companies have a higher preference for export entry modes. The most widely used mode has been accidental direct exporting (51 % of respondents). In general, companies do not prefer the investment entry modes and contractual entry modes when risks are higher.

The present research thus indicates that some of the Czech companies established in the 1990s have planned either to concentrate on international activities from the very beginning, or to treat international activities as an important source of revenues besides home sales. Their interest in entering foreign markets is reflected, among other, by early timing. The period between the founding of the company and its first foreign market entry is relatively short. The period decreases with the size of the company. The smaller the company is the earlier it enters to foreign markets. A significant characteristic of Czech companies is a low degree of geographical diversification of entrepreneurial activities. The majority of companies under research is characterized by a low geographical diversity at their first foreign market entry. The low geographical diversity may be due to the fact that those companies did not own huge capital at the starting point nor had their founders much entrepreneurial or especially foreign market experience before. Some of them even did not speak foreign languages at first and some were only limited to speak the Russian language. Thus, one would expect that these companies would develop rather gradually. To sum up, Czech companies are oriented to the nearest geographical sub-regions and cultural clusters. Moreover, the share of foreign sales to total sales during the company's first years on the foreign market reaches low level.

When interpreting the results of research the Czech companies shared some common characteristics; therefore cluster analysis was carried out in order to define certain internationalization models. To perform the cluster analysis, the hierarchical clustering method and Ward's technique with Euclidean distance was first used to select an appropriate number of clusters, and to explore the possible occurrences of outliers. Then the final number of clusters was identified by examining the dendrogram generated with Ward's method and the agglomeration distance coefficients: five clusters were determined. To validate clustering results, the *k*-means clustering was used on the dataset as recommended by Lopez et al. (2009). It was found that the cluster assignments using *k*-means were fairly consistent with the hierarchical procedure used initially. Table 1 shows the results of the *k*-means clustering procedure.

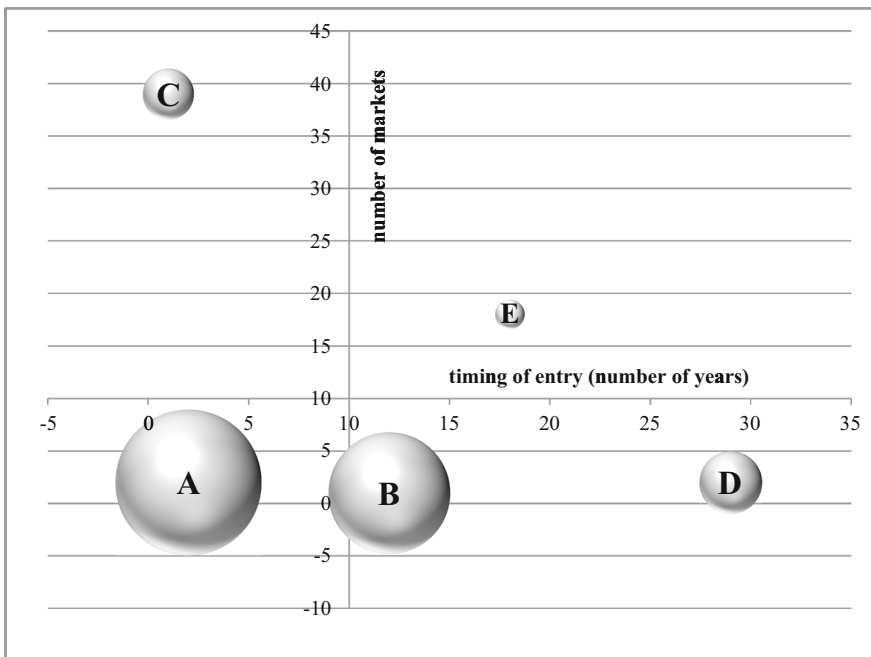
**Table 1** Cluster means for each variable

	Cluster					<i>F</i> value
	1	2	3	4	5	
Average company size	114	98.8	116	351.8	172.6	1735.41**
Average international experience	1.5	1	3	2	1	3.201*
Average number of markets	1.5	1	26.9	2.3	18.2	3.963**
Average company age	16	22.4	21.3	48	57.8	38.406**
Average timing of entry	1.6	11.6	1.4	29.2	18	45.985**
Average percentage of foreign sale	20.7	11.7	76.9	19.4	39.6	1.332*
Number of companies in cluster	146	101	19	26	5	

Source: personal research

\* $p < 0.05$ ; \*\* $p < 0.01$

Particular clusters (or models) are shown in Fig. 2 with the help of a positional map (a bubble chart). The positions of particular clusters (models) are determined based on the number of markets and timing of entry. The following two criteria have been chosen based on theories of internationalization. The size of the bubble in the chart is given by the number of companies in the cluster.



Source: personal research

**Fig. 2** Models of Czech companies' internationalization

Other characteristics as described by the internalization models are shown in Table 2. Table 2 outlines selected qualitative characteristics which complement the situation of individual internationalization models of the Czech companies.

