KAUNAS UNIVERSITY OF TECHNOLOGY

RIMANTĖ SEDZINIAUSKIENĖ

INTERNATIONALIZATION OF NEW VENTURES: RELATIONSHIPS AMONG DETERMINANTS, PROCESS, NETWORKS AND PERFORMANCE

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Social Sciences, Management (S 003)

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GLOSSARY OF TERMS

Early internationalization – the internationalization, when newly established firms are becoming international at founding or very shortly thereafter (Rialp, Rialp, and Knight, 2005).

Formal networks – formally connected relationships between actors (such as competitors, suppliers, customers, distributors, ect.) involved in a mutual exchange of resources and making a collective effort to achieve a common goal through cooperation.

Informal networks – informally connected relationships between actors building on personal relationships, such as family, friends, and acquaintances to achieve a common goal through cooperation.

Intermediary networks – relationships with trade promotion councils, chambers of commerce, research institutions, internationalization assistance organizations, etc. There is no direct contact between the seller and the buyer; however, these networks facilitate the establishment of network ties between a seller and a buyer to achieve a common goal through cooperation.

International entrepreneurship - recognition and exploitation of opportunities – across national borders – to create future goods and services (Zahra and George, 2002; Oviatt and McDougall, 2005).

International new venture (INV) – is a firm that seeks to derive significant competitive advantage from the use of resources and the sales of outputs in multiple countries and has achieved a foreign sales volume of at least 25 percent within 3 years of its inception (Oviatt and McDougall 1994; Knight and Cavusgil, 1996).

International Opportunity – is a certain situation or new chance to conduct foreign business activities.

International Performance – is the end result of a firm's business activities in foreign markets, providing an indication of its overall success or failure and determining further continuation of or withdrawal from exporting (Leonidou and Katsikeas, 2010).

Internationalization Process – the process of adapting firm's operations (strategy, structure, resource, etc.) to international environments through the recognition and exploitation of international business opportunities.

Networks – a collection of relationships that can be classified as formal, informal and intermediary between international new venture and other partners, by seeking to create value through cooperation.

INTRODUCTION

The relevance of the research topic. Globalization of the world economies induced an increase of internationalization, which is the process of adapting firms' operations to international environments (Calof and Beamish, 1995). The significance of internationalization to national and business grounds has been heavily documented in the literature. From a national perspective, exported goods and services generate the revenue to finance goods and services that cannot be produced inside the country. Moreover, it helps nations enhance their process of industrialization through the activities of product and process innovation, an increase in specialization and, consequently, encouragement in the profitable exploitation of economies of scale, all of which favorably affect national economic well-being and societal prosperity. From a business standpoint, international business involvement can assist firms in acquiring new technology, improving their competitive edge, spreading business risks, realizing financial goals and achieving sustainable growth (Leonidou and Katsikeas, 2010).

Traditionally, international business scholars have mainly focused on large multinational enterprises (MNEs). However, the growth of international business integration, such as falling trade barriers, free movement of capital, goods, services, and people, faster information flows, high technology investments that cannot be covered by sales in domestic market only, combined with shortening product life-cycles and globalizing competition creates a necessity for firms to internationalize despite the size of firm, managed resources, and type of the activity. Large firm size and age are no longer prerequisites for doing business internationally (Gabrielsson et al. 2008). Therefore, as one of the most important economic players, small and medium-sized enterprises (SMEs) started to operate not only in national markets but actively internationalize their business overseas. According to the European Commission (2017), there were 23 million SMEs in the European Union in 2016. They offered work to 90 million people – that is two thirds of the entire working population in the private sector. Consequently, the the process of SMEs' internationalization merits great attention (Kalinic and Forza, 2012). Internationalization of SMEs is a major tool for promoting international competitiveness and innovation, as well as sustaining employment, economic and social renewal and stability. Moreover, the internationalization of SMEs strengthens the backbone of the economy in many industry sectors, particularly within knowledge-intensive and manufacturing industries (Oparaocha, 2015; Paul, Parthasarathy and Gupta, 2017).

However, SMEs are not smaller versions of larger multinational firms; they tend to act in a different way and show distinct features. The main differences assert in managerial decisions, ownership, and independence, learning processes, and internationalization strategies since their resources are limited in comparison to larger firms (Brouthers and Nakos, 2004). Therefore, such peculiarities presuppose that the findings concerned with the internationalization of an MNE cannot be uniformly applicable in the context of SMEs without any adaption.

Since the 1970s a number of theoretical streams have been trying to explain the internationalization process of SMEs: the Uppsala Internationalization model (Cavusgil, 1980; Johanson and Vahlne, 1977, 1990), the Transaction Cost Theory (Williamson, 1985), and Resource-based view (RBV) (Barney, 1991). Until recently, the Uppsala model has been widely used to explain the internationalization process of a small business. The Uppsala model argues that an "enterprise gradually increases its international involvement" (Johanson and Vahlne, 1990, p. 11), through incremental development of their market knowledge and gradual increase of commitment in international operations. A firm's decision to enter new markets is usually linked to psychic distance: companies start their internationalization from those markets perceived as psychically near.

Nevertheless, the obvious changes in SMEs behavior have questioned the validity of the Uppsala gradual model. For instance, many companies, such as Ebay, which is the largest platform for internet auctions or the Swiss personal computer periphery producer Logitech, have ignored constraints of internationalization for small businesses and entered foreign markets very early in their establishments with the world market in mind. Therefore, some patterns of changing behavior of SMEs have been distinguished. These companies (1) enter a new market when opportunities arise, (2) do not always internationalize gradually as it was suggested by the psychic distance concept, (3) may use multiple modes of entry simultaneously, (4) may rely on the network relationship and the manager's knowledge and international experience (Johanson and Mattsson, 1988; McDougall et al., 1994; McDougall and Oviatt, 2000; Chetty and Campbell-Hunt, 2004). In addition, Chetty and Campbell-Hunt (2004) summarize the main pitfalls of the Uppsala model. Scholars argue that this theory is too deterministic, firms frequently skip stages, it oversimplifies a complex process, and ignores acquisitions and the impact of exogenous variables. It became obvious that the Uppsala Model may not be fully able to explain the internationalization of small firms in today's global market (Andersson and Wictor, 2003), thus, this kind of changes could be preferably explained by new emerged theories, such as the Network approach (Johanson and Mattsson, 1988; Coviello and Munro, 1997; Johanson and Vahlne, 2009) and International New Ventures or Born global approach (McDougall et al., 1994; McDougall and Oviatt, 2000; Chetty and Campbell-Hunt, 2004). The phenomenon of early internationalization has been extensively studied both from a conceptual and an empirical perspective, giving rise and substantial improvement to the recent field of studies on the so-called International New Ventures (INVs) (Rialp, et al., 2005).

The interest in INVs has been reflected by the growing number of conceptual and empirical studies in the management literature, the business and textbook press, by the United Nations and OECD. Moreover, this has given impetus to the development of a new academic field – International Entrepreneurship (Knigh, Madsen, Servais, 2004). In 2000, the *Academy of Management Journal* devoted a special issue, for which a new journal, the *Journal of International Entrepreneurship*, has been developed.

International new ventures are found in a variety of locational contexts, although the significance of this phenomenon might be most apparent in small open economies such as Denmark (Choquette et al., 2017; Madsen et al., 2000); Finland (Kuivalainen, Sundqvist and Servais, 2007; Luostarinen and Gabrielsson, 2006); New Zealand (Freeman, Edwards and Schroder, 2006; Chetty and Campbell-Hunt, 2004); Sweden (Tolstoy, 2012; Lindstrand et al., 2011); the United Kingdom (Bell et al. 2003); Czech Republic (Musteen, Francis and Datta, 2010); Belgium (Bruneel, Yli-Renko and Clarysse, 2010); Iceland (Sigfusson and Chetty, 2013). Research on the emergence of INVs in numerous countries indicates the importance of this phenomenon which is the obvious evidence of recently converging global forces.

Research gap. The literature on the internationalization of new ventures and networks has grown rapidly over the last two decades. More frequently scientific literature examines networks as one of the key drivers of early and successful internationalization (Baum, Schwens, and Kabst, 2015; Cannone and Ughetto, 2014; Gabrielsson, Gabrielsson and Dimitratos, 2014; Gabrielsson and Kirpalani, 2004). A significant contribution has been added to the literature concerning international new ventures by researching the role of networks in internationalization patterns (Baum et. al., 2015; Chandra, Styles and Wilkinson, 2012; Crick and Spence, 2005); risk reduction of early internationalization (Baum, Schwens, and Kabst, 2013; Sullivan Mort and Weerawardena, 2006); firms' learning activities or knowledge acquisition (Casillas et. al., 2015; Bruneel et. al., 2010); overcoming constraints typical of young firms or developing competitive advantage (Chetty and Campbell-Hunt, 2004; Freeman et al., 2006). Nevertheless, while the understanding regarding the impact of networks on internationalization of INVs has advanced greatly over the years, literature is still rather fragmented and more recognition is needed.

First of all, despite more than two decades of research into early internationalization of small businesses, adherents of the International Entrepreneurship theory have not reached a consensus with regard to the definition of the INVs. A systematic literature review has shown that operational definitions of early internationalizers employed in empirical studies are highly heterogeneous, therefore the "results are fragmented, and current practice is dysfunctional for achieving scientific progress in this field of research" (Cesinger et al., 2012, p.1835). Similarly, very few studies explicitly discuss or define networks (Hohenthal, Johanson and Johanson, 2014) – very often no clear definition is given or construct development about the concept of networks and typologies are not always robust in the studies devoted to this topic (e.g. Sullivan Mort and Weerawardena, 2006; Coviello, 2006; Loane and Bell, 2006; Harris and Wheeler, 2005; Freeman et al., 2006). The lack of definition and especially the absence of clear conceptualization of networks in most studies related with SMEs internationalization impede the analysis of the outcome for the internationalizing firm (Hohenthal et. al., 2014). Therefore, there is a lack of theory building and more in-depth analysis of links between constructs regarding networks and early internationalization is needed in both the International Business and International Entrepreneurship literature.

Second, there is a gap in literature not only in the attempts to define INVs but also to explain the emergence of this phenomenon. A number of authors (Baum et al, 2015; Keupp and Gassmann, 2009) emphasize that there are only a few studies that simultaneously incorporate different determinants in order to explain and examine INVs' international expansion. Usually, the focus is devoted to one or several determinants which represent a limited approach, but the models encompassing a wider view in terms of what drives entrepreneurial firms to succeed internationally from inception is still unknown. In this context, studies are usually focused on the impact of different factors or determinants on internationalization patterns, i.e. comparisons between traditional versus early internationalization (e.g. Andersson, et al., 2013; Baum, et al., 2015). Consequently, by considering that international new ventures are entrepreneurial firms and that recognition and exploitation of international business opportunities play a central role in the entrepreneurship process (Muzychenko and Liesch, 2015; Shane and Venkataraman, 2000), it is essiantial to have a deeper understanding of the determinants for recognition and exploitation of international business opportunities.

Third, despite the increasing understanding that international entrepreneurship plays an important role in the early internationalization process of new ventures, the entrepreneurial approach to business internationalization process and the relationship between the opportunity recognition and exploitation and networks have been almost under-explored in the entrepreneurship literature in the context of international new ventures. There are only a few attempts in addressing this gap, e.g. Kontinen and Ojala (2011) tried to examine how network ties of entrepreneurial SMEs function in recognizing international opportunities; Presutti, Boari and Fratocchi (2007) explored how foreign social networks influence the outcomes of recognition and exploitation of opportunities abroad and only a few studies have analyzed how the entrepreneurial processes of international new ventures influence the development of networks (e.g. Slotte-Kock and Coviello, 2010). A number of scholars (Loane and Bell, 2006; Ojala, 2009) highlighted that networks could be developed during the internationalization process, not necessarily before it, although this relationship has not yet been sufficiently investigated. Furthermore, the relationship between networks and internationalization of INVs is assumed to be fundamental, but this seems to stem from an insufficiently proven assumption. Doubts arise from the inconsistencies in the existing literature since previous research has showed diverse and different results on whether there is a positive (Oparaocha, 2015; Loane and Bell, 2006; Freeman, et. al., 2010), negative (Lu and Beamish, 2001; Prashantham and Birkinshaw, 2015), or no significant effect (Belso-Martínez, 2006; Li et. al. 2012) between these subjects. Moreover, it should be noted that despite the emerging provisions on the existence and importance of different networks, e.g. individual level network ties (Harris and Wheeler, 2005; Kontinen and Ojala, 2011; Lindstrand et. al., 2011) or organizational networks (Oparaocha, 2015; Amoako and Lyon, 2014) the majority of existing literature is still very limited in terms of the recognition and inclusion of different network types into the research. The primary focus of research attention to date has been on economic exchange relations, also called business or formal networks (e.g. O'Gorman and Evers, 2011; Chetty and Cambell-Hunt, 2003; Chetty and Blankenburg Holm, 2000). Therefore, despite the fact that networks encompass different actors that could be classified into separate network types, these types have not been all studied with the same depth and there is a lack of knowledge about the role of various network types in the context of international new ventures.

Fourth, the existing studies of international new ventures have largely focused on the direct effect of the process of internationalization on performance; however, the process of internationalization itself does not ensure successful results in the foreign market. Success in the international market might depend on the firm's ability to build networks (Wach and Wehrmann, 2014). Nevertheless, it has been noted that such an underlying mechanism as networks for the relationship between internationalization process (in terms of recognition and exploitation of opportunities) and international performance of INVs needs to be investigated in more detail, as there is currently a lack of such research (Zhou, Wu and Luo, 2007).

Finally, the studies of INVs are largely based on evidence from developed economies (e.g. Oparaocha, 2015; Milanov and Fernhaber, 2014; Loane and Bell, 2006), and research on INVs from emerging countries remains extremely limited (Kiss, Danis and Cavusgil 2012). Emerging economies differ from advanced countries. An emerging economy grows rapidly and uses economic liberalization as the main driver for such fast growth, and their organizational behavior might be strongly influenced by the transition from a planned to a market-oriented economy (Sekliuckiene, 2017). Additionally, international new ventures from emerging economies are assumed to face some challenges and barriers caused by relatively weak institutional environments or frequent changes in the legal system which could hinder the internationalization process (Musteen, Francis and Datta, 2010). Despite the fact that the attention to INVs from emerging economies has recently grown, the greatest focus is based on the Asian geographical regions, such as India (Bangara, Freeman and Schroder, 2012; Prashantham, et al., 2015) and China (Filatotchev, et al., 2009; Zhou, Barnes and Lu, 2010) or the Latin America region (Amoros, Basco, and Romaní, 2014). The studies of INVs from Central and Eastern Europe (CEE) are scarce; only a few meaningful studies have been recently conducted in Poland (Kowalik, Danik and Sikora 2017), Czech Republic (Musteen, et al., 2010), Estonia (Vissak, 2007), and Lithuania (Sekliuckiene, 2017). Nevertheless, there is a need for a more comprehensive approach to the research on internationalization and performance of INVs from the CEE region.

Following the identified gaps in literature, the essential scientific problem in this doctoral dissertation is formulated in the form of the following questions:

What are the relationships among the key determinants for early internationalization, the process of internationalization, networks and the performance of international new ventures?

The objective of this doctoral dissertation is to explore the relationships among the determinants for early internationalization, the process of internationalization, networks and the performance of international new ventures.

Research object: relationships among determinants for early internationalization, the process of internationalization, networks and performance of international new ventures.

Research tasks:

1. To analyze the concepts of INVs, determinants for early internationalization, process, and performance of internationalization of INVs in the context of international entrepreneurship.
2. To perform a theoretical analysis of the concept of networks and relationships with the internationalization of INVs.
3. To establish theoretical linkages among the determinants, networks, internationalization process and its impact on the international performance of new ventures.
4. To construct the research methodology for the evaluation of relationships among the determinants, network, internationalization process and its impact on the international performance of new ventures.
5. To empirically verify the theoretically established relationships and propose insights for future research and implications.

Scientific novelty and theoretical significance. Firstly, this doctoral dissertation conceptualizes a complex phenomenon of internationalization of international new ventures into a multidimensional framework which encompasses determinants for triggering the process of internationalization of INVs on three different levels: managerial, firm and environmental level; the internationalization process of INVs in terms of international opportunities recognition-exploitation, networks and finally, international performance. Therefore, a complementary view applied in this doctoral dissertation allows for comprehensive explanations of entrepreneurial internationalization and performance of INVs.

Secondly, this study provides a systematization of scientific literature over a period of two decades on the topic of the relationship between networks and INVs. This dissertation highlights the dominant connection between networks and the internationalization of new ventures and points out the accelerative role of the network. At the same time, it highlights some inconclusive or contradictory empirical results about the role of networks for INVs. Contrary to conventional wisdom, these findings from the systemized literature undermine the prevailing view of the merely significant impact of networks in the context of INVs internationalization. Additionally, it has also stressed the unclear understanding of networks impact on specific target variables describing the early and fast growth in international markets.

Moreover, this doctoral dissertation contributes to the International New Ventures and International Entrepreneurship literature by integrating different perspectives on INVs and therefore providing evidence about the determinants for early internationalization from a multi-level perspective. As stated by Keupp and Gassmann (2009), Kuivalainen et al. (2012b) and Verbeke, Zargarzadeh, and Osiyevskyy (2014), so far there are only a few studies that simultaneously incorporate entrepreneur and firm-related factors into an examination of INVs' international expansion. Consequently, this research provides a deeper understanding on what can have a more meaningful impact on the internationalization process of INVs by simultaneously considering *managerial, firm and environmental-level determinants* in the context of Lithuania.

Furthermore, by adopting the perspective of recognition-exploitation of international business opportunities in the process of internationalization of INVs, this dissertation contributes to the opportunity-based understanding of International Entrepreneurship. It also provides deeper knowledge with regards to the internationalization process of INVs, which addresses the call of Knight and Liesch (2016) to integrate entrepreneurship and international business perspectives in order to create new models for the opportunity-based understanding of International Entrepreneurship. Additionally, this study addresses the call of scholars for more systematic research on the internationalization process of INVs (Rialp et al., 2005) by adding new relationships or variables.

In general, this doctoral dissertation contributes to the literature of International Entrepreneurship and International Business by providing evidence about the direct relationship between the process of internationalization in terms of recognition-exploitation of international business opportunities and international performance, since this has not been widely explored in quantitative research before.

Moreover, following the logic of Ahmetoglu (2017), who stated that it is important to understand the relationship between different actors to understand a network as a whole, this study adopts a comprehensive construct of the network as a collection of relationships between an international new venture (and/or its entrepreneurs) and different external independent partners which can be of all possible types, such as formal, informal and intermediary is adopted. Additionally, this doctoral dissertation addresses the call for more comparative studies in order to study different network types and to contribute toward a better understanding of how different networks influence INVs. This thesis contributes to International Business and International Entrepreneurship theories while simultaneously focusing on different types of networks and their roles in the relationship between the process of internationalization and international performance of INVs.

Furthermore, this study extends the scope of the research of INVs in terms of geography by providing evidence from a small Baltic country in Central and Eastern Europe, since the geographic focus of research regarding the links between networks and early internationalization is too narrow and focuses mainly on Northern Europe or the United States.

Practical significance of the dissertation. The findings of this doctoral dissertation have important implications for practice:

- The developed theoretical framework enables practitioners (INVs founders, export managers, or policy makers) to acquire a better understanding of the complexity of internationalization and success in foreign markets of a small business.

- Practitioners are advised to focus more on the firm-level determinants that have the strongest positive impact on early internationalization of INVs.
- By highlighting the importance of networks in the internationalization process and performance of INVs, this doctoral dissertation stimulates founders and managers who contemplate and execute the foreign expansion of the firm to take into account the intensive development of different networks types.
- Policy makers are encouraged to identify potential guidelines and develop support programs for early internationalizers. Various programs concerning the finance, export promotion and the development of entrepreneurship or investor attraction can be a strong incentive for early internationalization and sustainable development in foreign countries.
- Policy makers should initiate programs in order to facilitate firms to develop all types (formal, informal and intermediary) of networks at both national and regional level.

Methods of the doctoral dissertation. Systematic literature review and comparative analysis were applied to conceptualize the main constructs of this dissertation and the relationships among them. The rigorous approach towards the conducted systematic literature review of this doctoral dissertation ensures the validity of the analysis which considered relevant research and minimized the risk of bias. The study followed the objectivistic position of ontology and positivistic orientation of the epistemological position since the author of this dissertation believes that the principle of cause and effect is essential and reflects the general pattern of how social reality works. Consequently, the study is composed deductively. The quantitative research strategy has been applied in this study, and a survey was conducted by using a questionnaire to collect the primary data. To evaluate the cause-and-effect relationships in the context of INVs several statistical methods were applied. The research data were processed using the *IBM SPSS STATISTICS 23.0* and *IBM SPSS Amos 23*. The following statistical methods were applied: descriptive statistics, correlation analysis, multivariate statistical methods – Exploratory factor analysis (EFA), Confirmatory factor analysis (CFA), Multiple Regression analysis (OLS) and Structural Equation Modelling (SEM). Additionally, the PROCESS Procedure for *SPSS* and Bootstrapping methods in *Amos* were employed to test the mediation effect. These data analysis techniques were employed independently to test the proposed research hypotheses.

Limitations of the doctoral dissertation. Although this doctoral dissertation provides interesting results and offers several contributions, as with any study, it is not without limitations. One of the limitations of this doctoral dissertation is that it is based on a relatively small sample of international new ventures in Lithuania, therefore, caution should be taken when generalizing the findings beyond the scope of this study. Moreover, the fact that Lithuania is a small economy with only about 2.8 million inhabitants has historically forced Lithuanian entrepreneurs to enter foreign markets in order to increase profits. Therefore, the context of a small country is very much different from larger countries.

Furthermore, the results of this dissertation could be attributed to the methodological limitation of the study tied to the difficulty of measuring some constructs. For instance, international performance was chosen to be measured through self-reported measures without considering secondary and objective data. It might be assumed that different relationships would have emerged if other objective measures had been included in the research. The decision to select self-reported measures based on personal perception of entrepreneurs in INVs was determined by several difficulties: 1) INVs are not willing to share their financial data publicly; 2) there is no obligation in the country to disclose such information. Therefore, the subjective measures for the assessment of international performance have been applied in this dissertation. However, it should be stressed that there is evidence regarding the reliability and accuracy of subjective performance data (Leonidou et al., 2002) and subjective measurements are commonly used in INVs research (e.g. Ellis, 2011; Filatotchev, et al., 2009, Nakos, Brouthers and Dimitratos, 2013).

Structure of the doctoral dissertation. The dissertation consists of an introduction, 3 main parts and conclusions, as well as recommendations for future research. The volume of the dissertation is 168 pages. It contains 43 tables and 16 figures. The list of references contains 340 entries.

The logical structure of the doctoral dissertation is provided below.

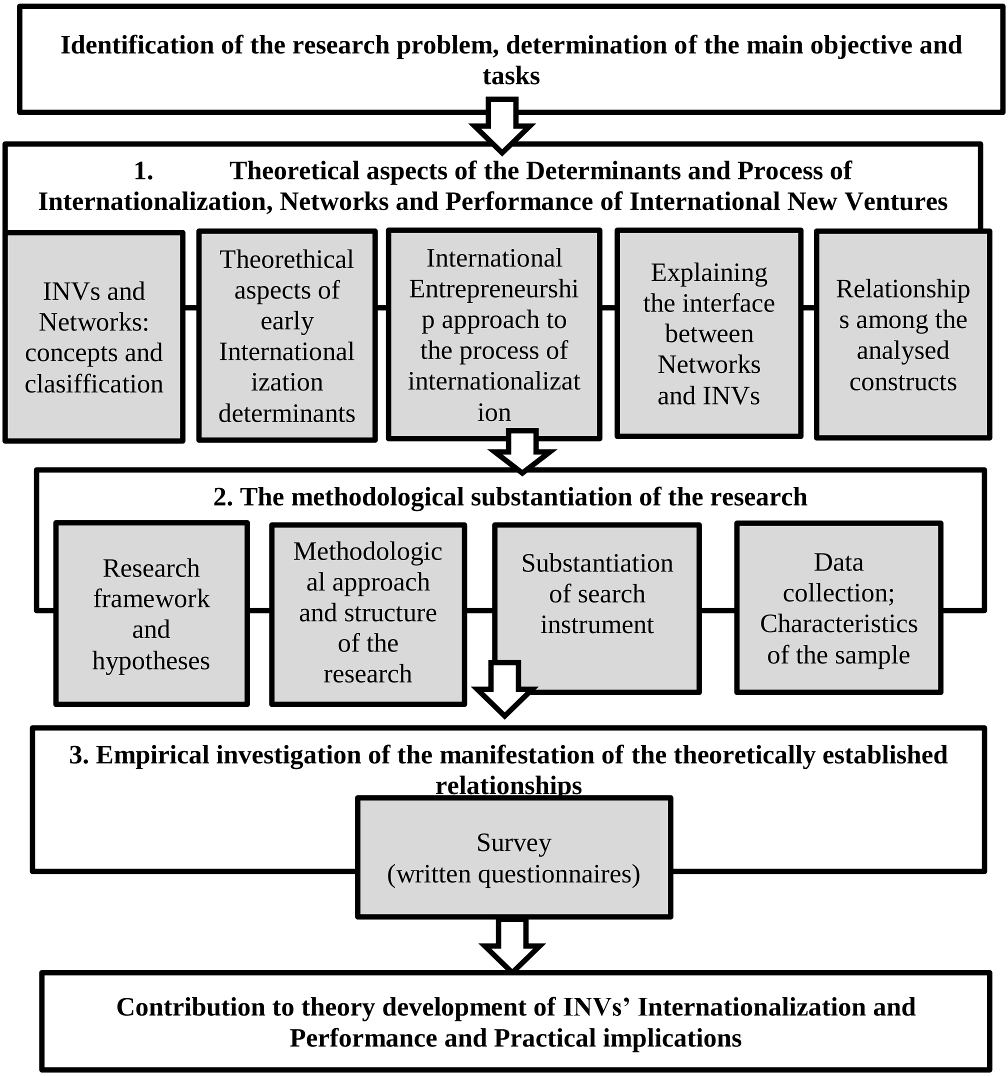

Figure 1. The logical structure of the doctoral dissertation

List of scientific publications on the topic of the dissertation

ARTICLES
Indexed in the Web of Science with Impact Factor

1. **Sedziniauskiene, Rimante** and Sekliuckiene, Jurgita (2019). Entrepreneurial orientation and new venture performance: the moderating role of network types. European J. International Management, Vol. x, No. x, pp.xx–xx. (in press)

2. Sekliuckienė, Jurgita; **Sedziniauskienė, Rimantė**; Viburys, Vilius. Adoption of open innovation in the internationalization of knowledge intensive firms // Inžinerinė ekonomika = Engineering economics. Kaunas: KTU. ISSN 1392-2785. eISSN 2029-5839. 2016, vol. 27, iss. 5, p. 607-617.DOI: 10.5755/j01.ee.27.5.15371. [IBSS: International Bibliography of the Social Sciences; Scopus; CEEOL – Central and Eastern European Online Library; Directory of Open Access Journals; Social Sciences Citation Index (Web of Science); Business Source Complete] [CiteScore: 0,93, SNIP: 0,866, SJR: 0,401 (2016, Scopus Sources)]

Conference Proceedings (International Publishing House)

1. **Sedziniauskienė, Rimantė**; Sekliuckienė, Jurgita; Zucchella, Antonella. Network and rapid internationalization of new ventures: a systematic literature review // EIBA 2016 [elektroninis išteklius]: 42nd European international business academy (EIBA) annual conference, December 2-4, 2016, Vienna, Austria: conference proceedings. Vienna: Vienna University of Economics and Business. 2016, p. 1-33. [M.kr.: 03S] [Indėlis: 0,334]

2. **Morkertaitė, Rimantė**; Sekliuckienė, Jurgita. Collaboration, geographical proximity and its effects on firm‘s open innovation activities // Proceedings of the 11th European Conference on Innovation and Entrepreneurship, September 15-16, 2016, Jyväskylä, Finland / edited by I. Aaltio, M. T. Eskelinen. Reeading: ACPI, 2016. ISBN 9781911218074. eISBN 9781911218081. p. 496-502. [Conference Proceedings Citation Index - Social Science & Humanities (Web of Science)] [M.kr.: 03S] [Indėlis: 0,500]

3. Sekliuckienė, Jurgita; **Morkertaitė, Rimantė**. Exploring the conceptual link between SMES internationalization and open innovation // EIBA 2015 [elektroninis išteklius]: 41st European international business academy (EIBA) annual conference, Rio de Janeiro, Brazil, December 1-3, 2015: conference proceedings. Rio de Janeiro: Pontifical Catholic University. 2015, p. 1-15. [M.kr.: 03S] [Indėlis: 0,500]

4. Sekliuckienė, Jurgita; **Morkertaitė, Rimantė**; Kumpikaitė-Valiūnienė, Vilmantė. The link between entrepreneurial features and immigrant flows in a regional entrepreneurship context // Innovation, entrepreneurship and sustainable value chain in a dynamic environment: 8th annual conference of the EuroMed Academy of Business, September 16-18, 2015, Verona, Italy / Edited by D. Vrontis, Y. Weber, E. Tsoukatos. [S.l.]: EuroMed Press, 2015. ISBN 9789963711376. p. 1529-1542. [Conference Proceedings Citation Index-Social Science & Humanities (Web of Science)] [M.kr.: 03S] [Indėlis: 0,333]

RESEARCH STUDIES

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CHAPTERS IN BOOKS

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1 A CONCEPTUALIZATION OF THE RELATIONSHIPS AMONG DETERMINANTS, INTERNATIONALIZATION PROCESS, NETWORKS AND PERFORMANCE OF INTERNATIONAL NEW VENTURES

Firm internationalization has for long been regarded as an incremental process, wherein firms gravitate towards ‘psychologically close’ markets and increase commitment to international markets in a gradual, stepwise manner through a series of evolutionary ‘stages.’ However, much of the recent literature provides clear evidence of early and dedicated internationalization by ‘international new ventures’ or ‘born global’ firms. Typically, these are smaller entrepreneurial firms that internationalize from inception or begin shortly thereafter. Their main source of competitive advantage is often related to a more sophisticated knowledge base that they use to exploit the dynamics of an increasingly global market environment. Therefore, the emergence of such kind of companies, the issues related to the conceptualization and understanding of the relationships among determinants of early internationalization process, networks, and international performance is still a relevant topic for the scientific fields of International Business and International Entrepreneurship.

1.1 The Emergence of International New Ventures: the Issue of Conceptualization

This part of the dissertation addresses the main aspects regarding the emergence of International Entrepreneurship. First of all, the main international business theories on internationalization of SMEs are briefly presented, as very few studies that tried to explain INVs (or BGs) have been conceptually grounded in a theory of the firm (Rialp, et al., 2005). Secondly, after more than two decades of research, different types of internationalization paths of small and medium-sized firms have been characterized, and these paths are discussed in the dissertation since they are essential in order to draw the conceptual boundaries of this study. Finally, the extensive literature on INVs has identified a number of factors leading to early internationalization, although the same literature also reports that the existing studies regarding the triggers for early internationalization are still limited (Kuivalainen et al., 2012b; Gassmann and Keupp, 2007). Therefore, the determinants for early internationalization of smaller firms are analyzed in this part of the dissertation as well.

1.1.1 International Business Theories and Attempts to Explain Internationalization of SMEs

The internationalization of firms has been a subject of widespread research attention (Anderson, 1993). According to some international business scholars (Oviatt and McDougall, 1994; Coviello and Munro, 1995, 1997; Knight, et. al.

2004), internationalization is an essential firm's growth strategy which requires some adaptation of its structure, resources, etc. to the international environment (Calof and Beamish, 1995). Others emphasize that internationalization is a process which follows a trajectory through different stages by incrementally increasing involvement in international operations (Welch and Luostarinen, 1988). According to Welch and Luostarinen (1988), "[…] there is a wide range of potential paths any firm might take in internationalisation" (p. 43). Consequently, some theories come to the fore by endeavouring to explain how and why a firm internationalizes and how all those dynamic activities overseas can be conceptualized (Morgan and Katsikeas, 1997). However, it is important to emphasize that a theory is only an abstraction of the real-world, therefore "[…] there are many theories of the firm which both compete in offering rival explanations of the same phenomena, and complement one another in explaining different phenomena" (Grant, 1996, p. 109).

A review of the existing literature that tried to explain BGs or INVs (Rialp, et al., 2005) revealed that very few studies have been conceptually grounded in a theory of the firm (for instance, transaction cost theory) or a view of the firm (for example, the resource-based view) as a conceptual foundation for analysis. Therefore, it is important to discuss the theories that tried to explain the internationalization process of small and medium-sized enterprises and which of these theories and views of the firm may be best suited for a theoretical foundation of the empirical phenomenon of INVs.

The Uppsala Model. The Uppsala model (U-model) (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977; Johanson and Vahlne, 2009) became the dominant paradigm for explaining the process of internationalization. Based on empirical observations from Swedish multinational companies, Johanson and Vahlne (1977) suggested that firms develop their business in international markets in small steps which corresponds to a gradual increase in international commitment. According to this theory, internationalization is assumed to be "the product of a series of incremental decisions" (Johanson and Vahlne, 1977, p. 23).

The U-model explained firms' incremental adaptations to environmental conditions by emphasizing such aspects as the *entry mode* and *psychic distance*. International business scholars have highlighted that internationalization is an important growth strategy that follows a trajectory through different stages for entrepreneurial firms around the world (Johanson and Vahlne 1977; Oviatt and McDougall 1994, 2005; Coviello and Munro 1995, 1997; Knight et al. 2004). According to this model, firms typically prefer entry modes that imply little investment, hence lower the risk, while later firms choose more committing modes as to better exploit the market potential (Johanson and Vahlne, 1977). Firms start exporting to a foreign market via sales representatives, such as an agent. Later on, firms slowly move to more intensified and demanding operational modes and establish their sales subsidiaries in foreign markets. Eventually firms begin production in the host country, i.e. move their manufacturing subsidiaries into the foreign markets (Johanson and Vahlne, 1977). Moreover, the Uppsala international model (Johanson and Vahlne, 1977) has discussed the existence of psychic distance in the internationalization process between home and foreign markets. Psychic distance can be defined as the level of uncertainty or familiarity with regard to a foreign country, preventing the flow of information between the firm and the market (Brewer, 2007). It expresses the extent to which people of firms feel close or similar to foreign nations and their people, it measures the difference from other countries or the perception of the differences between nations (Sousa and Bradley, 2006). Prime, Obadia and Vida (2009) argue that perceived psychic distance "is an internal unobservable phenomenon resulting from the firm's perceived cultural issues, and problems in the business environment and practices" (p. 196). Psychic distance makes it difficult or problematic for a firm to understand a market and operate there. The importance of information flows and perception of the information obtained about the supply and demand conditions in foreign markets influence the strategic decisions of firms (Hakanson and Dow, 2012). Therefore, the firms were assumed to internationalize gradualy in terms of psychic distance from a close market first to more distant markets later on.

The U-model used the behavioral theory of the firm in order to capture the iterative process of internationalization (Figueira-de-Lemos, Johanson, Vahlne, 2011). The model distinguishes two basic mechanisms of internationalization: *state* and *change* aspects (Johanson and Vahlne, 1977). The *state* aspect stands for "market knowledge" and "market commitment", and the *change* aspects concern firm behaviour in the form of "commitment decisions" and "current activities". The firm changes by learning from its experience in the foreign market and through the commitment decisions to strengthen the firm's position in that market. The *change* aspect is assumed to be dependent on the *state* aspect, which is in turn affected by the behavior of the firm (Figueira-de-Lemos, Johanson, Vahlne, 2011). In other words, the present state of the firm is an important factor in explaining future changes and subsequent stages, since the firm's knowledge of a foreign market is built on the experience in that market and, consequently, that knowledge has an impact on the commitment decisions and activities overseas. As a result, the firm goes to the next level of commitment which encourages more learning. Hence, the Uppsala model is very dynamic (Johanson and Vahlne, 2009).

Although the U-model was developed based on the internationalization process of relatively large firms, it is also useful for analysing the foreign entry challenges and opportunities of SMEs (Paul, et al., 2017). According to Autio (2017), in the early stages of internationalization small and new firms enjoy only a few natural advantages, since they lack the foreign market knowledge so far. The afore-mentioned aspect is presumed to be crucial for foreign market penetration (Johanson and Vahlne, 1977, 1990). Foreign market knowledge is considered to be inherently country-specific since they are related to the institutional, technological and social constituents of the particular country's environment. This knowledge is also considered to be mostly tacit and not easily spilled over across the countries (Autio, 2017). The only way to gain this knowledge is through presence in that market; in other words, a firm needs to start operating in that market by exploiting the knowledge accumulated in its domestic market. Therefore, the Uppsala model substantiates a firm's choice to enter psychically close markets first as the primary step of the internationalization process. However, this does not ensure success in that new market, since, as it was mentioned before, foreign market knowledge is country-specific.

However, this model received conceptual critiques from a number of scholars. For instance, Reid (1983) argues that the Uppsala model is too deterministic. In the same vein, Andersen (1993) states that there is a lack of congruence between theory and practice. Moreover, the ability to delineate boundaries between stages, or adequately explain the processes that lead to movement between them, is rather limited (Andersen, 1993). Therefore, despite the fact that the Uppsala Model was used to explain the process of internationalization in the context of SMEs, this theory may not be fully able to explain the internationalization of small firms in today's global market (Andersson et al., 2004) as they may enter to psychically close and distant foreign markets simultaneously or overleap several steps of the stage model in order to accelerate the process.

Innovation-Related Internationalization Models (Innovation-based view). The second theory of internationalization is the innovation-based view, also called Innovation-related internationalization models (I-models). Schumpeter (1934) was one of the firsts who linked innovation and internationalization. He stated that one of five types of innovation is opening a new market. The Innovation-related internationalization models together with the Uppsala Model historically have been the main process theories of internationalization. This refers to the idea that the I-models also describe a process of incremental internationalization by explaining the sequential stages of a firm's international operations (e.g. Bilkey and Tesar, 1977; Cavusgil, 1980; Czinkota, 1982). These models, similarly to the Upssala Model, include a domestic operation stage followed by stages of increasing commitment to international markets. The increasing commitment to internationalization has two main aspects. The first one is related to the increment of entry modes to foreign markets – from a less involved entry mode, such as exporting, to a highly involved entry mode, such as foreign direct investments. The second aspect concerns the gradual internationalization of the company into psychologically distant foreign markets, i.e. starting from psychologically close markets in terms of language, religion, values, and beliefs and going to markets that gradually share less and less similarities with the domestic market (Knight and Cavusgil, 1996; Andersen, 1993). Furthermore, according to Knight, Madsen, and Servais (2004), the slow and long process of internationalization reflects management's aversion to risk-taking and its inability to acquire market knowledge efficiently. In the I-Models, the innovation is seen as novel solutions to challenges confronted by the firm, including the creation of new products and the pursuit of new markets (Miller and Friesen, 1984). According to Knight, Madsen, Servais (2004), internationalization is an innovation within the firm in the context of pursuing new markets. The I-models state that internationalization stems from management innovation, whereby the process of internationalization becomes the process of innovation adaptation. Consequently, scholars state that the innovation theory provides theoretical support for born-globals or international new ventures since even in the face of limited financial and human resources, INVs internationalize early and rapidly (Knight, Madsen, Servais, 2004). However, there is some uncertainty with the delimitation between internationalization stages in these models (Andersen, 1993); therefore, this theory is more focused on the arguments about the existence of specific stages rather than the process of internationalization itself.

