

The Internationalization Process of Czech Companies

Sarka Zapletalova

Moravian University College Olomouc, Tr. Kosmonautu 1288/1,
79900 Olomouc, Czech Republic

Abstract: Many companies with different economic strength are integrated in the area of international entrepreneurship. International entrepreneurship activities are significant and necessary factors of economic growth and development of world economy. Internationalization of company activities is the necessity of the development for majority of entrepreneurial subjects in the Czech Republic. The Czech Republic is a country with a high share of exported and imported goods in its GDP which is typical of small countries of which researchers are one. The decision on internationalization of company activities counts among key long-term strategic decisions; these decisions bring significant changes in running a company and are conditioned by them as well. The entrance and activities of entrepreneurial subjects on the markets can be complicated owing to a number of factors that are given by the environment on one hand and the position and situation of the entrepreneurial subject itself on the other hand. Internationalization of entrepreneurial activities becomes a tool of business competitiveness.

Key words: International entrepreneurship, international markets, internationalization of company activities, internationalization process, stage approach, global approach, Czech companies

INTRODUCTION

International entrepreneurship is understood, as company activities performed in international economic relations, as well as the realization of entrepreneurial activities exceeding national cross borders. The significance of international entrepreneurship not only lies in the way in which it influences the growth of the national economy but also in the way it affects the country's payment relations abroad (i.e., the creation of new opportunities for companies and individuals).

The companies that decide to enter international entrepreneurship must be aware both of entrepreneurship opportunities and risks which are inseparably connected with entrepreneurship. Avoiding business opportunity risks does not lead to economic growth but results in missing business opportunities. The companies that decide to enter international market undergo particular stages of internalization. The progress and speed of business activity internalization depends on the interest and role that is assumed to the international entrepreneurship within entrepreneurship strategy of the company.

The ways of entering international market are influenced by company strategic analysis and target international business analysis. The choice of a particular way of entering international market has been influenced by several factors, such as investment demands of a company's entering international market, company's

disposable sources, target market potential, the level of business activities control, potential event risk when entering the market and company competitiveness on the market.

The objective of this study is to present an overview of the internationalization process of the selected companies from the Czech Republic.

Internationalization process of entrepreneurial activities: The internationalization of entrepreneurial activities is represented by their geographic expansion across national borders (Lopez *et al.*, 2009). According to Prochazkova and Kubickova (2012) is the involvement of companies in the international environment generally referred as globalization. The problems of the internationalization of entrepreneurial activities have attracted a considerable interest among a number of significant economists such as Ruzzier, Johanson and Vahlne (1977, 2009), Andersen (1993) and Lopez *et al.* (2009). Internationalization theory subsumes to 2 diverse approaches—stage approach (gradually globalizing company) and global approach (born global company).

Stage approach to the internationalization process—gradually globalizing company: According to the stage approach, companies start selling products in their home markets and then they gradually search for new countries (Baronchelli and Cassia, 2008). Within the stage approach, there are 3 main models that can be

identified: The product life cycle theory by Raymond Vernon, the uppsala internationalization model (U-model) and the innovation-related internationalization models (I-models).

According to Vernon (1996), the internationalization process of the firm follows the development of the product life cycle: Companies usually introduce new products only in their home market and then they eventually go abroad in the product maturity phase.

The stage approach of internationalization process of the individual firms is mostly associated with the research of Johanson and Wiedersheim-Paul (1975) and Johanson and Vahlne (2009). Johanson and Wiedersheim-Paul (1975) distinguish between 4 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): No regular export activities, export via independent representatives, establishment of an overseas sales subsidiary, overseas manufacturing units.

Research of Johanson and Wiedersheim-Paul (1975) has probably also been the inspiration for the development of the innovation-related internationalization models. The innovation-related internationalization models explaining the internationalization process from an innovation-related perspective. The internationalization decision is considered as an innovation for the firms. The models are derived from Roger's stages of the adoption process (Andersen, 1993).