The present study aimed to identify basic internationalization models of Czech companies. The research was carried out with the help of cluster analysis whose aim was to have determined basic models based on selected variables. These variables were chosen in harmony with existing research studies. Based on the cluster analysis, five basic internationalization models have been identified.

*Model A*, under Cluster 1 in Table 2, represents the largest number of companies. The group consists of relatively young small companies whose average timing of foreign market entry is between 1 and 2 years from starting their business. Geographical diversification of the companies is rather limited—the companies entered on average one foreign market. Most companies have chosen the markets which are geographically and psychically close the Czech market. The companies due to their early timing of foreign market entry resemble born global companies.

*Model B*, under Cluster 2 in Table 2, shares some basic characteristics such as age or size with Model A. The main differences between the companies in Model A and Model B lie in their timing of entry and percentage of foreign sale. The companies within Model B entered foreign markets on average within the span of 22 years from starting their business. The percentage of total sales outside the local market was, on average, less than 12 %. Model B represents the stage approach to the internationalization process: the companies in the model have acquired characteristics typical of gradually globalizing companies as has been previously described.

*Model C*, under Cluster 3 in Table 2, consists of relatively young small companies which are similar to those in Model A and Model B. However, as regards some basic characteristics of internationalization process the model is quite different. The average timing of foreign market entry is within 1 year from starting their business. On average, the companies entered 27 foreign markets. As in Model A, most companies have chosen markets which are geographically and psychically close to the Czech market. The percentage of foreign sales is nearly 80 %. The companies in the model exhibit characteristics typical of global born companies; it is possible to claim that Model C represents the global approach to the internationalization of entrepreneurial activities.

*Model D*, under Cluster 4 in Table 2, consists of elderly large established companies. The average timing of foreign market entry is nearly 29 years. The companies entered, on average, two foreign markets which have been in close geographic and psychic proximity to the Czech market. The percentage of foreign sales is less than 10 %. The model testifies to the relative inflexibility of large Czech companies.

*Model E*, under Cluster 4 in Table 2, represents elderly established medium-sized companies. The average timing of foreign market entry is 18 years. The companies entered, on average, 18 foreign markets and the percentage of foreign sales is nearly 40 %. Due to their geographical diversification and the percentage of foreign sales, the companies in the model are very close to typical born global companies.

The above mentioned findings of cluster analysis confirm the existence of five basic internationalization models of the Czech companies. There is a model representing early internationalization model (born global companies) and also a model representing the stage model (gradually globalizing companies). The majority of the Czech companies oscillate between these models and neither company can be characterized as

**Table 2** Characteristics of particular models

Model	A	B	C	D	E
Level of target market knowledge	Average	Average	Average	Average	Average
Applied entry modes (mostly used)	Exporting entry modes, investment entry modes	Exporting entry modes, investment entry modes	Exporting entry modes, contractual entry modes	Exporting entry modes, investment entry modes	Exporting entry modes, investment entry modes
Use of business partners at the first entry into foreign	Foreign partner	No partner	Foreign partner	No partner	Czech partner
Penetrated cultural clusters (average number)	Eastern Europe (1)	Eastern Europe (1)	Nordic, Anglo, Germany, Latin Europe, Eastern Europe (5)	Eastern Europe (2)	Nordic, Anglo, Germany, Latin Europe, Eastern Europe (3)
Penetrated geographical sub-regions (average number)	Eastern Europe (1)	Eastern Europe (1)	Western Europe, Northern Europe, Southern Europe, Eastern Europe (5)	Western Europe, Eastern Europe (2)	Western Europe, Northern Europe, Southern Europe, Eastern Europe (2)
Number of companies (%)	49	34	6	9	2

Source: personal research

having complex qualities of the models. It is possible to claim that Czech companies prefer to follow the stage model of internationalization. Certain indistinctiveness of the Czech companies in terms of preferred internationalization processes may reflect a relatively high individualization and subjectivity of the internationalization process of Czech companies. The internationalization of entrepreneurial activities of Czech companies seem to be highly stochastic as there is no sound evidence of any specific procedures and strategies regularly followed. The research indicates that some of the companies established in 1990s have already planned either to concentrate on exports from the very beginning or to treat exports as an important source of revenues besides home sales. But those companies did not have huge capital at the starting point nor did their founders have much entrepreneurial or especially foreign experience before. Some of them did not speak foreign languages at first, and some were only limited to Russian. Thus, one could expect that these companies would rather develop gradually.

The second phase of research began by examining the correlation between variables. All variables were screened to reveal their distribution through Pearson correlation coefficients, means and standard deviations for the variables (Table 3). It is important to realize that the correlation between the identified variables has a profound impact on the choice of the internationalization model.

The hypotheses 1–5 were tested through categorical data analysis; Table 4 presents the results of the analysis.