Transactions Cost Theory. Transactions cost theory also provided a useful theoretical lens with which to examine and understand the process of internationalization. The basic premise of this theory is to highlight the importance of understanding the costs of transacting and organizational efficiency (Williamson 1985). Williamson (1985), who is one of the first elaborators of transaction costs approach, suggested that by selecting the optimal location for firms' activities and assessing the economic cost of its transactions the firm can ensure efficiency and avoid waste. According to John and Weitz (1988), transaction costs are those costs which occur due to the current activities of a firm, such as searching for information, monitoring, bargaining, and contract enforcing. Therefore, transaction costs are distinct from production costs.

From the International Business perspective, internationalization thus occurs because of cost reductions for the firm when it internalizes. In other words, the firm will internalize activities that it is able to perform at a lower cost by minimizing the sum of transaction costs while making forward vertical integration decisions (Williamson, 1985). According to this perspective, international transactions ussualy are of high risk and require extensive resource commitments or time management. Transaction cost theory has more relevance for larger companies, although some theorists state that it can explain the process of internationalization in the context of small and medium-sized firms as well. For instance, Oviat and McDougall (1994) propose a theoretical framework for international new ventures which relies on several traditional theories, including transaction cost analysis. The authors identified four main elements necessary for the existence of INVs, and the first one is "organizational formation through internalization of some transactions" (Oviat and McDougall, 1994, p. 45). Moreover, Brouthers and Nakos (2004) state that transaction cost theory is also useful for explaining SME entry mode selection. It was reported that SMEs that used transaction cost-predicted mode choices performed significantly better than firms using other modes.

Nevertheless, the study of McDougall et al. (1994) concluded that international new ventures not always choose the lowest cost mode for firms' activities and operations. Scholars have found that many of the firms rely heavily on strategic alliances. McDougall et al. (1994) highlited that the Transaction cost theory fails to fully explain the internationalization of INVs, since the main focus of this type of firms is not to reduce the cost; furthermore, this theoretical approach does not take into consideration the entrepreneurs and their network which are the key factors for INVs, but rather focuses more on the firm level. In the same vein, Bloodgood, Sapienza, and Almeida (1996) stated that Transaction cost approach fails to provide an appropriate explanation for INVs that have little to do with reducing costs but are directed towards other strategic objectives, such as product differentiation, or innovation as a source of competitive advantage (p. 63).

Resource-Based View. Another theory for explaining the internationalization of companies is a resource-based view. The resource-based view is a theoretical framework in the field of strategic management that has an intra-organizational focus and is used to explain the firm-specific resources and capabilities as the main driver for competitive advantage and its sustainability over time (Barney 1991, Barney et al, 2001). Scholars (Westhead et al., 2004; Bloodgood et al. 1996) argued that a firm's unique set of resources and the combination of accumulated resource stocks can be linked to a venture's ability to enter foreign markets, i.e. firms have more proclivities to become international and achieve better performance.

All resources of the firm are divided into tangible and intangible. The tangible resources consist of the materials, buildings, land, financial capital, etc.; meanwhile the intangible resources include the firm's knowledge, capabilities, relationships, attitudes, and reputation (Hall, 1992).

According to this perspective, each firm has to: 1) identify its own key resources; 2) assess whether these resources have four main attributes. The firm's resources and capabilities have to have four characteristics (attributes) of value, rareness, imperfect imitability and imperfect sustainability (Barney, 1991). According to Barney (1991), a resource needs to be *valuable* in the sense that it helps to increase the firm's effectiveness by helping to exploit new opportunities, reducing the company's weaknesses and coping with the various threats in a firm's environment. Moreover, the resource needs to be *rare*; this means that only resources that are possessed by a small number of firms have the potential to create a competitive advantage over rivals since not many companies will be able to copy strategies that build on such rare resources. The third criterion for the resource is to be *imperfectly imitable*. Barney (1991) argued that it is important that competitors can not understand which resource is essential for creating the advantage and can not be able to duplicate it. However, the aforementioned attributes can not ensure a sustainable competitive advantage, if the equivalent substitute resource exists. Therefore, the last criterion for the resource is *imperfect sustainability* meaning that the same firm's strategy can not be implemented by exploiting different resources (substitutes). If a competitor exploits resources that are not rare and imitable in order to implement the same strategy, then the competitive advantage is not sustainable.

However, in the context of young small and medium-sized enterprises, the importance of resources has changed. According to Knight, Madsen, and Servais (2004), SMEs lack physical resources such as property, substantial financial resources, plant, equipment, etc. These tangible resources are usually used by older firms to succeed in foreign markets. Thus, the traditional resource-based view could not exhaustively explain the phenomenon of INVs (Crick and Spence, 2005).

Consequently, there is still an open question of how is a small and a medium-sized enterprise that cannot be presumed to be well endowed with tangible assets (Gassmann and Keupp, 2007) is able to enter overseas.

Knowledge-Based View. Much theoretical support for the international new ventures or born globals phenomenon can be found in the knowledge-based perspective. Since small companies have to face the *liability of smallness* (Aldrich and Auster, 1986), meaning, e.g., the lack of financial resources, difficulty to attract skilled workforce, ect; usually the only resource of INVs is knowledge (Chetty and Wilson, 2003).

The knowledge-based view has emerged from the resource-based view, as this perspective likewise emphasizes the importance of resources to the growth and success of a firm; however, it mainly focuses on intangible rather than physical assets. Knowledge can be defined as "information that is relevant, actionable, and based at least partially on experience" (Leonard and Sensiper, 1998, p.113). Knowledge as an intangible resource of the firm derives not only from the experiences (usually of the manager or founder of the company) but also from the know-how, skills, and competencies, framed values, and expert insights (Knight, Madsen, Servais, 2004; Davenport and Prusak, 1998). Moreover, knowledge permits a reduction in uncertainty (Beijerse, 1999).

The integration of knowledge enables firms to support operations and enhance organizational performance (Grant, 1996). DeCarolis and Deeds (1999) argued that heterogeneous knowledge bases across firms are essential for performance differences. The social complexity and other circumstances can give rise to the uniqueness of a firm regarding the nature and extent of specialized knowledge held by managers or embedded in the firm (Knight, Madsen, Servais, 2004). Competitors may be able to imitate physical, tangible resources but find it more difficult to imitate peculiar and distinctive knowledge-intensive processes that give rise to particular firm strategies and orientations, product offerings, and marketing modes (Knight, Madsen, Servais, 2004).

According to Johanson and Vahlne (2003), the creation, development, and transfer of knowledge are the critical aspects of strategic management of internationalization, since in the environment in which many INVs operate, knowledge-based resources contribute more to the firm's performance than property-based resources. The development of firm strategy, products or services, other marketing activities, necessitate the integration of a wide range of specialized knowledge (Grant, 1996). International new ventures accumulate and transfer knowledge more speedily than other firms (Knudsen, Madsen, Rasmussen, and Servais, 2002). These firms develop *experimental* knowledge that can be transferred across foreign markets (Blomstermo, Eriksson, Lindstrand, and Sharma, 2004) by applying experience-based learning (Gassmann, Keupp, 2007). It is believed that competitive advantages could be generated on the basis of the knowledge possessed by a firm (Bierly and Chakrabarti, 1996), therefore, INVs should be able to internationalize just like large firms (Gassmann, Keupp, 2007).

Effectuation Theory. The above-mentioned theories such as the resource-based view (Barney 1991) and knowledge-based view (Grant, 1996; Chetty and Wilson, 2003) focus on identifying which resources are crucial in obtaining a competitive advantage in foreign markets, but do not instruct how to obtain those resources. Meanwhile the Network approach (Johanson and Mattsson, 1988) (which is also discussed in this section of the dissertation) explains how to acquire more resources and knowledge and what is needed in order to reduce the uncertainty typical for unfamiliar environment; however, it does not instruct how a firm should act in conditions of uncertainty (Kalinic, Sarasvathy, and Forza, 2014). As firms usually operate in an environment of ambiguity and uncertainty, the Effectuation theory emerged as a useful theory for explaining the internationalization of small firms.

The Effectuation theory is defined as "a theoretical framework describing how expert entrepreneurs utilize resources within their control in conjunction with commitments and constraints from self-selected stakeholders to fabricate new artifacts such as ventures, products, opportunities, and markets" (Sarasvathy, Kumar, York, and Bhagavatula, 2014, p. 72).

Based on their contributions to Effectuation theory (Kalinic et al., 2014; Andersson, 2011), a number of authors have highlighted the limitation of causation models. According to Sarasvathy et al. (2014), the Effectuation theory offers reasonable explanations of how SMEs internationalize since in the context of the multiple uncertainties firms prefer affordable loss over predictive rationality. In other words, Effectuation stands as the opposite logic for causality which explains that each decision is made on predictions about the future. Sarasvathy (2001) states that not all conditions can be predicted or estimated, therefore, it is argued that in such a high level of uncertainty the entrepreneur of the company has to base his/her decisions on affordable loss (i.e. to know how much the firm is willing to loose). The main idea of effectuation processes is that the entrepreneur is using the resources at his/her disposal and attempts to satisfy primarily generalized aspiration. In that sense, the overall objective of the company is not clearly envisioned at the beginning, therefore the development processes remain flexible in accordance with the possible changes in the environment (Perry et al., 2012). In the case of the logic of causality, an entrepreneur tries to reduce the risk by basing his/her decisions on the information that is outside of decision maker's control (Kalinic et al., 2014). This means that entrepreneurs tend to explore new opportunities by employing more formal, traditional entry strategies (Harms and Schiele, 2012) and by basing their decisions on expected returns that could not be precisely estimated.

By analyzing the early internationalization of small and medium-sized firms O'Gorman and Evers (2011) found that planned strategies are not always relevant for those firms; firms do not always proactively search for new international opportunities. On the contrary, the scholars argue that early internationalizers act reactively and quite often improvise because of the lack of international experience. In the same vein, Kalinic et al. (2014) talk about "unplanned" internationalization, which occurs as a result of increased international activities “along unexpected lines of reasoning without having a precise goal” (p. 635). By switching from causal to effectual logic in decision-making, entrepreneurs overcome the *liabilities of outsidership* (Johanson and Vahle, 2009) and increase the level of commitment in the foreign markets. They, thus, manage to create new ventures with relatively limited investment and taking limited risks.

However, based on their literature review Perry et al. (2012) argue that although this theory is relevant, it is still in its infancy. The scholars identified some reasons as to why the effectuation research has not grown more quickly. They state that there is still the complexity associated with developing consistent, observable behavioral variables from a cognition-based theory; and that the researchers are facing difficulty related to developing and validating effectuation measures (Perry et al., 2012).

Network Approach. According to Mitgwe (2006), networks are the bridging mechanism that facilitates the internationalization process of a firm. Therefore, another theory which tries to explain internationalization of SMEs is the Network theory also called as Network approach (Johanson and Mattsson, 1988). This approach finds considerably more support amongst INV research (e.g. Bell, 1995) than any other above-mentioned internationalization theory.

The Network approach states that each firm is related with some other actors in the environment and these relationships impact the internationalization more than the firm-specific advantage or the psychic distance of the target market (Johanson and Mattsson, 1988). Therefore, in their revised version of the Uppsala internationalization model, Johanson and Vahlne (2009) argue that the membership of networks enables a firm to internationalize successfully since networks can offer a number of benefits. The partners in the network agree to divide the labor, share information and resources and this agreement results in interdependence with each other. The network is concidered as a crucial source of knowledge, resources, and information about foreign markets since otherwise (in case a firm does not have any relashionships with other market actors) firms would have to develop all those resources and knowledge themselves over a longer period of time. Therefore, it is only possible to enter a foreign market with the help of partners, who can also provide other contacts for developing new partnerships. Moreover, it was found that networks influence the choice of foreign markets not only for the initial but for the subsequent entry by international new ventures as well (Freeman and Cavusgil, 2007).

The research on INVs contends that the internationalization process of SMEs differs significantly from the already-established multinationals since small firms lack resources and power in the market. Therefore, SMEs rely heavily on their network relationships as they try to internationalize (Coviello and Munro, 1997; Coviello, 2006; Musteen et al., 2010). According to Johanson and Vahlne (2009), the relationships in the network are based on commitment and mutual trust between the partners. The network approach is in line with the Resource-based view (Barney, 1991, Westhead et al., 2004; Bloodgood et al., 1996) and sees resources as heterogenous and critically developed relationships and believes that resources may be available only for the so-called “insiders“ of such networks. Therefore, an underlying assumption of the Network approach is that the establishment of new network ties or expanshion of a firm’s position in the existing network enables a firm to compensate for its limited resources (Johanson and Mattsson, 1988).

However, there is an opinion that this school of thought does not fully and unanimously explain the internationalization of new ventures (Bell, 1995). Despite all the different views, the majority of scholars argue that while networks might not be the most effective mechanism, it might be the only one feasible given the resource constraints weighing upon the internationalization of new ventures (Aspelund and Moen, 2001). Therefore, in the upcoming part of this doctoral dissertation (see section 1.3) the Network approach is discussed in greater detail.

International Entrepreneurship Theory. This theory has emerged as an interdisciplinary stream of research that integrates perspectives from Entrepreneurship and International Business and spans the disciplinary boundaries. In their seminal paper, McDougall and Oviatt (2000) emphasize the need to position International Entrepreneurship (IE) as a distinct field of research. The term of International Entrepreneurship was introduced around 1988 as an attempt to explain and describe the early internationalization of young companies into foreign markets, driven by technological and cultural changes in the business environment (Morrow, 1988). The International Entrepreneurship theory has challenged the conventional wisdom in this field by being primarily focused on the small and highly entrepreneurial ventures that are able to compete globally almost from inception (Rennie, 1993; Knight and Cavusgil, 1996). Such firms, according to Fletcher (2004), are frequently described as entrepreneurial by nature. One of the first definitions broadly delineated IE as any activity of an entrepreneur that crossed a national border (Honig-Haftel, Hisrich, McDougall, and Oviatt, 1996). Later, international entrepreneurship was defined as “a combination of innovative, proactive, and risk-seeking behavior that crosses or is compared across national borders and is intended to create value in business organizations” (McDougall and Oviatt, 2000, p. 903). A certain feature that distinguishes this theory from general Entrepreneurship perspective is that related to the crossing of a national border which intentionally means a predisposition to undertake higher risk (Oviatt and McDougall, 1994). The risk comes from uncertainty regarding the unknown foreign markets into which the firm is targeting to enter. Since SMEs are not as resource-rich as their counterparts, the big multinational enterprises (MNEs), small firms must engage actively in international entrepreneurship as an essential mean for survival, competitiveness, and growth (Oparaocha, 2015). Consequently, International Entrepreneurship theory is one of the key theories explaining the internationalization of INVs. Therefore, in the upcoming sections of this dissertation, the IE view is discussed in a more detail.

As it was discussed above, an array of theories and approaches has contributed to the contemporary understanding of SMEs internationalization. The main statements from each theory and its relation to INVs have been summarized in the table below (see Table 1).

Table 1. Theories explaining the internationalization process
(Source: created by the author)

Theory	**Authors**	**Main statements**	**Relation to INV**
Uppsala model	Johanson & Wiedersheim -Paul 1975; Johanson & Vahlne 1977; 1990; 2009	Internationalization is a slow incremental process, whereby the lack of market knowledge and uncertainty is reduced in an experiential learning process resulting in a gradual increase of activity in terms of foreign sales and foreign direct investment. Firms internationalize in 'close' markets first & gradually moved further away. The process of internationalization was started with exports.	The model has been applied in both, MNEs and SMEs contexts. Internationalization of SMEs is also seen as a self-reinforced and incremental learning process, therefore can not fully explain the emergence of INVs.
Innovation - based model	Bilkey & Tesar 1977; Cavusgil 1980; Czinkota 1982; Madsen & Servais 1997	Analyse the internationalization process as an innovative decision process adapting new ways of doing business. I-models also describe the process of incremental internationalization by providing explanations of the sequential stages of a firm's international operations.	Views innovation as the pursuit of novel solutions to challenges confronted by a small firm, including the creation of new products and the pursuit of new markets (Miller and Friesen, 1984).
Transaction cost theory	Williamson 1975; John & Weitz; 1988	Suggests that firms choose the least-cost international location for each activity they perform and grow by internationalizing markets, bringing interdependent activities under common ownership and control up to the point where the benefits of further internationalization are outweighed by the costs.	Does not explain internationalization activities of INVs that have little to do with reducing costs, but are directed towards other strategic objectives.

Resource-Based View	Barney 1991; Collis 1995; Porter 1991;Wernerfelt 1984	The differential endowment of organizational resources helps to determine firm strategy and performance. Resources include all assets, information, technologies, knowledge, etc., controlled by the firm. The most critical resources are those that are superior in use and hard to imitate. Two main assumptions: (1) firms are heterogeneous with regard to the resources they control; (2) resources are not perfectly mobile across firms; hence, heterogeneity tends to be long-lasting.	Sees firms as bundles of resources employed to exploit opportunities in the environment, using strengths to defuse threats or challenges. This explains how INVs use their unique resources (e.g. technology-based, knowledge-intensive products of high value and quality), to exploit opportunities in global markets without being hindered by their limitations, such as a lack of resources.
Knowledge-Based View	Grant 1996; Nonaka 1994; Leonard & Sensiper, 1998; Knight et al., 2004; Johanson & Vahlne, 2003	Firms function partly to integrate knowledge, which they then leverage to support operations and enhance organizational performance. Knowledge is critical if international performance depends on knowing markets and how to do business there – very knowledgeable managers are especially valuable assets.	INVs accumulate and transfer knowledge more speedily than other firms, and in dynamic environments where many INVs operate knowledge-based resources contribute more to the firm's performance than property-based resources.
Effectuation Theory	Kalinic et al., 2014; Sarasvathy 2001; Perry, Chandler, & Markova, 2012; Andersson, 2011; Harms & Schiele, 2012; Sarasvathy et al., 2014	Future events are hard to predict. Rather than expend limited resources on predicting and planning, firms should adopt a flexible and adaptive posture. Effectual logic emphasizes improvisation, exploitation of contingencies, and market creation, typically by partnering with others.	Effectuation theory more accurately represents the way young, small firms operate. Such firms are relatively entrepreneurial, flexible, and adaptive. They change course constantly to manage environmental circumstances as they arise.
Network Theory	Johanson & Mattsson 1988; Oviatt &McDougall 1994; Bell	Relationships consist of actors, resource ties, and activity links. Refers to the firm's system of relationships that match its	Network access has been related to risk reduction, compensation for the lack of resources and experience, and to the

	1995; Coviello & Munro 1995, 1997;Madsen & Servais 1997; Johanson & Vahlne 2003; Granovetter 1973, 1985; Håkansson 1989	needs aimed at maximizing the firm's performance. Actors, including managers and organizations, control the resources and perform the activities. Activities link resources to each other; an activity occurs when actors combine, develop, exchange, or create resources by using other resources.	access to opportunities, markets, customers, and financing.
International Entrepreneurship theory	Oviatt & McDougall, 1994; McDougall & Oviatt, 2000; Jones &Dimitratos, 2004; Oparaocha, 2015	A combination of risk-seeking, innovative, and proactive behavior that crosses national borders and aims to create value in organizations.	INVs are entrepreneurial firms by nature. Internationalization of INVs is seen as patterns of action driven by the seeking and making use of business opportunities and situational actions by entrepreneurs.

Despite the fact that the Uppsala and the Innovation-based models have been applied in both MNEs and SMEs contexts, these theories can not fully explain the internationalization of new ventures, since, according to both models, the internationalization of SMEs is also seen as an incremental gradual process rather than as a fast and dynamic process. Similarly, the Transaction cost theory fails to explain internationalization activities of INVs that do not necessarily always choose the comparatively most efficient foreign operating mode but are directed towards other strategic objectives such as innovation or product differentiation. However, the Resource-based and Knowledge-based views provide a reasonable explanation of how INVs use their unique resources (mostly knowledge-based resources) to exploit opportunities in foreign markets without being hindered by such constraints, as resource scarcity. Moreover, the Effectuation theory emphasizes a relatively unplanned approach to internationalization, the reactivenes, and improvisation of early internationalizers, and their ability to exploit the contingencies in the international enviroment, thus this theory represents the way INVs operate more accurately. Nevertheless, the biggest contribution to explaining the early internationalization of smaller firms was made by the International Entrepreneurship theory and Network approach. International Entrepreneurship theory is primarily focused on studying the early internationalization of highly entrepreneurial small ventures since entrepreneurial judgment is essential for successful international expansion. The Network approach explains accelerated internationalization by providing evidence that INV's networks can compensate for the lack of resources and experience, and are able to access international opportunities.

1.1.2 The Typology of Internationalization Patterns of SMEs

Internationalization can be understood as "patterns of behaviour, formed by an accumulation of evidence manifest[ing] as events at specific reference points in time" (Jones and Coviello, 2005, p. 292). Hence, consistent with recent contributions (Jones and Coviello, 2005; Casillas et al., 2012; Kuivalainen et al., 2012b) internationalization patterns could be defined as a reflection of observable firm-level behavior that crosses national boundaries and can be evidenced at specific points in time.

For a long time, scholars' attention has been focused on the differences between firms that internationalize earlier and those that internationalize later. Based on that, previous International Entrepreneurship literature frequently discusses three types of internationalization patterns: gradual or **traditional** internationalization, as proposed by the Uppsala model, radical internationalization as proposed by research on **international new ventures** and born globals, and radical but late internationalization as evidenced by the so-called **born-again global firms** (e.g. Olejnik and Swoboda, 2012; Kuivalainen et al., 2012b; Kontinen and Ojala 2011; Tuppura et al., 2008; Bell et. al., 2003).

1.1.2.1 Traditional internationalization

Research regarding the internationalization of small and medium-sized enterprises began in the early 1970s. Traditional theories that were mainly created in Nordic countries posit that firms gradually internationalize in an incremental manner through a series of evolutionary "stages". According to Andersen (1993), these models were behaviorally oriented and the gradual pattern of the internationalization process can mainly be attributed to two reasons: (1) the lack of knowledge about foreign markets; and (2) uncertainty associated with the decision to internationalize. Internationalization has for long been regarded as a stepwise process where firms gravitate only towards psychologically close markets and increase their commitment to international markets gradually (Bell et al., 2001). There was a number of scholars describing the "stages" of firm internationalization (e.g. Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977, 1990; Cavusgil, 1980) (see Table 2). The main output of traditional gradual internationalization theories is the Uppsala model developed by Johanson and Vahlne (1977, 1990) (based on the previous study of Johanson and Wiedersheim-Paul, 1975). This theory has been applied to both the MNE and the SME contexts. According to the Uppsala model, internationalization is a self-reinforced and incremental learning process in which firms gradually acquire knowledge about foreign markets and increase their commitment towards those markets (Johanson and Vahlne, 1977, 1990).

Table 2. A comparison of various internationalization 'stage' models (Sources: Bell et al., 2001, p. 175; Andersen, 1993, p. 213)

	Uppsala Model	**Innovation related Internationalization Models**			
Author / **No. of stages**	**Johanson & Wiedersheim -Paul, 1975; Johanson & Vahlne, 1977**	**Bilkey and Tesar, 1977**	**Cavusgil, 1980**	**Reid, 1981**	**Czinkota, 1982**
Stage 1	No regular export activities	Management is not interested in exporting	Domestic marketing only	Export awareness: the problem of opportunity recognizion arousal of need	Completely uninterested firm
Stage 2	Export via independent overseas representative s/ agents	Management is willing to fill unsolicited orders but makes no effort to explore the feasibility of active exporting	Pre-export stage: the firm searches for information and evaluates the feasibility of exporting	Export intention: motivation, attitudes, beliefs, and expectancy about export	The partialy interested firm
Stage 3	Establishment of an overseas sales subsidiary	Management actively explores the feasibility of active exporting	Experimental involment: firm starts exporting to some psychologically close markets	Export trial: Personal experience from limited exporting	The exploring firm
Stage 4	Overseas production manufacturing	The firm exports on an experimental basis to some psychologically close countries	Active involment: export to more new countries	Export evaluation: Results from engaging in exporting	The experimenta l firm
Stage 5		The firm is an experienced exporter	Commited involment: management makes choices in allocating limited resources between domestic and foreign markets	Export acceptance: adoption of exporting/ rejection of exporting	The experienced small exporter
Stage 6		Management explores the feasibility of exporting to other psychologically distant countries			The experienced large exporter

All internationalization models provided in the table above (see Table 2) have several aspects in common. Despite the difference in the number of provided stages (e.g. in the Uppsala model there are four main stages of internationalization, while the model of Bilkey and Tesar (1977) suggests six stages) all models represent a sequential logic of firm development, which implies that firms increase their foreign market commitment progressively over time moving from one stage to the other. Usually, a firm begins with sporadic overseas sales and continues with increasingly larger and gradual commitments in the foreign markets through sales. The more firms learn from their experience of operations and activities in the foreign market, the higher the commitment to the foreign markets and the higher the commitment, the more they learn (Kalinic and Forza, 2012). An underlying assumption with all of these models, according to Bell et al., (2001) is that firms are well established in the domestic market before venturing to foreign markets.

The second major element in the "stage" models is the concept of psychic distance defined as "the sum of factors preventing the flow of information from and to the market" (Johanson and Vahlne, 1977, p. 24). Gradual internationalizers initiate their business activities in the markets perceived close to the domestic one since the internationalization of the firm usually necessitates a deep understanding of the local market (Kalinic and Forza, 2012). A lack of knowledge about foreign markets and the liability of foreignness (Hymer, 1976) are assumed to be a major obstacle in international operations since firms have to be aware of cultural, economic, geographic, etc. differences before entering foreign markets (Johanson and Vahlne, 2009). Therefore, this uncertainty, according to the Uppsala model, has led commitment decisions to be made incrementally. The incremental and gradual moving from psychically closer to more psychically distant markets reduces the frictions resulting from a psychic distance. Furthermore, long-established firms have an embedded structure which tends to constrain the strategic choice of the firm. Therefore, those firms that internationalize late must unlearn routines rooted in domestic operations before new internationally-oriented routines can be learned (Knight, Madsen and Servais, 2004).

Although the gradual internationalization pattern has enjoyed much popularity, the model began to be increasingly challenged at the beginning of the 1990s (Andersen, 1993; Forsgren, 2002). Nevertheless, according to Bell et al. (2003), this pattern of internationalization is particularly common among traditional firms from large economies.

1.1.2.2 International New Ventures

The changes in the global arena such as the explosive growth of low-cost technology, the dismantlement of trade barriers and financial deregulation, and widespread economic liberalization (Acs, Morck, and Yeung, 2001) have reduced the advantages formerly restricted to bigger enterprises (e.g. MNEs). Consequently, some new opportunities for small and young firms to enter the foreign market have been opened (Oviatt a McDougall, 1994). One major phenomenon arising from these changes in the market is that of the International New Ventures (INVs). This phenomenon has challenged the assumption of slow and gradual internationalization from both conceptual and empirical standpoints (Knight and Cuvusgil, 2004). The second pattern of internationalization of SMEs and the main focus of this dissertation is the pattern of international new ventures (also called as born globals). Despite the emerging interest in the phenomenon of early internationalization over the last few decades, there are still huge issues regarding the conceptualization of this kind of companies. Therefore, this part of the thesis provides the main characteristics of INVs/BGs pattern of internationalization and analyzes some conceptual differences between born global and international new ventures.

The first research on the phenomenon of early internationalization was introduced by McKinsey&Co (1993) and Rennie (1993). In a study by McKinsey&Co (1993), numerous small and medium-sized Australian enterprises have been recognized as equal players and competitors against large established companies in the international arena within the manufacturing industry. Those firms started their international activities almost from inception overcoming the adversity of resource poverty. “The emergence of these exporters […] reflects 2 fundamental phenomena of the 1990s: 1. Small is beautiful. 2. Gradual internationalization is dead” (Cavusgil, 1994, p.18). Therefore, based on McKinsey&Co’s (1993) insights and empirical observations proving the obvious changes in firms’ behavior, a number of scholars (Knight and Cavusgil, 1996; Oviat and McDougall, 1994) have paid the attention to the topic and provided more evidence that such entrepreneurial firms are aiming at early internationalization.

In their seminal work Oviatt and McDougall (1994) proposed the theory of International new ventures. The concept of INVs has challenged the validity of traditional prior paradigms, particularly the Uppsala model. Following the widely adopted definition, an international new venture is a “business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries” (Oviatt and McDougall 1994, p. 49). In this work, the suggested term of “international new ventures” was seen as a wider name, encompassing a few more specific terms such as “Geographically Focused Start-up”; “Export/Import Start-up”; “Multinational Trader” and “Global Start-up” (Oviatt and McDougal, 1994). The classification was made regarding the number of activities coordinated across countries and the number of countries involved (Oviatt and McDougal, 1994). However, later the definition of INVs was used under the name of Born Global with some small modifications (e.g. Knight and Cavusgil, 1996; Madsen and Servais, 1997). Knight and Cavusgil (1996, 2004) refer to born globals which are defined almost identicaly to INVs: “[…] small, technology-oriented companies that operate in international markets from the earliest days of their establishment” (Knight and Cavusgil, 1996, p. 11); “[…] companies that from or near founding obtain a substantial portion of total revenue from sales in international markets" (Knight and Cavusgil, 2004, p. 16).

Coviello, McDougall, and Oviatt (2011) note that the terms "international new venture" and "born globals" have been used interchangeably in literature. Moreover, firms which grow abroad at their start or soon after, and expand quickly, also have been labeled terms like Born International firms, Instant internationals, Global Start-ups, just to mention some other concepts (see Table 3).

Table 3. Theoretical definitions of early internationalized firms
(Source: created by the author)

Author	Name	Definition
McKinsey & Company, 1993, p. 9	*Born Globals*	"[…] these firms view the world as their market place from the outset and see the domestic market as a support for their international business".
Oviatt & McDougall, 1994, p. 49	*International New Venture*	"[…] a business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries".
Knight & Cavusgil, 1996, p. 11	*Born Globals*	"[…] small, technology-oriented companies that operate in international markets from the earliest days of their establishment".
Madsen & Servais, 1997, p. 579 (influenced by Oviatt & McDougall, 1994)	*Born Globals*	"[…] are firms that seek to derive significant advantages from the use of resources from or the sale of outputs to multiple countries/continents fight from their legal birth".
McAuley, 1999, p.68	*Instant Internationals*	Firms that are "having international activities within the first year of being in business".
Andersson & Wictor, 2003, p. 254 (influenced by Knight & Cavusgil, 1996 and Oviatt & McDougall, 1994)	*Born Global*	"[…] is a company that has achieved a foreign sales volume of at least **25%** within **three** years of its inception and that seeks to derive significant competitive advantage from the use of resources and the sales of outputs in multiple countries".
Knight & Cavusgil, 2004, p. 16	*Born globals*	"[…] are companies that from or near founding obtain a substantial portion of total revenue from sales in international markets".

Kuivalainen, Sundqvist & Servais, 2007	*Rapidly international ized firms*	(within three years from the foundation) with a high share of foreign sales out of the total turnover (**more than 25%**); there are different types of Born Global firms: "The 'born-international pathway' (exporting only to close markets with an export ratio close the arbitrary 25% cut-off rate) and those on the 'true born-global pathway'".
Johanson & Martin Martin, 2015, p.476	*Born International s*	"[…] firms that have been operating in foreign markets from a very early date, that is, from the time they started doing business or soon after. This general definition implies that Born Globals; Global Start-ups; High-Technology Start-ups and International New Ventures can be considered BIs, but not all BIs are, for instance, Born Globals".
Cesinger, et al., 2012, p.1834	*Rapidly international izing ventures*	"[…] firms that internationalize significantly faster, more intensively, and with a wider scope than other firms operating in the same contex".

Despite the disagreement in terminology, the different names seem to refer to the same phenomenon – accelerated and early internationalization of small and medium-sized enterprises. This idea is also supported by Madsen (2013). The author argues that, in general, there is an agreement in literature with regard to the theoretical delineation of the phenomenon (Madsen, 2013). According to Madsen (2013), "[…] overall there is rather high degree of consensus concerning how the phenomenon should be defined theoretically, and most scholars refer to Oviatt and McDougall (1994)" (p.67).

Unfortunately, there is far more ambiguity and discrepancy regarding the operationalization of the theoretical conceptualizations (Madsen, 2013). According to Cesinger et al. (2012), the operational definition of early internationalized firms still needs more consistency and clarity for future studies. Since in their original definition of INVs Oviatt and McDougal (1994) did not specify the exact characteristics of the firms, this was an open opportunity for subsequent scholars to make their contribution to the existing literature. Literature identifies three main characteristics, as a comprehensive set of internationalization dimensions: 1) time; 2) scale; and 3) scope of internationalization (Cesinger, et al., 2012; Kuivalainen et al., 2012b; Kuivalainen et al., 2012a; Madsen, 2013; Baum et al., 2015).

1) **Time of internationalization** – this is the key characteristic that distinguishes studies focused on INVs or BGs from studies focused on traditional internationalization of the companies. Time is seen as time time lag between the foundation of a firm and the beginning of activities abroad. There are different views considering how long does it take for a young company to start foreign sales to be called an international new venture or a born global company. In the early studies of INVs/BG scholars define such firms that start exporting "two

years from the foundation" (McKinsey and Co, 1993; Rennie, 1993; Moen and Servais, 2002). Whereas the majority of scholars suggest a time span of three years (Madsen, Rasmussen, and Servais, 2000; Knight, Madsen and Servais, 2004; Knight and Cavusgil, 2004). Other scholars define born globals as firms entering international markets less than six years (Zahra, Ireland, and Hitt, 2000), within six years (Shrader, Oviatt, and McDougall, 2000), or between two and six years (Coviello and Munro, 1995) after inception.

2) **Scale of internationalization** – this characteristic explains the extent of a firm's international operations. It is also called the degree of internationalization. The degree of internationalization of the company could be measured by the mode of entry used in the process of internationalization. According to traditional international business theories, there are different ways for international operations (e.g. export, sales through distributors, foreing direct investment, etc.) and those ways could be grouped from the least commitment requiring modes to a more intensified and demanding operational modes (Johanson and Vahlne, 1977). However, considering the fact that smaller firms are scarce in resources and have different attitudes toward risk in comparison with the large companies, the high-commitment entry modes such as foreign direct investments (FDI) are unlikely to be used (Kuivalainen et al., 2012b). Consequently, the entry mode is less frequently used or even omitted measurement of internationalization patterns (Kuivalainen et al., 2007; Kuivalainen et al., 2012b).

    The great majority of papers relate scale dimension of internationalization with the amount of turnover derived from international operations (Cesinger et al., 2012; Madsen, 2013). The most widely accepted criterion of the scale of internationalization for international new ventures or born globals is 25 percent of the total turnover (Knight and Cavusgil, 1996, 2004; Harveston, Kedia and Davis, 2000; Moen, 2002; Sui, Yu, and Baum, 2012). However, emerging research states that in some of the cases this cut-off point is too low and does not capture the whole phenomenon in the European setting. Particularly, this criterion might be higher for companies from smaller countries since those firms are expected to follow global niche strategies (Kuivalainen, Sundqvist and Servais, 2007). For instance, studies in the Scandinavian countries emphasize that firms could be qualified as international new ventures/born globals if they export more than 50 percent of their total sales (Larimo and Pulkkinen, 2002; Gabrielsson, Sasi and Darling, 2004; Luostarinen and Gabrielsson, 2006). Lopez et al. (2009) state that born globals should obtain as much as 90% of revenues outside of their domestic market. On the other hand, the operationalization proposed by the United States scholars (i.e. at least 25 percent of revenue derived from international sales) is widely used in European studies (e.g. Andersson and Wictor, 2003; Kuivalainen et al., 2007; Melen and Nordman, 2009; Madsen et al., 2000).

3) **Scope of Internationalization** is the third and less often used characteristic in the operationalization of early internationalizers. There are two types of

internationalization strategies which companies can follow: 1) geographically narrow or concentrated internationalization, and 2) geographically broad and diversified internationalization (Ayal and Zif, 1979). For a long time, it was believed (suggested by traditional internationalization theory) that firms implicitly begin to internationalize to nearby countries and only later incrementaly increase their commitments to other foreign markets (Johanson and Vahlne, 1977, 1990; Johanson and Wiedersheim-Paul, 1975). Whereas born globals or international new ventures are thought to follow the diversification strategy in terms of market scope and begin to operate in multiple countries almost from their inception regardless of psychic distance (Oviatt and McDougall, 1994; Knight, et. al., 2004; Nordman and Tolstoy, 2014). As it was presented before, psychic distance can be defined as the level of uncertainty or familiarity with regards to a foreign country, preventing the flow of information between the firm and the market (Brewer, 2007). When there is a perception of proximity and familiarity towards foreign markets at the inter-organizational and individual levels, less psychic distance is perceived. In other words, the greater the distance, the greater the difficulties in communication between the parties, eventually resulting in lower export performance. According to Jones and Coviello (2005), perceived psychic distance could be an interesting indicator of the intensity of a firm's internationalization activities. However, according to recent studies, (Kuivalainen et al., 2007; Kuivalainen, et al., 2012a) cultural, institutional and other kind of distance between INVs/BGs and international markets are less frequently used or even omitted indicators.

There are no exact definitions of how many and how distant foreign markets markets a firm must enter to be qualified as a born global or an international new venture. Oviatt and McDougall (1994) do not specifically define the number of countries or their location but rather state that a firm should have activities "in multiple countries". Consequently, a number of studies (e.g. Sasi and Arenius, 2008; Melen and Nordman, 2009; Presutti et al., 2007) rely on this definition simply referring to multiple countries. There are only a few attempts to define the scope of INVs in terms of the number of countries or regions/continents (e.g. Dimitratos, Lioukas and Carter, 2003; Reuber and Fischer, 1997; Gabrielsson, et al., 2004; Luostarinen and Gabrielsson, 2006). Melen and Nordman (2009) and Dimitratos et al., (2003) specify sales in at least one foreign country. In the study of Reuber and Fischer (1997) three geographic regions have been distinguished: North America, Canada and "outside North America". However, this type of measurement is rather limited and not applicable to many European INVs. Others set the cut-off point to be at least two continents (Gabrielsson, et al., 2004; Luostarinen and Gabrielsson, 2006). Despite some scholarly attempts to define the scope of INVs more explicitly, in essence, most studies do not explicitly define *ex ante* or *ex post* how many countries a firm has to approach to be considered international or global, therefore the question of what number of markets served qualifies a firm as a proper INV remains unanswered (Cesinger et al., 2012; Kuivalainen, Saarenketo, and Puumalainen, 2012a). The general assumption is that the more regions or countries a firm serves, the more globally dispersed it is (Baum et al., 2015).

The great diversity of operationalization of early internationalized enterprises is provided in the table below (see Table 4).