Global approach to the internationalization process- born global company: Many small and medium enterprises do not follow incremental stage approach but is often reported that they start their international activities from their birth: They enter different country at once, approaching new markets for both exporting and sourcing (Baronchelli and Cassia, 2008). Literature on internationalization defines them, as born global firms. The born global firms are defined as the firms that view the world as their market place from the outset and see the domestic market as a support for their international business (McKinsey & Co., 1993). The born global firms are successfully competing with larger multinational companies and their subsidiaries established in different geographic area. Companies approach international markets from start up due to new external conditions, as advances in technology regarding production, transportation and communication and due to entrepreneurs with more international experience and foreign market knowledge (Baronchelli and Cassia, 2008).

Knight and Cavusgil (1996) 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), 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.

Born global companies are typical by 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). Svensson (2006) maintains that truly global companies need to adopt particular global strategies that maximize standardization across markets and help to achieve uniform operations in different markets regardless of local needs for customization and show that their operations are tactically global.

Comparison of the stage approach and the global approach:

The aforementioned definitions and interpretations of the phenomenon emphasize 3 criteria that enable us to distinguish between gradually globalizing companies (companies with stage approach) and born global companies (Fig. 1). 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 2 different time spans (Varma, 2009), namely: The time span between founding and the first foreign market entry and the time span between the first and the following

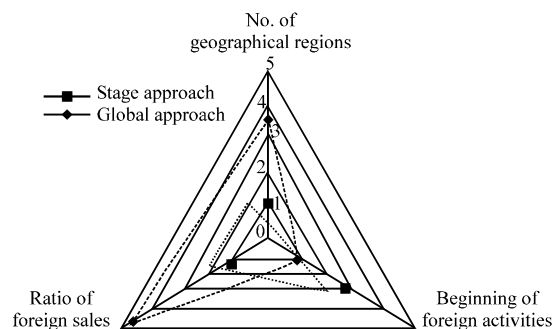


Fig. 1: Criteria for the assessment of the approach. Researcher compiled on the basis of Varma (2009)

market entries. Rennie (1993), Knight and Cavusgil (1996) and Kandasami and Huang (2000) postulate a time span of 2-3 years from the time of founding. The time span between the first and the second foreign market entry is mentioned only by few researchers (Lindqvist, 1991). Generally, most researchers agree on that this time span should be shorter than between founding and 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, number of cultural clusters and the number of geographical regions in which the company currently operates. Kandasami (1998) demands that born global company would plans its activities in least 5 countries. Some researchers claim that a further distinction between cultural clusters and geographical regions is necessary 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 2 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 ration of 10% of foreign sales compared to total sales. In contrast Madsen *et al.* (2001) claim at least a ration of 25% that 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 >75% of its sales internationally. Knight (1997) on the other hand, claims that for a company to be defined, as born global if 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 the home markets on which the researchers base their research. Rennie (1993) has been 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 (1997)'s focused on the US market, consequently it turned out that the US companies operating in the large local markets face a lower need to operate abroad in the 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:

- The speed of internationalization-the time span between founding and the first foreign market entry are 3 years
- The geographic scope of internationalization-the company must exert its activities in two geographical regions at least
- The importance and gravity of international sales-the ratio of 75% of foreign sales seems to be sufficient

The participation of Czech entrepreneurial subjects in international entrepreneurship: In the Czech Republic, the country's current account is negatively affected by its permanent trade balance deficit. The Czech entrepreneurial subjects have been increasingly taking part in international market, since the beginning of the 21st century and this trend seems to be growing. A dominant factor that influences this process of the internalization of entrepreneurship activities is globalization. The influence of globalization on companies and countries is most significant in the area of foreign direct investment and due to the impact of transnational companies.

Most companies are aware of the necessity of the development of business and entrepreneurship activities international-wide. The necessity of active participation of Czech entrepreneurial subjects at international market is conditioned primarily by the character of Czech economics and its foreign political orientation (Fig. 2).