Hypothesis 1 assumes that the internationalization model is influenced by the level of knowledge of the target foreign market. This hypothesis is not supported. Hypothesis 2 assumes that the internationalization model is influenced by the number years of the international management experience at the first foreign market entry. This hypothesis is not supported. Hypothesis 3 assumes that the internationalization model is influenced by the age of the company at the first foreign market entry. This hypothesis has been confirmed: the strength of this relationship is medium ( $V=0.655$ ). In Hypothesis 4 it was assumed that the internationalization model is influenced by the size of the company at the first foreign market entry. This hypothesis has been confirmed: the strength of this relationship is medium ( $V=0.583$ ). Hypothesis 5 assumes that the internationalization model is influenced by the type of business activities: this hypothesis is not supported.

**Table 3** Correlation matrix

	Mean	s.d.	1	2	3	4	5	6
Internationalization model	1.80	1.01	1					
Knowledge level	1.76	0.57	0.050	1				
International experience	1.54	4.15	0.032	-0.161 <sup>b</sup>	1			
Company age first enter	7.65	16.41	0.417 <sup>b</sup>	-0.094	-0.021	1		
Company size	130.86	427.47	0.112	-0.123 <sup>a</sup>	-0.007	0.432 <sup>b</sup>	1	
Business activity	1.78	0.724	-0.094	-0.090	0.031	0.008	0.060	1

Source: personal search

<sup>a</sup> Correlation is significant at the 0.05 level

<sup>b</sup> Correlation is significant at the 0.01 level

**Table 4** Categorical data analysis for hypotheses 1–5

	Pearson chi-square value	df	Cramer's $V$ value	Asymp. sign value
H1	7756	8	0.114	0.458
H2	86.474	80	0.270	0.291
H3	509.768	120	0.655	0.000
H4	403.161	332	0.583	0.005
H5	5286	8	0.094	0.727

Source: personal search

The results of categorical data analysis support and complement the results of cluster analysis: age and size are significant factors influencing the choice of internationalization model. Small and young companies enter foreign markets sooner than large companies. This finding is in harmony with the results of other research studies on the flexibility of small companies in the field. On the other hand, larger and older companies have more disposable resources which allow them to enter more markets at once. Based on the results of categorical data analysis the influence of knowledge level and international experience on the internationalization process of Czech companies is minimal. These findings are in contrast with the results of relevant research studies according to which these influences are treated as critical factors for success on foreign markets.

## Conclusion

The historical context of centrally planned economy in the Czech Republic until 1989 suggests that internationalization has been an innovation for almost all Czech companies after 1989. Until that time foreign trade was a monopoly of the state and only a limited number and type of state companies referred to as “foreign trade enterprises” were privileged to operate directly abroad. Expectedly, some Czech companies have served in international markets before that time, but it was mainly exports to other socialist or ideologically similarly countries, which was not such a challenge as it would have been when exporting to developed market economies. Moreover, the companies that wanted to operate in foreign markets before 1989 had to use official Czech Foreign Trade Enterprises as intermediary.

The opening of new markets such as in the Czech Republic has created the potential for company expansion and investment. The internationalization process of companies and company's decision to sell its products in international markets has been the subject of intense academic research in the past 40 years. Several theories and conceptual frameworks have been developed outlining a company's decision to initiate the internationalization process. According to Lopez et al. (2009) studying the phenomenon of internationalization in small, open economies (such as the Czech Republic) should be of growing interest because, given the limited potential of the local market, incentives to internationalize should be strong. The findings show that Czech companies entered international markets faster than it had been envisaged in the models. But the analysis of the internationalization process of selected Czech companies indicates that the degree and level of the companies' internationalization is still significantly low.

The research focused on the internationalization of Czech companies with particular emphasis on the models of internationalization adopted: the outcomes signal that there have been five internationalization models under operation in the Czech Republic. Some companies choose early internationalization while others prefer more restrained, slower pace of internationalization following a traditional stage model. This leads us to conclude that at present most Czech companies perform on international markets following both basic models of internationalization (the stage model and the early internationalization model).

In fact there is still a big gap between which aspects of internationalization are investigated in the Czech Republic and in more developed countries. Czech research has concentrated so far on the questions studied elsewhere a decade or more ago. The way companies internationalize is still an interesting and worth to study matter. It is even more interesting and also important to understand how the internationalization happens in emerging economies like the Czech one where the previous international experiences were very limited. The literature review confirms the existence of the stage model and early internationalization model in other Central and Eastern European countries. According to Jarosiński (2013) the studies implemented are based only on case study analyzes. Then it would be interesting to perform a contrastive cross-country quantitative and qualitative research on internationalization models in CEE countries and seek to find parallels between European countries.

**Acknowledgments** The author thanks the JIEN editor, Hamid Etemad and three anonymous reviewers for their many constructive comments and suggestions, which have been instrumental in the development of this article. The author also thanks numerous colleagues for helpful comments.

**Conflict of interest** The author declares that she has no conflict of interest.

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