Table 4. Operational definitions of early internationalized firms
(Source: created by the author)

Authors/years	**Time of internationalization**	**Scale of internationalization**	**Scope of internationalization**
Rennie (1993)	2 years	75%	Multiple countries
Knight & Cavusgil (1996)	2 years	At least 25%	n.a.
McDougall & Oviatt (1996)	≤ 8 years	> 5 %	n.a.
Knight (1997)	3 years	At least 25%	n.a.
Madsen, Rasmussen & Servais (2000)	3 years	At least 25%	n.a.
Harveston et al. (2000)	3 years	25% within three years of founding	3 countries (to be BG)
Larimo & Pulkkinen (2002)	3 years	> 50%	n.a.
Moen & Servais (2002)	≤ 2 years	n.a.	n.a.
Gabrielsson, et al. (2004)	≤ 15 years	> 50% beyond home continent	Min. 2 continents
Knight, Madsen & Servais (2004)	3 years	At least 25%	n.a.
Luostarinen & Gabrielsson (2006)		over 50%	Min. 2 continents
Acedo & Jones (2007)	5 years	n.a.	n.a.
Falay et al. (2007)	within 10 years	At least 80%	At least 20% from other continents
Gassmann & Keupp (2007)	Up to 10 years	n.a.	n.a.
Melen & Nordman (2009)	3 years	25% within 3 years	multiple countries
Crick (2009)	3 years	at least 10% in each region	Triad markets
Evers (2010)	1 year	n.a.	n.a.
Choquette, et al. (2017)	3 years	At least 25%	n.a.

Although many scholars equate INVs and BGs and use those terms interchangeably, there is an opinion that different denominations may hinder different concepts (e.g. Kuivalainen, Saarenketo, and Puumalainen, 2012a). The author of this doctoral thesis also emphasizes the complexity of this issue, therefore the other aspect which should be more precisely discussed is the difference between the international new ventures and born global firms.

Rennie (1993) highlights an early study by McKinsey&Co, where born globals are defined as an equal competitor for "large established players in the global arena" (p. 47). According to Rugman and Verbeke (2004), the real global firm is the one that actually penetrates markets across the globe, especially in the broad 'triad' markets of NAFTA, the European Union, and Asia. However, recent reseach reveals that early internationalized firms are still more focused on geographiclly close countries and regions (Baum, Schwens, and Kabst, 2011; Kuivalainen, Saarenketo and Puumalainen, 2012a; Lopez, Kundu, and Ciravegna, 2009). This could be explained by the liability of foreigness which are particularly pronounced in markets which are situated outside of the firm's home region. Following this, recent studies have tried to distinguish the difference between regionally focused and globally focused ventures. For instance, Baum et al. (2015) distinguishes "born-regionals" and "born-globals" as separate patterns of internationalization. However, it should be emphasized that the two aforementioned patterns "match far spread definitions of international new ventures (i.e. organizations seeking significant foreign revenues from inception)" (p.763). Consequently, one could see the linkages with the seminal work of Oviatt and McDougal (1994) where the term of international new ventures encompasses a few more specific terms (such as Geographically Focused Start-up; Global Start-up, etc.). Following the logic above, this dissertation uses the term „international new ventures", since this concept is understood as a broader term for small early internationalized firms encompassing regional and global internationalization strategies (see Figure 2).

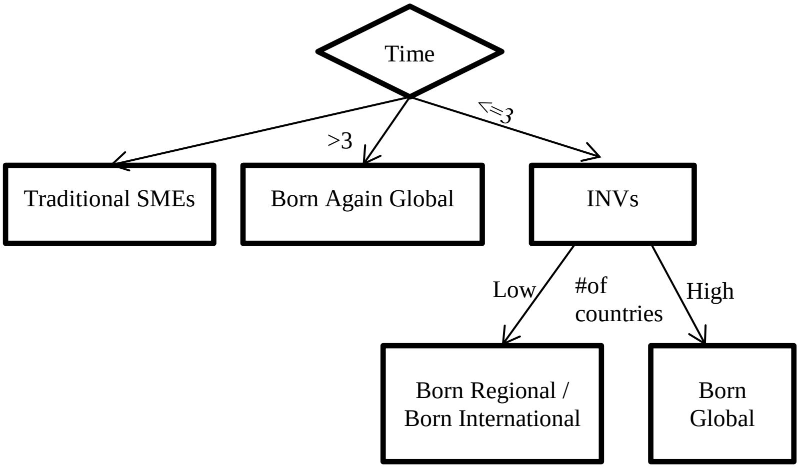


Figure 2. Categorization of internationalization paths of SMEs
(Source: created by the author)

It is important to use the same definition in different studies in order to make them comparable, therefore the following operational definition of International new ventures, influenced by Oviatt and McDougall (1994) and Knight and Cavusgil (1996), is used in this thesis:

INV is a firm that seeks to derive significant competitive advantage from the use of resources and the sales of outputs in multiple countries and has achieved a foreign sales volume of at least 25 percent within 3 years of its inception.

1.1.2.3 Born Again Global

The third pattern of internationalization is the "born-again global" phenomenon (Bell et al., 2001; Bell, McNaughton, Young, and Crick, 2003; Tuppura et al., 2008). According to Baum, et al. (2015), this pattern may be considered as a hybrid of the incremental process model and international new venture.

First of all, born-again global firms are typically well established in domestic markets and start international operations quite late after the foundation of the company. Since these firms do not fulfill the time lag criterion for INVs/BG, Bell et al. (2001) name such firms "born-again globals". The internationalization of born-again global firms follows the pattern of the process model; such firms expand internationally in an incremental manner. However, at a certain point in time, the motivation to internationalize increases and some proactive actions are taken in order to enter foreign markets. According to Baum, et al. (2015), after initiation born-again globals internationalize quite intensively and leap-frog into more distant environments than, for instance, traditional internationalizers. Therefore, this behavior is more in line with the born-global/international new ventures pattern (Bell et al., 2001, 2003). The main reasons for such sudden changes in the internationalization strategy are thought to be related to the emergence of additional resources, or changes in top management or ownership (Bell et al., 2003). The given name of born-again globals refers to the re-birth of the company as a global firm that embraces worldwide markets (Olejnik Bernhard Swoboda, 2012). The born-again global firms differ from born globals/international new ventures in the following respects (Tuppura et al., 2008): first of all, the time for internationalization – born-again globals start their international expansion much later; secondly, born-again globals are well established in their domestic markets and lastly, they have developed tangible resources that they can use for internationalization.

To summarize, three distinct paths of SMEs internationalization are discussed in the empirical literature: i.e. traditional internationalization, international new ventures/born global and born-again global (see Table 5).

Several significant differences in the paths of internationalization of small and medium-sized firms have been revealed. First of all, traditional internationalization of SMEs commonly occurs in traditional manufacturing industries; the process of internationalization takes a much longer period of time since companies internationalize in an incremental manner, in a single market at a time.

Table 5. A summary of three internationalization patterns of SMEs
(Source: Olejnik 2014, p. 28; Bell et. al. 2003, p. 346-347)

	Traditional	**International New Venture / Born Global**	**Born-Again Global**
Typical description	- Older firms - Traditional manufacturing industries - Successive entry in and commitment to foreign markets - No global focus - Gradual internationalization	- Young firms - Knowledge-intensive industries, global niche markets - Simultaneous entry into foreign markets - Global from inception - Radical and committed internationalization	- Older firms - Traditional manufacturing and service-intensive industries (e.g. retailing) - No initial global focus - Radical and committed internationalization
Motivation	- Reactive - Adverse home market -Unsolicited/enquiries orders - 'Reluctant' management - Cost of new production -Processes force export initiation	- Proactive -Global 'niche' markets -'Committed' management -International from inception - Active search	- Reactive -Response to a 'critical' incident (take-over, acquisition, etc.)
Geographic scope of markets	- Domestic expansion first - Successive international expansion in psychically close markets - Single market at a time	- Concurrent domestic and international expansion - Worldwide operations focusing on leading markets - Several markets at a time	- Domestic expansion first - Worldwide operations - Several markets simultaneously
Foreign sales measures (scale of markets)	- Not the main characteristic - Small to medium share of foreign sales	- Large share of foreign sales - Different definitions, usually more than 25%	- Large share of foreign sales
Foreign operation (entry) modes	- Commitment increase along establishment chain: no regular export activities, exports via agent, sales subsidiary, production/manufacturing	- Flexible choice of entry modes - No defined sequence - Varies from exports to collaborative modes and FDI	- Flexible choice of modes - No defined sequence - More committed modes because of strong resource base
Commencement of international operations	- Late	- Early - Different definitions, from three to ten years after inception	- Late

Second, the literature on international new ventures has challenged the traditional internationalization pattern. INVs perceive the world as one marketplace, adopt a proactive approach to internationalization and, therefore, internationalize earlier, many from inception or shortly thereafter. Lastly, the born-again global pattern shares some features with both of the aforementioned patterns of internationalization. A born-again global firm same as a traditional internationalizer is well-established in the domestic market, assumed to be reactive and become quite solid age before starting the international expansion. However, after entering foreign markets a born-again global firm switches to INVs or born globals' pattern, while targeting markets regardless of their psychic distance and having a considerable share of revenues from abroad in total firm's revenues.

The analysis of the early internationalization path and the concept of INVs has revealed that most scholars refer to Oviatt and McDougall (1994) while trying to define the phenomenon theoretically. This definition that an INV is a firm that seeks to derive significant competitive advantage from the use of resources and the sales of outputs in multiple countries is commonly accepted among scholars in the field. However, the situation is more complicated in terms of the operationalization of INVs. Since clear boundaries among different concepts have not been strictly defined, some challenges in defining INVs were encountered. To address these challenges, it was sought to understand what is written under the heading or names. Different denominations may hinder partially different concepts and studies use different variables and employ different thresholds to define INVs: 1) the thresholds of the first internationalization vary extensively from one year to six years but mostly it is within three years of founding; 2) the scale of internationalization (usually measured by the percentage of foreign sales to total sales) varies significantly from 25 percent to 90 percent of sales from abroad; however, 25 percent is the most frequently used 3) the less frequently applied measurement is the scope of internationalization which captures the extent of regional concentration as opposed to diversification, i.e. regional vs global. Nevertheless, the literature review has shown that these different terms have something in common – the internationalization of this kind of companies does not unfold in a slow and incremental manner, but rather in a proactive way. In other words, they are small or medium-sized entrepreneurial firms with the potential for accelerated internationalization, which in this dissertation are named as international new ventures.

1.1.3 The Determinants for Early Internationalization

There is a number of essential changes in the environment that have determined early internationalization of new ventures and created preconditions for a deviation from the "rings in the water" model (Madsen and Servais, 1997, p. 570). However, the knowledge regarding the determinants or antecedents of different internationalization patterns is limited (Baum et al, 2015). There has been little research that attempts to explain why international new ventures internationalize early (Knight and Cavusgil, 2004). More significantly, Knight and Cavusgil (2004) emphasize that there has been a limited amount of empirical research that attempts to examine the factors "that drive the superior international performance of these young, highly entrepreneurial firms" (p.125).

Knight and Cavusgil (2004) argue that determinants for early internationalization can be grouped into two streams: firm-internal configurations or the firm-external environment. According to Zucchella, Palamara and Denicolai (2007), the main drivers behind early internationalization can be divided into five categories: global environment, business-specific, location-specific, network-specific and entrepreneur-specific. Based on an empirical study of 53 Italian small and medium-sized enterprises, Baronchelli and Cassia (2011) argue that there are five factors that determine the early and successful internationalization of INVs: uncertainty and dynamism in the firm's industry, knowledge of the markets and segments held by the founder/managers, product innovation and firms' innovativeness, operation in niche-based industries, and access to networks. Kuivalainen et al. (2012b) suggest that the identification of antecedents of international pathways involves considering determinants at three levels: *firm, managerial and environmental level*. According to this distinction/classification, this part of the thesis analyses the determinants for early internationalization.

Additionally, Keupp and Gassmann (2009) emphasize that there are only a few studies that simultaneously incorporate entrepreneur and firm-related factors into an examination of INVs' international expansion. Consequently, there is a lack of studies encompassing the determinants for INVs' internationalization from all three distinguished levels.

1.1.3.1 Managerial-level Determinants

While researchers have attempted to identify the range of factors which affect the early internationalization of INVs (Zuchella, Palamar and Denicolai, 2007), the effects of the founder or top management continue to emerge as the key explanation of success. Previous research (Cressy, 2006) has proven the role which entrepreneurs play in the development and performance of new ventures; however, the entrepreneur-based perspective is not yet well integrated into the field of International Entrepreneurship (Verbeke, et al., 2014). Additionally, Sullivan Mort and Weerawardena (2006) argue for the need for more investigation to more fully understand the role of the entrepreneur.

Given the importance of managerial characteristics, researchers have attempted to analyze them in order to distinguish factors that could separate successful and less successful companies (Nummella, 2004). International new ventures are small or medium-sized enterprises, hence the behaviour and attitudes of the owner-manager have a strong influence on the firm's operations and internationalization (Oviatt and Mcdougall, 1997). It has been suggested that the relationship between personality characteristics of the owner-manager and internationalization is evident in small companies due to their lack of resources (e.g., financial and human resources) (Knight, 2001, Harveston et al., 2000, Manolova, Brush, Edelman and Greene, 2002).

One of the most important characteristics which facilitate the internationalization process is the ***manager/owner's international experience or previous experience in the business***. According to Miller (1993), the experience of manager/founder of the firm shapes "the lenslike cognitive structures through which managers see the world. These structures take the form of established sets of values, assumptions, and beliefs" (p.119). In other words, experienced managers have their strong opinion about what works in business, make appropriate strategic decisions, cope with the fast changing external environments, and filter business opportunities.

Given INVs' lack of organization-level experience with international markets, their internationalization needs to rely heavily on the prior experience of the founding entrepreneurs (Sapienza, et al., 2006). In other words, the early international expansion stages identified in the Uppsala model may actually have been "experienced" at the individual level, therefore enabling the early process of internationalization. According to McDougal (1994), the alertness to a new business opportunity is influenced by previous experience because that experience provides a framework for processing information. For instance, a framework could be producing the same products, providing the same service or targeting the same markets as the manager's previous employers (McDoulgall, 1994). Furthermore, research has shown that there is clear evidence of the relationship between the degree of previous international experience of top management in the firm and internationalization of the company (Hutchinson, Quinn and Alexander, 2006; Weerawardena et al., 2007; Zucchella et al., 2007). According to Reuber and Fisher (1997), the more internationally experienced the top management team is, the earlier SMEs expand their business overseas. Bloodgood, et al. (1996) explain this by providing evidence that entrepreneurs who are familiar with foreign markets have a more positive vision of internationalization and consider it as an opportunity for growth and development of the firm. Evidence from emerging markets has shown that founders of INVs usually make an example of the foreign firms that are perceived as advanced innovators's, therefore previous international experience in such firms has a positive impact on the INVs' competitiveness which stems from the increment in innovativeness, proactiveness, and willingness to take risk (Mihailova, Shirokova and Laine, 2015). The manager's experience enhances the identification of new opportunities, acquisition of international market knowledge, and exposure to foreign environments (Oviatt and McDougall 2005; McDougall, Oviatt, and Shrader 2003).

Similarly, it was proven that managers of INVs have higher levels of industry experience than managers of domestic firms (McDougall, Oviatt, and Shrader, 2003). The case study from the United Kingdom firms also shows that the importance of experience not only in living and working abroad, but also the specific experience in business (e.g. working with other international luxury brands) is a significant aspect of senior management to aid the company in its expansion overseas (Hutchinson et al., 2006). According to Shrader, Oviatt, and McDougall

(2000), entrepreneurs struggling to develop basic business skills have less time and energy to focus on the management of international risks. Previous business experience gives the entrepreneur more specific knowledge about suppliers, customers, other actors and processes in the market, etc., and this knowledge is relevant for both domestic and international markets. This provides the ability to identify market opportunities faster (Federico et al., 2009; McDougall et al., 1994). This is also in line with the study of Manolova et al. (2002) and Westhead et al. (2001) who discovered that company founders and members from top management who had more international work experience and higher industry experience possessed the skills necessary to conduct international business arrangements and increased the likelihood of entering foreign markets.

Since a large number of people have obtained more international experience in the last decades (Andersson, 2000), more skilled managers or founders could be characterized by ***international orientation, global mindset or entrepreneurial mindset***. In some research, the years of foreign experience of top managers are directly equated with the firm's international orientation (Reuber and Fischer, 1997; Sullivan, 1994) since it is assumed that managers or founders gain somewhat of a "global mindset" while spending time abroad.

Various concepts of manager's attitudes, orientations or mindsets that facilitate early internationalization have been offered. Nummela, Saarenketo and Puumalainen (2004) argue that researchers studying established phenomena in novel contexts, such as the managerial-level determinants for early internationalization tend to create diverse theoretical and analytical constructs. Authors have found several partly overlapping concepts in accordance with an overview of literature. Nummela et al. (2004) states that the broadest concept in use is *global orientation.* This multidimentional construct refers to the manager's positive attitude towards international affairs, the ability to adjust to different environments and cultures, the manager's commitment to international markets, international vision and proactiveness, customer orientation, responsiveness, marketing competence, and the use of advanced communication technologies (see Figure 3).

Similarly, the concept of a *global mindset* is composed of attitudinal and behavioral components, reflects the visionary and proactive behavior of the manager and encompasses the willingness to take risks in operating overseas. The *global mindset* seems to include elements of international entrepreneurial orientation. It has been emphasized that *global mindset* alone is not enough; more important is continuous interaction with the environment within the learning process and collected experience of the manager (Nummela et al., 2004). The other concept – *international entrepreneurial orientation,* seems to be a part of the aforementioned constructs, although it is more focused and narrower. *International entrepreneurial orientation* comprises three basic dimensions of entrepreneurship such as innovativeness, proactiveness, and risk-taking and applies them into an international context. Furthermore, *international orientation* and *international outlook* are additionally used and more narrow constructs in relation to the managerial-level characteristics. Those two concepts refer to the manager's perceptions of home and foreign markets (Nummela et al., 2004). However, it should be emphasized that this hierarchy in the conceptualization is barely followed by scholars, for instance, the constructs of *international orientation* and *global orientation* are used interchangeably in the study of Moen (2002). Following this discussion, the term *global mindset* is accepted and used in this thesis.

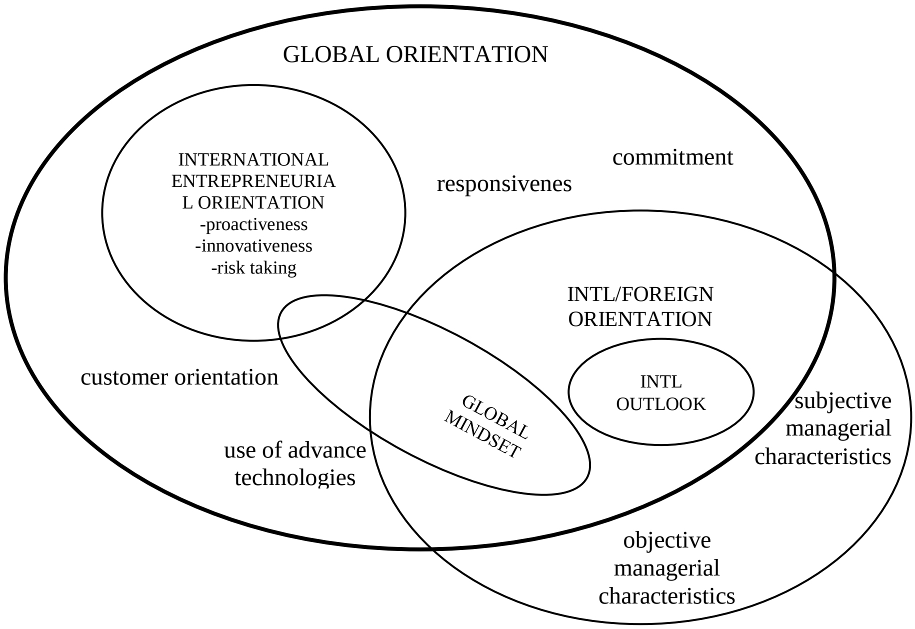


Figure 3. Managerial characteristics
(Source: Nummela et al. 2004, p. 53)

Despite the dispute in conceptualization, it is agreed that managers or owners of small companies are regarded as key decision-makers and "drivers" in achieving international success (Loane, Bell and McNaughton, 2007). The success is often determined by managers' proactive and innovative behavior and willingness to take the risk of entering foreign markets, which is often influenced by prior international experience (Chetty and Campbell-Hunt, 2003; Coviello and Munro, 1997, Madsen and Servais, 1997, Loane, et al., 2007). According to Hutchinson et al., (2006) where resource deficiencies can hinder expansion, *international orientation* and *global mindset* of the entrepreneur are qualities that can drive the path and pace of internationalization for the firm.

1.1.3.2 Firm-level Determinants

The characteristics of managers are believed to make a considerable contribution to the emergence of early internationalization of new ventures (Jones and Coviello, 2005; Manolova et al., 2002; Mihailova et al., 2015). However, according to Gassmann, Keupp (2007), these cognitive characteristics alone could not fully explain why some SMEs are able to internationalize early.

To begin with, empirical evidence shows that *entrepreneurial orientation* is a relevant determinant of early internationalization of SMEs (Acedo and Jones, 2007; Knight, 2001) and international performance (Jantunen, Puumalainen, Saarenketo and Kylaheiko, 2005; Frishammar and Andersson, 2009). Since the beginning of the last decade, few international entrepreneurship studies have focused on the entrepreneurial orientation of international firms (Gabrielsson et al., 2014, Dimitratos et al., 2004, Dimitratos et al., 2012). They argue that with greater entrepreneurship new ventures can overcome their resource scarcity and undergo early internationalization at an early stage in their development. Key characteristics in defining entrepreneurial orientation are innovativeness, proactiveness, and risk-taking activities (Miller, 1993), which manifest in undertaking projects with uncertain outcomes, when international entrepreneurial orientation focuses on "a combination of innovative, proactive, and risk-seeking behaviour that crosses national borders" (McDougall and Oviatt, 2000, p.903). International ***innovativeness*** represents a firm's ability to support new and creative ideas, experimentation, products, technologies or processes for markets abroad (Lumpkin and Dess, 1996; Dimitratos et al., 2004). According to Knight and Cavusgil (2004), innovativeness is a fundamental aspect of the entrepreneurship of a firm. Moreover, it was found that firms tend to focus on innovation as a prerequisite for successful internationalization (Kumar, Mudambi, and Gray 2013). Some researchers argue that sometimes the firms that export products spend more on research and development (R&D) than non-exporters (Naude and Rossouw, 2010). The second dimension – ***proactiveness*** – represents the ability to recognize business opportunity and to exploit it well ahead of other players in the same market. Therefore, proactiveness allows to create a first-mover advantage *vis-`a-vis* competitors (Lumpkin and Dess, 1996). Proactiveness of the firm may occur through the introduction of new products to the market, or through decisions to eliminate some business operations that are no longer profitable or too complicated. According to Yiu et al., (2007) and Zhang, Ma and Wang (2012) these abilities are especially important for SMEs from emerging economies as they go international, as well as from catching-up economies. The third – ***risk-taking*** – dimension represents the willingness of a company to pursue opportunities with a reasonable risk of costly failure (Kuivalainen, Sundqvist, and Servais, 2007). It implies committing resources to projects where the outcomes are unknown. Therefore, risk-taking affects decisions over critical resources for entrepreneurial decisions that firms have to make. Previous research shows that risk-taking has a positive impact on emerging firms' internationalization (Yiu et al., 2007).

Firms engage in innovative, proactive, and risk-taking behaviors in order to gain competitiveness in the global area and to achieve successful international growth and performance (Glavas and Mathews, 2014). Results of research from developed economies proved that a firm's entrepreneurial orientation has a positive effect on its performance in international markets (Jantunen et al. 2005; Knight and Cavusgil, 2004). On the other hand, empirical results from Swedish SMEs have shown little influence of entrepreneurial orientation on the internationalizing firms' performance (Frishammar and Andersson, 2009). Meantime, findings from the context of transition economies indicate significant relationships between the entrepreneurial orientation and international performance. Zhang et al. (2009) have found that international entrepreneurial capability has a positive significant effect on the performance of Chinese manufacturing firms, their competitive advantage, and enhancement of financial indicators. Kowalik et al. (2017) have found some relationships between the entrepreneurial orientation elements and performance of Polish INVs. The authors argue that innovativeness is associated with better overall and financial success perception of INVs in Poland. Similar results that the link between entrepreneurial orientation and performance exists and relates both to the firm's efficiency and effectiveness were found in Mexican INVs (Martin and Javalgi, 2016).

Moreover, it was also found that international growth orientation of a firm and its efficiency in operations across national borders are also motivating factors for early internationalization (Baum et al., 2015). Sunqvist and Kuivalainen (2009) also identify international orientation as an important determinant of a growth strategy that is pursued by firms who seek to expand internationally.

According to Baum et al. (2015) ***resources*** of the firm that are rare, non-imitable, valuable and non-substitutable are important determinants for internationalization. As Osei-Bonsu (2016) states, resources play two roles in the entrepreneurship process of INVs. First of all, the author emphasizes the triggering effect of resources on the discovery (recognition) of new opportunities by seeing a match between the resources which the firm currently owns or resources that are controlled by others which can be deployed to create an added value and economic growth. Secondly, resources drive a firm to exploit opportunities. A firm may need to look beyond the resources or capabilities that ensure its success in the domestic market since they might not be essential for foreign markets. The foreign market entry requires additional resources that are non-imitable, rare or valuable to provide a competitive advantage. Coviello and McAuley (1999) argue that a combination of insufficient resources or inadequate control of resources tends to be a constraint on international growth for SMEs since internationalization of smaller firms requires specific resources and capabilities (Zhou, et al. 2010). It is evident that a lack of resources puts SMEs at a disadvantage compared with larger firms in the globalizing world. It is argued that not only sufficient technological or financial resources are essential success factors for the internationalization of a company, but managerial or human resources play the most important role, since they are the key for the effective employment of other aforementioned resources, i.e. technologicaland financial (Bloodgood et al., 1996; Wach and Wehrmann, 2014).

1.1.3.3 Environmental-level Determinants

Further investigations have highlighted the role which several environmental changes play in the emergence of international new ventures. The importance of some environmental-level factors on internationalization has already been noted in one of the first papers on INVs (McDougall, 1989). However, the impact of a firm's environment-related factors on early internationalization has had the least attention (Jones, Coviello, and Tang, 2011).

According to Knight and Cavusgil (2004), the early adoption of internationalization is likely driven by two key trends – the *globalization of markets* and *technology advance*. Both of these determinants have substantially reduced the transaction costs of foreign market expansion and facilitated extraordinary growth in international trade, thus lowering the thresholds for SME internationalization (Knight and Cavusgil, 2004).

First of all, markets are globally integrated when countless firms coordinate their business strategies and activities across a variety of countries (Kobrin, 1991). According to Knight and Cavusgil (2004), globalization of markets involves cross-border sourcing, production, and marketing as well as network activities for product development and distribution. Moreover, globalization facilitates such international activities as product development or positioning overseas, since the buyers' preferences have increasingly homogenized (Knight and Cavusgil, 2004). Nummella et al. (2004) have found that there is a positive relationship between the globalness of the market and global mindset, which leads to a successful internationalization of INVs.

The second trend, according to Knight and Cavusgil (2004), encompasses the advances in information and communication technologies, transportation, international logistics, and production methods. According to Knight and Cavusgil (1996) and Oviatt and McDougall (2005), a fruitful background for INVs' appearance and growing presence in the marketplace has been created by the developments in communication and processing technologies. This refers to access to technology rather than the development of technology within a firm. Particularly, the widespread diffusion of the Internet and related technologies naturally lead to increased internationalization because of the facilitation in the transmission of information, cost efficiency and viability of the processes (Loane, 2006; Knight and Cavusgil, 1996, 2004). It has been shown that early internationalization is more likely to occur in high-tech and knowledge intensive industries (Zahra, Ireland, and Hitt, 2000, Bloodgood, et al., 1996). To develop competitive advantages in a rapidly changing environment with high technological sophistication firms should be dynamic, innovative, proactive and willing to take risks (Tang and Hull, 2012). Therefore, the smallness and flexibility of INVs (in comparison with big multinational companies) enables such firms to compete in foreign markets.

However, such rapid changes in the environment are rife with *uncertainty* and firms need to constantly seek out new international opportunities for survival (Mihailova et al., 2015). The increasing uncertainty and dynamism of a firm's environment have been also mentioned in a number of other studies (e.g. Baronchelli and Fabio Cassia, 2014; Laanti, Gabrielsson and Gabrielsson, 2007; Matanda and Freeman, 2009; Oviatt and McDougall, 2000). Additionally, environmental *dynamism* as market structure and competitive intensity in domestic market could also be drivers for international expantion of INVs (Coviello, Munro, 1997; Kuivalainen et al., 2012b; Oviatt, McDougall, 1994, 1995). Tough competition exerted by large multinationals necessitates new ventures to develop their business internationally from early on (Oviatt and McDougall, 1995). Authors have stressed the concept of *market turbulence* which could be explained as the fluctuation of customers' preferences and needs over time (Cadogan, Sandqvist, Salmineni, and Puumalainen, 2005; Nummela et al., 2004). It has been previously found that firms are more likely to adapt their operations to customer needs in turbulent environments than in stable ones (Bourgeois, 1980). "The rationale behind this antecedent is that as the level of uncertainty and dynamism increased, SMEs are pushed to quickly access international markets" (Baronchelli and Cassia, 2014, p.72).

In conclusion, in order to address the limitation, several of the most important environmental determinants argued to be involved in the internationalization of INVs, namely, the globalness of market, industry competitiveness, variability of demand, and development of technology are analyzed.

Table 6. Determinants of internationalization of INVs
(Source: created by the author)

Level	Determinants	Authors
Managerial level	Mindset Experience Education Global vision	Nummela et al, (2004); Jantunen et al, (2005); Kuivalainen et al. (2007); (Bloodgood, et al. (1996);Weerawardena et al., (2007); Zucchella et al., (2007); Knight & Cavusgil (2004); Kuivalainen et al. (2012b)
Firm level	Resources Entrepreneurial orientation Knowledge Strategic orientation Capabilities	Hymer (1976); Zaheer & Mosakowski (1997); Zahra (2005); Johanson & Vahlne, (2009); Blomstermo et al, (2004); Schwens & Kabst (2009); Acedo & Jones, (2007); Barney (1991)
Environmental level	Industry factors, Variability of demand, Advances in technology Distance Globalness of markets Environmental dynamism, uncertainty, turbulence	Bloodgood et al, (1996); Kuivalainen et al. (2012b); Knight & Cavusgil (1996); Knight, Madsen, & Servais (2004); Madsen & Servais (1997); Rialp, et al. (2005) Baronchelli & Fabio Cassia (2014); Laanti et al. (2007); Matanda & Freeman (2009)

Literature shows that there are as many "key determinants" for internationalization of INVs as there are authors. A number of factors may trigger or even limit the internationalization of INVs. Generally, all those determinants could be classified as managerial, firm and environmental levels (see Table 6). The managerial level encompasses mindset and attitudes, experience, education and global vision of the owner or top manager. These characteristics of the manager are assumed to have a considerable impact on the process of internationalization of INVs since the manager plays a major role in decision-making and development of the firm's strategy in a small company. Firm-level determinants for early internationalization are resources, entrepreneurial orientation, capabilities, knowledge, etc. The environmental antecedents include, but are not limited to modern information and communication technology, the so-called globalness of markets, specificieties of industries, variability of demand, increasing competition, etc. All of the listed determinants together reflect a broader picture of the multiplicity of possible influencing factors for the internationalization of INVs.

1.2 International Entrepreneurship Approach to Early Internationalization

The 1970s and 1990s have witnessed changes in the business environment since the obstacles to international trade have been gradually removed. The development of communication and information systems made the world a smaller place by facilitating the cross-border interoperability. Consequently, new windows were opened for a variety of alternative business models as mitigations of practical and psychological obstacles influenced the fact that firms were no longer inclined to traditional internationalization patterns that have been described by process models. Accordingly, scientists have started to develop new theories that attempt to explain why do firms internationalize faster, more innovatively and more intentionally than ever before (Oviatt and McDougall 1994). One of the fundamental approaches that explain such behavior of the firm is International Entrepreneurship. As stated in the seminal works of McDougall and Oviatt (2000) and McDougall-Covin et al., (2014), International Entrepreneurship is situated at the intersection of the research paths of International Business and Entrepreneurship and this field of research needs to be positioned as a separate research discipline. Fletcher (2004) states that "[...] all entrepreneurial activities potentially have an international dimension because in acting entrepreneurially internationalization is likely to occur. This view of international entrepreneurship infers that acting entrepreneurially and becoming international are dual processes that become integrated in practice" (p. 294–295). Additionally, Wach and Wehrmann (2014) emphasize that International Entrepreneurship will become "a binder for all internationalisation theories and approaches constituting the base for the integrative models" (p. 9). Therefore, it is essential to analyze the concept of international entrepreneurship and the International Entrepreneurial approach to the internationalization of INVs.

1.2.1 The Concept of International Entrepreneurship

The term International Entrepreneurship (IE) was introduced by Morrow (1988) in order to describe many unexploited foreign markets that were open to new ventures reflecting the new technological and cultural environment. International Entrepreneurship has become a newly emerging research field encompassing (1) comparisons of entrepreneurial behavior in multiple countries and cultures; (2)

organizational behavior that is entrepreneurial and extends across national borders (Oviatt and McDougall, 2005). Jones, Coviello, and Tang (2011) emphasize that IE research is broadly classified into three major areas: (1) entrepreneurial internationalization, (2) international comparisons of entrepreneurship, and (3) comparative entrepreneurial internationalization. It has also been applied in many geographic contexts, starting from developed coutries, such as Finland (Kontinen and Ojala, 2011), the USA (Milanov and Fernhaber, 2014), Iceland (Sigfusson and Chetty, 2013), France (Andersson, Evers and Griota, 2013), to emerging countries, such as China (Ciravegna, Majano and Zhan, 2014b) and India (Prashantham, et al., 2015), and Eastern Europe such as the Czech Republic (Musteen et al., 2010).

Baum, et al. (2015) note that although the focus of the research field remained over time, the definition of IE has moved from broad to more consistent. The definition is a matter of continued debate; thus, the meaning of entrepreneurship continues to evolve (McDougal and Oviatt, 2003). A number of definitions of International Entrepreneurship are provided in the table below (see Table 7).

Table 7. Evolution of International Entrepreneurship definition
(Source: adopted from Wach and Wehrmann, 2014, p. 13)

Authors	Definition of International Entrepreneurship
McDougall, 1989, p. 389	"[…] the development of international new ventures or start-ups that, from their inception, engage in international business, thus viewing their operating domain as international from the initial stages of the firm's operation".
Zahra, 1993, p.7	"[…] the study of the nature and consequences of a firm's risk-taking behaviour as it ventures into international markets".
McDougall & Oviatt, 1996, p. 24	"[…] new and innovative activities that have the goal of value creation and growth in business organization across national borders".
Oviatt & McDougall, 2000, p. 903	"[…] a combination of innovative, proactive, and risk-seeking behavior that crosses or is compared across national borders and is intended to create value in business organizations".
Knight, 2001, p. 159	International entrepreneurial orientation "reflects the firm's overall proactiveness and aggressiveness in its pursuit of international markets".
Zahra & George 2002, p. 262	"[…] the process of creatively discovering and exploiting opportunities that lies outside a firm's domestic markets in the pursuit of competitive advantage."
Jones & Coviello, 2005, p. 289	"[…] [an] evolutionary and potentially discontinuous process determined by innovation, and influenced by environmental change and human volition, action or decision".
Oviatt & McDougall, 2005, p. 540	"[…] the discovery, enactment, evaluation and exploitation of opportunities – across national borders – to create future goods and services".

To begin with, McDougall (1989) defined International Entrepreneurship as "the development of international new ventures or start-ups that, from their inception, engage in international business, thus viewing their operating domain as international from the initial stages of the firm's operation." (p. 389). According to this definition, International Entrepreneurship appears only within newly established and young firms. However, more than a decade later, McDougall and Oviatt introduced a broader definition of International Entrepreneurship by including the study of established companies. This definition focused on organizational behavior rather than on the characteristics or intentions of individual entrepreneurs and suggested that IE is "a combination of innovative, proactive, and risk-seeking behavior that crosses or is compared across national borders and is intended to create value in business organizations" (McDougall and Oviatt, 2000, p. 903). This definition emphasized that the key dimensions of entrepreneurship – innovativeness, proactiveness, and risk propensity – can be developed at the firm level. The construct of entrepreneurship had already been explained in the strategic management field (e.g. Covin and Slevin, 1989), where it was argued that entrepreneurship is composed of proactiveness, innovatiness, and risk-taking.

Two years later Zahra and George (2002) developed another definition of IE, considering it to be "the process of creatively discovering and exploiting opportunities that lie outside a firm's domestic markets in the pursuit of competitive advantage" (p. 262). In comparison with the definition of McDougall and Oviatt (2000), the scope of IE defined by Zahra and George (2002) focuses on entrepreneurial internationalization alone, and does not encompass international comparisons of entrepreneurial behaviour. Later on, Oviatt and McDougall suggested a refined definition where IE was described as "the discovery, enactment, evaluation, and exploitation of opportunities across national borders to create future goods and services" (Oviatt and McDougall, 2005, p. 540). These definitions introduced the opportunity-based approach. This is also in vein with the view provided by Shane and Venkataraman (2000) who argue that entrepreneurship encompasses two components: opportunities and enterprising individuals. Thus, this thesis adopts the following definition introduced by Zahra and George (2002) and Oviatt and McDougall (2005): ***International Entrepreneurship is seen as recognition and exploitation of opportunities – across national borders – to create future goods and services***. According to Mainela, Puhakka, and Servais (2014), the notion of "opportunity" emphasizes the entrepreneurship dimension of the field. It follows that, according to Oviatt and McDougall (2005), the scholarly field of International Entrepreneurship examines and compares how, by whom, and with what effects those opportunities are acted upon across national borders.

1.2.2 Early Internationalization as an Entrepreneurial Process

The theory of International Entrepreneurship mainly focuses on the enabling factors of internationalization (Autio, 2005). In the very beginning, the theory was substantiated by empirical findings particularly from the studies of international new ventures, since they are frequently described as entrepreneurial by nature (Fletcher, 2004). After more than two decades of research, International Entrepreneurship has now reached the stage of a recognized field of science and has already collected a lot of evidence about the decisive and groundbreaking behavior of such firms (Coviello, McDougall and Oviatt, 2011).

Jones and Coviello (2005) argue that despite an apparent convergence in traditional theories, there is the need to incorporate International Entrepreneurship in order to fully reflect the internationalization of INVs since those firms do not fit the traditional descriptions of internationalization. Considering this and referring to the study of Zahra and George (2002) and Oviatt and McDougall (2005), the internationalization of INVs is approached as an entrepreneurial process. It is positioned as the process of recognition and exploitation of opportunities that lead to the presence in international markets (McDougall and Oviatt, 2005; Zahra and George, 2002). Following the International Entrepreneurship theory, internationalization could be described as patterns of action driven by the use of international business opportunities and situational actions by the entrepreneur (Jones and Dimitratos, 2004; Vasilchenko and Morrish, 2011).

The following parts of this dissertation present the opportunity-based approach to internationalization and discuss the recognition and exploitation of international business opportunities.