The Czech republic government has based its actions on these fundamental economic facts and it is fully aware of the exceptional significance of external economic relations and in particular exports for the development of Czech national economy. The government views dynamic export growth, as an effective factor which has a positive influence on GDP growth and the reduction of the differences between the per capita GDP in the Czech Republic and the European Union. The government also considers exports to have a significant impact on increases in commercial competitiveness. The experiences

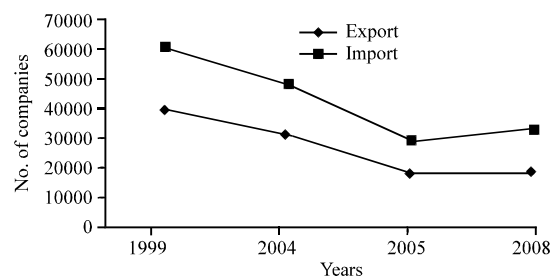


Fig. 2: No. of companies operating in international markets; Czech Statistical Office (2013)

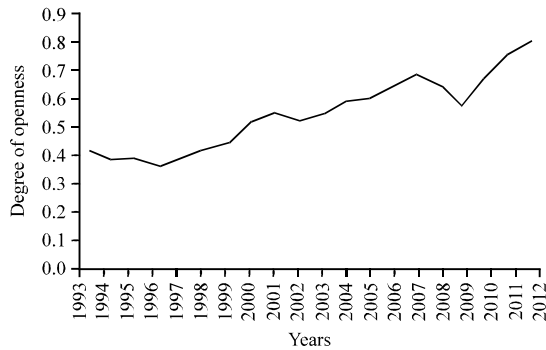


Fig. 3: Development openness of the Czech Republic (1929-2011), current prices; Federal Statistical Office (1985, 1989, 1990, 1992, 1993)



Fig. 4: External trade of the Czech Republic in goods and services (1993-2013), USD million, current prices; UNCTAD (2011)

of the EU member countries have proved that exporters achieve greater work productivity, higher employment, higher wages and better managerial skills than non-exporting companies.

The Czech government is aware of the fact that despite the comparability of the level of openness of the Czech economy with those of the medium-sized EU countries, the per capita exports for the Czech Republic do not compare favorably (Fig. 3).

The government is paying significant attention to the fact that the export share of small and medium enterprises exceeds an average of 50% in the EU countries but only 37% in the Czech Republic (Fig. 4). In recent years, external trading activity in license and franchise license has been increased.

Czech companies continually strengthen their participation in foreign direct investment, both the inward and the outward flows. Foreign investors in the Czech Republic were the most active in 2005. The average value of transactions was USD 12 milliard. Therefore, the Czech Republic ranked second among the regions of central and Eastern Europe (Fig. 5).

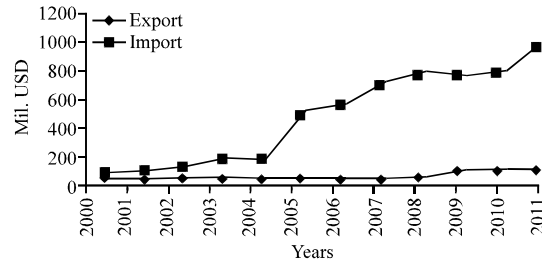


Fig. 5: External trade of the Czech Republic in license and Franchise license (royalties and licenses fees) (2003-2012), USD million, current prices; UNCTAD (2011)

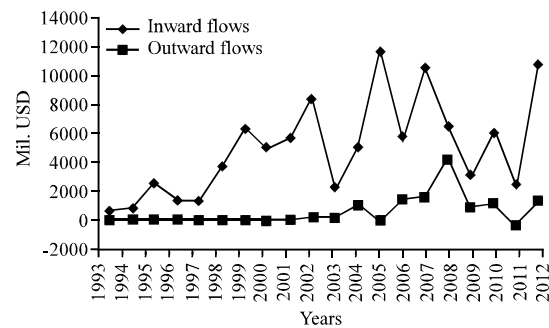


Fig. 6: Inward and outward foreign direct investment flows (1993-2012), USD million, current prices; UNCTAD (2011)

Most part of foreign direct investments form the Greenfield investments in the Czech Republic, both in numerical and value terms. The second largest parts of the foreign direct investments form the cross-border mergers and acquisitions (Fig. 6).