1.2.2.1 Opportunity-based Approach

In congruence with literature, internationalization of INVs is positioned as an entrepreneurial and an opportunity-based process (Oviatt and McDougall 2005; Vasilchenko and Morrish, 2011). Shane and Venkataraman (2000) argue that entrepreneurship could not exist without entrepreneurial opportunities. Mainela, et al. (2014) state that the notion of *opportunity* highlights the dimension of entrepreneurship of the field. In line with this logic, international entrepreneurship emerges from the **entrepreneurial opportunities across international borders**. Ellis (2011) emphasizes that international market entry is more entrepreneurial in comparison with the penetration within the existing markets since there is less uncertainty and choices can usually be made through the process of optimization.

There are three sets of questions that entrepreneurship research addresses: "(1) why, when, and how do opportunities for the creation of goods and services come into existence; (2) why, when, and how do some people and not others discover and exploit these opportunities; and (3) why, when, and how are different modes of action used to exploit entrepreneurial opportunities" (Shane and Venkataraman, 2000, p. 218). Consequently, it is important to understand what international opportunity is since it is the key element in this entrepreneurial process (Eckhardt and Shane, 2003; Shane and Venkataraman, 2000). It is also essential to analyze the processes involved in the recognition and exploitation of international opportunities and their outcomes, since there is a gap in most International Entrepreneurship studies.

Recent scholars have stated that a widely accepted conceptualization of international opportunity is still to emerge (Muzychenko and Liesch, 2015). Moreover, the explicit definition of international opportunities is not often provided.

Table 8. Definitions of international business opportunity
(Source: created by the author)

Authors	**Definitions**
Lumpkin & Dess, 1996, p. 136	new entry, i.e. "[…] entering new or established markets with new or existing goods or services by launching a new venture".
Nordman & Melén, 2008, p. 175 *influenced by Shane and Venkataraman (2000)*	"[…] those situations in which new goods, services, raw materials, and organizing methods can be introduced in a specific **foreign market**".
Ellis, 2011, p. 101	"[…] international opportunity as the chance to conduct exchange with new partners in **new foreign markets**".
Chandra, et al. 2012, p. 336 *influenced by Eckhardt and Shane (2003)*	"[…] situations in which new goods, services, raw materials, **markets** and organizing methods can be introduced through the formation of new means, ends or means-ends".
Mainela et al., 2014, p. 16	"[…] a situation that both spans and integrates elements from **multiple national contexts** in which entrepreneurial action and interaction transform the manifestations of economic activity".
Muzychenko & Liesch, 2015, p. 705 *influenced by Ellis, (2011)*	"[…] international opportunity as the likelihood of conducting exchange with new or existing partners […] in **new international markets**".

The table above (see Table 8) summarizes the definitions provided in the existing studies that have taken the opportunistic perspective to explain internationalization. The provided definitions of international opportunities are rather broad, encompassing the new situations where the "goods, services, raw materials, and organizing methods" can be conducted in foreign markets (Nordman and Melén, 2008). Later on Chandra et al., (2012) added "new markets" to this definition. Other scholars emphasize the likelihood of exchanges "with new or existing partners" (Muzychenko and Liesch, 2015; Ellis, 2011) in new foreign markets. Looking through the operationalization of international opportunity in most of the studies of INVs, international opportunity is treated, basically, as an ***international market entry***.

According to Mainela, Pernu and Puhakka (2011), an opportunity is "an artifact of a problem solving process that is, however, not possible to logically deduce due to the complexity of the information space" (p. 433). Kirzner (1997) indicates that a business opportunity is a number of different fragments that are grouped together and makes sense of while the situation is developing.

Consequently, there is a debate among scholars about whether opportunities are objective or subjective phenomena. Li (2013) and Baker, Gedajlovic, and Lubatkin, (2005) suggest that opportunities may be created and this creation is based on the subjective actions or beliefs of an entrepreneur. On the other hand, Shane and Venkataram (2000) state that opportunity itself is an objective phenomenon; however, the recognition of such an opportunity is a subjective process.

The author of this dissertation supports the arguments of Shane and Venkataram (2000), that ***international opportunity is a certain situation or a new chance to conduct foreign business activities.*** This situation or chance exists primarily as a consequence of demographic changes, government actions, information asymmetry or creation of new knowledge, etc. However, further processes depend only on the entrepreneur's ability and willingness to recognize such an opportunity and make use of it.

1.2.2.2 Recognition and Exploitation of International Opportunity

INVs are firms that do not follow traditional stages of internationalization and are entrepreneurial in their nature (Jones and Coviello, 2005). As discussed before, the process of internationalization of INVs is approached as entrepreneurial (McDougall and Oviatt, 2005; Vasilchenko and Morrish, 2011). Moreover, some authors define the internationalization of a firm as "the recognition and exploitation of entrepreneurial opportunity that leads to new international market entry" (Chandra, Styles and Wilkinson, 2009, p. 31). Recently the research emphasis on Entrepreneurship has been shifting from the characteristics of entrepreneurial managers and firms to the processes of entrepreneurship itself through the recognition and exploitation of opportunities (Osei-Bonsu, 2016). According to Osei-Bonsu (2016), scholars have started the discussion about the disequilibrium and behavioral approach focused on deepening the understanding of how opportunities are discovered and acted upon by firms and people and leaving out the economic rationalism approach and its assumptions about optimization, rational expectations, and perfect information as the main determinants of entrepreneurship. Moreover, there is still a gap in literature about how opportunities are recognized and exploited by entrepreneurs or by others to whom this opportunity is transferred or sold (Osei-Bonsu, 2016).

Recognition of opportunities. Shane and Venkataraman (2000) state that opportunities can be exploited only if an entrepreneur recognizes them by using his perceptivity and understands its value for business development. Therefore, the entrepreneurial process starts with the recognition or identification of opportunity. According to the scholars, "international opportunity recognition is the beginning of the internationalization process" (Chandra et al., 2009, p. 31), particularly in the context of early internationalization. However, Chandra et al. (2009) argue that this topic has not received enough attention despite the importance of the internationalization of INVs.

There is a number of different terms used for international opportunity recognition, such as discovery, exploration, identification, perception, etc. These terms are used interchangeably to label the entrepreneurial activities that lead to the commitment to exploit the opportunity (Muzychenko and Liesch, 2015). This dissertation uses the term of ***opportunity recognition***.

Schumpeter (1934) emphasizes an entrepreneur as the creator of business opportunities by creating new combinations. Therefore, opportunity recognition can be defined as "the cognitive process (or processes) through which individuals conclude that they have identified an opportunity" (Baron, 2006, p. 107). The existing literature has presented a dilemma within the research regarding the recognition of opportunities since it can be an intentional or an accidental process; some opportunities can be discovered consciously, while others – accidentally. Additionally, Vaghely and Julien (2010) found that a firm can also include both ways of exploring business opportunities by organizing information about opportunities rationally and by accidentally falling upon opportunities.

There are empirical findings of how systematic search of opportunities positively affect the success of firm founding (Patel and Fiet, 2009). INVs are believed to have an exceptional ability to recognize international business opportunities (McDougall et al., 1994). Several important factors influencing opportunity recognition have been distinguished: personality traits, entrepreneurial alertness, and networks (Ardichivili et al., 2003). Similarly, McDougall et al., (1994) state that founders' unique experience and backgrounds, knowledge, and networks enable such firms to recognize opportunities which are undetectable to others. Additionally, the prior knowledge or cognitive properties of the manager are also emphasized as necessary to explore opportunities through the ability to combine the existing information with new possibilities (Johanson and Vahlne, 2006). Nordman and Melen (2008) state that international new ventures' discoveries of foreign market opportunities are driven by proactive behavior, while Zahra and George, (2002) emphasize the importance of innovativeness in the allocation of resources and the selection of areas to internationalize while exploring new international opportunities.

Exploitation of opportunity. The second stage of internationalization of INVs is exploitation of opportunities. As it was mentioned before, this is also a part of the entrepreneurial process, although some scholars note that opportunity recognition has been emphasized in the literature, while opportunity exploitation has been downplayed (McKelvie and Wiklund, 2004). After recognising an opportunity which is, according to Shane (2000), a domain of the entrepreneur, an entrepreneur must decide whether to exploit it or not, i.e, whether to turn opportunities into market outcomes through firm's capabilities (Whittaker et al., 2009).

According to Shane and Venkataraman (2000), not every opportunity that has been recognized is brought to fruition. The process of exploitation is influenced by two aspects: the nature of opportunity and by the personal characteristics of managers/entrepreneurs (Shane and Venkataraman, 2000). Authors emphasize that the first aspect is related to the goal to achieve an expected return from opportunity, its costs, and duration acting upon this opportunity. On average, opportunities with a higher expected value are exploited; in particular, when the profit margin is high, the expected demand is large, and within the not too intense competition, etc. The second aspect is related to the individual differences. Basically, the decision of whether or not to exploit international business opportunity involves an assessment of the expected value of opportunity against the cost of it. Furthermore, entrepreneurs consider the cost of obtaining the resources necessary to exploit the opportunity. Research has shown that opportunities are more commonly exploited with greater financial resources (Evans and Leighton, 1989). In addition, not only tangible resources increase the possibility to exploit international business opportunities. Entrepreneurs are more likely to exploit opportunities if they have experience and knowledge from previous employment. This experience and information reduce the cost of opportunity exploitation (Cooper, Woo, and Dunkelberg, 1989). Moreover, the decision to exploit an opportunity is influenced by the differences in the level of entrepreneur's risk-aversion; in other words, it tells how much risk a manager is willing to take, and the individual differences regarding the optimism of entrepreneurs are also important in making that decision (Shane and Venkataraman, 2000). Additionally, McDougall et al. (2000) emphasize that risk-seeking behavior forms an important segment in the process of international entrepreneurship, as well as the optimistic perception of entrepreneur's chances of success in business; it is usually positively related with the exploitation of opportunities (Cooper et al., 1989).

Exploitation of opportunity involves evaluation, resource mobilization, and commercialization. However, the way of how INVs and traditional firms act upon opportunities differs, since, according to Zahra (2005), INVs face challenges such as "newness" (or inexperience), "smallness" (in comparison with the large multinationals); and "foreignness", (which means that INVs have to overcome barriers of foreign entry). In the same vein, a study by Vasilchenko and Morrish (2011) notes that insufficient resources and information is perceived as a huge obstacle to identify and develop profit opportunities to actual outcomes. On the other hand, Schumpeter (1934) emphasizes that firms that obtain new information before others can purchase resources at a lower value and gain the early-mover advantage, therefore such firms are more likely to succeed.

There is an agreement among scholars that commitment to exploit an opportunity and its subsequent exploitation is preceded by two processes (Muzychenko and Liesch, 2015; Wood, Williams and Gregoire, 2012). Firstly, the founder or top manager of the company becomes aware, through accidental discovery or intentional search, of a possibility to create value, i.e. they are aware of a potentially beneficial situation – opportunity. Second, general awareness of the opportunity is followed by its evaluation. Entrepreneurs assess the chances by keeping in mind the available resources, abilities and motivations to exploit this opportunity (Muzychenko and Liesch, 2015; Wood et al., 2012). According to Vasilchenko and Morrish (2011) entrepreneurs are the key driving force and entrepreneur-centered networks are the main influencing factors throughout the process of internationalization. Authors have stated that internationalization could not happen in isolation, but rather through "managing in networks, the process of international opportunity recognition–exploitation is essentially channeled, directed, facilitated, or inhibited" (Vasilchenko and Morrish, 2011, p. 92).

On the other hand, it is commonly assumed that there is a linear relationship between opportunity recognition and opportunity exploitation – firms first recognize business opportunity, which thereafter is exploited (Shane and Venkataraman, 2000). According to Shane (2000) opportunity exploitation is considered a function of opportunity recognition. However, McKelvie and Wiklund (2004) find contradictory evidence about the mutual rather than linear relationship between recognition and exploitation of business opportunity. Scholars prove that opportunity exploitation affects recognition of opportunity, and vice versa (McKelvie and Wiklund, 2004). Considering this, recognition and exploitation of business opportunities is a continuum that cannot be divided into distinct clear stages.

To sum up, the internationalization of INVs is an entrepreneurial process that could be explained by two main aspects – recognition and exploitation of international business opportunities. Entrepreneurs are the key driving force for this process. In the context of INVs, international opportunity is considered as a certain situation or new chance to conduct foreign business activities, e.g. foreign market entry. After identifying an international opportunity, the second step is to understand the internationalization process according to the opportunity-based approach. The main difference between this approach and traditional internationalization theory is that recognition and exploitation are strongly interrelated, not having a clear divide between separate stages, but being a rather continuous process.

1.3 The Concept of Networks, Classification, and Interface with the Internationalization of INVs

In order to prosper, small firms are often advised to develop relationships with external actors in the business ecosystem that have the potential to assist business development, survival, and growth (Christopher and Cameron, 2007). Moreover, network approach has been used to explain the internationalization activities of smaller firms (Coviello and Munro, 1995, 1997; Loane and Bell 2006; Zain and Ng, 2006). According to Chetty and Wilson (2003), SMEs may mobilize resources through external relationships to pursue their goals. All decisions regarding internationalization are influenced by interactions with others (Coviello and Munro, 1997). Therefore, this part of the dissertation discusses the concept of a network and presents the classification of network types most commonly found in literature. Finally, the results of the systematic literature analysis are presented, which review the literature of the last twenty years of research related to the interfaces between networks and internationalization of INVs.

1.3.1 The Concept of Networks and Different Theoretical Approaches to Network

According to Johanson and Vahlne (2009) firms are connected with each other in complex and invisible patterns through markets, since markets are essentially networks of relationships.

A review of network definitions reveals that there is a lack of consensus in literature (see Table 9). As it is stated by Axelsson and Easton (1992) and Coviello and Munro (1997), networks can be explained as “sets of two or more connected exchange relationships” (p. 365). According to Powell (1990), networks also can be defined by a set of critical components, such as heavy reliance on reciprocity, collaboration, and reputation and a relationship basis for communication. Moreover, many scholars focus on business networks that are *strategic relationships* (D’Cruz and Rugman 1992; Gulati, Nohria and Zaheer, 2000) between *collective actors* (Chetty et al. 2000), such as customers, suppliers, distributors, etc. Some of the reviewed definitions distinguish ties into vertical and horizontal (Gulati et al., 2000) or into domestic and international (Blomstermo et al., 2004) relationships. Primarily, the majority of research emphasizes networks as relationships “that binds a group of independent organizations together” (Street and Cameron, 2007). Thus, networks are a firm’s relationships, both horizontal and vertical, with other organizations across industries and countries and these relationships are stable, enduring and of strategic significance for the firms entering the networks.

Another stream of research includes social ties as an essential part of firms’ network (Zain and Ng, 2006; Zhou et al. 2007). Sasi and Arenius (2008) claim that for a long time network theory of internationalization has ignored the entrepreneur and his social ties. In this context, the social network consists of all informal ties with families, friends or other personal relationships that enable a firm to internationalize its business activities (Zain and Ng, 2006; Zhou et al. 2007). Additionally, the network of firms is comprised of the relationships between firms and external members, such as customers, suppliers, business agents, competitors, universities, and other players, who could have the ability to propose something in exchange for something with other members of the network (Hite and Hesterly, 2001; Zhou et al., 2007).

Table 9. The variety of definitions of Networks
(Source: created by the author)

Author	Journal	Definition
D'Cruz & Rugman, 1992, p. 59	*Business Quarterly*	A business network as “the web of strategic relationships that tie the members of a cluster together and are achieved through the harmonization of the strategies of the firms within the cluster.”

Coviello & Munro, 1995, (*influenced by network theory*)	*European Journal of Marketing*	A market is a system of relationships among customers, suppliers, competitors and private and public support agencies.
Coviello & Munro, 1997, *(influenced by Axelsson & Easton, 1992)*	*International Business review*	A network involves a set of two or more connected exchange relationships.
Chetty & Blankenburg Holm, 2000, *(influenced by social exchange perspective of business networks)*	*International Business review*	Business network is a set of two or more connected business relationships, in which each exchange relation is between business firms that are conceptualized as collective actors (competitors, suppliers, customers, distributors and government).
Gulati, et al., 2000	*Strategic Management Journal*	Networks encompass a firm's set of relationships, both horizontal and vertical, with other organizations – their suppliers, customers, competitors, or other entities – including relationships across industries and countries; these strategic networks are composed of inter-organizational ties that are enduring, are of strategic significance for the firms entering them, and include strategic alliances, joint ventures, long-term buyer-supplier partnerships, and a host of similar ties.
Blomstermo et al., 2004	*Journal of International Management*	Networks include several actors and the relationships that connect them. Actors can be either domestic or international.
Zain & Ng, 2006, p. 184	*Thunderbird International Business Review*	"The relationship between a firm's management team and employees with customers, suppliers, competitors, government agencies, distributors, bankers, families, friends, or any other party that enables it to internationalize its business activities."
Zhou, Wu & Luo, 2007, (*influenced by Bjorkman and Kock, 1995; Hitt et al., 2002*)	*Journal of International Business Studies*	In organizational settings, social networks may involve social relationships among individuals embedded in a formal structure of business connections, such as buyer–supplier relationships or strategic alliances, and as an informal structure of personal relations bounded in geographical, social, or institutional space.
Street & Cameron, 2007, p. 241	*Journal of Small Business Management*	"A network is defined as a collection of relationships that binds a group of independent organizations together".

While describing networks, De Burca, Fletcher and Brown (2004) distinguish three main elements: participants in the network, their collective activities, and the resources shared by participants. The authors propose a model, where the aforementioned elements were depicted. Based on this model, participants in the network carry out certain activities that transform the available resources. This process is influenced by the environment that affects the attitude of the network participants towards each other and their interrelationships. The so-called environment consists of trust, ability and the level of dependency. Everything is happening in a wide environment that exerts pressure on the network and on the interactions of the participants, but at the same time, the environment surrounding the network can offer new opportunities (De Burca, et al, 2004). Anderson, Hakansson, and Johanson (1994) state that activities performed by two actors, through their relationship, can be adapted to each other so that their combined efficiency is improved; the participants in the network can also learn about each other's resources and find new and better ways to combine them; they can learn that by cooperating, they can raise the benefits that each receives.

The network has been studied from different theoretical approaches, thereby offering interesting discussions among scholars from different science fields.

Several major lines can be distinguished that explain a network. Firstly, the *economic approach* can be emphasized. This approach states that the main reason for network establishment is the economies in production cost. The production cost stems from various aspects such as economies of scale, scope, specialization, or experience. For instance, economies of scale and scope can be the basis for the formation of the network in order to use shared resources, equipment or know-how (Grandori and Soda, 1995).

The second perspective or approach to the network is the *organizational approach*. This perspective tries to move the focus of research from the efficiency indicators to explanations of what actually happens in a firm when a network is established. The organizational approach-based studies try to focus on how to achieve some desirable results in networking or how to choose an effective power distribution within networks, etc. (Grandori and Soda, 1995). This perspective pays attention to other interesting aspects that can predict the organizational network formation and formalization, such as the intensity of interdependence between actors in the network, the complementarity of various resources controlled by different firms or complexity of interdependent activities (Grandori and Soda, 1995; Teece, 1986).

An important tradition on the network is *social network theory*. The focus of attention of this theory is to explore the structure of the network, such as paying attention to the position of a node in a social network, also described as structurally equivalent positions, measuring the sociometric distance between partners in the network and mapping these relationships in a social space (Wasserman and Faust, 1994). Furthermore, the Social Network theory emphasizes the structural centrality of the network, which according to Freeman (1979) can be measured by indicating the degree, closeness, and betweenness among actors in the network as well asthe cohesion of network and its structural equivalence. This indicates that the social perspective on networks explores and emphasizes the structural properties of a network.

On the other hand, Slotte-Kock and Coviello (2010) highlight that there are three main dominant perspectives in literature: *Social network research, Business network research and Entrepreneurial network research*. After analyzing these perspectives, a number of fundamental differences in relation to the subject under study have been revealed.

Firstly, the Entrepreneurial network research tends to focus on networks with the boundaries defined by a focal firm. According to Slotte-Kock and Coviello (2010), some entrepreneurial research considers functionally different networks. Similarly, the Social network perspective considers networks to have clear membership boundaries. However, for the adherents of the Social approach, the full network is relevant since they are interested in the wider system of ties and their various characteristics. Meanwhile the Business network perspective does not recognize any network constraints and is focused on all relationships as part of the same network (Slotte-Kock and Coviello, 2010).

Regarding the network management, the Entrepreneurial network approach emphasizes the role of the focal firm or entrepreneur by stating that the firm or the entrepreneur fully controls the network. Despite the fact that the Social networks approach also recognizes that networks can be managed, the underlying cause of network change refers to the context, i.e. particular circumstances, but not the power of the entrepreneur. As an alternative to both of these approaches, the Business networks perspective states that an entrepreneur is able to not only behave reactively but also to enact the management of a network (organizing context) within the broader set of environmental influences (Slotte-Kock and Coviello, 2010). According to the authors, this involves "managing in a network rather than management of a network" (Slotte-Kock and Coviello, 2010, p. 47).

When the network and tie change come to the fore, it can be noted that in the entrepreneurship literature still there is a lack of understanding about how, when, and why do ties shift from short-term to long-term, weak to strong or social to economic (or vice versa). The Business approach is focused on how relationships change and why change occurs. Consequently, Business approach studies are more longitudinal case-based research and interpretivist in nature. Similarly, the Social network studies assess how the formation and dissolution or, in other words, addition or deletion of ties impact the structure of a network over time (Slotte-Kock and Coviello, 2010).

Several other differences in the networks perspectives are shown in the table below (see Table 10).

The growing interest in the network has been rapidly taken on by other science fields, such as *International Business*. Therefore, the network is explored as an enabler or facilitator of the internationalization process. By adopting the industrial perspective on the internationalization of a firm, the network approach has been used to examine the activities of smaller firms across the borders (Coviello and Munro, 1995; 1997; Loane and Bell, 2006). According to this approach, the firm's relationships with various actors in the business ecosystem dictate and influence the direction of foreign expansion.

Table 10. Comparing the three perspectives of Networks research (Source: Slotte-Kock and Coviello, 2010, p. 46)

Research dimension	**Entrepreneurial network research**	**Social network research**	**Business network research**
Primary level of analysis	Focuses on either dyads of a focal firm or the firm's egonet. Increasing the recognition of the interface between the dyad and the network.	Studies the patterns of whole networks of individuals or organizations, occasionally including dyads.	Focuses on dyadic interaction (specific inter-organizational relationships within a broader network) but argues it is possible and necessary to understand the mutuality of ties and network development.
Network type	Considers individual entrepreneur or firm networks with defined borders. Often studies advice or discussion networks.	Considers individual, intra- and inter-organizational networks; defined borders.	Considers inter-organizational networks based on dyadic ties (both formal and informal); borderless.
Network management	Generally argues that the network must (and can) be understood and managed.	Considers ties and network formation as calculative, thus assuming some ability to intentionally manage the network within the constraints of the environment.	Considers networks as non-hierarchical multiplex adaptive systems, where actors are simultaneously involved in on-going network management.
Tie characteristics	Emphasizes tie content (social vs. economic) and tie strength. Some other characteristics, e.g., tie usefulness, durability, direction, and dormancy.	Emphasizes tie existence and tie strength. Distinguishes between social and economic ties.	Considers multiplex characteristics: tie content, tie intensity, tie reciprocity, positive and negative ties, tie duration, sleeping ties.
Network and tie change	Provides descriptions of tie and network change but little assessment of how and why this occurs.	Assesses how the addition or deletion of ties impacts network structure.	Follows relationship development to understand change within relationships as well as across relationships and the impact of change on the wider network.
Assessment of tie or network influence on	Provides some understanding of the impact of a network on performance and offers	Assesses network structure for efficiency, with insight on how the	Appraises positive and negative aspects of ties with regards to firm and network

performance	some understanding of which types of ties matter when.	network impacts firm growth and other outcomes.	development. Longer-term ties are considered essential and efficient for the firm and stabilizing for the network.
Primary view of process	Studies tend to assess causation and change in variables, although the results are mostly placed in the context of a predictive sequence of stages often reflecting life-cycle theory.	Process is seen as a way to explain variance in the structure of networks over time, through causal influence of input and output variables.	Process is viewed primarily as a developmental event sequence underpinned by teleological, dialectic, and evolutionary theory.

One of the first network models of internationalization was proposed by Johanson and Mattsson (1988). The authors stated that the internationalization of a company is developed through the firm's own networks and relevant network structure overseas. Wach and Wehrmann (2014) notice that this perspective explains internationalization as a process of continuous establishment, development, and maintenance of relationships in order to achieve the firm's goals. Four stages of internationalization have been identified: 1) the early starter; 2) the late starter; 3) the lonely international; 4) international among others (Johanson and Mattsson, 1988). These stages are defined in terms of firms' degree of internationalization and the degree of network internationalization.

According to the scheme provided by Johanson and Mattsson (1988) (see Figure 4), the first stage is when the degree of internationalization of firms and the network is low. During this stage, the authors emphasize the problem of network development. Johanson and Mattsson (1988) state that the early starter stage follows the traditional incremental model of internationalization and only agents are used as intermediates to enter new markets. The second step – lonely international – indicates an increased level of internationalization of the firm; however, during this stage the firm might face some resource adjustment issues. During the third stage, the late starter's activity might be hindered by other existing actors in the market. This means that there is no direct relationship between the firm and foreign markets. Internationalization is accomplished only through other actors in the network as they all display a high degree of internationalization. This position is disadvantageous for a firm since a late starter lacks the knowledge which all competitors already have. Finally, in the last stage – international among others – a firm operates within the international network. This position has many advantages for a firm, such as influencing the processes of diffusion (of technology, for instance) occurring in the market or facilitating access to many external resources, thus stimulating its own development accordingly. This also emphasizes a decrease in the differences among countries over time. Therefore, some alliances, joint ventures or mergers occur by affecting the existing network (Johanson and Mattsson, 1988).

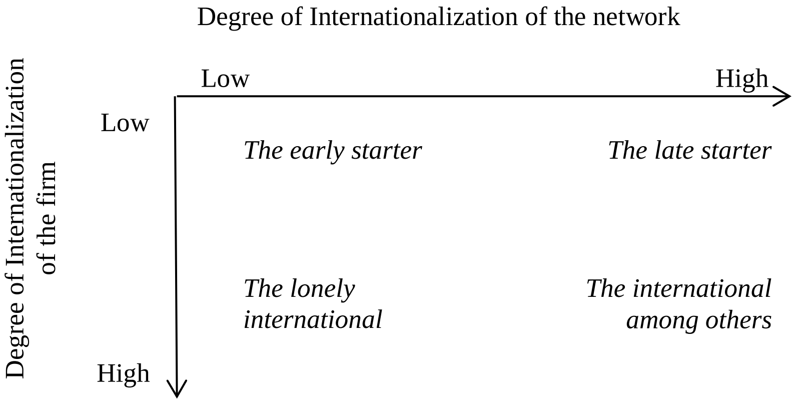


Figure 4. Network model and Internationalization
(Source: Johanson and Mattsson, 1988, p. 298)

To sum up, the model proposed by Johanson and Mattsson (1988) emphasizes the importance of a network to the development of a firm and the process of internationalization. According to the network approach, internationalization is seen as a process in which relationships are continuously established, developed, and maintained in order to achieve the objectives of a firm.

Consequently, the network approach has made a significant impact on the traditional internationalization theory. The authors of the Uppsala model revised their process-based model in accordance with the role of networks and entrepreneurship on firm’s behavior (Johanson and Vahlne, 1977; Johanson and Wiedersheim, 1975). The revised model encompasses different aspects influencing the internationalization process of a firm. According to the new model: 1) markets are perceived as networks of relationships and firms in those networks are linked to each other in complex and invisible patterns; 2) commitment and learning are the key elements for internationalization and both of them might be supported by networks.

Moreover, the revised Uppsala model (Johanson and Vahlne, 2009) includes an additional element, called *relationship-specific knowledge* which is developed through integration between two partners in the network. This knowledge involves information about each other’s resources and capabilities and encompasses the emotional dimensions in relationships. Trust and commitment are also essential since both enable the sharing of information and promote the creation of partnerships. Morgan and Hunt (1994) state that “when both commitment and trust – not just one or the other – are present, they produce outcomes that promote efficiency, productivity and effectiveness.” (p. 22). Additionally, trust and commitment might “*substitute for knowledge*”, especially when a firm lacks the necessary market knowledge (Johanson and Vahlne, 2009, p.1417). Therefore, the revised Uppsala model emphasizes the importance of knowledge of the network in which the firm participates in order to enter a foreign market.

To sum up, the variance in network definitions disclose the differences in theoretical approaches to networks. However, it could be agreed that a network is a system of relationships among different actors across industries and countries and it is of strategic significance for the firms entering the network. Networks might be understood from the business or social, as well as the entrepreneurial or organizational perspectives. Each perspective emphasizes different angles of the research; however, the main goal remains – to explain the role of networks to the growth and survival of a firm. Moreover, the network approach has been particularly useful in exploring the internationalization of SMEs. This model has complemented the traditional internationalization theory while introducing a multilateral perspective to foreign expansions, by stating that relationships in a network might dictate the choices and course of internationalization.

1.3.2 Characteristics and Classifications of Networks

An analysis of the concept of networks has revealed that a network is a manifold construct; therefore, it can be explored from different angles. The research on networks can be divided into two main streams: 1) the nature of relationships, and 2) the relational characteristics of networks. Drawing the concepts of the nature of the relationships and interactions or relational characteristics together, networks can be characterized by dimensions that portray: who is involved in the network, what the network looks like and, how they are related, etc. These two research streams are discussed in more detail below. This part of dissertation presents various characteristics and classifications of networks. This section is written based on the chapter of Sekliuckiene and Morkertaite (2017).

The Nature of Networks' Relationships. One stream of research concentrates on the natural characteristics of network relations. Other scholars named this as the content of the network (Coviello, 2006). Basically, this stream is focused on analyzing the reasons for involving into a network. According to Johanson and Mattsson (1988), common interest and mutual benefits are the main motives to maintain network relationships. When talking about the nature of the network's relationships, a few things have to be taken into consideration. Firstly, literature frequently classifies networks into social and business networks or into formal and informal ties (Coviello and Munro, 1995, 1997; Harris and Wheeler, 2005; Rialp, et al., 2005). Social or informal networks involve those that are developed from personal relationships, whereas business or formal networks are those that involve some form of repeated economic exchange. Although these latter relationships generally are business ties, some scholars maintain that they are essentially social (Adler and Kwon, 2002). An entrepreneur's relations in most cases are called social ties; however, Kock and Galkina (2008) state that entrepreneurs can have business ties as well. Ojala (2009), Chetty and Blankenburg Holm (2000), Oviatt and McDougall (2005) emphasize the role of intermediary networks (see Table 11). The existing classification into social and business networks is very complex and has some shortages and misconceptions, this thesis also divides networks into ***formal, informal and intermediary ties***.

In describing ***formal ties***, scholars highlight the existing ties by which business partners seek to barter or sell their goods or services for financial (monetary) benefits (Coviello and Munro, 1997; Adler and Kwon, 2002; Ojala, 2009). Commonly, those formal ties are also called as business networks that can be defined as “a set of two or more connected business relationships, in which each exchange relation is between business firms that are conceptualized as collective actors” (Anderson, Hakansson, and Johanson, 1994, p. 2). Formal ties encompass different actors, such as competitors, suppliers, customers, distributors, etc. (Nooteboom, 2000; Coviello, 2006; Larson and Starr, 1993; Ojala, 2009).

Formal networks constitute purposive cooperation; they involve concerted efforts and actions and a mutual exchange of information and resources to resolve problems by entering into formal agreements (O’Donnell et al. 2001). According to Frankel, Whipple, and Frayer (1996), formal ties imply “the required degree of co-operation, conformance and inter-organizational integration through the use of a written document or agreement” (p. 49). The written document or agreement secures partners’ behavior because it might set the sanctions and penalties for failed performance; therefore, formal ties based on a written contract decrease the risk and provide stability (Frankel et al., 1996; Kock and Galkina, 2008). O’Donnell et al. (2001) emphasize that formal networks mainly refer to an interorganizational level of analysis since relationships based on contractual agreements more often take place between companies, not individuals.

Additionally, Frankel et al. (1996) state that one way “to achieve a long-term interest is through the use of a written agreement or contract” (p. 49). Long-term relationships established in a network are essential for the firm’s activities in international markets. Internationalization requires additional information and experiential knowledge about foreign markets as well as resources to sustain a competitive advantage. Research has shown that networks can facilitate the acquisition of these necessities, especially during the international opportunity exploitation stage. According to Vasilchenko and Morrish (2011) and Blomstermo and Sharma (2003), networking could offer a useful alternative strategy to overcome the common barriers of foreign market entry, since the network with formal partners, such as customers, suppliers, and other business representatives allows the firm to gain insight about the processes of doing business, build trust and demonstrate interest.

Informal ties are mostly related to social relationships or social networks (Coviello, 2006; Larson and Starr, 1993) that can be defined as “a collection of individuals who may or may not to be known to each other and who, in some way contribute something to the entrepreneur, either passively, reactively or proactively whether specifically elicited or not” (Gilmore and Carson, 1999, p. 31).

Additionally, informal relations “consider the historical and social context of a relationship as well as specifically acknowledging that the performance and enforcement of obligations are an outcome of mutual interest between parties” (Frankel et al., 1996, p. 49). Informal ties can be described as all relationships with family, friends or colleagues (Coviello and Munro, 1995, 1997; Harris and Wheeler, 2005). Unlike formal networks, informal networks encompass the “actors” that are informally linked to each other (O’Donnell et al. 2001). Kock and Galkina (2008) emphasize that the nature of this unwritten agreement is in the mutual expectation of positive outcomes, fairness, and trust built by both parties. Moreover, as noted by Frankel et al. (1996), informal relations demonstrate a more flexible mechanism of relations establishment in comparison with the formal relations, since informal ties are ensured by trust and confidence rather than complex legal procedures. Authors state that informal ties appear to be a stronger mechanism of interaction instead of formal applications of power and authority or legal obligations (Kock and Galkina, 2008). Informal relationships most often occur on the interpersonal level and are the result of a person’s everyday communication (O’Donnell et al. 2001, p. 750).

Vasilchenko and Morrish (2011) note that early research on social networks evolved within the boundaries of entrepreneurship research but has since acquired vogue among internationalization scientist and been applied to IB research. Thus, the Social network theory had been used to explain the processes associated with the global development and commercialization of innovation (Vasilchenko ir Morrish, 2011). According to this theory, the economic exchange is not possible without investigating the social context in which it is embedded (Granovetter, 1985; Vasilchenko ir Morrish, 2011). The behavior or decisions of a firm depend on the people who work in that firm and act on its behalf. Moreover, as it has been seen in the different literature, the central figure in network research can be either a firm or an organization. Social relationships become involved in many business activities since the organizational networks may be driven by individuals in that firm (Mainela, 2002). Consequently, the boundaries between the individual and the organization may be difficult to define (Vasilchenko ir Morrish, 2011). Kock and Galkina (2008) state that in the entrepreneurial context, relationships on an interpersonal level may be developed into the inter-organizationally formal level.

Additionally, Larson and Starr, (1993) state that these two formal and informal network ties are interrelated with each other, thus there is a possibility of conversion as formal ties become informal and informal ties become formal.

In addition to formal and informal relationships, several researchers (e.g., Ellis and Pecotich, 2001; Ojala 2009; Oparaocha 2015; Oviatt and McDougall, 2005) have indicated the importance of intermediary relationships. Thus, the third type of relations is ***intermediary ties***. In these relationships there is no direct contact between the seller and the buyer; however, according to Ojala (2009), this type of ties is a facilitator for the establishment of network ties between a seller and a buyer. According to Oviatt and McDougall (2005), these “brokers” can provide links between actors in different markets and initiate international business activities between the seller and the buyer. Intermediary ties can be called institutional ties, such as relations with chambers of commerce, research institutions, trade promotion councils, internationalization assistance organizations, etc. (Oparaocha, 2015). The main difference as compared with formal and informal ties is that in intermediary ties there are no existing business transactions between the seller and the buyer (Ojala, 2009). The research has shown that intermediary networks play a substantial role for the establishment of those firms' that did not have any existing formal or informal relationships that could be used for new market entry (Gabrielsson et al., 2008). Additionally, Oparaocha (2015) has emphasized the impact of networks on internationalization performance considering the differences in forms of networking.

Table 11. Interactional characteristics of Networks' relationship
(Source: Sekliuckiene and Morkertaite, 2017, p. 193)

	Informal	**Formal**	**Intermediary**
Essence	Based on mutual expectations, without explicit and detailed contracts	Related to business activities between two or more actors in the network	Third party that connects the buyer and the seller
Forms	Social	Business	Institutional
Actors	Family, friends, colleagues, employees and other acquaintances	Customers, suppliers, competitors, business partners, distributors and other stakeholders	Government agencies, R&D centers, NGOs, business incubators, universities, etc.
Influence on performance	Creating and developing social capital and business know-how	Business deal, sustain or acquire resources, advantage, know-how	Support functions and the institution-based environment
Authors	Nooteboom, 2000; Coviello, 2006; Larson & Starr, 1993; Ojala, 2009; Oparaocha, 2015	Adler & Kwon, 2002; Coviello & Munro, 1997; Ojala, 2009; Oparaocha, 2015	Chetty & Blankenburg Holm, 2000; Oviatt & McDougall, 2005; Ojala, 2009; Oparaocha, 2015

Therefore, following the logic that had been discussed above, it could be argued that extant classifications of networks, such as the distinction between formal and informal networks, can be oversimplified. Hence this doctoral dissertation considers the classification of formal, informal and intermediary networks to be more suitable for the research of INVs.

The Relational Characteristics of Networks. Another stream of research concentrates on the role of the strength of network relationships. These studies explain the strength of relationships (either strong or weak) and emphasize the benefits that active use of a network relationship entails.

A strong tie is defined as one which is close, emotionally intensive and which is based on trust, mutual respect, and commitment and with a high level of reciprocity (Soderqvist and Chetty, 2009). The creation of strong relationships involves the establishment of a set of coordination and integration mechanisms that support the processes of information flows and repeated the interaction between actors that allow the accomplishment of specific knowledge goals (Nooteboom, 2004).

Conversely, a weak tie has the opposite characteristics; the parties do not know each other very well, the relations are not based as much on closeness or high trust (Soderqvist and Chetty, 2009, p. 9). In other words, the relationships are weak when the amount of time, emotional intensity and mutual confiding is low.

Soderqvist and Chetty (2009) found no dependency of the strength of ties on the natural characteristics of network relationships, i.e. both strong and weak ties can be found among formal, informal or intermediary ties. This presupposes that each network tie is unique: informal ties are not necessarily strong, nor are formal ties only weak (Ojala, 2009).

It was found that in order to maintain cost efficiency; firms are more willing to choose a large number of weak ties than a large number of strong ties (Sharma and Blomstermo, 2003). The main aspect is that strong ties expect a high commitment and dedication to the relationship which leads to extra maintenance costs (in terms of time, financial, human resources, etc.) and this is the reason why the number of strong ties is limited in each person's/firm's network (Singh, 2000), which is the opposite with weak ties. As these ties do not require as much effort and cost to maintain, the number of weak ties is usually much higher than strong ties. According to Sharma and Blomstermo (2003), companies with a large number of weak ties have an advantage over those that have the same number of strong ties. Firms engaged in weak ties are in a better position to search for new knowledge since they can go outside their existing channels and ties. Those firms can also enjoy greater autonomy and adaptability and go after new partnerships as they are less dependent on the existing ones (Sharma and Blomstermo, 2003).

Furthermore, strong ties are created with greater confidence and free communication among network participants; this affects the content of transmitted/received information and simplifies the transfer of sophisticated knowledge or increases the willingness to offer advice. At the same time, weak ties are not suitable for a complex transfer of knowledge (Blomstermo and Sharma, 2003), but these relations accelerate the acquisition of diverse, straightforward, and unique information that is not available through strong ties (Singh, 2000; Granovetter, 1973). Strong ties do not provide such novel knowledge and information to partners within the network, due to the developed similarity of knowledge base.

Furthermore, the effect of the network on INVs strategies and on subsequent performance depends on a combination of weak and strong ties. Additionally, it was found that weak ties are more beneficial in the later stages of firm growth, meanwhile strong ties are more valuable in the early stages of firm development (Hite and Hesterly, 2001). Presutti, et al. (2007) emphasize that weak ties, in particular, have the most effective contribution in knowledge acquisition and exploitation in INVs. Moreover, information accessed via weak ties was found to be more beneficial for identifying opportunities in the study of Floyd and Wooldridge (1999). Finally, the extensive reliance on strong ties might hinder the performance of an INV (Musteen et al., 2010).

Additional characteristics of networks. As it was stated above, the strength of the relationships in a network can be also reflected by some other characteristics. Different authors describe the features of ties, including the frequency of use (Marsden and Campbell, 1984), trust (Morgan and Hunt, 1994; Singh, 2000; Jack, 2005), closeness (Marsden and Campbell, 1984), mutual respect (Jack, 2005), duration (Marsden and Campbell, 1984), and commitment (Morgan and Hunt, 1994). For instance, assessing tie durability or duration of networks allows for an understanding of the stability of the network over time. This concept has been discussed by and Larson and Starr (1993). In Coviello's (2006) study, each tie was assessed for its durability in terms of the length of the relationship. Furthermore, other scholars have explored the question of who had initiated the formation of relationships in the network. According to Ellis and Pecotich (2001), "decision-makers follow the line of least resistance abroad by capitalizing on their existing connections with others" (p. 462). Additionally, Johanson and Vahlne (2006) state that relationships lead to other relationships. In her study, Coviello (2006) tries to identify whether the relation in the network is initiated by the INV (noted as 'outward'), initiated by an external party ('inward'), or initiated by 'third party' introductions. The author has found that although outward-directed ties were common, suggesting intentionally managed networks, so too were referrals through third parties.

Furthermore, when analyzing the characteristics of the network, the range might be taken into consideration. The network structure can be measured by its size – the number of direct links between a focal firm and other actors within the network (Coviello, 2006). The size of the network as a measure is rather frequently applied in research. The logic behind using size as a measure for networks is that the more relationships with different actors there are, the more information and other resources will be obtained through the network (Hoang and Antoncic, 2003). Networks could also be measured by analyzing the position of actors – which actors are positioned centrally vs peripherally in the network (Coviello, 2006). This characteristic is conceptually similar to the size of the network. The centrally positioned firm in the network gains the ability to access and control resources through direct and indirect relationships. Therefore, centrality in the network, according to Hoang and Antoncic (2003), enables the reach of other actors through intermediaries within the network. However, scholars emphasize that, regarding the difficulty of gathering data from all actors, network centrality has generally been a less studied characteristic than network size (Hoang and Antoncic, 2003). Additionally, there is some research focusing on the density of the network; in other words, how tightly are actors in a network connected to each other. The higher the degree of density among partners, the better is the quality of information that can be accessed; consequently, dense networks are believed to facilitate mutual interest and trust. However, there is an opposite opinion (Burt, 1992) that a truly dense network can decrease the amount of firm's social capital, as concentrated relationships may provide redundant information; therefore, this school of thought highlights the issue of isolation in a very dense network (Hoang and Antoncic, 2003).

Finally, Vasilchenko and Morrish (2011) have emphasized that for INVs to reduce the uncertainties while entering new markets, a network with the local actors in that market needs to be created. There is a need to explore not only the domestic but also the foreign actors in the network. Consequently, geographical dispersion became an important topic by seeking to define collaboration characteristics (Boschma, 2005; Doloreux and Lord-Tarte, 2013). For a long time, it was considered that effective knowledge sharing is possible only between geographically close partners, by arguing that the shorter geographical distance between actors, the less the cost of exchanging knowledge and the faster communication between actors (Doloreux and Lord-Tarte, 2013). However, recent studies have the opposite opinion (Hewitt-Dundas, 2011; Laursen and Salter, 2006). According to scholars, the role played by spatial distance has been decreased over time. Kafouros and Forsans (2012) emphasize that more and more firms acquire knowledge not only through domestic partners but are also focused on knowledge and technologies developed by foreign actors which are located over a longer distance.

To sum up, the research of networks has tried to encompass and explore different characteristics of relationships, such as the content, strength, size, density, duration, centrality, or geographical dimension. Some of the characteristics are more developed than others, because of the data gathering issues or the focus of the study. However, there is an agreement among scholars that natural characteristics of network relations or, in other words, the content of the network that is focused on network classification regarding the reasons for involving into a network might be called the most important characteristics. Following the statement of Ahmetoglu (2017) that it is important to understand the relationship between different actors to understand a network as a whole, this study adopts a comprehensive construct of a network as a collection of relationships between an international new venture (and/or its entrepreneurs) and different external independent partners which can be of all possible types, such as formal, informal and intermediary. Therefore, in this study ***networks are understood as all formal, informal and intermediary types of relations between an international new venture and other partners seeking to create value through cooperation.***

1.3.3 The Interface between Network and INVs: Theoretical Approach

Despite a growing interest on the topic, there is a lack of systematized knowledge about the relationship between INVs and networks. In order to discuss the research that explored the impact of networks on the internationalization of new ventures a systematic literature review of studies with the biggest contribution in the area has been conducted. The screening process resulted in a sample of 73 papers published in 16 double-blind reviewed journals with the highest impact in the field from 1994.

The analysis of the year of publication has revealed that this subject of study is relatively recent, and the interest in the topic is still growing. For instance, in the period of 1994–1999, the search encompasses only seven papers, while in the period of 2010–2015 there have been five times more (n = 36) articles. The majority of papers were published in journals dedicated to International Business (51 percent); Entrepreneurship and Small Business Management is in the second place (28 percent), and Marketing is third (26 percent). Several articles came from Strategic Management field. The key publication outlets are the *International Business Review* (n=18), *Journal of World Business* (n=10), *Journal of International Marketing* (n=6), *International Marketing Review* (n=5), *Journal of International Business Studies* (n=5), *Journal of Business Venturing* (n=5). Talking about the distribution of the quality of the journal – eleven articles were published in 4* journals. The rest of the articles utilized were published in 3* journals (n=62) (see Figure 5).

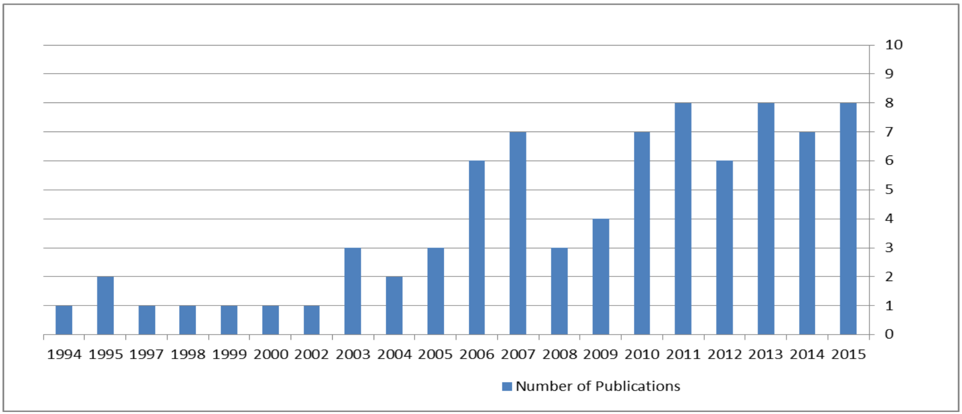


Figure 5. The research interest in the interface between INVs and Networks (Source: created by the author)

When the location of the empirical research is considered (see Table 12), it shows that this topic was explored in more than 30 countries. Studies in New Zealand dominate (n=12), with substantial numbers from Finland (n=10), the USA (n=7), Germany (n=7), Australia (n=6), and the UK (n=6). Comparing the regions of studies, the leaders are Northern Europe (38 percent), Oceania (24 percent) and Asia (19 percent). Only a small portion of studies explores the subject in more than two regions (McDougall et al. 1994; Loane and Bell, 2006; Cannone and Ughetto, 2014; Khalid and Bhatti, 2015). However, most of those studies simply use cross-national data from different countries/regions without any comparison between them (Nakos, et. al. 2013; Khalid and Bhatti, 2015). This has been done in order to eliminate potential national selection bias. Nevertheless, some exceptions of truly comparative study have been found in the work by Ciravegna, et. al. (2014b), where firms from emerging and developed economies were compared.

Table 12. Location of the empirical research regarding Network and INVs relation (Source: created by the author)

Regions	**Number of papers**	**Percent[1] of total**
Asia (Western, Southern, Eastern)[2]	**14**	**19**
India (4); China (5); Turkey (1); Israel (3); Singapore (1)		
Oceania	**18**	**24**
New Zealand (12); Australia (6)		
Northern Europe[3]	**28**	**38**
Norway (2); Finland (10); Sweden (4); Ireland (4); Scotland (2); UK (6)		
Western Europe	**11**	**15**
France (2); Belgium (1); Germany (7); Switzerland (1)		
Eastern Europe	**3**	**4**
Bulgaria (1); Czech Republic (2);		
Southern Europe	**9**	**12**
Spain (3); Italy (5); Greece (1)		
Northern and Latin America	**11**	**15**
USA (7); Canada (2); Costa Rica (1); Brazil (1)		

In terms of research objectives, some patterns of potential interest of this review could be observed. It was found that some studies consider networks as the primary focus of research in order to explore the phenomenon of internationalization of INVs (Musteen, et. al. 2010; Andersson, et al. 2013). Other studies (Moen Gavlen, and Endresen, 2004; Coeurderoy, et al., 2010; Giarratana and Torrisi, 2010; Khalid and Larimo 2012; Nakos et al. 2013) distinguish networks as one of many other factors which reveal what drivers affect the decisions to internationalize from the outset (Cannone and Ughetto 2014), or what are the key drivers of the export orientation and export performance (Filatotchev, et al. 2009). Networks are analyzed together with other drivers for rapid internationalization, such as the entrepreneurial orientation (Styles and Genua, 2008; Filatotchev et al. 2009; Coeurderoy et al. 2010; Nakos et al. 2013); the entrepreneur's or firm's experience and his/her knowledge-transfer from abroad (Moen et al. 2004; Giarratana and Torrisi, 2010), R&D intensity (Filatotchev et al., 2009); international commitment of an entrepreneur, the diversity of team competencies and organizational flexibility of a firm (Cannone and Ughetto, 2014).

In some cases, studies use the knowledge-based view or/and organizational learning perspective (Schwens and Kabst, 2009; Freeman et al. 2010; Bruneel et al. 2010; Casillas, et al. 2015) and try to reveal how the knowledge acquisition and organizational learning within networks as the primary enabler of this process interact to facilitate rapid internationalization. Moreover, formal networks in

[1] Since some papers explore more than one country, the sum of percentage in total is more than 100percent
[2] In some studies, only the region is indicated, for example, Asia Pacific region (1)
[3] In some studies, only the region is indicated, for example, Scandinavia (1)

Gabrielsson and Kirpalani's (2004) study are indicated to be viable channel alternatives because they provide learning and knowledge for born-globals.The influence of informal ties on the internationalization of new ventures has also been investigated (Presutti, et al. 2007; Prashantham, et al. 2015).

Moreover, some studies analyze the issues of success and rapid international growth and how these issues, such as perceived market-based and financial barriers (Baum et al. 2013), the lack of host country knowledge, and shortages of capital and other tangible assets (Chetty and Cambell-Hunt 2003) moderate the impact of international network on international new venturing.

Some of the reviewed works seek to explore how knowledge and resources from the institutional network (intermediary ties) interact with the internationalization process and strategies of new ventures (O'Gorman and Evers 2011; Oparaocha 2015). A group of studies has investigated how institutional networks that manage government export promotion programmes (Chetty and Blankenburg Holm, 2000) and national technology and collaboration initiatives (Prashantham and McNaughton, 2006) encourage business collaboration and what role do those institutional networks play in the internationalization process of INVs.

Finally, several studies investigate how networks function in recognizing opportunities to enter foreign markets or to choose the entry mode (Riddle and Gillespie, 2003; Ojala, 2009; Moen, et al. 2004). Others analyze the impact of environmental factors (context) on the strategic relationships and institutions developed by exporting firms and on internationalization decisions (Crick and Spence, 2005; Amoako and Lyon, 2014).

By revising the findings of utilized studies some pathways regarding internationalization and type of networks emerged. First of all, after the analysis, two main elements – process and performance – regarding internationalization of INVs were distinguished. Internationalization is defined as a "process of adapting firms' operations (strategies, structures, resources, etc.) to international environment" (Calof and Beamish, 1995, p. 116). The end result of the internationalization process may take place when INVs become a mature firm, a micro-multinational or take another form. Kuivalainen et al. (2012b) propose several potential categories of outcomes, including rapid international growth, financial performance, firm survival, value, performance relative to the firm goal.

It has been found that a great majority (71%) of papers in this research explore the impact of networks on the process of internationalization. In those studies, the initiation of entry (Al-Laham and Souitaris, 2008; Hohenthal et. al., 2014), acceleration of the process (Pla-Barber and Escribá-Esteve, 2005; Belso-Martínez, 2006), the life-cycle of companies (Coviello, 2006), the recognition and exploitation of internationalization opportunities (Vasilchenko and Morrish, 2011), the firm's strategies considering the speed, choice of market or the entry mode (O'Gorman and Evers, 2011; Laanti et.al., 2007; Crick and Spence, 2005; Ojala, 2009), etc. are explored.

Only around one-fifth of studies explore the impact of networks on the performance of internationalization. When analyzing performance, such measurements as international sales volume (Preece et. al., 1998; Presutti et al., 2007; Weerawardena et al., 2007; Gerschewski et al., 2015; Yli-Renko); international sales growth (Gerschewski et al., 2015) or speed of sales growth (Yli-Renko et. al., 2002) and market share in international markets (Gerschewski, et al., 2015; Preece et. al., 1998; Weerawardena et al., 2007) are analyzed. Process and performance, as it was observed from the used variables, tend to overlap at least partially: for example, an early and fast international growth tends to result in high degrees of internationalization. A clear distinction of the process elements from performance variables may provide a clearer perspective on the role of networks in internationalization.

A small portion of studies explore the impact of network on process and performance of internationalization. This confirms that these two constructs need to be more clearly disentangled and it also means that the field of internationalization of new ventures from the network approach is quite fragmented and unrevealed.

Secondly, the analysis has shown that some of the studies were more focused on one or other **type of networks**. Thus, the second grouping of articles concerns the type of network ties. In the great majority of papers (n=51) the actors of such network were identified as customers, suppliers, distributors or competitors. This implies that during the last decades our knowledge about the relationship between networks and internationalization of INVs is largly based on the studies of formal networks. This confirms the findings from a literature review in innovation studies: "research on formal networks is clearly dominant" (Salavisa et al. 2012, p. 385). Studies concerning formal-informal ties (n=24) are also highly popular. Family and friends in those papers were the most often explored informal ties. However, in most cases, the network was analyzed as a whole concept without any attempts to consider and compare the differences between formal and informal ties and their impact. Again, in comparison with the already mentioned literature review on innovation (Salavisa et al., 2012), it could be confirmed that internationalization studies also present a lack of effective comparative research on both types of ties. The same situation is found in studies which encompass actors from all three types of networks (formal, informal, and intermediary), though the number of those was really small (n=5). Government or public institutions were identified as the most often mentioned actors in terms of intermediary ties; however, there is still lack of understanding about what kind of institutions they are, and what is their separate effect to the internationalization of INV.

To sum up, a systematic literature review on the relationship between networks and INVs has demonstrated that the interest on the topic has grown rapidly during the last two decades. However, while the understanding regarding the impact of networks on internationalization of INVs has advanced greatly over the years, literature is still rather fragmented and more recognition is needed. First of all, the synthesis of studies revealed that Northern Europe and New Zealand are the dominant regions in the research regarding the links between networks and early internationalization, which involves a too narrow geographic focus. Moreover, the research of networks involves different typologies but they have not been all studied with the same depth, therefore there is a lack of comparative studies on the different types of networks.

1.4 Network's Impact on the Performance of New Ventures' Internationalization: Contradictions in Literature

Recent decades bear witness to increasing globalization of the world's economies. Consequently, a number of firms, especially small and medium-sized companies, start exporting business operations overseas. Since exporting requires minimal commitments in terms of financial or other resources, it tends to become the most common form of entering foreign markets among INVs, in comparison with other entry modes. Much scholarly attention (e.g. Carneiro, et al., 2016; Leonidou et al., 2010; Leonidou and Katsikeas, 2010) is currently being devoted to the construct of export performance which is generally called as international performance. This part of doctoral dissertation discusses the main indicators of international performance. Most importantly, this chapter explores the evidence of the impact of networks on international performance of INVs during the past few.

1.4.1 International Performance of INVs: Conceptualization and Indicators

International performance is a multifaceted phenomenon that involves organizational inputs and outputs and demands special care as to its definition and measurement to properly test theory and improve managerial practice (Carneiro et al., 2016; Leonidou et al., 2010). According to Leonidou et al. (2010), international performance is variously viewed and evaluated, since it is "context-specific in that its conceptualization and assessment depend on the theoretical framing and empirical setting of the study" (p. 89). Consequently, literature on INVs' performance is generally fragmented and heterogeneous and there is no agreement among scholars on how to measure the performance of firms internationally (Gerschewski and Xiao, 2015; Crick, 2009). Moreover, despite the growing number of research on international performance, there is no uniformly conceptualized and operationalized construct.

According to Leonidou and Katsikeas (2010), international performance "is the end result of the firm's marketing efforts and other business activities in foreign markets, providing an indication of its overall success or failure and determining further continuation of or withdrawal from exporting" (p.884). In other words, international performance indicates whether a firm has been able to reach its internationalization goals (or exporting goals in the context of INVs, particularly).

Performance can be measured using two different approaches – objective and subjective (see Table 13). Therefore, the following paragraphs, discuss those two approaches in more detail.

Table 13. Measures of International Performance in INVs studies
(Source: created by the author)

Measures	Objective			Subjective			
Authors	Sales-related	Profit-related	Market-related	Sales-related	Profit-related	Market-related	Overall satisfaction
Ciravegna et al, 2014b	x		x				
Ellis, 2011				x			
Filatotchev, et al., 2009				x	x		
Gerschewski, et al., 2015				x	x	x	x
Li, et al., 2012				x			
Manolova, et al., 2010	x						
Milanov & Fernhaber, 2014	x						
Musteen, et al. , 2010				x	x		x
Nakos et al. 2013				x	x	x	x
Prashantham & Birkinshaw, 2015	x						
Preece, Miles & Baetz, 1998	x						
Yli-Renko, et al., 2002				x			x
Yu, et al., 2011				x			
Zhou et. al. 2007	x	x					

Objective Measures. These are the measures that are mainly based on absolute values, such as export sales volume, export market share, export intensity, etc. Sales-related measures are the most widely used to measure international performance. There are five subcategories for sales-related measures: export sales volume, export sales growth, export sales efficiency, export intensity, and export intensity growth (e.g. Ciravegna, et al., 2014b; Milanov and Fernhaber, 2014; Musteen, et al., 2010). According to Sullivan (1994), "a company's foreign sales are a meaningful first-order indicator of its involvement in international business" (p. 331). Moreover, the first foreign sale signals the acceptance of the firm by foreign customers (Yu et al, 2011). However, all those measures have received criticism as being not adequate enough in different situations, for instance, discrepancies could be found when comparing firms' acomplishements in foreign markets of different sizes, and if the market growth, price escalation, or detioration in demand are not taken into consideration (Gerschewski and Xiao, 2015).

Secondly, it could be noted that besides sales measures, profit-related measures are also used in literature (e.g. Musteen, et al., 2010; Zhou, et al., 2007). This group of measures encompasess exports profitability, profitability growth, export profit margin, etc. As with the sales-related measures, profit measures are also being criticized for having comparability isssues because of different accounting practices across firms and countries.

Thirdly, the other group of objective measures for a firm's performance internationally encompases market-related measures. Export market share, export market share growth, and the number of foreing markets are the main indicators reflecting market-related measures in literature (e.g., Ciravegna, et al., 2014b). However, it should be emphasized that these indicators are less commonly used in comparison with the sales-related measures. Additionally, the main criticism is targeted to the issues of measuring actual market share (Gerschewski and Xiao, 2015).

According to Gerschewski et al. (2015), there are challenges associated with the use of objective performance measures in the context of small firms, such as reluctance by owners or entrepreneurs to reveal actual performance data to the researcher. Thus, many INVs studies employ subjective performance measures which tend to be positively correlated with objective measures (see Table 13).

***Subjective Measures*.** Nummela et al. (2004) and Leonidou et al. (2002) point out several difficulties in assessing export performance and assume that the majority of empirical studies have applied perceptual or subjective measures because of these difficulties. The assessment of a firm's performance is a complex issue for a number of reasons. First of all, it is difficult to access valid data, since firms typically are not willing to report financial information about their exporting activities. Secondly, financial figures follow local or national accounting standarts; therefore, cross-national or cross-industry settings might not be converged. The main argument for using subjective measures is that the perception of export performance is likely to be the best reflection of the essence of the construct. This kind of measure not only expresses the perceived degree of economic success but also encompasses the opinion of managers regarding the strategic elements of success in foreign markets.

Subjective measures are indicators that refect a firm's performance through the perceptual or attitudinal point of view; it could be, for instance, perceived export success or satisfaction with export intensity. Usually, subjective measures are built using the Likert-scale constructs, i.e. distinguished indicators are commonly asked to be assessed on a five or seven-point scale (or scales with the higher number of intervals could be employed).

The tendency of the most common subjective measures in literature is almost the same as in the objective measures. Various categories of profitability and sales to assess international performance of new ventures are used (e.g. Filatotchev, et al., 2009; Nakos, et al. 2013). Moreover, the subjective market share indicators are more widely used in comparison with the objective category (e.g. Gerschewski, et al., 2015; Nakos, et al. 2013).

Furthermore, some general measures of international performace are also used rather frequently. Responsible managers are asked to evaluate their satisfaction with meeting expectations, export success, overall export performance, overall export performance compared to competitors in the same area, etc. (e.g. Musteen, et al, 2010; Nakos, et al, 2013; Yli-Renko, et al, 2002). According to Sousa (2004), the measures of the evaluation in comparison with the main firm's competitors are perceived to be more suitable than evaluation in absolute terms of 'good' or 'bad' performance. Usually, managers are the ones who know the firm's goals and expectations regarding international performance very well, therefore they are able to provide valuable information. Additionally, it was observed that firms that meet their goals or exceed them are more satisfied in comparison with the firms that have not met their goals.

To sum up, international performance could be called the final results or outcomes of the firm's efforts in business activities overseas. The indicators of international performance can imply the overall success or failure of the firms' activities in foreign markets. Overall, both objective and subjective measures of international performance are distinctive data to firms' views of their internationalization activities. However, given the advantages of subjective measures of international performance, the majority of scholars employed this type of indicators in their research. Moreover, literature generally emphasizes the importance of incorporating several measures when investigating performance. This approach of using several measures indicates that it would lead to more accurate results since the use of single-item measures is insufficient for a reliable assessment.

1.4.2 Netwoks' Impact on INV's Performance: A Systematization based on Literature

As mentioned before, the interest in relationships between networks and INVs has increased recently. A significant number of studies have tried to explore the impact of networks on internationalization and performance of new ventures; however, the analysis of systematic literature review reveals that the research encompasses contradictory results. Scientific studies published in high ranking journals have been analyzed in order to answer whether and how do networks matter in the context of early internationalization of new ventures. The analysis has shown that there is a number of evidence that proves the positive, negative or even no significant impact of networks on INVs.

Benefits and the positive impact of networks. The majority of studies confirm only the significantly positive role or benefits from networks on the internationalization of INVs. To start with, a number of studies (Zhou, et al., 2007; Yli-Renko, et. al. 2002; Oparaocha 2015; Loane and Bell 2006; Freeman, et. al. 2010; Freeman et. al. 2006) prove that knowledge is the key resource for international growth, hence, networks are mainly used as providers of knowledge regarding foreign market opportunities, market trends, competition, and the latest technological developments. As studies show (Schwens and Kabst, 2009; Freeman, et. al. 2006; Chetty and Agndal 2007), the most relevant is information and knowledge from formal networks and informal ties (such as entrepreneur's personal contacts, customers, distributor, etc.). Intermediary ties can provide relevant information as well (O'Gorman and Evers, 2011; Oparaocha, 2015), although they are not always easily accessible to owners of new ventures (Riddle and Gillespie, 2003).

Secondly, networks provide the heterogeneity of resources (for example, capital and other tangible assets) that are spread across network partners (McDougall, et. al. 1994; Coviello, 2006; Prashantham and McNaughton, 2006; Tolstoy, 2012; O'Gorman and Evers, 2011).

Going further, networks also provide advice and experiential learning; it has been proven that learning from others has a direct positive impact on early internationalization and export intensity (Gabrielsson and Kirpalani, 2004; Zhou, et al. 2007; Schwens and Kabst, 2009; Bruneel et. al. 2010; Casillas, et. al. 2015). Hence, following the arguments above it is not surprising that the networking capability is positively related to the development of knowledge-intensive products in accelerated internationalizing firms (Sullivan Mort and Weerawardena 2006; Weerawardena, et. al. 2007; Laanti, et. al. 2007; Andersson, et. al. 2013). Additionally, it was proved that the interrmediary (Oparaocha 2015), and formal and informal (Freeman, et. al. 2006) ties reduce the risks in foreign environments.

While supporting the benefits provided by the network to new ventures, some studies reveal that networks could build SMEs legitimacy in foreign markets (Bangara, et. al. 2012). Furthermore, it was found that networks assist in the identification and exploitation of initial opportunities to internationalize. Specifically, network relations are determinant when deciding which foreign entry forms they choose and which markets they decide to enter (McDougall, et. al. 1994; Coviello and Munro, 1997; Moen, et. al. 2004; Styles and Genua, 2008; Vasilchenko and Morrish 2011). Interestingly, a number of papers have stated that firms do not follow a 'planned' approach of network development in foreign markets and have denied the misconception about random or irrational entering to foreign markets. According to these papers, international opportunities occur depending on how, and with whom do entrepreneurs form networks (effectual logic), rather than having predefined internationalization goals or by randomly selecting foreign markets (Harris and Wheeler 2005; Galkina and Chetty 2015; Freeman and Cavusgil 2007; Chetty and Blankenburg Holm 2000; Coviello and Munro 1995). Moreover, Vasilchenko and Morrish (2011) have emphasized that the established and newly formed informal networks can be instrumental in exploring internationalization opportunities; they could potentially lead to the formation of an entrepreneur's broader formal networks which facilitates the exploitation of internationalization opportunities.

A correlation has been found between the age of the venture and the effect of different types of networks. Older ventures are more impacted, in terms of internationalization, by alliance partners, while younger ventures are more influenced by international exposure from geographically proximate firms (Fernhaber and Li, 2013). Additionally, studies have shown that the earlier the new venture engages in network collaboration, the higher the degree of its internationalization (Sharma and Blomstermo 2003; Manolova, Manev and Gyoshev, 2010). A common language between partners and wider geographical ties have a positive impact on the speed and superior performance of internationalization (Musteen, et. al. 2010).

No impact of networks. As mentioned before, the majority of studies have found only a positive effect of networks on internationalization, which leaves an abundant margin for controversial findings and for raising doubts about either the effective role of networks or the methodological issues in research about networks. In a number of studies, no significant impact of networks on INVs' performance has been found. For instance, a study of Preece et. al. (1998) study shows that firms utilizing strategic alliances are no more active internationally than those not using strategic alliances. In addition, Gerschewski, et. al. (2015) have found that personal networks of entrepreneurs are not a significant driver of international performance for BGs. Moreover, personal networks, according to this study, as antecedents of financial performance are more important for non-BGs. Other studies claim that an international network is not necessarily a pre-condition in the internationalization process and could be important only if high barriers (financial, in particular) to internationalization have to be overcome (Loane and Bell, 2006; Baum, et. al. 2013). Belso-Martínez (2006) deny the significance of formal relationships by finding no impact of relations with suppliers, competitors, and institutions for a more accelerated internationalization process. Additionally, Loane and Bell (2006) and Ojala (2009) argue that networks can be developed during the internationalization process, not only before it, thus arguing the impact of networks on initiation of INVs' internationalization. Similarly, other scholars claim that networks are not used for recognising international opportunities, thus they are not significantly associated with a superior internationalization performance (Ciravegna et. al. 2014a; Li, et. al. 2012). However, Khalid and Bhatti (2015) claim that networking (as the relational capability of partnership knowledge exchange) influences at the least the initial export expansion stage. Results have also shown some important differences in the characteristics of networks. For instance, different types of alliances have different impact on the likelihood of the internationalization of a new venture – a marketing alliance influences the initiation of foreign sales faster than a technology alliance (Yu, et. al. 2011). In the same line, Prashantham, et. al (2015) argue that ties which facilitate market access may be less potent in driving market growth. Consequently Crick and Spence's (2005) statement that network theory does not always fully explain entrepreneurial decisions to internationalize may be confirmed.

Drawbacks of networks. Some studies have admitted that networks may not be the panacea for international new ventures and they have indicated a possible negative impact or threats of networks on the growth of early internationalization. McDougall, et. al. (1994) and Chetty and Agndal (2007) have indicated the possible threats of opportunism from INVs' partners that could lead to venture failure. Furthermore, Sullivan Mort and Weerawardena (2006) found that involvement in networks may limit strategic options, as opportunities must then be pursued within the network boundaries. They call this phenomenon as network rigidity. The boundaries or restrictions of networks are also mentioned in the study of Ellis (2011). The author states that networks are bound by communication horizons and these ties-based opportunities are constrained in terms of geographic, psychic and linguistic distance. Prashantham and Birkinshaw (2015) have also discovered that strong home-country ties are negatively linked to the intensity of international growth. It has been also found that firms could be locked out of distributor network (Chetty and Cambell-Hunt, 2003), or key foreign customer (Presutti, et. al. 2007), leading to sub-optimal internationalization trajectories (Ellis, 2011) and consequently, restrictions for further expansion (Sepulveda and Gabrielsson, 2013). In addition, networks may inhibit not only market diversification but the process of product development (Coviello and Munro, 1997). The study of Chetty and Cambell-Hunt (2003) identifies some potential additional problems of networks, such as goal conflict between partners, becoming competitors and neglecting products.

Although some papers discuss insights about the "dark side" of networks and the possible threats coming from having a network, this is still far from being completely investigated, as most of those papers (McDougall, et. al.1994; Sullivan Mort and Weerawardena, 2006; Chetty and Cambell-Hunt, 2003; Presutti, et. al. 2007; Sepulveda and Gabrielsson, 2013) provide almost no empirical confirmation.

To sum up, literature review reveals contradictory results. Even though the positive impact of networks on early internationalization and the international performance of INVs is emphasized, there is empirical evidence about the lack of relevance or negative aspects of networks.

1.5 The Relationship among Determinants, the Process of Internationalization, Networks and Performance of International New Ventures: Summing-Up

This part of doctoral dissertation summarizes the previously discussed subjects into one. At the end of this section, a scheme encompassing the relationships among determinants, the process of internationalization, networks and performance of international new ventures is provided (see Figure 6). The scheme consists of four parts.

The determinants for early internationalization have to be taken into account. These determinants could be divided into three levels: managerial, firm and environmental level. At the manager level, such characteristics as global mindset and previous experience are frequently cited antecedents. Many studies confirm that firms whose managers are characterized as more internationally experienced and with a global mindset are more likely to follow a path that is characterized by earlier international activities. At the firm level, entrepreneurial orientation and resources of the firm might have the biggest impact on internationalization of INVs. Finally, environmental factors can push or support business activities overseas or on the contrary, they may inhibit a firm from entering international markets. The determinants from this level include the development of modern information and communication technologies, the so-called globalness of markets, turbulence or variability in demand and increasing competition. All of these determinants from different levels have to be coherently integrated in order to explore the phenomenon of INVs better.

The second element is the internationalization process. International new ventures are entrepreneurial firms; therefore, the internationalization of INVs is conceptualized as an entrepreneurial process. Moreover, traditional International Business theories could not fully explain the phenomenon of early internationalization, thus the International Entrepreneurship approach has been applied. The Entrepreneurship literature considers an opportunity as the key element, hence the framework of international business opportunity recognition–exploitation is used (McDougall and Oviatt 2003) in this study. In other words, while going into foreign markets INVs firstly recognize then exploit international business opportunities.

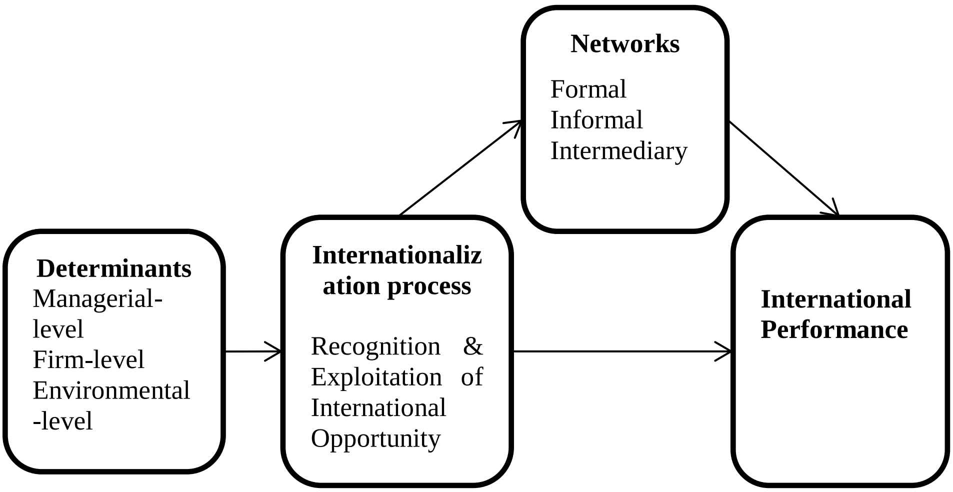


Figure 6. The relationship among Determinants, Internationalization Process, Networks and Performance of international new ventures
(Source: created by the author)

Consequently, after recognising and exploiting international business opportunities INVs reach their international performance. International performance is the final result and outcome of business activities abroad. The success of an INV in international markets relies heavily on the recognized and exploited international opportunities.

However, literature states that internationalization per se is not a sufficient condition for superior performance in the context of young internationalizing firms (Zhou et al., 2007). Therefore, the last element in this scheme is networks. A firm's networks can be measured by many characteristics in order to see what the network looks like and who is involved in it; one of the most important characteristics is the content of the network. Therefore, networks can be analyzed in terms of whether they contain formal, informal or intermediary ties in it. As stated in the interaction approach, relationships evolve as a result of interaction between the parties doing business (Blankenburg Holm, Eriksson and Johanson, 1996); therefore, the process of internationalization can influence the development of networks. A systematic literature review has revealed that a successful foreign market entry depends on the management's ability to build networks and promote market development. By providing information, knowledge, resources, etc., in particular, due to the shortage that is typical to INVs, networks can mediate the impact of the internationalization process on the better performance of INVs.

2 RESEARCH METHODOLOGY FOR THE RELATIONSHIPS AMONG DETERMINANTS, INTERNATIONALIZATION PROCESS, NETWORKS AND PERFORMANCE OF INTERNATIONAL NEW VENTURES

This part of the dissertation describes and justifies the methodology for the study.

The aim of the research is to explore the relationships among the determinants of early internationalization, process of internationalization, networks and performance of international new ventures in the context of Lithuania.

The unit of analysis: international new ventures.

The **empirical research questions** are:

1. Which determinants for early internationalization affect the recognition and exploitation of international business opportunities?
2. What empirical relation exists between the recognition and exploitation of international business opportunities and networks?
3. What empirical relation exists between networks and performance of INVs?
4. What is the role of networks on relationship between the recognition and exploitation of international business opportunities and performance of INVs?

This chapter consists of four parts. It starts with the grounding of the research framework and hypotheses and goes on to describe the methodological approach of the study. Then, the research instrument and the main variables are discussed. The chapter provides details about the data collection procedure and describes the main characteristics of the research sample and research context.

2.1 Research Framework and Hypotheses of the Research

This chapter of the doctoral dissertation presents the research framework (see Figure 7) and the main hypotheses which are tested in the following chapters.

The internationalization of INVs is a phenomenon that has taken a number of scholars' attention. In their study, McDougall et al. (1994) have noted that INVs have an exceptional ability to recognize and exploit international business opportunities. A number of important factors influencing opportunity recognition-exploitation have been distinguished. However, the literature review revealed that the determinants for early internationalization have been explored fragmentally (Keupp and Gassmann, 2009) and that there is a lack of research encompassing different determinants for the internationalization of INVs from all managerial, firm and environmental levels.

Previous research (Cressy, 2006) has proven the role entrepreneurs play in the development and performance of new ventures; however, Verbeke, et al. (2014) emphasize the need to integrate the entrepreneur-based perspective into the field of International Entrepreneurship. INVs are entrepreneurial firms where the entrepreneur – the core manager – has the biggest influence on decision-making. McDougall et al., (1994) have found that a manager's unique experience and backgrounds enable INVs to recognize opportunities which are undetectable to others since they are able to combine the existing knowledge and information into new possibilities (Johanson and Vahlne, 2006). Since INVs lack organization-level experience, they have to rely on prior individual experience of the manager (Sapienza, et al, 2006). Managers who have little or no experience in international markets will initially expand their businesses into the physically close markets. However, it is not only international experience but also business-specific experience that encourages firms to internationalize (Hutchinson et al., 2006). Moreover, some other characteristics of the manager also have an impact on the internationalization of INVs. A global mindset of the entrepreneur may positively influence the success of INVs through driving the path and pace of internationalization (Hutchinson et al., 2006). Following the arguments above and responding to the study of Sullivan Mort and Weerawardena (2006) who call for more investigation in order to fully understand the role of the entrepreneur, the first hypothesis has been formulated:

H1. Managerial-level determinants, such as high global mindset of the manager and a wide range of manager's experience positively affect the internationalization process of INVs in terms of recognition-exploitation of international opportunities.

H1a. The global mindset of manager is positively related to the recognition-exploitation of international business opportunities.

H1b. The prior manager/owner's experience is positively related to the recognition-exploitation of international business opportunities.