MATERIALS AND METHODS

This study presents the results of research that was focused on approach in the process of internationalization entrepreneurial activities of Czech companies. The objective of this study is to present an overview of the internationalization process management of the selected entrepreneurial subjects from the Czech Republic. Therefore, in the context researcher propose:

Hypothesis 1: Majority of respondents understand to enter foreign markets as an opportunity to increase their competitive advantage. Increase the competitive advantage is a primary incentive for entering foreign markets. Primary incentive relates positively to the size company.

Hypothesis 2: The higher level of knowledge of a foreign market increases the probability of the application of global approach.

Hypothesis 3: Specific areas of business activities increase the probability of and offer better opportunities for the application of global approach.

Hypothesis 4: The smaller the size and the lower the age of a company, the higher the probability of the application of global approach.

Hypothesis 5: Integration of the company and its founders in formal and informal networks increases the probability of the application of global approach.

Hypothesis 6: Factors that significantly contribute to and influence the process of entering international markets are the target foreign market knowledge and the level of costs connected with the realization of foreign entrepreneurial activities.

The companies included in the study are those that have undertaken internationalization activities and are incorporated in the Czech Republic. There were a total of 204 enterprises that participated in the research. And the entrepreneurial subjects included in this research were from a wide range of industries. The internationalization of the entrepreneurial subjects has been researched using the method of questioning. The research method was an 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 or directors of enterprises. The total of 204 valid questionnaires was collected which provided the response rate of 100%. The research was carried out between February and March, 2012 in the Czech Republic.

The dependent variable in this study is the approach to the beginning of entrepreneurial activities on foreign markets.

The independent variables in this study are: The level of knowledge of the target foreign market, cooperation with another company (Czech or foreign partners) and age of company. Other independent variables are: The importance of the target foreign market knowledge (coefficient $\alpha = 0.85$), the importance of the level of costs connected with the realization of foreign entrepreneurial activities (coefficient $\alpha = 0.78$), the importance of the level of knowledge and skills of managers (coefficient $\alpha = 0.78$), the importance of the character of product (coefficient $\alpha = 0.75$), the importance of the total available resources of firms

(coefficient $\alpha = 0.84$) and the importance of the desire for trying entrepreneurial activities on international markets (coefficient $\alpha = 0.75$). For these 6 questions were asked using the five-point Likert scale (5 = Strongly agree to 1 = Strongly disagree).

RESULTS

All variables were screened to reveal their distribution. The research shows that 52% of all small and medium enterprises with the headquarters in the Czech Republic enter international markets within 3 years after establishing the business (Fig. 7).

The primary incentive for most firms to initiate entrepreneurial activities on international markets is the profit. Only 28% companies perception of internationalization of entrepreneurial activities as a competitive advantage, as show in Fig. 8.

The hypothesis 1 was tested through categorical data analysis. Table 1 presents the results of the analysis. I hypothesized (H_1) that primary incentive relates positively to the size company. This hypothesis is not supported.

The hypotheses 2, 3, 5 were tested through categorical data analysis. Table 2 presents the results of the analysis.