Despite the importance of managerial-level determinants the firm-level determinants for early internationalization also have to be taken into account. The *risk-taking* behavior forms an important segment in the international entrepreneurship process since it is related to the responsibility of bringing forth an idea or vision and carrying it through to completion. It was found that risk-taking is positively related with the exploitation of opportunities (McDougall et al., 2000). Moreover, *proactiveness* of the firm may also be one of the key factors for discovering foreign market opportunities (Nordman and Melen, 2008), since this is a critical factor in order to see new means-ends frameworks ahead of others. Additionally, only *innovative* firms can allocate the resources in order to select the area for internationalization successfully. Additionally, innovativeness enables a firm to think differently and engage in experimentation and creative processes that may result in new products or process (Chandra et al., 2009). According to Baum et. al. (2015), while a few studies investigated the impact of capabilities on different internationalization patterns, the role of firm *resources* is largely unknown. Evans and Leighton (1989) have indicated that financial resources are needed to exploit a business opportunity. Furthermore, other resources, such as managerial or technological may also influence firms' ability to exploit opportunities more frequently. Additionally, resources may have an impact on the recognition activities of international business opportunities, since the search for relevant information about opportunities requires input from the firm. Hence, this is an important gap in literature, as the internationalization of INVs encompasses the activities of both opportunity recognition and opportunity exploitation. Therefore, the second hypothesis is as follows:

H2. Firm-level determinants, such as high firm proactiveness, innovativeness, risk-taking and a wide range of resources positively affect the process of internationalization of INVs in terms of recognition-exploitation of international opportunities.

H2a. The proactiveness of the firm has a positive impact on the recognition-exploitation of international opportunities.

H2b. The innovativeness of the firm has a positive impact on the recognition-exploitation of international opportunities.

H2c. The risk-taking orientation of the firm has a positive impact on the recognition-exploitation of international opportunities.

H2d. A wide range of firm resources has a positive impact on the recognition-exploitation of international opportunities.

Furthermore, there are several environmental determinants that affect the recognition-exploitation of international business opportunities of INVs. First of all, the transaction cost of foreign market expansion and the thresholds for SME internationalization might be lowered by two important factors, i.e. the globalization of markets and technology advance (Knight and Cavusgil, 2004). IThere is a positive relationship between the globalness of the market and global mindset, which consequently leads to a successful internationalization of INVs (Nummella et al., 2004). Moreover, advances in information and communication technologies may naturally lead to increased internationalization because of the facilitation in the transmission of information, the cost efficiency and viability of the processes (Loane, 2006; Knight and Cavusgil, 2004). Some research (Coviello and Munro, 1997; Kuivalainen et al., 2012b; Oviatt, McDougall, 1994, 1995) has emphasized the impact of competitive intensity on the international expansion of INVs. Tough competition in the domestic market may be one of the drivers for the recognition-exploitation of international opportunities. Finally, Eckhardt and Shane (2003) state that the entrepreneurship literature implicitly focuses on the supply side changes but, according to the authors, opportunities can be generated because of the *changes in demand* within the market. The logic behind this statement is that the changes in consumers' purchasing habits which occur due to some shifts in culture, perception, tastes, etc. influence resource allocation since producers seek to respond to the preferences of their customers. Additionally, the growing markets might create specialization or opportunities of new niches. Therefore, the third hypothesis is formulated as follows:

H3. Environmental-level determinants, such as the globalness of the market and high demand variability, industry competitiveness, and

development of technologies positively affect the process of internationalization of INVs in terms of recognition-exploitation of international opportunities.

H3a. The globalness of the market has a positive influence on the recognition-exploitation of international opportunities.

H3b. The demand variability in the market has a positive influence on the recognition-exploitation of international opportunities.

H3c. The competitiveness in the industry has a positive influence on the recognition-exploitation of international opportunities.

H3d. The development of technologies has a positive influence on the recognition-exploitation of international opportunities.

Following the study of Vasilshenko and Morrish (2011), the conceptualization of internationalization as an entrepreneurial process has been adopted. According to Muzychenko and Liesch (2015), the "internationalisation of the firm is a process of entering new international markets that becomes possible only after an individual within the firm has identified opportunities in those markets" (p. 704). Therefore, this doctoral dissertation considers internationalization as the process of recognition-exploitation of international business opportunities. McDougall and Oviatt (2003) state that these opportunity recognition-exploitation activities lead to the presence in international markets. A firm which is able to see and act on potential business opportunities that competitors do not pay attention to can achieve a unique competitive advantage. Faroque and Morrish (2016) note that, at the firm-level of analysis, the performance implication of opportunity recognition process is a largely unexplored area of research in entrepreneurship. The scholars also emphasize that to date opportunity-based research is focused on antecedents for this process, while outcome-oriented research lags far behind. Therefore, it can be assumed that the more opportunities a firm recognizes and exploits, the greater the international success of the INVs will be. Consequently, the fourth hypothesis of this doctoral dissertation is formulated as follows:

H4. The internationalization process of INVs in terms of recognition-exploitation of international opportunities is positively related to international performance.

The entrepreneurship literature has distinguished two categories of research (Hoang and Antoncic, 2003). The great majority of studies consider the network as an independent variable by trying to understand how networks affect the entrepreneurial process and its outcomes. The second category of studies considers the network as a dependent variable by focusing on how entrepreneurial processes influence the development of networks (Slotte-Kock and Coviello, 2010). Additionally, Loane and Bell (2006) and Ojala (2009) argue that networks can be developed during the internationalization process, not only before it. Therefore, in order to address the call of Hoang and Antoncic (2003), Loane and Bell (2006), Ojala (2009) and Slotte-Kock and Coviello (2010) and to question the impact of networks on the initiation of INVs' internationalization, this doctoral dissertation tests the influence of the entrepreneurial process in terms of international opportunities recognition-exploitation on networks. Accordingly, the fifth hypothesis is formulated as follows:

H5. The internationalization process of INVs in terms of recognition-exploitation of international opportunities is positively related to the networks of INVs.

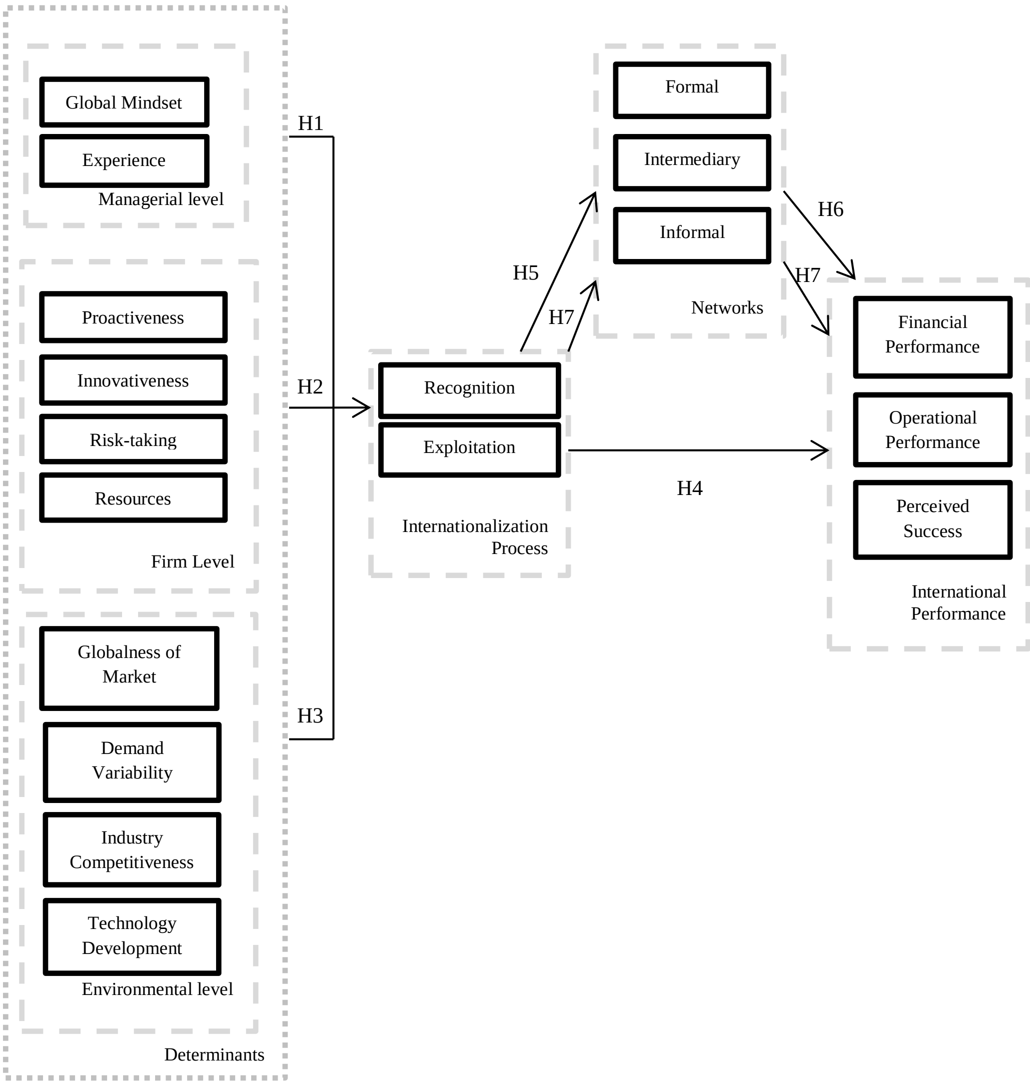


Figure 7. Research framework of the relationships among Determinants, Internationalization Process, Networks and Performance of international new ventures

The literature review has shown a number of benefits coming from networks of international new ventures. Networks are identified as knowledge providers which have a positive impact on the international growth of the firm (Yli-Renko, et. al. 2002; Oparaocha 2015; Loane and Bell 2006; Freeman, et. al. 2010; Freeman et. al. 2006). Moreover, networks can provide resources (tangible or intangible) (Prashantham and McNaughton, 2006; Tolstoy, 2012; O'Gorman and Evers, 2011) and therefore influence the outcome of internationalization. The networking capability is positively related to the development of knowledge-intensive products in accelerated internationalizing firms (Andersson, et. al. 2013; Laanti, et. al. 2007; Sullivan Mort and Weerawardena 2006; Weerawardena, et. al. 2007). Finally, such benefits as the reduction of risk in the foreign market (Freeman, et. al. 2006) and building INVs legitimacy in foreign markets (Bangara, et. al. 2012) were identified. Considering the arguments above, the sixth hypothesis of the doctoral dissertation is as follows:

H6. The networks of the INVs have a positive influence on the international performance of INVs.

According to Zhou et al. (2007), the existence of direct influence of internationalization on firm performance has not yet been explained. This doctoral dissertation draws on the network approach and explains the international performance implications of internationalization in INVs. As stated by Wach and Wehrmann (2014), success in the international market depends on the firm's ability to build networks and promote market development. According to Blankenburg Holm, et al. (1996), relationships evolve as a result of interaction between the parties doing business; thus the internationalization process can influence the development of networks. In line with the theorization that the internationalization of new ventures is a process of social dynamics through networking strategies (Ellis, 2000; Harris and Wheeler, 2005; Zhou et al., 2007), the mediating role of networks underlying the relationship between the process of internationalization and international performance is postulated. Consequently, the last hypothesis of this dissertation is formulated as follows:

H7. The relationship between the internationalization process of INVs in terms of recognition-exploitation of international business opportunities and international performance is positively mediated by networks of INVs.

H7a. The relationship between the internationalization process of INVs in terms of recognition-exploitation of international business opportunities and international performance is positively mediated by formal networks of INVs.

H7b. The relationship between the internationalization process of INVs in terms of recognition-exploitation of international business opportunities and international performance is positively mediated by intermediary networks of INVs.

H7c. The relationship between the internationalization process of INVs in terms of recognition-exploitation of international business opportunities and international performance is positively mediated by informal networks of INVs.

2.2 Methodological Approach, Paradigm, and Design of the Research

The framework for any research is based on some underlying philosophical assumptions about the truth and reality, the nature of knowledge and rationality of belief, and the method used for gaining the knowledge that brought about differences in the type of research methodologies used in social science research (Saunders, Lewis, Thornhill, 2009). Therefore, before starting any research process it is important to perceive three major dimensions: *ontology*, *epistemology*, and *methodology*. These three dimensions reflect the set of shared beliefs about the nature of the world and the nature of the research and are encompassed by a research paradigm. An understanding of the philosophical foundation of research is essential for conducting research and selecting appropriate methods in order to address research questions. Researchers' differing positions in terms of ontology and epistemology often lead to different research approaches towards the same phenomenon. However, most researchers learn about the scientific method rather than about the scientific attitude. While the "scientific method is an ideal construct, the **scientific attitude** is the way people have of looking at the world. Doing science includes many methods; **what makes them scientific** is **their acceptance by the scientific collective**" (Grinnell, 1987, p. 125). In other words, the methods of the research are less important or follow the question of the paradigm of the research (Guba and Lincoln, 1994). Therefore, this part of the dissertation presents the meaning of the research paradigm; further, three main elements of ontology, epistemology, and methodology are presented. Finally, epistemological, ontological and methodological positions of this doctoral dissertation are stated.

The term paradigm means a pattern or an accepted model (Schwandt, 2001) that could be shared by a community of scientists to examine problems and find solutions. It also includes the values, attitudes and believes that imply a commonly accepted culture of research within the community of scientists. It is a framework or pattern of academic values, ideas, assumptions, and attitudes towards how to think about the research and how to conduct it.

In order to answer the research questions of this dissertation and to define the framework that guides the entire research process, all three elements (ontology, epistemology, and methodology) are discussed in the following sections.

Ontology. According to Neuman (2003), ontology is "an area of philosophy that deals with the nature of being, or what exists; the area of philosophy that asks what really is and what the fundamental categories of reality are" (p.94). The term ontology is composed of two Greek words – *onto* and *logia*; the first one means "*being*" and the second means "*study or science*". In other words, ontology is the science of existence. Ontology, according to Saunders, et al. (2009) refers to a branch of philosophy which is concerned with the nature of reality. Ontological questions in social sciences concern the fundamental nature of reality and what can be known about it. Two basic positions within ontology are objectivism and constructionism (or subjectivism). These are contrasting positions – one of them (objectivism) states that there is an independent reality and the other (constructionism) assumes that reality always occurs through a lens of interpretations (Neuman, 2003). Researchers with the objectivistic approach believe that the world is somewhere “out there” independently from human interpretation and just waiting for being discovered. On the contrary, researchers who are believ in the constructionist approach, believe that preexisting ideas, subjectivity, or cultural interpretations influence human perception of reality.

Epistemology. The second dimension of the paradigm is epistemology. Epistemology tries to answer the question of how the world is rooted in human ontological assumptions, how to produce knowledge about reality and scientific knowledge. Neuman (2003) suggests a more suitable definition; according to the scholar, epistemology is “an area of philosophy concerned with the creation of knowledge; focuses on how we know what we know or what are the most valid ways to reach truth“ (p. 95).

Epistemology could be distinguished into two broad epistemological positions: *positivism* and *interpretivism*. In the context of social sciences, *positivism* seeks to find a scientific explanation of the world by combining deductive logic with precise empirical observations of individual behavior (Neuman, 2003). Positivists believe that empirical facts exist apart from personal attitude and must be studied using objective ways. In other words, positivist researchers consider themselves as detached and not important variables in what they research. According to positivism, the principle of *cause and effect* is essential and probabilistic causal laws can be used to predict general and stable patterns of social reality, and the knowledge of those patterns is additive (Neuman, 2003; Marczyk, DeMatteo and Festinger, 2005). Moreover, positivism argues that all knowledge consists of facts; therefore, the aim of science, according to positivism, is to develop the most objective methods possible to get the closest approximation of reality (Ulin, Robinson and Tolley, 2004). Research findings are usually represented as objective and measurable data (quantitatively in numbers) (Mutch, 2005).

The second epistemological position – *interpretivism* – assumes that there is no single correct method to knowledge or such thing as objective and independent knowledge because knowledge and meaning are acts of interpretation. This leads to the assumption that reality is socially constructed and interpreted, i.e. subjective experiences and attitudes of individuals are not detached from the perception of the world (Mutch, 2005). The purpose of research, according to interpretivism, is to understand a particular phenomenon (to explain the subjective meanings that lie behind social action), to judge or evaluate, and refine interpretive theories, but not to generalize results to a population as it is intended to in positivism. Observation and interpretation are essential for interpretivism. There are no predefined variables as dependent or independent, interpretive research focuses on the full complexity of human sense making as the situation emerges. The access to reality, according to interpretivism, is only through social constructions such as language, consciousness and shared meanings (Mutch, 2005).

Although both positions (positivism and interpretivism) assume that human behavior may be patterned and recurrent, positivism holds this pattern in terms of the laws of cause and effect, while interpretivism assumes that the patterns of human behavior could be created only by changing and developing meaning systems that people generate while socially interacting (Neuman, 2003).

Methodology. The third dimension of research paradigm is methodology. Sarantakos (2005) argue that methodology encompasses a research strategy and reflects the ontology and epistemology into guidelines for conducting research. Moreover, methodology includes all principles and procedures that govern the research process and it is a plan of action which lies behind the choice and use of particular methods (Marczyk et al., 2005). Therefore, methodology seeks to answer the question of what, why, how, from where, and when are data collected and analyzed. Guba and Lincon (1994) explain methodology in one question: *how can the inquirer go about finding out whatever they believe can be known*? (p. 108). Researchers can choose quantitative or qualitative approaches to the inquiry. Qualitative and quantitative research is often presented as two fundamentally different paradigms through which the social world could be studied. The debate between these two paradigms has been called the qualitative-quantitative debate.

The *quantitative methodology* is underpinned by the positivism research paradigm. This paradigm sets the tone of methodology to be objective and detached where, according to Sarantakos (2005), the emphasis is on measuring variables, their interactions, events and caused outcomes. Quantitative methodology prefers experimental designs to measure and test the effects, especially through group changes. The data are collected in the form of numbers, therefore, the results of the study can be quantified (Neuman, 2003; Sarantakos, 2005). Such highly standardized data collection instruments as a questionnaire, psychological tests with precisely worded questions are mainly used. According to Ulin, et al. (2004), quantitative methodology emphasizes the validity, reliability, objectivity, precision, and generalizability in order to assure description, prediction and verification of empirical relationships in relatively controlled settings.

In contrast, the *qualitative paradigm* is based on interpretivist epistemology and constructionalist ontology (Guba and Lincoln, 1994). This assumes that the socially constructed and constantly changing reality and the meaning of it is embedded in the researcher's experience, therefore the findings of the research are mutually created within the context of the situation which shapes this inquiry (Guba and Lincoln, 1994; Merriam, 1998). A qualitative researcher seeks to better understand the world through firsthand experience; therefore, the qualitative researcher attains to see the group under study through the lens of an insider (Merriam, 1998). The qualitative methodologies are inductive and the emphasis of qualitative research is on discovery, process, and meanings. Techniques used in qualitative studies for gathering data include in-depth interviews, focus group discussion and naturalistic participant observation. These data gathering methods, according to Neuman (2003), are sensitive to context and encourage participants to speak freely. Most importantly, since qualitative methodologies are more concerned with the deeper understanding of the research problem in its unique context, the generalizability of the results is not applicable (Ulin, et al., 2004).

Following the arguments above, **the research paradigm of this study** is as follows. First of all, the author of this doctoral dissertation believes that there is an independent reality that could be discovered and explored independently from the interpretations and human perception. Therefore, the ***objectivistic position of ontology*** is followed. Secondly, talking about the ***epistemological*** positions of the study, the ***position of positivism*** is followed, since the author of this dissertation believes that the principle of cause and effect is essential and reflects the general pattern of how social reality works. Therefore, the study is composed according to deductive logic. Finally, the third dimension of paradigm is ***methodology***. Following the chosen positions of ontology and epistemology, the ***quantitative research strategy*** has been applied in this study, and all of this reflected into guidelines for conducting research. According to the deduction approach, the concepts need to be operationalized in a way that enables facts to be measured quantitatively. This presumes that the data needs to be collected in the form of numbers. Additionally, a highly standardized instrument – questionnaire – is chosen for collecting the data. In the following parts of this dissertation, the research instrument and the data collection process are presented in greater detail.

2.3 Research Instrument: Variables of the Study

Corresponding to the hypotheses, six constructs expected to be interconnected in the context of international activities of INVs were selected. The constructs in this study were developed by using measurement scales adapted from prior studies. The majority of constructs were based on indicators used in previous studies. In most cases, a five-point Likert psychometric scale (ranging from strongly disagree/not satisfied at all – 1; to strongly agree/extremely satisfied – 5) was used for the indicators.

Revilla et al. (2014) have proven that five answer categories are more accurate rather than 7 or 11 scales. Revilla et al. (2014) used data from four multitrait-multimethod experiments implemented in the European Social Survey on large and representative samples in more than 20 countries. Scholars have found that in terms of quality of measurement, the best scale is a five-item one since the quality decreases as the number of categories increases. Therefore, following these findings, the measurement scale for this research is a five-item scale.

A complete list of validated scales and corresponding references is provided in the table below (see Table 14).

Managerial-level determinants

Managerial-level determinants were selected from previous studies (Hutchinson et al., 2006; Kuivalainen et al., 2012b; Nummela et al., 2004; Weerawardena et al., 2007). Manager's experience is considered as the key feature in the internationalization process of INVs as it often seems to lead to early internationalization (Reuber and Fischer, 1997; Weerawardena et al., 2007; Zucchella et al., 2007). Moreover, it is not only international business experience but also general business experience that encourages companies to internationalize (Hutchinson et al., 2006). Therefore, the construct for manager's prior experience encompasses general business experience and international business experience. Additionally, the determinant of the global mindset of the entrepreneur is used. After a literature analysis, the term of global mindset has been choisen since this term encompasses the main characteristics of the entrepreneur and has the orientation to international expansion which is essential for INVs. The items for the construct of global mindset were adopted and constructed from several sources: Kuivalainen et al., (2012b), and Nummela et al., (2004).

Firm-level determinants

In line with previous studies (Zhang et al., 2016; Wach and Wehrmann, 2014), the firm-level determinants for early internationalization of new ventures were conceptualized as consisting of the dimensions of innovativeness, proactiveness, risk-taking, and resources of the firm. The first free determinants – innovativeness, proactiveness, and risk-taking – are the main dimensions to reflect the entrepreneurial orientation of a firm. The measures for entrepreneurial orientation were used from the study of Zhang et al. (2016). The construct of resources of the firm was created following the study of Wach and Wehrmann (2014) and encompasess different types of resources: technological, marketing, financial, and managerial.

Environmental-level determinants

Referring to prior research (Matanda and Freeman, 2009; Nummela et al., 2004), environmental-level determinants were measured using subjective measures since they provide a better view of how managers deal with the uncertainty and changes in the environment than objective ones. The environmental-level determinants were measured with several dimensions, which were selected from previous research (Nummela et al., 2004; Eckhardt and Shane, 2003) relating to market characteristics. The first two dimensions – globalness of market and market turbulence – were measured each with four items which were taken and adopted from Nummela et al. (2004). The construct of market turbulence encompasses the demand variability (Eckhardt and Shane, 2003) and competitiveness in the industry and these two aspects in the following analysis of the variable were separated into two factors. The third dimension was technological advances (Knight and Cavusgil, 2004; Oviatt and McDougall, 2005). The construct encompasses the advances in information and communication technologies and transportation.

Recognition-Exploitation of International Business Opportunities

The internationalization process of INVs was measured by adapting the International entrepreneurship view; therefore, the construct of international business opportunities recognition-exploitation was used. The measurement for this was adapted and constructed by using the studies of Chandra et al., (2009) and Farmer, Yao and Kung-Mcintyre (2011). This construct encompases information about how intensively firms search for new markets, and how intensively they are involved in acting upon opportunities in terms of money or time invesments in that market, etc. Respondents were asked to evaluate their activities in the period over the past six months and the items were measured on a five-point Likert-scale (1 = totally disagree, 5 = totally agree).

Table 14. Variables of the empirical research
(Source: created by the author)

Aggregated group	Construct	Questionnaire Items	Authors
Managerial-level determinants	Global Mindset	Company/export manager has innovative, exceptional solutions	Adopted from Nummela et al, 2004; Kuivalainen et al. 2012b
		Company/export manager quickly notices the possibilities to expand the business and is able to use them	
		Company/export manager has a strong international business orientation	
		Company/export manager is able to enable other members of the organization to look for opportunities and exploit them	
		Company/export manager is proactive and constantly takes the initiative	
		Company/export manager tolerates small failures when his team fails	
	Experience	Company/export manager has experience in business enterprise (over 3 years)	Adopted from Hutchinson et al., 2006; Weerawardena et al., 2007
		Company/export manager has previous experience in international business	
		Company/export manager has acquired education abroad or has study abroad experience	
Firm-level determinants	Innovativeness	In recent years there have been frequent and substantial changes in product or service lines in my company	Zhang et al. 2016
		My company has promoted many new products and services in the past few years	
		My company prefers to design its own unique new process and production methods	
	Proactiveness	My company typically engages competitors proactively	
		When engaging competitors, the first thing my company would often do is introduce new products/services, management techniques, operation technologies	
		Our company is usually among the first to introduce new products in the industry	

			Our company emphasizes the pursuit of long-term goals and strategies	
	Risk-taking		The top managers of my company have a strong proclivity for high-risk projects	
			My company rewards taking calculated risks	
			My company believes in taking bold and wide-ranging actions based on the nature of the environment	
	Resources		The company has a strong base of technology	Adopted from Wach and Wehrmann, 2014
			The company has a strong marketing team	
			The company has sufficient financial resources	
			The company has a strong management team	
Environmental-level determinants	Globalness of market		The market in which we operate is global in nature	Adapted from Nummela et al. 2004; Kuivalainen et al., 2012b
			Our competitors operate internationally	
			There are potential customers for our products all over the world	
			Our foreign competitors react rapidly to our actions	
			The potential of the home market is too small	
	Market turbulence	Industry competitiveness	The competition will toughen fiercely in the coming years	Adapted from Nummela et al. 2004; Eckhardt & Shane 2003
			It is difficult for our competitors to copy our products	
		Demand Variability	The needs of our clients change rapidly	
			In our field, a company cannot succeed unless it is able to constantly bring something new to the market	
	Technological advances		The progress of information and communication technology sector has an impact on the international development of our business	Adapted from Knight & Cavusgil 2004; Oviatt & McDougall 2005
			The expansion of transport infrastructure in the world has an impact on the international development of our business	
Internationalization Process	Recognition-Exploitation		The latter half of the year we are intensively searching for new markets	Adopted from

	of International Opportunities	Over the past six months we have been extensively asking former clients or acquaintances, who work abroad, to recommend us to potential customers	Chandra et al., 2009; Farmer et al. 2011
		Over the past six months, we intensively visited trade shows and conferences where we presented the company	
		Over the past six months, we are very active in the portals of our fields and social networks, posting about our services/products	
		Over the past six months, we entered/have been preparing to enter a new market and we have recruited one or more people for coordination of export activities in that market	
		Over the past six months, we have invested money/time to market strengthening	
		Over the past six months, we have purchased/rented the necessary equipment for production in order to enter a new market	
Networks	Formal networks	We cooperate with our suppliers	Adapted from Coviello, 2006; Larson & Starr, 1993; Ojala, 2009; Oviatt & McDougall, 2005; Oparaocha, 2015
		We cooperate with our direct competitors	
		We cooperate with our indirect competitors	
		We cooperate with our customers/buyers	
		We cooperate with our distributors/agents	
	Informal networks	We cooperate with our friends	
		We cooperate with our family/relatives	
		We cooperate with our previous colleagues	
	Intermediary networks	We cooperate with universities/research centers	
		We cooperate with export promotion agencies	
		We cooperate with government institutions	
		We cooperate with some associations/clusters	
International Performance	Financial performance	International sales volume	Gerschewski et al. 2015
		International sales growth	
		International profitability	
		Return on investment (ROI) from international business	

	Operational performance	Market share in international markets	
		New product/service introduction in international markets	
		Time to market for new products/services internationally	
		Number of successful new products/services in international markets	
		Global reach (i.e., presence in strategically located countries worldwide)	
	Perceived success	International reputation of the firm	
		Gaining a foothold in international markets	
		Success of main international business	
		Success of main international business from competitors' perspective	

Networks

Networks were measured by the size of the company and the manager's network. In line with Eberhard and Craig (2013) and Manolova et al. (2010), the respondents of the survey received a list of different partners who they collaborate with in order to expand their business internationally. The list consisted of 12 different actors representing three groups of networks, the formal, informal, and intermediary in accordance with the studies of Ojala (2009) and Oparaocha (2015).

Formal networks. According to Jeong (2016), formal networks engage more diverse actors than any other type of networks. Moreover, since there is considerably more interest in formal networks and the existing literature identifies a relatively wide list of potential formal partners: customers or consumers, suppliers, direct competitors, indirect competitors, distributors or agents.

Intermediary networks. Intermediary networks were measured with four binary variables that indicated whether the firm has any partnerships with the export promotion agencies, government institutions, universities or research centers, and associations.

Informal networks. In line with the literature, informal networks were measured by asking respondents about the existing relationships for business development with family, friends and previous colleagues.

All possible partnerships of networks are measured as a binary variable that takes the value of one if the firm, for instance, is a member of a business association or collaborate with competitors in order to go abroad and zero if not. Using this variable as a proxy for networks is in line with previous studies. Consistent with Eberhard and Craig (2013) and Manolova et al. (2010), the measures for networks and each of their types, i.e. network variable, formal network variable, informal network variable, intermediary network variable, as the sum of all reported partners in each group, were computed.

International Performance

The measurement of international performance is always complex and a number of scholars has pointed out several difficulties in assessing it (Leonidou et al., 2002; Leonidou et al., 2010). First of all, the sample of this research consists of young and small firms that are not willing to share their financial data publicly, unlike large and stock-listed MNEs. Moreover, managers are under no obligation to publicly disclose this information. Third, there is evidence in the strategic management literature about the reliability and accuracy of subjective, perceptual performance data (Leonidou et al., 2002). Following these arguments and the common practice in INVs research (e.g. Ellis, 2011; Filatotchev, et al., 2009, Nakos et al., 2013), the subjective measures for the assessment of the international performance have been applied in this dissertation.

Performance was measured by considering three different dimensions developed by Gerschewski et al. (2015). The author distinguished financial performance, operational performance, and perceived success dimensions in order to measure the performance of internationally operating new ventures. Using a subjective measure of international performance, respondents were asked to assess their level of satisfaction with the international performance of the firm over the last three years on a five-point Likert scale. The measurement encompasses foreign sales, profitability, market share, market access, reputation, overall satisfaction, etc. Using and including such different indicators which could be called as *soft* indicators, such as reputation of the firm, and a *hard* indicator such as profit, allows capturing firms that might pursuit different performance indicators, which should be adequately reflected.

Control variables

Several control variables were added to the study to test whether the firm and industry factors (such as the firm's age, size, industry or export speed) might have an influence on the results. First of all, *firm age* was measured as the number of years that have passed since the firm was founded. Secondly, *firm size* is assumed to have a positive impact on international performance since the larger firms have a larger pool of resources that are needed for international operations and achieve higher levels of scale economies. Normally, the size of the firm is operationalized as the number of employees. Therefore, this study controls for firm size in terms of the number of employees. To control for potential *industry* differences, the respondents were asked to indicate the sector; one dummy variable was made to check if the belonging to the manufacturing industry has an impact on international performance. Prior research (Hilmersson and Johanson, 2015) also identifies export speed as an important determinant of international performance. *Export speed* was coded as the dummy (1 for firms which started export immediately from the establishment and 0 for firms starting first export after 1–3 years).

2.4 Data Collection and Sample size

The survey was developed to collect primary data on relationships among determinants, process, networks and international performance of INVs. The computer software *LimeSurvey* was chosen to create a web-based survey instrument, since this is the worldwide leading open source survey software and many universities and researchers use it worldwide.

When designing the survey, the main principles of web-based survey development, outlined by Dillman (2007) were followed. First of all, the optimal number of items per screen was chosen in order to make the process of answering questions more comfortable, without long scrolling. The survey included a survey progress bar and the ability to go forward and backward between the questions since these are essential components for designing efficient web-based questionnaires. Moreover, in an attempt to minimize missing values an introductory letter to the questionnaire was attached to assure respondents that the results would be confidentially maintained.

Furthermore, pre-testing is an important part of the survey development process since it increases the quality of the survey by identifying mistakes or checking if all questions are easily understandable (Dillman, 2007). To increase validity, the survey was first thoroughly checked by subject matter experts that included the author's supervisor and two members of the International Entrepreneurship cluster (in the areas of international business and marketing) from Kaunas University of Technology. As the next step, the survey was pre-tested on 5 export managers/owners of international new ventures. The assessments of both steps resulted in minor amendments to wording, modifications of certain expressions that respondents had found confusing. The order of some questions was changed and the questionnaire was shortened. The validity and reliability of the results were secured with several means. For instance, besides pre-testing the questionnaire, it was targeted at owners, top managers or export directors who are considered the most knowledgeable informants regarding internationalization issues in INVs. Furthermore, the other tests for validity and reliability are described in the following parts of this doctoral dissertation (see paragraph 3.1.1).

Criteria for acceptance. There were three formal and most important criteria for being included in this study. International new ventures have been categorized as those small or medium-sized firms that started their foreign operations within 3 years of inception and which have derived at least 25% of their turnover from outside their home market within 3 years, this being in line with the definition originally suggested by Knight and Cavusgil (2004). According to the OECD (2002) definition, SMEs are enterprises with less than 250 employees, and have an annual turnover not exceeding 50 million euro. SMEs could be divided into three categories: micro enterprises are enterprises that have less than 10 employees; small firms have 50 or fewer employees, whereas medium-sized firms have 51 to 250 employees. The control questions were included in the questionnaire to ensure the target will meet these criteria. In their seminal paper introducing the concept of INVs Oviatt and McDougall (1994) do not specifically define the number of countries but rather state that a firm should have activities “in multiple countries”. Despite some scholarly attempts to define the scope of INVs more explicitly, the question of what number of markets served qualifies a firm as a proper INV remains (Kuivalainen, Saarenketo, and Puumalainen, 2012a). Therefore, following the most common practice in such research (e.g. Madsen, Rasmussen and Servais, 2000; Knight, Madsen and Servais, 2004; Cannone and Ughetto, 2014; Knight and Cavusgil, 2004) and supporting the idea that it is important to use the same definition in different studies in order to make them comparable, this dissertation does not include the scope as a criteria for identification of INVs in the research sample.

INV is a phenomenon that occurs in a wide range of industries. This statement has been proven by a number of studies where international new ventures have been found in manufacturing (Knight, Madsen and Servais, 2004), high-technology sector (Crick and Spence, 2005), arts and crafts (McAuley, 1999), ect. Therefore, in order to keep with the goal of providing a more holistic approach, the sample is selected across various sectors and the research does not focus on one particular segment of the market.

The sample was selected using the techniques of probability sampling, simple random sampling. The present analysis is based on data that were obtained from the database of a non-profit agency *Enterprise Lithuania* since it has the biggest exporters’ database in the country. This resulted in a sample of 906 firms that potentially might meet the criteria described above (to be called as INVs) and this is the potential population size of the research. Questionnaires were sent out electronically and a follow-up was undertaken by sending reminders after 2 weeks from the first mailing. A total of 181 responses were received. The response rate is around 20%, which is in line with previous studies in the field (Cannone and Ughetto, 2014; Knight and Cavusgil, 2004). However, after data cleaning, a total of **101 firms provided** final data for this study since other questionnaires were disregarded for various reasons. The main reason for such a big drop-out rate was not meeting the criteria for an INV – most of the companies were late internationalizers or with a low export rate. Moreover, there was a significant rate of incomplete responses. Since the missing data may indicate some systematic bias, reduce the representativeness of the sample, and cause several other problems (e.g., the estimated model cannot be calculated), it was decided to discard units whose information is incomplete and to use answers with full data only (Schafer and Graham, 2002). Moreover, prior literature (Holler et al., 2017) also emphasizes the challenges of keeping the respondent’s attention high until the end of the web-survey. Despite a growing interest in the research topic, response rates appear to constantly decline in the course of time.

In general, the following reasons are considered to have an impact on the response rates of this study. First, the questionnaire was addressed to high-level organisational representatives, such as the founders of the firm, managing directors or export managers; hence lower response rate was expected. Second, despite the careful design of the questionnaire, it was relatively long and that, according to

Dillman (2007), might negatively influence the response rate. However, the final sample is suitable to generalize on the population of Lithuanian INVs and to validate conclusions with a 95 percent level of certainty. Moreover, the sample size is in line with other studies of INVs made in similar contexts, e.g. Finland (Khalid and Larimo, 2012; Yli-Renko, et al., 2002).

2.5 Research Context and Characteristics of the Sample

Research context. The research was conducted in Lithuania – one of the Baltic countries in Central and Eastern Europe (CEE) region. Lithuania is a small open economy that regained its independence from the Soviet Union in 1990s and had previously been closed for years. Since then, the country has undergone a significant transformation from a planned economy to a free-market economy. Despite its extraordinary economic growth in 2000 and afterwards, Lithuania is still in transition between an efficiency-driven economy and an innovation-driven economy (World Economic Forum, 2017). However, such small developed and open economies like Lithuania that are characterized by a relatively small domestic market (less than three million people), but are closely integrated in the international community and have limited international trade barriers (e.g. a member of the World Trade Organization, European Union, Euro area) are an attractive venue for INVs to originate (Gabrielsson et al., 2014; Manolova et al., 2010).

Characteristics of the sample. The sample of this research might be defined by analyzing the industry, size and age of the firm, and average amount of the exports markets of the respondents in the survey.

Industry. The great majority of companies in the study represent the Manufacturing industry (44.1 percent) – this sector encompasses different types of manufacturing, such as the manufacture of wood; computer, electronic and optical products; fabricated metal products; food products; textile product; etc. In the second place were companies from Wholesale and Retail Trade (13.7 percent) industry and with the sector of Other Service Activities. About 9 percent of firms were from the Information and communication sector.

Table 15. The sample according to industry

Sector/Industry	**Number**	**Percent**
Manufacturing	45	44.1
Information and Communication	9	8.8
Wholesale and Retail Trade	14	13.7
Agriculture, Forestry, And Fishing	6	5.9
Other Service Activities	13	12.7
Construction	4	3.9
Professional, Scientific and Technical Activities	5	4.9
Transportation and Storage	3	2.9
Education	1	1.0
Electricity, Gas, Steam and Air Conditioning Supply	2	2.0

Size of the firms. The great majority of companies in the sample are medium-sized companies having from 51 to 249 employees (43.1 percent), followed by micro firms, with less than 10 employees. Lastly, small companies account for 20.6 percent of all respondents in the survey.

Table 16. The sample according to size of the firm

Size	Number	Percent
Micro firms	37	36.3
Small firms	20	20.6
Medium-sized firms	44	43.1

Age of the firm. The great majority of firms (more than 46 percent) which participated in the survey were less than 10 years old and were established between 2007 and 2016. The firms that were established between 1991–1995 accounts for 23.5 percent of all respondents in the survey.