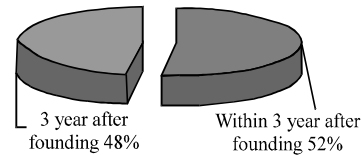


Fig. 7: Beginning of entrepreneurial activities on international markets related to firm

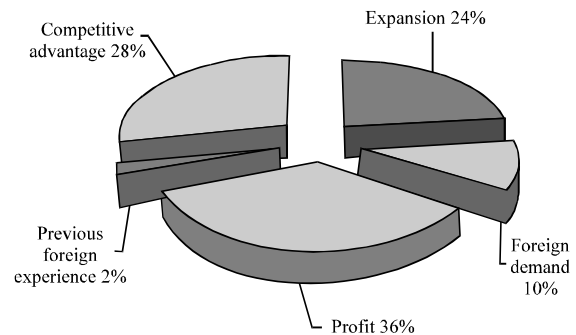


Fig. 8: Primary incentives to initiate international entrepreneurial activities

Table 1: Categorical data analysis for hypothesis 2

Hypothesis	Pearson χ^2			
	Value	df	Cramer's value	Asymp. sig.
H_1	36.355	30	0.244	0.197

Table 2: Categorical data analysis for hypothesis 2, 3 and 5

Hypothesis	Pearson χ^2		Cramer's value	Asymp. sig.
	Values	df		
H ₂	6.462	2	0.178	0.040
H ₃	6.465	14	0.178	0.953
H ₅	2.327	3	0.107	0.507

Table 3: ANOVA analysis for hypothesis 4

Variables	Sum of squares	df	Mean square	F	Sig.
Size					
Between groups	0.777	1	0.777	0.75	0.39
Within groups	208.145	202	1,030.000		
Total	208.922	203			
Age					
Between groups	0.025	1	0.025	0.07	0.79
Within groups	76.970	202	0.381		
Total	76.995	203			

Table 4: Factors significantly contributing to the decision-making process with the respect to the beginning of entrepreneurial activities on international markets

Variables	Mean	Rank
Target foreign market knowledge	4.36	1
Level of costs connected with the realization of foreign entrepreneurial activities	4.31	2
Character of product	4.00	3
Level of knowledge and skills of managers	4.10	4
Total available resources of firm	3.99	5
Desire for try entrepreneurial activities on international markets	2.84	6

I hypothesized (H₂) that the higher level of knowledge of a foreign market increases the probability of the application of global approach. This hypothesis is supported but strength of this relationship is low, as shown in Table 1.

Hypothesis 3 suggested that certain areas of business activities increase the probability of the application of global approach. This hypothesis is not supported.

In hypothesis 5 it was proposed that integration of the company and its founders in formal and informal networks increases the probability of the application of global approach. This hypothesis is not supported.

The hypothesis 4 was tested through ANOVA analysis. Table 3 presents the results of the analysis. In hypothesis 4 it was proposed that the smaller and the younger the company is the higher the probability of the application of global approach. This hypothesis is not supported.

In hypothesis 6 it was proposed that factors significantly contribute to and influence the process of entering international markets are the target foreign market knowledge and the level of costs connected with the realization of foreign entrepreneurial activities. The hypothesis 6 was tested through factor analysis of the multi-item scales related to 5 independent variables.

The data in Table 4 indicate that the most important factors are the target foreign market knowledge and the level of costs connected with the realization of foreign entrepreneurial activities.

Table 5: Factor analysis results for multi-item scales

Scale items	Mean	SD	Factors	
			1	2
Knowledge of target foreign market	4.36	0.69	0.75	-0.16
Costs level	4.31	0.87	-0.28	0.70
Character product	4.00	0.90	0.71	0.21
Knowledge level of managers	4.10	0.99	0.41	0.15
Total available resources	3.99	0.99	0.29	0.72
Longing for try new	2.84	1.38	0.14	0.37
Eigenvalue			1.51	1.15
Percentage of variance explained			25.16	19.19
Cumulative percentage of variance explained			27.98	44.36

Table 5 presents the results of the factor analysis. Varimax rotation was performed. It was extracted 2 factors with eigen values >1 (factor loadings >0.5).

DISCUSSION

The results show that the process of internationalization of entrepreneurial activities in the Czech Republic is realized both by the stage and global approach, however the stage approach has a dominant role in 98% of entrepreneurs. The global approach was used in 4 companies.