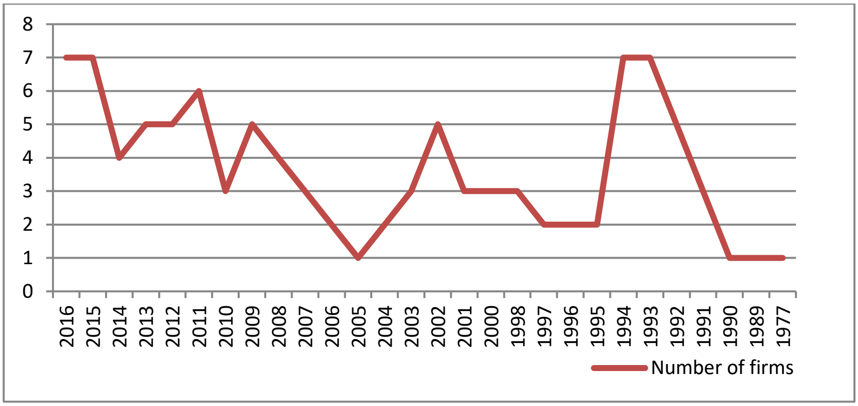


Figure 8. Firms' division according to the year of establishment

Market scope. The average number of the exports markets of the respondents in the survey is 15. More than a half of surveyed firms export to the Scandinavian countries (Sweden, Norway, and Denmark). Additionally, the top destinations for export are Germany (29 companies), the United Kingdom (24 companies) and the United States of America (22 companies). Moreover, participants in the survey export to some other geographically distant markets, such as the United Arabic Emirates, Japan, Ghana or North Korea.

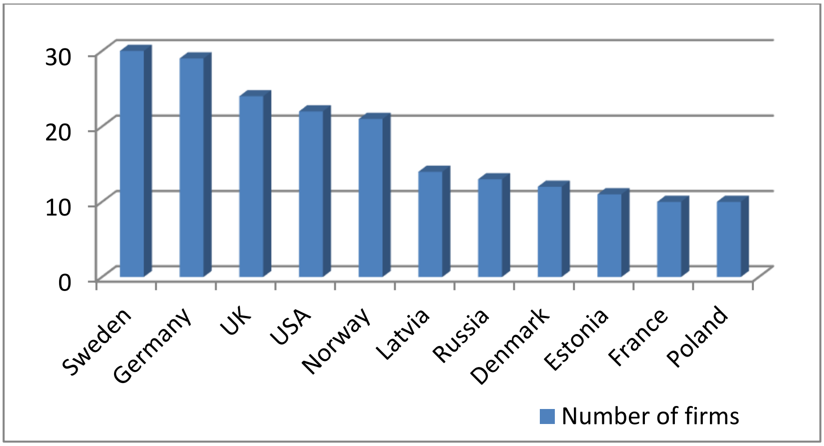


Figure 9. Top 10 export markets

In general, the country context of this study is one of the Baltic countries – Lithuania, a small open economy in transition. The firms surveyed in this research are very young businesses, since the majority were established between 2007 and 2016. Firms mainly represent the manufacturing sector and are medium in size. These firms conduct export in more than 10 foreign markets on average and the main destination for export is the Scandinavian countries, Germany, the UK and the USA.

3 EMPIRICAL INVESTIGATION OF THE RELATIONSHIPS AMONG DETERMINANTS, INTERNATIONALIZATION PROCESS, NETWORKS AND PERFORMANCE OF INTERNATIONAL NEW VENTURES

This part of the dissertation presents the results from the empirical study. First of all, the main constructs of the research are proposed and the validity tests of those constructs are conducted. Secondly, the descriptive statistics are presented. Next, the chapter discusses the analysis of the calculations in order to support or reject the formulated hypotheses. Finally, the chapter proceeds to provide a summary of the empirical results and discussion.

3.1 Results of the Calculations

Two distinct multivariate data analysis methods were employed in the empirical study: Multiple Regression analysis (OLS) and Structural Equation Modelling (SEM). Additionally, the PROCESS Procedure for SPSS is conducted to test the mediation effect. These data analysis techniques were employed independently to test the proposed research hypotheses. The main advantage of SEM against multiple regressions is that SEM allows to test the entire model simultaneously, while multiple regressions are run to test particular dependence relationships amongst the constructs of the conceptual model, but it is not able to examine all dependence relationships at the same time.

3.1.1 The Structure, Validity and Reliability of the Constructs

This part of the doctoral dissertation represents the structure of the constructs, their descriptive statistics and the results of different analyses in order to ensure the validity and reliability of the constructs. Moreover, the possible risk of various biases is also considered.

3.1.1.1 Analysis of the constructs

A starting point of the data analysis has been to clearly define the individual constructs and examine the reliability of the respective measurement scales (Hair et al, 2006). Particularly for the constructs that were measured based on multiple items, given that their scale reliability might be artificially high, factor analysis was conducted in order to reduce the number of indicators (items).

Since this dissertation uses the modified scales, the exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were conducted on all multi-item variables. First of all, the EFA analysis was conducted. The results showed 14 factors with the Eigenvalues higher than 1. Almost all items loaded as expected; however, some small “deviations” were noted. Secondly, the CFA analysis was conducted to verify the factor structure that emerged from the EFA. According to De Carvalho and Chima (2014), the process of validating the measurement model requires testing each cluster of the observed variables separately to fit the hypothesized CFA model. The results of both EFA and CFA analyses are presented in the following paragraphs.

***Managerial-level determinants*.** The EFA of the managerial-level determinants has provided two factors with the Eigenvalue higher than 1. The first factor represents the Experience of the manager (item loadings above 0.6). The item related with the educational experience of manager overseas (Exper_3) has been removed due to low loadings. The second factor reflects the Global mindset of an entrepreneur; all loadings in this factor were above 0.7. The Cronbach's Alphas of both constructs were above 0.6.

Table 17. EFA for Managerial-level determinants

Constructs	Items	Loadings	Cronbach's Alpha
Experience	Exper_1	.657	.610
	Exper_2	.993	
Global Mindset	Mind_1	.865	.865
	Mind_2	.873	
	Mind_3	.679	
	Mind_4	.792	
	Mind_5	.747	

The analysis of CFA confirmed the results of the EFA. The suggested factor-structure provided an appropriate fit with the data – $\chi 2/df= 2.352$, $p < 0.005$; confirmatory fit index (CFI) = 0.936; goodness-of-fit index (GFI) = 0.922; root-mean-square error of approximation (RMSEA) = 0.086, $p > 0.05$.

Table 18. The results of CFA analysis of Managerial-level determinants

Items <--- Constructs	Estimate	S.E.	C.R.	
Exper_1 <--- Experience	.632	.088	7.923	***
Exper_2 <--- Experience	.681	.088	7.923	***
Mind_1 <--- Global Mindset	.718	.133	7.812	***
Mind_2 <--- Global Mindset	.735			
Mind_3<--- Global Mindset	.841	.149	7.698	***
Mind_4 <--- Global Mindset	.764	.146	7.128	***
Mind_5 <--- Global Mindset	.637	.130	5.969	***

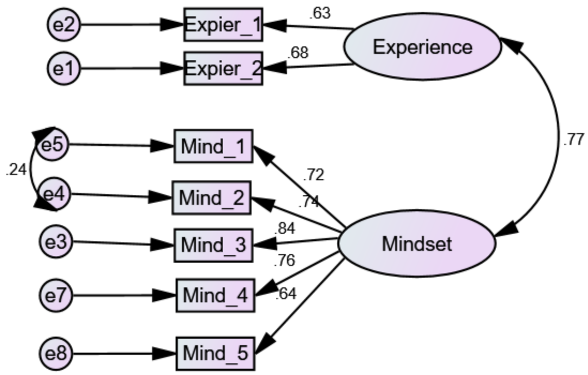


Figure 10. A graphical scheme of CFA for Managerial-level determinants

Firm-level determinants. The factor analysis of firm-level determinants has revealed that there are four main groups of antecedents. First of all, the EFA has been conducted. The factor analysis revealed four factors (Principal Component Analysis. Rotation Method: Promax with Kaiser Normalization). The item concerning the company's ability to produce exceptional products falls into the factor of Proactiveness, rather than Innovativeness as it was provided by the original scale developed by Zhang et al. (2016). The item of the marketing team in the Resource factor (item Res_2) has been removed since the loading was very low (below 0.4). Moreover, one item of Risk-taking (Risk_2) has also been removed because of low loadings. The values of Cronbach's Alphas were acceptable, except for the Risk-taking construct (α = 0.566); however, a Cronbach's Alpha around 0.6, is considered adequate since a high coefficient alpha does not always mean a high degree of internal consistency. This is because the alpha is also affected by the number of items per construct or the length of the test (Streiner, 2003). Hence, the limit of 0.6 was considered to be reasonable (Nunnally and Bernstein, 1994), as Risk-taking is a construct broadly accepted by literature (e.g. Zhang et al., 2016).

Table 19. Results of EFA analysis for Firm-level determinants

Constructs	**Items**	**Loadings**	**Cronbach's Alpha**
Innovativeness	Inn_1	.943	.714
	Inn_2	.807	
Proactiveness	Pro_1 (Inn_3)	.871	.722
	Pro_2	.815	
	Pro_3	.668	
Risk-taking	Risk_1	.903	.566
	Risk_3	.660	
Resource	Resour_1	.730	.750
	Resour_3	.976	
	Resour_4	.720	

Additionally, a confirmatory factor analysis (CFA) has been conducted. The analysis confirmed the results from the EFA. The suggested factor-structure provided an appropriate fit with the data – χ^2/df= 1.697, p < 0.005; confirmatory fit index (CFI) = 0.909; goodness-of-fit index (GFI) = 0.916; root-mean-square error of approximation (RMSEA) = 0.082, p > 0.05.

Table 20. Results from the CFA analysis for Firm-level determinants

Items <--- Constructs	Estimate	S.E.	C.R.	P
Pro_1 (Inn_3) <--- Proactiveness	.633			
Pro_3 <--- Proactiveness	.671	.252	4.999	***
Pro_2 <--- Proactiveness	.780	.231	5.260	***
Risk_2 <--- Risk-taking	.749	.056	12.134	***
Risk_1<--- Risk-taking	.628	.056	12.134	***
Inn_2 <--- Innovativeness	.750	.056	12.134	***
Inn_1<--- Innovativeness	.633	.056	12.134	***
Resour_4 <--- Resource	.695			
Resour_3 <--- Resource	.861	.256	5.854	***
Resour_1 <--- Resource	.636	.210	5.455	***

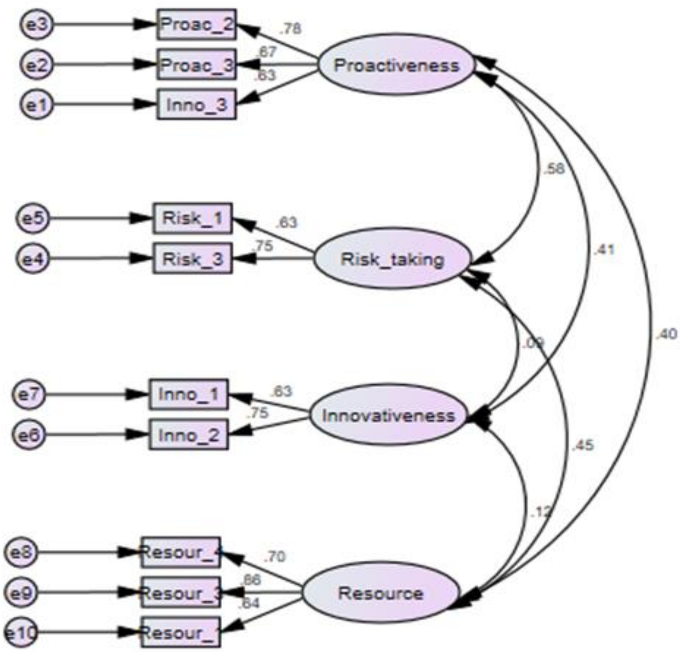


Figure 11. A graphical scheme of CFA for Firm-level determinants

Environmental-level determinants. First of all, the exploratory factor analysis was conducted for items regarding the environmental-level determinants. The EFA has provided four factors with the Eigenvalue higher than 1.

The analysis provided four factors as it was expected: Globalness of Market; Industry Competitiveness; Demand Variability and Development of Technology. However, the item concerning the rapid reactions of foreign competitors fell into the Industry Competitiveness factor rather than the Market Globalness construct. Moreover, the item from Industry Competitiveness construct concerning the competitors' ability to copy firms' products was deleted due to a very low loading. The values of Cronbach's Alpha were acceptable surpassing the threshold point of 0.6 except in the construct of Technology Development (Nunnally and Bernstein, 1994).

Table 21. Results of the EFA analysis of Environmental-level determinants

Constructs	**Items**	**Loadings**	**Cronbach's Alpha**
Market Globalness	Glob_1	.732	.678
	Glob_2	.833	
	Glob_3	.859	
Industry Competitiveness	Comp_1 (Glob_4)	.757	.633
	Comp_2	.817	
	Comp_3	.656	
Demand Variability	Demand_1	.744	.613
	Demand_2	.881	
Development of Technology	Tech_1	.752	.597
	Tech_2	.853	

The analysis of CFA confirmed the results from the EFA, although some loadings were comparably lower. Despite that, the suggested factor-structure provided an appropriate fit with the data – $\chi2/df= 1.158$; confirmatory fit index (CFI) = 0.972; goodness-of-fit index (GFI) = 0.932; root-mean-square error of approximation (RMSEA) = 0.04, $p > 0.05$.

Table 22. Results of the CFA analysis of Environmental-level determinants

Items <--- Constructs	**Estimate**	**S.E.**	**C.R.**	**P**
Glob_3 <--- Market Globalness	.827			
Glob_1 <--- Market Globalness	.539	.226	4.899	***
Glob_2 <--- Market Globalness	.811	.122	6.145	***
Com_1 <--- Industry Competitiveness	.876			
Com_2 <--- Industry Competitiveness	.565	.148	3.853	***
Com_3<--- Industry Competitiveness	.408	.165	3.128	.002
Dem_1 <--- Demand Variability	.673	.066	10.542	***
Dem_2 <--- Demand Variability	.631	.066	10.542	***
Tech_1<--- Development of Technology	.698	.066	10.542	***
Tech_2 <--- Development of Technology	.549	.066	10.542	***

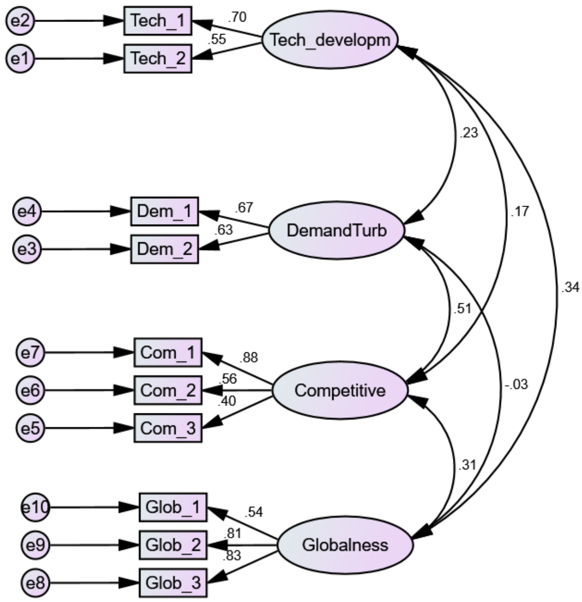


Figure 12. A graphical scheme of CFA for Environmental determinants

Recognition-Exploitation of international business opportunities. The EFA of items representing the internationalization process based on International Entrepreneurship theory has provided one factor. One item (Proc_3) was deleted due to very low loading. The value of Cronbach's Alpha in the construct was above 0.6 (surpassing the threshold point of 0.6, Nunnally and Bernstein, 1994).

Table 23. Results of the analysis of EFA analysis for Recognition-Exploitation of international business opportunities

Constructs	**Items**	**Loadings**	**Cronbach's Alpha**
Recognition-Exploitation	Proc_1	.714	.697
	Proc_2	.868	
	Proc_4	.637	
	Proc_5	.606	
	Proc_6	.861	
	Proc_7	.863	

After conducting the CFA analysis of the items which measured the Recognition-Exploitation of international business opportunities, a decrease in some loadings has been noted compared with the results from EFA analysis. However, the suggested factor-structure provided an acceptable fit with the data – $\chi2/df= 1.230$; confirmatory fit index (CFI) = 0.980; goodness-of-fit index (GFI) = 0.974; root-mean-square error of approximation (RMSEA) = 0.048, $p > 0.05$.

Table 24. Results of the CFA analysis of for Recognition-Exploitation of international business opportunities

Items <--- Constructs	Estimate	S.E.	C.R.	P
Proc_1 <--- Recognition-Exploitation	.693	.156	5.469	***
Proc_2 <--- Recognition-Exploitation	.774	.152	6.364	***
Proc_4 <--- Recognition-Exploitation	.636			
Proc_5 <--- Recognition-Exploitation	.646	.143	5.246	***
Proc_6 <--- Recognition-Exploitation	.803	.162	8.726	***
Proc_7 <--- Recognition-Exploitation	.764	.222	8.168	***

International Performance. The exploratory factor analysis (EFA) (Principal Component Analysis with Rotation Method: Varimax with Kaiser Normalization) of items representing international performance evaluation has provided three factors with the Eigenvalue higher than 1. These three factors explain more than 78% of the variance (KMO 0.894). The values of Cronbach's Alphas in all constructs were very high (from 0.883 to 0.925) surpassing the threshold point of 0.7. The factor analysis revealed only slightly different results from the original scale developed by Gerschewski et al. (2015), since the items concerning a company's reputation and company's stability fell into the Perceived Success factor, rather than in the Operational Performance factor.

Table 25. EFA results for International Performance measurements for INVs

Constructs	Items	Loadings	Cronbach's Alpha
Financial Performance	Fin_1	.660	.883
	Fin_2	.753	
	Fin_3	.812	
	Fin_4	.811	
	Fin_5	.796	
Operational Performance	Oper_1	.746	.912
	Oper_2	.798	
	Oper_3	.797	
	Oper_4	.767	
Perceived Success	Perc_1	.760	.925
	Perc_2	.836	
	Perc_3	.851	
	Perc_4	.808	

After conducting the EFA, the CFA was also applied to test the data. Moreover, by using IBM Amos, the second order construct has been created, since all three factors are interrelated. The suggested factor-structure provided an appropriate fit with the data – χ^2/df= 1.391, $p < 0.05$; confirmatory fit index (CFI) = 0.890; goodness-of-fit index (GFI) = 0.968; root-mean-square error of approximation (RMSEA) = 0.063, $p > 0.05$.

Table 26. CFA results for International Performance measurements for INVs

Items <--- Constructs	Estimate	S.E.	C.R.	P
Fin_1 <--- Financial performance	.840			
Fin_2 <--- Financial performance	.801	.125	8.753	***
Fin_3 <--- Financial performance	.609	.125	6.220	***
Fin_4 <--- Financial performance	.690	.111	7.267	***
Fin_5 <--- Financial performance	.654	.122	6.818	***
Oper_1 <--- Operational performance	.688			
Oper_2 <--- Operational performance	.762	.114	8.786	***
Oper_3 <--- Operational performance	.671	.146	5.843	***
Oper_4 <--- Operational performance	.702	.157	6.074	***
Perc_1 <--- Perceived success	.806			
Perc_2 <--- Perceived success	.815	.116	9.109	***
Perc_3 <--- Perceived success	.862	.110	9.808	***
Perc_4 <--- Perceived success	.836	.114	9.427	***

The second order analysis has shown that all constructs (Financial performance, Operational performance, and Perceived Success) fall into one higher-level factor of International Performance. The estimates for second-order factors were very high, all above 0.8.

Table 27. CFA results for second-order factor analysis of International Performance measurements for INVs

Second-order Construct	Constructs	Estimates	S.E.	C.R.	P
International Performance	Financial Performance	.807	.174	6.095	***
	Operational Performance	.993	.193	5.586	***
	Perceived Success	.826			

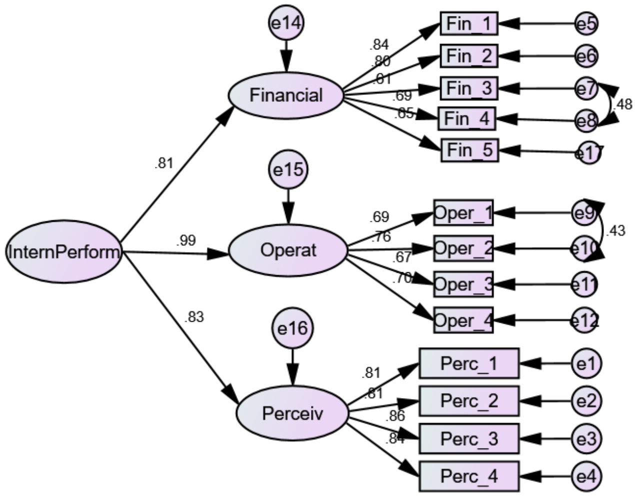


Figure 13. A graphical scheme for second-order factor analysis (CFA) of International Performance

The CFA analysis results have shown that all standardized factor loadings exceed the 0.50 cut-off for practical significance (Hair et al. 2006), and all were significant at the .001 level (t>2.0) (except one item from the Industry Competitiveness factor, which was significant at the .002 level). However, the results of the factor analysis provide evidence of convergent validity (Kohli et al. 1998).

Networks

As it was discussed above, (in the methodological part of this dissertation) networks of INVs were measured by the amount of existing formal, informal and intermediary ties/relationships of INVs with the external environment. By proceeding further statistical analysis the latent unidimensional variable was created by summing up all marked partners from the list.

3.1.1.2 Descriptive statistics and correlations of the variables

After creating the main constructs, the doctoral dissertation presents their descriptive statistics. The minimum and maximum values are presented, as well as Mean and Standard Deviation (see Table 28).

Table 28. Descriptive statistics

	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic
Age	1.000	40.000	12.89109	8.932974
Firm Size	1.00	3.00	2.0693	.89730
Export speed	.00	1.00	.6238	.48686
Industry	.00	1.00	.4356	.49831
Global Mindset	2.33	5.00	4.0462	.75282
Experience	1.50	5.00	4.1683	.91727
Innovativeness	1.00	5.00	2.9505	.93141
Proactiveness	1.33	5.00	3.7327	.84986
Risk-taking	1.50	5.00	3.5297	.76753
Resources	1.67	5.00	3.6601	.89564
Market Globalness	1.33	5.00	4.2046	.91040
Demand Variability	1.00	5.00	3.3416	.91905
Industry Competitiveness	1.00	5.00	3.5248	.78365
Development in Technologies	1.00	5.00	3.7723	.92066
Recognition-Exploitation	1.00	5.00	3.4752	.94174
International Performance	1.00	5.00	3.2734	.76030
Networks	1.00	12.00	5.9307	2.43416
Formal networks	.00	5.00	3.6238	1.33305
Intermediary networks	.00	4.00	1.4851	1.19678
Informal networks	.00	3.00	.8218	.97361
Valid N (listwise)	101			

The correlations between the constructs are presented in the table below (see Table 29). As can be seen from the table, Global Mindset of the manager significantly strongly correlates with the Experience of the manager (r=0.539, p<0.01), as well as with the Resources of the firm (r=0.475, p<0.01) and Risk-taking (r=0.445, p<0.01). Moreover, there is a positive correlation between the Resources of the firm and the Recognition-Exploitation of international business opportunities (r=0.326, p<0.01). Competition in the industry also positively and significantly correlates with the Demand Variability (r=0.383, p<0.01). Interestingly, there is a rather strong correlation between the Network of the INVs and manager's Experience (r=0.326, p<0.01), this may indicate that the more experienced is the manager the bigger the network in terms of size. Furthermore, it can be seen that Competition in the industry and Innovativeness of the firm also present strong correlation (r=0.351, p<0.01), which coincides with literature since tough competition encourages firms to think about new ways of working in order to stay in the industry and to maintain their position in the markets.

Table 29. Correlations of the variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Experience	1	.539**	.051	.080	.320**	.222*	.066	-.024	.159	.164	.147	.116	.326**	.302**	.212*
2.Global Mindset	.539**	1	.029	.386**	.445**	.475**	.283**	.093	.077	.304**	.229*	.238*	.156	.114	.134
3.Innovativeness	.051	.029	1	.293**	.072	.101	.185	.227*	.351**	.243*	.155	.268**	.096	.037	.076
4. Proactiveness	.080	.386**	.293**	1	.375**	.349**	.316**	.259**	.158	.315**	.174	.232*	.130	.078	.027
5. Risk-taking	.320**	.445**	.072	.375**	1	.313**	.094	.319**	.179	.229*	.190	.093	.108	.021	.060
6. Resource	.222*	.475**	.101	.349**	.313**	1	.269**	.039	.217*	.204*	.268**	.326**	.078	.029	.140
7. Market Globalness	.066	.283**	.185	.316**	.094	.269**	1	.043	.086	.166	.205*	.164	.139	.111	.144
8. Demand Variability	-.024	.093	.227*	.259**	.319**	.039	.043	1	.383**	.119	.074	.146	-.025	-.151	.011
9.Competitveness	.159	.077	.351**	.158	.179	.217*	.086	.383**	1	.128	.054	.104	.068	.079	.000
10.Development in Technologies	.164	.304**	.243*	.315**	.229*	.204*	.166	.119	.128	1	.323**	.269**	.129	.097	-.053
11. Performance	.147	.229*	.155	.174	.190	.268**	.205*	.074	.054	.323**	1	.211*	.303**	.328**	.119
12.Recog_Exploit	.116	.238*	.268**	.232*	.093	.326**	.164	.146	.104	.269**	.211*	1	.220*	.158	.213*
13. Networks	.326**	.156	.096	.130	.108	.078	.139	-.025	.068	.129	.303**	.220*	1	.685**	.746**
14. Formal	.302**	.114	.037	.078	.021	.029	.111	-.151	.079	.097	.328**	.158	.685**	1	.191
15.Intermediary	.212*	.134	.076	.027	.060	.140	.144	.011	.000	-.053	.119	.213*	.746**	.191	1
16. Informal	.140	.070	.095	.184	.168	-.017	.019	.130	.063	.255**	.162	.071	.645**	.110	.375**

**. Correlation is significant at the 0.01 level (2 tailed).
*. Correlation is significant at the 0.05 level (2 tailed).

3.1.1.3 Testing for Bias in the Sample Size

Bias is a tendency for the collected data to differ from what is expected in a systematic way. Generalizability is an important issue in academic research; therefore, research can be carried out and evaluated better if a different type of bias can be recognized. As stated by Blair and Zinkhan (2006) there are "great concerns regarding the extent to which data used in a research project reflects a broader population, including the possibility of non-response bias" (p.4). **Non-response bias** is a type of bias when an individual chosen for the sample cannot be contacted or refuses to cooperate. When this bias occurs, the sample is unrepresentative. Accordingly, non-response is seen as one major source of sample bias. Therefore, it is necessary to address the role of non-response in sample quality (Hair, et al. 2006; Blair and Zinkhan, 2006). To check for non-response bias, the early and late respondents (first and last 20%; the late respondents being assumed to be similar to non-respondents) (Armstrong and Overton, 1977) were compared. Multivariate T-test (Levene's Test for Equality of Variances) with selected constructs showed no significant difference between the two waves of respondents ($p < 0.05$), suggesting that non-response bias should not be a problem in the data.

Gathering data from a single respondent as the source for both the independent and dependent data and using a single method of data collection introduces the possibility of bias, in particular, the common method bias. **Common method bias** is an issue when the majority of variance of the sample is explained by one factor. In order to avoid the common method bias, customary procedures provided by Podsakoof, MacKenzie, Lee, and Podsakoff (2003) were followed.

First of all, *ex-ante procedures* were as follows: 1) the anonymity of respondents was ensured; 2) the questionnaire was pre-tested to reduce ambiguity – as it was already described in the previous part of this doctoral dissertation, the survey was first thoroughly checked by two subject matter experts in the areas of International Business and Marketing. As the next step, the survey was pre-tested on 5 export managers/owners of international new ventures. Based on their feedback, the questionnaire was revised. Finally, the questionnaire design was the last ex-ante procedure, ensuring the minimization of the common method bias, since questions regarding the dependent variable were at the end of the survey, while the independent variables were at the beginning.

Secondly, *the post-hoc procedure* was applied. To address potential common method concerns Harman's (1976) single-factor test was conducted. This test consists of loading all items used to measure the constructs onto one single factor using exploratory factor analysis (EFA). According to this method, if the newly introduced common latent factor explains more than 50% of the variance, then common method bias may be present. However, in this doctoral dissertation, the solution obtained by the EFA with non-rotated principal component analysis for all items produced fifteen factors, all with eigenvalues higher than 1. The first factor accounted for less than 22% of the total variance which indicates that items do not load on a single factor, therefore common method bias is not an issue in the present research.

3.1.1.4 Testing for multicollinearity, validity, and reliability of the constructs

Testing for multicollinearity. Multicollinearity generally occurs when there is a high correlation between two independent variables. This means that one independent variable can be used to predict the other, which might create a redundancy of information. The correlation analysis of the variables has shown that all values of the bivariate correlations stay well below the threshold of 0.7 (Tabachnick and Fidell, 1996), which means that the multicollinearity is not an issue.

This finding was confirmed by calculating the variance inflation factor (VIF) to test the potential impact of collinearity. The Variance Inflation Factor (VIF) measures the impact of collinearity among the variables in a regression model. A VIF of 1 means that there is no correlation among the predictor and the remaining predictor variables, hence the variance is not inflated. The general rule is that VIF exceeding 4 warrant further investigation; other sources provide the critical threshold of 2.5 (Allison, 1999). While VIF exceeding 10 is a sign of serious multicollinearity and requires corrections.

Table 30. Multicollinearity analysis

Variables	Tolerance	VIF
Innovativeness	.764	1.308
Risk-taking	.660	1.516
Proactiveness	.636	1.571
Resourses	.685	1.461
Experience	.633	1.581
Global Mindset	.462	2.163
Market Globalness	.831	1.204
Technology Development	.826	1.210
Demand Variability	.723	1.384
Industry Competitiveness	.717	1.394
Recognition-Exploitation	.952	1.051
Networks	.952	1.051

The analysis for the Variance Inflation Factor (VIF) of constructs in this doctoral dissertation has shown that the largest VIF value is 2.163 and the lowest 1.051. Hence, there is no sign of multicollinearity in the dataset, and it is not a problem in the research.

Testing the validity and reliability of the constructs. To establish the discriminant validity of the constructs, the average variance extracted (AVE) was calculated (see Table 31).

Table 31. The Validity and Reliability of the constructs

Constructs of the research	Composite Reliability (CR)	Average Variance Extracted (AVE)
Experience	0.785	0.543
Global Mindset	0.783	0.547
Innovativeness	0.874	0.776
Proactiveness	0.725	0.568
Risk-taking	0.749	0.536
Resources	0.825	0.613
Market Globalness	0.767	0.530
Industry Competitiveness	0.703	0.514
Demand Variability	0.733	0.563
Development in Technologies	0.738	0.574
Recognition-Exploitation	0.761	0.586
International Performance	0.928	0.812

The values of AVE range from 0.514 to 0.812, above the 0.50 threshold. The values of construct reliabilities were also calculated. The values of CR range from 0.703 to 0.928, and are above the acceptable level of 0.70. This confirms the validity and reliability of the constructs in this doctoral research.

3.1.2 The Impact of Determinants on the Process of Internationalization: Regression Analysis

The factor analysis has provided the main constructs of this doctoral dissertation; therefore, further analysis will proceed with those latent variables in order to find the relationships among them.

First of all, multiple regression analysis has been conducted in order to find which of the determinants from the three previously discussed levels – managerial, firm and environmental – impact the process of internationalization in terms of recognition-exploitation of international business opportunities.

Four different models were run to test these relationships. This allowed the author to disclose the increase in the variance accounted for when the new predictor block is added. The R^2 change results from the inclusion of a new block of predictors. This measure is a useful way to assess a unique contribution of new blocks of predictors to explain variance in the outcome. The R^2 change is tested with an F test, which is referred to as the F change. A significant F change means that the variables added in that step significantly improve the prediction of the dependent variable.

To start with, Model 1 was run with the control variables only. Firm age, industry, size of the company and first export (or export speed) were taken as controls. The regression showed that none of the control variables had significant influence for recognition-exploitation of international business opportunities. Therefore, the first model does not explain the internationalization process of INVs in terms of recognition-exploitation since the model is insignificant (R^2 = 0,040; p>0.1).

Table 32. Results of the hierarchical OLS regression: the impact of Determinants on Recognition-Exploitation of international opportunities

Variables	**Model 1**			**Model 2**			**Model 3**			**Model 4**		
	β	**t**	**St. Error**	***β***	**t**	**St. Error**	***β***	**t**	**St. Error**	***β***	**t**	**St. Error**
Age	-.007	-.048	.014	.017	.129	.014	-.094	-.691	.014	-.160	-1.217	.014
Industry	.065	.612	.201	.132	1.219	.205	.172	1.583	.206	.148	1.402	.199
Size	.169	1.248	.142	.084	.611	.144	.190	1.369	.146	.194	1.400	.145
Export Speed	-.040	-.390	.200	-.075	-.725	.200	.108	-1.016	.205	-.077	-.760	.197
Global Mindset				**.279***	**2.251**	**.155**	.153	1.156	1.165	.018	.127	.173
Experience				-.052	.429	.124	-.018	-.149	.124	.078	.655	.123
Market Globalness							.075	.722	.107	-.041	-.403	.106
Demand Variab.							**.195**$^+$	**1.746**	**.115**	**.184**$^+$	**1.678**	**.112**
Competitiveness							-.003	-.030	.131	-.116	-1.063	.131
Develop. of Tech.							**.212***	**1.989**	**.109**	.123	1.168	.108
Innovativeness										**.205***	**1.989**	**.104**
Proactiveness										**.252***	**2.277**	**.123**
Risk-taking										-.108	-.937	.142
Resource										**.235**$^+$	**1.918**	**.129**
R	**.199**			**.310**			**.423**			**.550**		
R^2	**.040**			**.096**			**.179**			**.303**		
Adjusted R^2	**.000**			**.038**			**.088**			**.189**		
R^2 change	**.040**			**.057**			**.083**			**.124**		
F	**.990 n.s.**			**1.668 n.s.**			**1.963***			**2.670****		
F change	**.990**			**2.942**			**2.272**			**3.820**		
Sig. F change	**.417**			**.058**			**.068**			**.007**		

**p < 0.005; *p < 0.05; $^+$p < 0.1 (N = 101)

In the second model (Model 2) the Managerial-level determinants, such as previous manager Experience and manager Global Mindset were added to the regression analysis. The results have shown that a Global Mindset has a significant positive effect (β=0.279, $p<0.05$) on the recognition-exploitation of international business opportunities. However, despite the increase of R^2 change (R^2 change = 0.057), the total model is insignificant ($p>0.1$) as well as the F ratio change ($p>0.05$). These results show that the variables added in this step insignificantly improve the prediction of the dependent variable.

More potential predictors from the Environmental level were added to the third model (Model 3). At this stage of analysis, the afore-mentioned Managerial-level determinants and new Environmental-level predictors, such as the Globalness of Markets, Demand Variability, Competitiveness, and Development of Technology were taken into consideration. The results indicate some positive impact of Demand Variability (β=0.195, $p<0.1$) and Development of technology (β=0.212, $p<0.05$). The positive impact of Manager's Global mindset founded in the previous model (Model 2) is not proven at this stage. The increase in R^2 (the % of variability went up from 9.6% to 17.9%) allows to state that predictive power was added to the model by adding Environmental-level variables in the third step. However, the F ratio change is still insignificant ($p>0.05$). Therefore, the model does not explain the variance in recognition-exploitation scores.

Therefore, the last model (Model 4) encompasses the determinant of all levels (managerial, environmental, and firm) of internationalization and this analysis shows some interesting results. The firm-level variables entered the model in this block account for an additional 12.4% of variance in the recognition-exploitation scores. Thus, this model explains 30% of the variance in the recognition-exploitation of international business opportunities (R^2 = 0.303; adjusted R^2=0.189). Moreover, the significant F change ($p<0.05$) also proves that the variables added in the last step significantly improve the prediction of the dependent variable. Accordingly, the results of Model 4 were chosen to interpret the tested hypotheses. The analysis of determinants of all levels shows that the Proactiveness of a firm has the greatest direct positive impact (β=0.252, $p<0.05$), therefore, **Hypothesis 2a has been supported**. Resources of the firm are in the second place with a positive and significant impact on recognition-exploitation (β=0.235, $p<0.1$), thus **supporting Hypothesis 2d**. Innovativeness of the firm also has a significant and positive influence on the recognition-exploitation of international business opportunities (β=0.205, $p<0.05$). Thus, the empirical evidence **supports Hypothesis 2b**. Interestingly, Risk-taking has a negative, although insignificant impact on the recognition-exploitation of international business opportunities. Finally, the Demand Variability in the market is proven to have a positive effect on the recognition-exploitation of international business opportunities (β=0.184, $p<0.1$), therefore these findings are consistent with **Hypothesis 3b**. Other determinants found in previous models (Global mindset and Development in Technology) were not proved to have a significant affect on the recognition-exploitation of international business opportunities considering all levels of determinants.

3.1.3 The Role of Networks on the Relationship between Internationalization and Performance: Mediation Analysis

Some conditions should be applied in order to test mediation relationships. Baron and Kenny (1986) describe the analyses which are required for testing various mediational hypotheses. This analysis consists of several parts.

First of all, the predictor (or the independent variable) should be significantly related with the outcome (or dependent variable). As it is seen in the table below (see Table 33), there is a significant correlation between the recognition-exploitation based internationalization process and performance of international activities of INVs ($r = 0.211^*$; $p < 0.05$). This satisfies the afore-mentioned condition.

Table 33. Correlations of the predictor with an outcome

		Recog_Exploit	Performance
Recog_Exploit	Pearson Correlation	1	.211*
	Sig. (2-tailed)		.034
Performance	Pearson Correlation	.211*	1
	Sig. (2-tailed)	.034	
*. Correlation is significant at the 0.05 level (2-tailed), N = 101			

Second, the predictor (or independent variable) should be related with the mediator. As it is seen from the table below (see Table 34), the recognition-exploitation-based internationalization process is significantly related to the number of networks of INVs ($r = 0.220$, $p < 0.5$).

Table 34. Correlations of the predictor and mediator

		Network	Recog_Exploit
Network	Pearson Correlation	1	.220*
	Sig. (2-tailed)		.027
Recog_Exploit	Pearson Correlation	.220*	1
	Sig. (2-tailed)	.027	
*. Correlation is significant at the 0.05 level (2-tailed), N = 101			

Third, there should be a relation between the mediator and an outcome (or dependent variable). The correlation analysis satisfies this condition, since the relationship between internationalization performance and networks is rather strong and significant ($r = 0.303$, $p < 0.001$) (see Table 35).

Table 35. Correlations of the mediator and an outcome

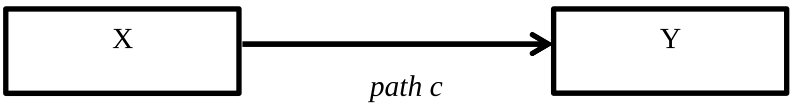
		Performance	Network
Performance	Pearson Correlation	1	.303**
	Sig. (2-tailed)		.002
Network	Pearson Correlation	.303**	1
	Sig. (2-tailed)	.002	
**. Correlation is significant at the 0.01 level (2-tailed), N = 101			

Moreover, according to Baron and Kenny (1986),

> […] to establish mediation, the following conditions must be hold: First, the independent variable must affect the mediator in the first equation; second, the independent variable must be shown to affect the dependent variable in the second equation; and third, the mediator must affect the dependent variable in the third equation. If these conditions all hold the predicted direction, then the effect of the independent variable on the dependent variable must be less in the third equation than in the second (p. 1177).