The speed of internationalization: The gradually globalizing company entered the foreign market for the first time after 3 years from founding company, the criterion applies to 98 companies (48%). The born global company entered the foreign market for the first time within 3 years from the time of founding the criterion applies to 106 companies (52%).

The geographic scope of internationalization: The gradually globalizing company must have activities in at least one geographical region, the criterion applies to 194 companies (95%). The born global company must have activities in at least 2 different geographical regions-the criterion applies to 10 companies (5%).

The importance of foreign sale: For gradually globalizing company the ratio of foreign sales to total sales may be <75% the criterion applies to 182 companies (89%). The researcher of the study claims that at least the ratio of 75% is necessary for establishing a born global company, the criterion was fulfilled by 22 companies (11%).

According to the research, the factors that significantly contribute to and influence the process of entering international markets researchers can divide into 2 groups. The 1st group represents the knowledge factor. The group includes knowledge of target foreign market and character product. The 2nd group represents the cost factor. The group includes costs level and total available resources.

The entrance of a company on the market itself allows for a significant opportunity, so long as said company possesses the proper readiness which grants it the chance to develop entrepreneurial activities (business) in the international markets. To take advantage of the opportunities requires sufficient preparation and information about the specifics and particularities of the market. Most of entrepreneurial subjects are becoming aware of the necessity of the development of international entrepreneurial activities. Enterprises which have decided to get involved into international entrepreneurship have to be aware not only of entrepreneurial opportunities but also risks to which international entrepreneurship is related. Non-risking or avoiding the risk does not usually lead to better economic results but to the non-use of entrepreneurial opportunities. What is seen as decisive for the economic decision making is the impact of the risk on the total economic result of the entrepreneurial subject. Expressed by the value, risk presents a possibility of arising a loss as a consequence of unanticipated expenses, failing to achieve the anticipated revenues or as a consequence of value deterioration. However on the other hand, there is a possibility of reaching higher revenues or lower costs in comparison with the original assumption.

CONCLUSION

The objective of this study, is to present the internationalization of entrepreneurial activities of the selected Czech companies. The study is based on data collected in interviews with managers and founders of 204 Czech companies. The internationalization of the companies has been researched using the method of questioning.