Therefore, after conducting the correlation analysis, one should estimate the following regression equations.

1) Unmediated Model



2) Mediated Model

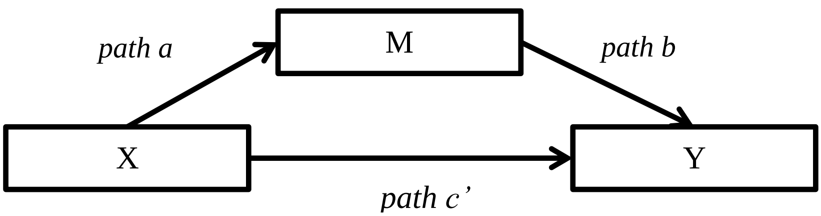


Figure 14. Illustration of the mediation effect

Mediation represents how much of the total effect that variable X has on variable Y goes through the middle variable M first.

For estimating the effect of paths *c, a, b,* and *c'* (see Figure 14), the multiple regression technique (sometimes *called Ordinary Least Squares* or *OLS*) was applied. The following step involved in Baron and Kenny's procedures is that the researcher must be shown that the initial variable is being regressed with the outcome variable. In other words, this step involves the establishment of an effect which may be mediated (testing path *c*). The results in the table below (see Table 36), have shown that recognition-exploitation of international business opportunities are positively related with the performance of international activities of INVs ($\beta = 0.211$, $p < 0.05$).

Table 36. Regression analysis of Recognition-Exploitation on International Performance of INVs

	B	SE	β	t
Recog_Exploit	.171*	.079	.211*	2.150*
R	.211			
R Square	.045			
Adjusted R Square	.035			
F	4.624*			

* p < 0.05 level (2-tailed), N = 101

The next step is to prove that the independent variable affects the mediator.Baron and Kenny's procedures involve treating the mediator variable as an outcome (or independent variable) in the regression analysis (testing the path *a*). The results of the analysis have shown a statistically significant relationship between the recognition-exploitation of international business opportunities and networks of INVs ($\beta = 0.220$, $p < 0.05$) (see Table 37).

Table 37. Regression analysis of Recognition-Exploitation on Network of INVs

	B	SE	β	t
Network	.567*	.253	.220*	2.239*
R	.220			
R Square	.048			
Adjusted R Square	.039			
F	5.013*			

* p < 0.05 level (2-tailed), N = 101

Furthermore, the next step encompasses an equation to show that the mediator affects the outcome variable. For conducting the regression equation, the Y as the criterion variable (performance of INVs) and M (networks) as predictor have been taken for estimating the relationship (testing the path *b*). However, it is not sufficient only to regress the mediator with the dependent variable because the mediator and the outcome may be related since they are both caused by the predictor X (Baron and Kenny, 1986). Thus, the predictor must be controlled in establishing the effect of the mediator on the outcome (dependent variable).

Finally, it is necessarily to disclose the relationship between independent and dependent variables while controlling the mediator variable (M) (testing path *c'*). The effects of both afore-mentioned steps are estimated in the same equation (see Table 38).

This establishment in the last step of Baron and Kenny's procedures can only be achieved if the effect of the independent variable over the outcome (independent) variable is close to **zero** while controlling the mediator variable. If all four steps for regression analysis of Baron and Kenny's procedures are met, then the data is consistent with the mediational hypothesis. If, however, only the first three steps are satisfied, then partial mediation is observed in the data.

Table 38. Regression analysis of both Recognition-Exploitation and Network on International Performance of INVs

	B	SE	β	t
Network	.084*	.030	.270*	2.767*
Recog_Exploit	.123	.079	.152	1.560
R	.337			
R Square	.114			
Adjusted R Square	.096			
F	6.295**			

* p<0.05; ** p< 0.005 level (2-tailed), N = 101

In the case of this dissertation, it can be seen that, the effect of X on Y while controlling the M has decreased and become insignificant (β = 0.152 n.s.). Therefore, this proves that **networks mediate** the relationship between the recognition-exploitation of business opportunities and international performance of INVs. And the total effect of mediation is counted by multiplying the coefficient of *path a* from the second regression with the coefficient of *path b* from the third regression (when both X and M variables are included). Therefore, the mediation effect of networks is statistically proven; it counts for 0.06 (0.220 * 0.270) thus **supports Hypothesis 7**.

3.1.4 The Relationship among Theoretical Constructs Tested through Structural-Equation Modeling and the PROCESS Procedure

Additionally to the conducted analysis, the tested relationships of this dissertation have been checked with the structural equation modeling (SEM), since multiple regressions do not encompass the full range of relationships as SEM is able to conduct. Furthermore, SEM has the ability to test models with multiple dependent variables to include mediating variables. It is also able to model error terms for all indicator variables. The most often selected computer program AMOS was used for caculations.

The suggested model provided an acceptable fit with the data – $\chi2/df= 1.360$, $p < 0.05$; confirmatory fit index (CFI) = 0.906; goodness-of-fit index (GFI) = 0.879; incremental fit index (IFI) = 0.918; root-mean-square error of approximation (RMSEA) = 0.060, $p > 0.05$. The results of structural-equation modeling **support the results from separate multiple regression analyses**. Moreover, the significance level of the supported relationships increases in comparison with the regression analysis. For instance, the existing Resources of a firm have a significant positive effect on the recognition-exploitation of international business opportunities at significance level $p < 0.05$ (previously $p < 0.1$). Similarly, the significance level of Demand Variability of the market also increases (from $p<0.1$ to $p < 0.05$).

The estimates of the recognition-exploitation impact on networks of INVs are very similar to the results from the regression and have been also supported by empirical evidence in SEM analysis (β = 0.219, $p < 0.05$). Therefore, **Hypothesis 5 has been supported**.

As it is seen from the table, there is a positive and significant relationship between networks of the INV and its international performance (β = 0.279, $p < 0.005$). Thus, this gives **supporting** evidence for **Hypothesis 6**.

The control variables (age, size and industry sector), as in the previous analysis, were non-significantly important for either process or performance of international new ventures.

Table 39. Results from SEM analysis

			Non standartized Estimate	St Estimate	S.E.	C.R.	P
Recog_Exploit	<---	Global_Mindset	.022	.017	.157	.140	.889
Recog_Exploit	<---	Innovativeness	**.207**	**.203**	**.093**	**2.220**	**.026**
Recog_Exploit	<---	Risk	-.133	-.106	.128	-1.035	.301
Recog_Exploit	<---	Proactiveness	**.280**	**.242**	**.112**	**2.496**	**.013**
Recog_Exploit	<---	Firm_Size	.204	.196	.133	1.537	.124
Recog_Exploit	<---	Manafacturing	.279	.147	.179	1.560	.119
Recog_Exploit	<---	Age	-.017	-.160	.013	-1.323	.186
Recog_Exploit	<---	Resource	**.247**	**.244**	**.114**	**2.178**	**.029**
Recog_Exploit	<---	Export_speed	-.150	-.078	.167	-.897	.370
Recog_Exploit	<---	Tech_develop	.126	.123	.094	1.335	.182
Recog_Exploit	<---	Demand_Variab	**.188**	**.182**	**.095**	**1.973**	**.048**
Recog_Exploit	<---	Globalness	-.043	-.041	.092	-.466	.641
Recog_Exploit	<---	Competitiveness	-.139	-.114	.113	-1.238	.216
Recog_Exploit	<---	Experience	.080	.078	.108	.745	.456
Network	<---	Recog_Exploit	**.567**	**.219**	**.253**	**2.244**	**.025**
Performance	<---	Age	.006	.071	.011	.567	.571
Performance	<---	Manafacturing	-.130	-.085	.153	-.852	.394
Performance	<---	Firm_Size	.010	.012	.108	.095	.925
Performance	<---	Recog_Exploit	.123	.152	.080	1.533	.125
Performance	<---	Network	**.087**	**.279**	**.030**	**2.917**	**.004**
Performance	<---	Export_speed	.153	.098	.150	1.018	.309

Bootstrapping analysis. One of the commonly used methods for testing the indirect effect is bootstrapping analysis. The bootstrap procedure is a non-parametric method based on resampling with a replacement which is done many times, e.g., 2,000 or 5,000 times. From each of these bootstrap samples, the indirect effect is computed and a sampling distribution can be empirically generated. However, the mean of the bootstrapped distribution will not exactly equal the indirect effect, thus a confidence interval, a *p* value, or a standard error can be determined. Most often, the confidence interval is computed for this procedure. The researcher can be confident about the indirect effect if zero is not in the confidence interval, meaning that the indirect effect is different from zero.

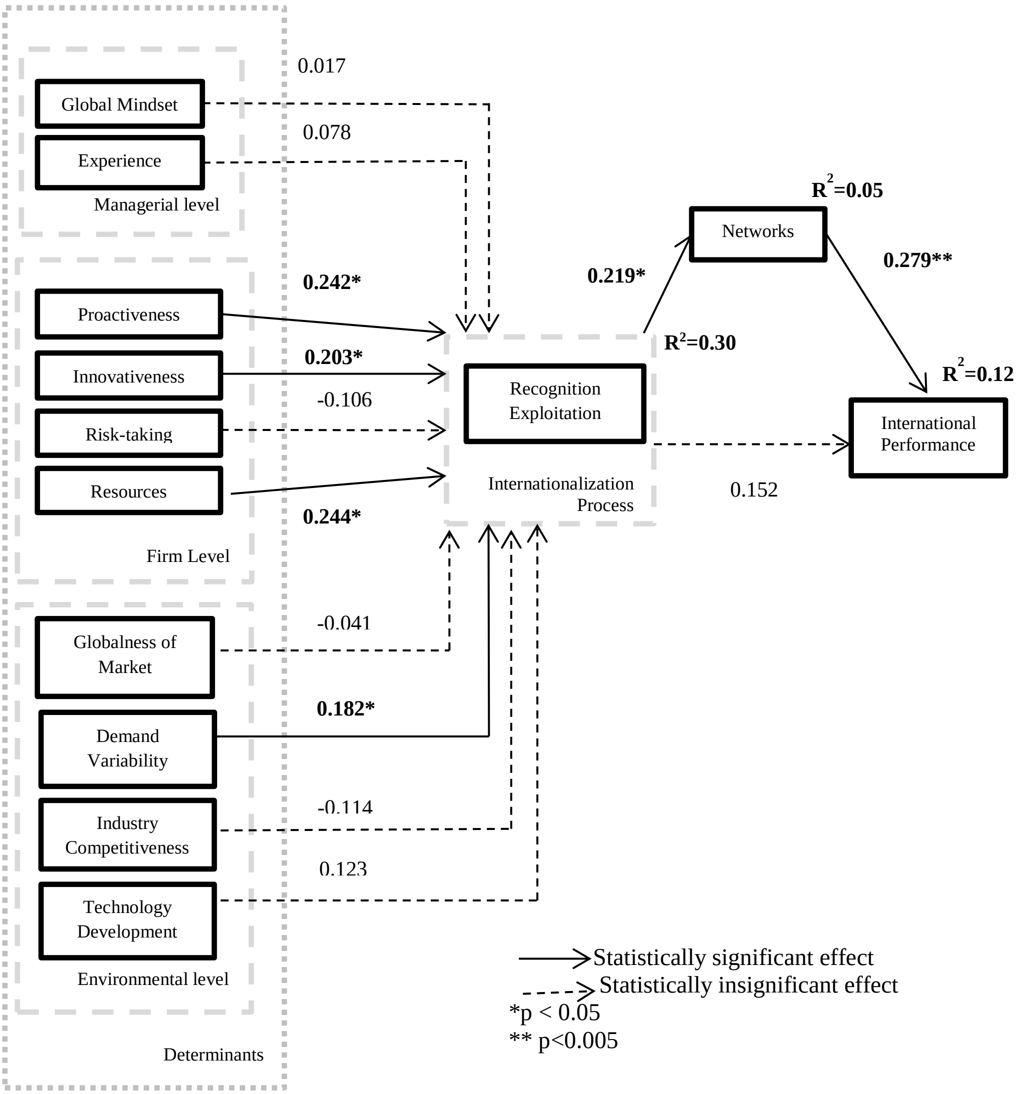


Figure 15. Results of empirically tested relationships among internationalization Determinants, Process, Networks and International Performance of INVs

After Bootstrapping analysis, the results of indirect effect (mediation) of networks on the relationship between recognition-exploitation of international opportunities and international performance is found to be significant ($p < 0.05$), and the confidence interval does not include a zero (see Table 40). Therefore, **Hypothesis 7 has been supported**.

Table 40. The results from Bootstrapping analysis on Networks mediation

Independent variable	**Mediator**	**Dependent variable**	**Indirect effect**	**Two-tailed sig.**	**Lower bound**	**Upper bound**
Recognition-exploitation	Networks	International Performance	0.061	0.013	0.018	0.146

PROCESS Procedure for SPSS. Moreover, in order to check the separate **impact of different network types** and consideringt the fact that the Structural-equation modeling is not able to calculate separate impacts in mediation analysis if there is more than one mediator, the PROCESS Procedure for SPSS Version 23.00 was applied.

However, before calculating the mediating impact of different types of networks, the main impact of networks as a whole construct was checked in order to ensure that results are consistent with the results from analyses with previous methods. As can be seen from the table below (see Table 41), the results from this analysis support previous results and are almost the same. The indirect effect, or the mediation effect is .0592 in comparison with the results of Bootstrapping analysis and Baron and Kenny's method which were .0610 and .060, respectively.

Table 41. The results from PROCESS Procedure on Networks mediation

Independent variable	**Mediator**	**Dependent variable**	**Indirect effect**	**BootSE**	**BootLL CI**	**BootUL CI**
Recognition-exploitation	Networks	International Performance	.0592	.0398	.0335	.1207

The suggested model provides an acceptable fit with the data – $\chi 2/df = 1.242$, $p < 0.05$; confirmatory fit index (CFI) = 0.927; goodness-of-fit index (GFI) = 0.878; root-mean-square error of approximation (RMSEA) = 0.049, $p > 0.05$. IFI – 0.938; PNFI – 0.480. The analysis of SEM (see Figure 16) where the direct effect of the variables was assessed has shown that there is a significant positive relationship between the international business opportunity recognition-exploitation and formal networks ($\beta = 0.157$, $p<0.05$). Additionally, there is a direct positive relationship between the process of internationalization in terms of recognition-exploitation of international business opportunity and intermediary networks ($\beta = 0.212$, $p<0.05$). However, the relationship between informal networks and recognition-exploitation was not statistically significant. Furthermore, SEM has shown that there is only a positive significant relationship between formal networks and international performance. The effect of recognition-exploitation on international performance becomes insignificant in the case of entering variables of different network types. Consequently, it could be stated that only formal networks should be tested for possible significant mediation.

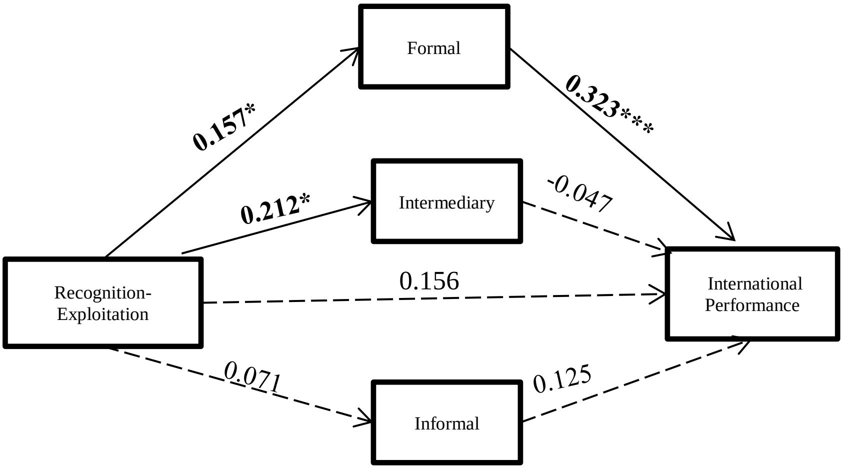


Figure 16. Relationships among different Network types, Internationalization Process and International Performance of INVs

The PROCESS analysis of the three mediators (formal, informal, intermediary) support the previous assumption and reveal that only ***formal networks positively mediate*** the relationship between recognition-exploitation of international business opportunities and international performance of INVs.

Table 42. Mediation effect of different Network types

Independent variable	**Mediator**	**Dependent variable**	**Indirect effect**	**BootSE**	**BootLLCI**	**BootULCI**
Recognition-exploitation	Formal network	International Performance	**0.0462**	**.0320**	**.0132**	**.1032**
	Intermediary network		-.0038	-.0216	-.0394	.0317
	Informal network		.0089	.0159	-.0114	.0389

As Table 42 shows, the mediation effect is .0462. Consequently, the impact of recognition-exploitation of international business opportunities on international performance is better explained through formal networks, thus **Hypothesis 7a has been supported**.

3.2 Discussion, Practical Implications, Limitations and Future Research Directions

After conducting calculations and testing with several different statistical methods the results of the tested model are as follows. A summary of the empirical results is provided in the table below (see Table 43). While not all hypotheses have received support, the results do provide some interesting insights.

Table 43. A summary of the empirical results

No.	Hypothesis	Result
H1 Managerial level determinants →Recognition-Exploitation		
H1a	*Global mindset → Recognition-Exploitation*	Rejected
H1b	*Experience →Recognition-Exploitation*	Rejected
H2 Firm level determinants →Recognition-Exploitation		
H2a	*Proactiveness → Recognition-Exploitation*	**Supported**
H2b	*Innovativeness → Recognition-Exploitation*	**Supported**
H2c	*Risk-taking → Recognition-Exploitation*	Rejected
H2d	*Resources → Recognition-Exploitation*	**Supported**
H3 Firm level determinants → Recognition-Exploitation		
H3a	*Globalness of Market → Recognition-Exploitation*	Rejected
H3b	*Demand Variability → Recognition-Exploitation*	**Supported**
H3c	*Competitiveness → Recognition-Exploitation*	Rejected
H3d	*Development of Technologies → Recognition-Exploitation*	Rejected
H4	Recognition-Exploitation → International Performance	**Supported**
H5	Recognition-Exploitation → Networks	**Supported**
H6	Networks → International Performance	**Supported**
H7	Recognition-Exploitation → Networks → International Performance	**Supported**
H7a	Recognition-Exploitation → Formal → International Performance	**Supported**
H7b	Recognition-Exploitation → Intermediary → International Performance	Rejected
H7c	Recognition-Exploitation → Informal → International Performance	Rejected

First of all, the empirical study has shown that in the context of Lithuanian INVs, the greatest impact for the recognition-exploitation of international business opportunities comes from the *firm-level determinants*. It was found that Proactiveness and Innovativeness of a firm have a positive impact on the recognition-exploitation of new opportunities, thus supporting hypotheses H2a and H2b. These findings are consistent with the studies of Chetty and Campbell-Hunt (2003), Coviello and Munro (1997), and Loane, et al., (2007) who found that the main elements of international entrepreneurship, such as innovativeness and proactiveness in entering foreign markets can determine the success of a firm. However, the dimension of risk-taking was found to have a negative impact on the recognition-exploitation of international business opportunities, but it was not statistically significant. This is in line with the study of Kuivalainen et al. (2007), who have also found a negative but not significant effect of risk-taking on the degree of born-globalness. Moreover, following the recent research of Baum et al. (2015)

who have shown that the impact of resources on internationalization of new ventures is still largely unknown, the hypothesis for testing these relationships was formulated. The results have proven that Resources of a firm also have a positive impact on the recognition-exploitation of new opportunities (supporting hypothesis H2d). These results regarding the positive relationships between the accumulated resources of INVs and willingness to recognize and exploit new business opportunities internationally are in line with the Resource-based view and the Knowledge-based view literature. For instance, Solberg (2005) claims that preparedness for globalization is dependent not only on the types of products or services but on the organizational learning and resources. Furthermore, Evans and Leighton (1989) have found that opportunities are more commonly exploited when a firm is equipped with greater financial resources.

Interestingly, the impact of *managerial-level determinants* has not been supported. Previous experience in the home market is assumed to reduce the liability of newness and assist the firm during the process of legitimization in foreign markets: those firms that survive in home markets should successfully replicate their business models in foreign markets. However, neither the previous experience nor the global mindset of an entrepreneur have any statistically significant influence on the internationalization process of INVs. These results disprove the study of Shane (2000) who states that an entrepreneur recognizes or discovers opportunities related to the information he already possesses and that his prior experience and education are, therefore, elements that influence the process of opportunity recognition. Moreover, these findings contradict the studies that distinguish the manager as the key explanation of firms' success overseas (e.g. Cressy, 2006; Gabrielsson et al. 2008) and that there is a clear relationship between the degree of previous international experience of top management in the firm and internationalization of the company (Weerawardena et al., 2007; Zucchella et al., 2007). On the other hand, the case study of German INVs has also ascertained that the founder does not necessarily rely on international experience and does not always have a strong managerial vision towards the firm's early internationalization, despite the fact that these characteristics are usually regarded as essential for differentiation of an international new venture from a traditional exporter (Glowik and Sadowski, 2014). Furthermore, the findings of this doctoral dissertation are also consistent with the study of Baronchelli and Cassia (2014) who found no support for the impact of entrepreneur's and management's previous experience with foreign markets on INVs international presence.

Furthermore, the analysis of *environmental-level determinants* reveals that there is a positive impact of demand variability on the internationalization of INVs. Therefore, Hypothesis 3b confirmed. This is in line with the research of Eckhardt and Shane, (2003) who argue that changes in demand can open up new business opportunities. Moreover, these results are consistent with the studies of Baronchelli and Cassia (2014), Cadogan et al. (2005) and Nummela et al. (2004) which argue that due to increased dynamics in the market smaller firms are pushed to enter international markets speedily. The classical theories of international business assert that the technological assets accumulated in the home country increase the firm's likelihood of survival in other markets. However, the advance in technology was not statistically significant for internationalization in the context of Lithuanian INVs. These findings are in line with a recent study of Choquette et al. (2017) who have also found that ICT developments and accordingly decreasing costs of internationalization do not affect the likeliness of early internationalization of firms. Additionally, Andersson et al. (2004) do not confirm the relationship between the level of technology in a firm and international activities in Swedish INVs.

Another determinant from the environmental level tested in the research was globalization or Globalness of markets. The empirical results show that the effect of Globalness of markets has no significant impact on the recognition-exploitation of international business opportunities in Lithuanian INVs. These findings may contradict the main view of literature over the past few decades, e.g. the study of Knight and Cavusgil (2004) where globalization is stated to facilitate international activities, or the study of Nummella et al. (2004) which finds a positive relationship between the globalness of the market and global mindset, which consequently leads to a successful internationalization of INVs. Furthermore, the impact of competitiveness in the industry was also statistically not proven. Interestingly, this determinant was found to negatively impact (however, n.s.) the recognition-exploitation of international business opportunities within Lithuanian INVs. These findings reveal that altough competition might deter the companies from entering foreign markets, this might be because INVs are more niche-oriented.

Furthermore, it was found that the more efforts INVs put into activities of *recognition-exploitation* of international business opportunities the better is their *international performance* in terms of financial, operational and perceived success. Therefore, Hypothesis 4 is supported. This result is consistent with the study of Wang et al. (2013) who find a positive relationship between entrepreneurial opportunity recognition and individual-level innovation performance. Moreover, Faroque and Morrish (2016) have found that some opportunity recognition capabilities, such as "modification and resource shifting" and "innovativeness and timeliness" positively influence the financial returns and non-financial outcomes. However, Lu and Beamish (2006) have shown that internationalization does not necessarily have positive effects on SMEs' profits and revenues, and the results of this thesis contradict these findings.

Furthermore, a *positive relationship between the recognition-exploitation and networks is statistically proven*, supporting Hypothesis 5. This is in line with the results of the case research made by Larson (1991) which finds that the relationships between network partners develop in parallel with the firm itself; in other words, codevelopment between entrepreneurial process and networks occurs. Moreover, a number of scholars, for instance, Ojala (2009), Hohenthal et al. (2014) have indicated that networks had only limited influence on the choice of foreign market entry – the explored firms had made a strategic decision to enter a new foreign market without any influence of their networks, i.e. not every opportunity is a product of networks. Importantly, only after this, firms started to actively search for available network relationships to successfully enter the foreign market. Therefore, INVs are actively seeking opportunity recognition and exploitation in foreign markets and, consequently, new networks are developed. Moreover, the results of this doctoral dissertation coincide with the study of Greve and Salaff (2003), since they also prove the dynamic changes of networks' size across the developmental phases of motivation, planning, and the establishment of the firm. Finally, these results extend the study of Faroque and Morrish (2016). The sholars have found that opportunity recognition capabilities through successful exploitation of opportunities strengthen network performance in terms of the quality of company's relationship with key overseas customers, key suppliers, etc.

Moreover, the positive and statistically significant *impact of networks on international performance* is also confirmed, and supports Hypothesis 6. These findings corroborate the majority of existing studies that have investigated the relationship between networks and international performance (Jeong, 2016; Yli-Renko, et al., 2002; Manolova, et al., 2010; Zhou, et al., 2010). For instance, Zhou, et al., (2010) have found that young entrepreneurial firms achieve international sales success at a great pace through their ability to develop international networks. Moreover, Yli-Renko, et al., (2002) have proven that there is a positive relationship between the contacts of management and the growth of international sales. Furthermore, Jeong (2016) indicates that formal networks with clients have a positive influence on the financial performance satisfaction of sales growth, market share and profitability in international markets. However, this contradicts with study from Finland, which has found that personal networks of entrepreneurs have no significant impact on international performance for new ventures (Gerschewski et al., 2015).

Most importantly, drawing from the broader claim of networks approach, this study provides some evidence that *networks act as a mediator* since the relationship between opportunity recognition-exploitation and international performance becomes insignificant when networks are included in this relationship. Therefore, the process of internationalization in terms of recognition-exploitation of international business opportunities influences international firm performance via networks within the context of Lithuanian INVs. This finding is in line with the study of Ojala (2009) who has found that firms actively seek opportunities in the foreign markets, and develop new or utilize the existing networks to reach international success in those markets. This is consistent with the International New Venture theory (Oviatt and McDougall, 1994) that highlights the opportunity-seeking behavior of INVs. This proved that the mediation role of networks is also consistent with the study of Zhou et al., (2007) who found that internationalization orientations require home-based networks to have a positive performance impact. Respectively, this doctoral dissertation reveals that recognition-exploitation of international bussiness opportunities requires networks to positively impact the international performance of INVs. This finding is important as it provides key insights about the subtle underlying mechanism of networks through which a firm's actions can impact the international performance of INVs. In other words, INVs with a higher variety of actors in a network will likely be in a better position to enhance their international performance, compared to those with a low number of different partners in the network.

An extensive literature has measured different types of networks as only one dimension, although according to Jeong (2016), this may not be sufficient to explain the various roles of different network types. Therefore, a deeper analysis reveals that only *formal networks act as a significant mediator*. This work contributes to the literature by offering an internationalization model that reflects how the process of recognition-exploitation of internationalization opportunities facilitates international performance through networks; in other words, it proves that the process of internationalization requires networks, particularly, formal networks, to have a positive international performance impact. To some extent, these findings illustrate that while doing business abroad through the recognition and exploitation of international business opportunities, entrepreneurs do not typically involve informal networks, such as their family members, friends or acquitances. However, the results presuppose that there might be a positive relationship (however, n.s.) between informal networks and final outcomes of internationalization, i.e. international performance. This result is not completely surprising since Jeong (2016) and Musteen, et al. (2010) find negative relationships between informal relationships, such as family and friends and financial internationalization performance.

The results of this doctoral dissertation reveal that such intermediary networks as export promotion agencies, government institutions or different associations are normally involved in the internationalization process of Lithuanian international new ventures (there is a significant positive relationship between opportunity recognition-exploitation and intermediary networks). However, despite the fact that the recognition and exploitation of international opportunities positively affect the development of intermediary networks in terms of number, this does not necessarily ensure a positive effect on the internationalization performance, since intermediary ties might hinder international performance. This is in line with the study of Sekliuckiene (2017) who found that despite the efforts of public institutions, there were no positive internationalization results of INVs. This might be explained by the results of The Global Competitiveness Report 2017–2018 (World Economic Forum, 2017), where inefficient government bureaucracy in Lithuania is named as one of the most problematic factors for doing succesfull business.

Practical implications. The findings of this doctoral dissertation also have important implications for practice. The developed theoretical framework enables practitioners (INVs founders, export managers, or policy makers) to acquire a better understanding of the complexity of internationalization and success in foreign markets of a small business.

First of all, the implications are related with the determinants for early internationalization. This is of particular relevance for practitioners, since, according to the Jones and Coviello (2005), the research that appreciates the determinants behind SMEs' development of business in foreign markets could pave the way for the internationalization of more firms. The results of this dissertation allow to focus better on the firm-level determinants that have the strongest positive impact on INVs' recognition and exploitation of international business opportunities. Specifically, INVs have to view firm's entrepreneurial orientation characteristics, such as proactiveness and innovativeness, as significant elements while they are going abroad. However, the managers or founders of INVs have to be cautious about the level of risk-taking during their activities, since this does not ensure success during internationalization. Furthermore, understanding the relevant resources can provide the founders of INVs with the basis for moving the firm forward.

The results of this doctoral dissertation prove the importance of the demand variability, and practitioners have to pay attention to the changes in purchasing habits and instantly respond to customer's needs, since this might bring them to some niche-oriented opportunities overseas.

By highlighting the importance of networks in the relationship between the process of internationalization and performance of INVs, this doctoral dissertation stimulates founders and managers who contemplate and execute the foreign expansion of their firm to consider the development of networks. Moreover, the founders or top managers of INVs need to broaden their understanding of different types of network. For instance, formal networks, such as ties with customers and suppliers should be fostered and developed by international new ventures that want to become successful overseas. Managers are also advised to avoid overreliance on intermediary networks, since they have been found to not be significantly important for the success in international markets. However, as the empirical research of this doctoral thesis reveals, the more diverse ties in the network the better it could mediate the relationship between internationalization process and performance. Therefore, it is desirable that INVs develop and benefit from a variety of different types of networks, including informal networks.

Furthermore, policy makers are encouraged to develop support programs for early internationalizers, many of which represent small entrepreneurial firms (Bell et al. 2003; Rialp et al. 2005). Such programs are particularly necessary since new ventures generally face significant challenges in terms of the lack of financial and knowledge resources. Thus, various financial support, export promotion and development of entrepreneurship or investor attraction concerning programs can be a strong incentive for early internationalization and sustainable development in foreign countries. Policymakers should initiate programs in order to facilitate firms to develop all types (formal, informal and intermediary) of networks at both national and regional levels. These ties could lead not only to new contacts but also to accelerate the exchange of knowledge and resources in foreign markets.

Limitations and future research directions. Although this doctoral dissertation provides interesting results and offers several contributions, as with any study, it is not without limitations. One of the limitations of this doctoral dissertation is that it is based on a relatively small sample of international new ventures in Lithuania, therefore, caution should be taken when generalizing the findings beyond the scope of this study. Moreover, the fact that Lithuania is a small economy with only about 2.8 million inhabitants has historically forced Lithuanian entrepreneurs to enter foreign markets in order to increase profits. Therefore, the context of a small country is very much different from larger countries.

Furthermore, the results of this dissertation could be attributable to the methodological limitation of the study tied to the difficulty in measuring some constructs. For instance, international performance was chosen to be measured through self-reported measures without considering secondary objective data. It might be assumed that different relationships would emerge if other objective measures were included in the research. The decision to select self-reported measures based on personal perception of entrepreneurs in INVs was determined by several difficulties: 1) INVs are not willing to share their financial data publicly; 2) there is no obligation in the country to disclose such information. Therefore, the subjective measures for assessing international performance have been applied in this dissetation. However, it should be noted that there is evidence of the reliability and accuracy of subjective performance data (Leonidou et al., 2002) and subjective measurements are commonly used in INVs research (e.g. Ellis, 2011; Filatotchev, et al., 2009, Nakos et al., 2013).

A number of avenues for further research stand out from the present doctoral dissertation. First of all, a major avenue for further research would be to analyze how networks change during the process of internationalization from a time perspective (Coviello 2006), for example, will the structure of networks differ for a young versus a mature INV. Moreover, the dissertation discloses that little is known about the role of different ties, the diversity of their characteristics and the impact of their dynamics on the internationalization performance of international new ventures. Therefore, more research on the processes which change informal ties into formal ties and vice-versa is suggested (Sharma and Blomstermo 2003), and the consequences of these changes for INVs are rather underexplored. Moreover, the cross-sectional data of this dissertation do not allow causal inferences about the longitudinal interplay among the determinants, the process of internationalization in terms of recognition-exploitation of international opportunities, network and international performance of INVs. Therefore, longitudinal studies could be another direction for future research. Finally, a future study could also examine more diverse network characteristics (Jeong, 2016), for instance, in terms of duration or density and their impact on international performance.

CONCLUSIONS

1. The theoretically defined concepts in this doctoral dissertation were conceptualized in the context of International Entrepreneurship theory and adopted the opportunity-based approach and are as follows:
   - ***Internationalization process*** is understood as the entrepreneurial process and is viewed as ***recognition and exploitation*** of opportunities across national borders to create future goods and services.
   - ***Determinants for early internationalization*** are considered to be the factors that play an inevitable role in the internationalization of INVs. Those factors can be classified into *managerial* (e.g. previous experience and global mindset of the manager), *firm* (resources firm owns; firm's entrepreneurial orientation – proactiveness, innovativeness, and risk-taking); and *environmental levels* (e.g. advances in information and communication technology, globalness of markets, industry competitiveness, demand variability).
   - ***International performance*** is understood as the final result or outcome of the firm's efforts in business activities overseas and it should be reflected through several different indicators in order to ensure reliable assessment.

2. The analysis of different theoretical approaches to networks and relationships with the internationalization of INVs provided a strong indication to declare that:
   - A ***Network*** is a system of relationships among different actors across industries and countries which is of strategic significance for the firms in these networks.
   - The ***content of networks*** which is the natural characteristic of the networks enables to ground the classification of different ***network types*** regarding the reasons for involving into a network; consequently, ***INVs' networks are understood as all formal, informal and intermediary types of relationships between an international new venture and other partners seeking to create value for collaborating partners and achieve a common goal.***
   - ***Formal networks*** are formally connected relationships between such actors as competitors, suppliers, customers, distributors, etc.
   - ***Informal networks*** are relationships between actors building on personal relationships, such as family, friends, and acquaintances.
   - ***Intermediary networks*** are relationships with trade promotion councils, chambers of commerce, internationalization assistance organizations, etc.; there is no direct contact between the seller and the buyer.

- Theoretical analysis of scientific literature of the last two decades revealed that networks have a positive impact on internationalization and consequently on international performance of INVs, providing knowledge, advice and experiential learning or the heterogeneity of resources, they might also reduce the risks in foreign environments.
- Although this doctoral dissertation highlights that the majority of scientific studies testify the positive effect of networks, some inconclusive or contradictory empirical results about the role of networks for internationalization and consequently on international performance of INVs have been also detected (a lack of relevant impact or negative aspects of networks).

3. The analysis of the theoretical concepts enables the author of this doctoral dissertation to substantiate and establish a unique relevant model which contributes to the International Entrepreneurship theory by integrating the entrepreneurship and international business perspectives in order to understand the opportunity-based internationalization process of INVs. The relationships among constructs are assumed as follows:
    - In order to provide a holistic approach, the model includes determinants for triggering the early internationalization process of INVs from three different levels: managerial, firm and environmental level.
    - ***Managerial characteristics,*** such as global mindset and previous experience might positively affect the internationalization process of INVs, in terms of recognition and exploitation of international opportunities.
    - ***Firm-level determinants,*** such as innovativeness, proactiveness, risk-taking, and resources are assumed to have a positive impact on the recognition and exploitation of international opportunities.
    - ***The environmental changes,*** such as the development of information and communication technology, demand variability, industry competitiveness, and market globalness are assumed to positively trigger INVs to initiate recognition and exploitation of international opportunities.
    - It is assumed that the ***internationalization process***, in terms of opportunity recognition and exploitation has positive influence on the international performance of INVs.
    - Recognition and exploitation of international business opportunities is assumed to have a positive ***impact on network*** development in terms of size.
    - ***Networks*** (considering formal, informal and intermediary types) might positively affect the international performance of INVs.

- The relationship between process and performance of international operations of INVs is assumed to be ***mediated*** by an underlying mechanism of ***networks***.

4. In order to explore the phenomenon of INVs and to contribute to International Entrepreneurship theory from the methodological perspective, a ***unique research methodology was constructed and substantiated***, which encompasses several different layers of research.
    - The theoretical framework regarding relationships among the determinants, the process of internationalization, networks and international performance was transformed into *a causal model* of the phenomenon of INVs. The unique research instrument encompasses determinants from three different levels (managerial, firm, and environment), the process of internationalization from the International Entrepreneurship perspective, networks and different types of networks and international performance.
    - The empirical exploration of this causal model requires following an objectivistic position of ontology and positivistic position of epistemology and applying the quantitative research strategy.
    - The constructed instrument enables to validate the ***pre-internationalization and post-internationalization*** of INVs, consequently filling the gap in literature.
    - This research ***methodology might be easily applied*** in other contexts in order to explore the phenomenon of INV internationalization.

5. The empirical study has shown that, in the context of Lithuanian INVs, relationships among the determinants for triggering the internationalization of INVs, the process of internationalization, networks and international performance of INVs are as follows:
    - There is a direct positive impact of demand variability on internationalization of INVs which reflects the influence of the ***environmental level*** of determinants for early internationalization.
    - The greatest impact for recognition-exploitation of international business opportunities comes from the ***firm-level determinants***. It was found that proactiveness, innovativeness, and resources of the firm have a positive impact on the recognition-exploitation of new international business opportunities.
    - ***The managerial-level*** determinants, while testing all levels of determinants simultaneously, do not significantly impact the internationalization process of INVs in terms of recognition-exploitation of international business opportunities.
    - It was empirically proven that by analyzing determinants, it is not expedient to measure them individually, as only an ***integrated examination at different levels*** (managerial, firm, environment)

allows for an objective assessment of the significant impact of relevant determinants on the recognition and exploitation of international business opportunities.

- The more efforts INVs put on the recognition-exploitation activities the better is the long-run ***international performance*** in terms of financial, operational and perceived success.
- The process of internationalization through the recognition and exploitation of international business opportunities ***positively affects the networks*** of INVs.
- It was confirmed that ***networks*** have a positive and statistically significant impact on the international performance of INVs in terms of financial, operational and perceived success.
- Drawing from the broader claim of networks approach, this study provided evidence that ***networks act as a mediator*** and that internationalization process in terms of recognition-exploitation of international business opportunities influences international firm performance via networks within the context of Lithuanian INVs.
- The deeper analysis of network types provided evidence that different ***network types*** contribute to the relationship between internationalization process and international performance of INVs differently. It was proven that ***formal networks*** play a particularly major role in ***mediation*** since only this relationship is statistically significant. Informal and intermediary networks do not separately mediate the relationship between internationalization process and international performance of INVs.

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