REFERENCES

- Andersen, O., 1993. On the internationalization process of firms: A critical analysis. *J. Int. Bus. Stud.*, 24: 209-231.
- Baronchelli, G. and F. Cassia, 2008. Internationalization of the firm: Stage approach vs. global approach. *Proceedings of the 8th Global Conference on Business and Economics*, October 18-19, 2008, Florence, Italy, pp: 1-33.
- Czech Statistical Office, 2013. [Czech Republic since 1989 in numbers]. http://www.czso.cz/csu/redakce.nsf/I/cr_od_roku_1989 (In Czech).
- Federal Statistical Office, 1985. [Historical Statistical Yearbook]. SNTL, Praha, Czech Republic, Pages: 910 (In Czech).
- Federal Statistical Office, 1989. [Statistical Yearbook of the Czech and Slovak Federative Republic]. SNTL, Praha, Czech republic (In Czech).
- Federal Statistical Office, 1990. [Statistical Yearbook of the Czech and Slovak Federative Republic]. 1st Edn., SNTL, Praha, Czech Republic, ISBN: 9788003005161, Pages: 740 (In Czech).
- Federal Statistical Office, 1992. [Statistical Yearbook of the Czech and Slovak Federative Republic]. SNTL, Praha, Czech Republic, ISBN: 80-7049-041-1, Pages: 735 (In Czech).
- Federal Statistical Office, 1993. [Statistical Yearbook of the Czech and Slovak Federative Republic]. SNTL, Praha, Czech Republic (In Czech).
- Johanson, J. and F. Wiedersheim-Paul, 1975. The internationalization of the firm: Four Swedish cases. *J. Manage. Stud.*, 12: 305-323.
- Johanson, J. and J.E. Vahlne, 1977. The internationalization process of the firm: A model of knowledge development and increasing foreign market commitments. *J. Int. Bus. Stud.*, 8: 23-32.
- Johanson, J. and J.E. Vahlne, 2009. The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsidership. *J. Int. Bus. Stud.*, 40: 1411-1431.
- Kandasaami, S., 1998. Internationalisation of small- and medium-sized born-global firms: A conceptual model. *Proceedings of the 43rd ICSB World Conference*, June 8-10, 1998, International Council For Small Business (ICSB), Singapore, pp: 1-15.
- Kandasaami, S. and X. Huang, 2000. International marketing strategy of SMEs: A comparison of born-global vs non born-global firms in Australia. *Proceedings of the 45th ICSB World Conference*, June 7-10, 2000, International Council For Small Business (ICSB), Brisbane, Australia, pp: 1-18.
- Knight, G.A. and S.T. Cavusgil, 1996. The Born Global Firm: A Challenge to Traditional Internationalization Theory. In: *Export and Internationalizing Research-Enrichment and Challenges (Advances in International Marketing, Vol. 8)*, Cavusgil, S.T. and T.K. Madsen (Eds.). JAI Press, Greenwich, CT., USA., ISBN: 0-7623-0164-3, pp: 11-26.
- Knight, G.A., 1997. Emerging paradigm for international marketing: The born global firm. Ph.D. Thesis, Michigan State University, Michigan, USA.
- Lindqvist, M., 1991. Infant multinationals: The internationalization of young, technology based swedish firms. Ph.D. Thesis, Stockholm School of Economics, Institute of International Business, Stockholm, Sweden.

- Lopez, L.E., S.K. Kundu and L. Ciravegna, 2009. Born global or born regional? Evidence from an exploratory study in the Costa Rican software industry. *J. Int. Bus. Stud.*, 40: 1228-1238.
- Lummaa, H.J., 2002. Internationalization behavior of Finnish born global companies. Master Thesis, Helsinki University of Technology, Helsinki, Finland.
- Madsen, T.K., E. Rasmussen and P. Servais, 2001. Differences and Similarities between Born Globals and other Types of Exporters. In: *Globalization, the Multinational Firm and Emerging Economies (Advances in International Marketing, Vol. 10)*, Yaprak, A. and H. Tutek (Eds.). Emerald Group Publishing Limited, Bingley, UK., ISBN-13: 97807623 06695, pp: 247-265.
- McKinsey & Co., 1993. Emerging exporters: Australia's high value-added manufacturing exporters. McKinsey Report, Australian Manufacturing Council, Melbourne, Australia, June 1993, pp: 1-90.
- Oviatt, B.M. and P.P. McDougall, 1994. Toward a theory of international new ventures. *J. Int. Bus. Stud.*, 25: 45-64.
- Prochazkova, L. and L. Kubickova, 2012. The internationalization of SMEs operating in the engineering industry. *Acta Universitatis Agriculturae Silviculturae Mendelianae Brunensis*, 60: 279-284.
- Rennie, M.W., 1993. Born global. *McKinsey Q.*, 4: 45-52.
- Svensson, G., 2006. A quest for a common terminology: The concept of born globals. *Manage. Decis.*, 44: 1311-1317.
- UNCTAD, 2011. World investment report 2011: Non-equity modes of international production and development. United Nations Conference on Trade and Development (UNCTAD), Geneva, Switzerland. <http://www.unctad-docs.org/files/UNCTAD-WIR-2011-Full-en.pdf>.
- Varma, S., 2009. The global start ups from Indian IT: A case study. Proceedings of the 7th AIB-India International Conference on Global Economic Crisis: Challenges and Opportunities, December 17-19, 2009, New Delhi, India.
- Vernon, R., 1996. International investment and international trade in the product cycle. *Q. J. Econ.*, 80: 190-207.