Essays on Supply Chain Management
Ed.: Evi Hartmann

Gordian Rättich

Four Essays on International Entrepreneurship

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Edited by
Prof. Dr.-Ing. Evi Hartmann
Chair of Supply Chain Management
Friedrich-Alexander-Universität Erlangen-Nürnberg

This series publishes new research in logistics and supply chain management. It comprises outstanding dissertations that deal with scientifically-based, management-relevant questions. The publications provide important scientific findings about current practice-relevant questions, using qualitative and quantitative research methods.

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With a preface by Prof. Dr.-Ing. Evi Hartmann

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Foreword

In the last decades the way how companies are doing business has changed dramatically. In the past, barriers of doing business abroad seemed to be high and therefore mainly well established companies tried to venture new markets or global activities. Today more and more newly established companies are going global directly. To be able to do so these early internationalizing firms seem to manage their business and international expansion very efficiently. This way even small and recently founded firms are able to join the globalization of business activities. As a consequence business, even for multinational companies, is changing. For this reason the field of *International Entrepreneurship* is highly important for management research in general and for supply chain research especially, as supply chains have to be adapted to the new conditions. Despite all the existing research, even more research is still needed to explore the highly important field of *International Entrepreneurship*.

The Chair of Supply Chain Management at the Friedrich-Alexander-University of Erlangen-Nurnberg focuses on performing research not only in the direct area of Supply Chain Management but also in topics that are drivers of supply chains and have great impact on business research in general. One of those topics is *International Entrepreneurship* which is addressed with four theory-based articles in this dissertation.

All articles of this dissertation contribute to the topic of *International Entrepreneurship* in various ways. Article one focuses on firms that are internationalizing early in their life cycles and how they manage to overcome liabilities of foreignness. In the second article the performance antecedents of those early internationalizing firms are analyzed. The third article demonstrates and further analyzes the impact of institutional coordination on national entrepreneurship. Article four finally focuses on the organizational design as one of the key managerial tools to leverage international business activities and analyzes this on firm level.

As the development of *International Entrepreneurship* has already shown over the last years, even a further acceleration of speed of internationalization can be expected for the future. In any case the changed business environment and new possibilities how to manage internationalization will influence also yet well established companies in their further development. Therefore the Chair of Supply Chain Management will continue its research in the area of *International Entrepreneurship* to deliver high quality research on this topic.

I would like to congratulate Mr. Rättich on this extraordinary research and I wish him well for his personal future.

Prof. Dr.-Ing. Evi Hartmann

Acknowledgements

Despite all the insights I gained through my research, the statement of one of today’s most successful international entrepreneurs will stay with me, always reminding me of the importance of the “soft” success factors in international entrepreneurship: *“More than any other element, fun is the secret of Virgin´s success”* (Richard Branson)

During my doctoral dissertation endeavor, fun was also one of the main driving factors. For this reason I am really thankful for all the great persons that I met and the fun we had during the different stages of my research. First of all, I want to thank Prof. Dr.-Ing. Evi Hartmann for all her guidance, patience and faith in me and my research project. Secondly I would like to extend my appreciation to my colleague Kim Clark for all those chats, discussions and hard team work. And I will miss all the great moments with my fellow doctoral candidate (and fellow sufferer) Daniel Kern as we shared the ups and downs of our doctoral dissertation journeys.

But without all the love, understanding and support of all my family and friends this “project” would not have been possible. Most of all I want to thank my mother and father for all their support that enabled me to succeed in life.

If there is anything that equals fun as a driving force, it is love. For this reason I want to thank the most important person in my life – mi amor Soledad - for always believing in me and my dreams.

Gordian Rättich

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List of Abbreviations

BGF	Born Global Firm
CFO	Chief Financial Officer
CME	Coordinated Market Economies
EIF	Early Internationalizing Firm
ERP	Enterprise Resource Planning
GEM	Global Entrepreneurship Monitor
HR	Human Resource
HQ	Headquarter
IB	International Business
INV	International New Venture
KPI	Key Performance Indicator
LME	Liberal Market Economies
MNC	Multinational Corporation
OECD	Organisation for Economic Co-operation and Development
R&D	Research and Development
ROE	Return on Equity
ROI	Return on Invest
Sub.	Subsidiary
TEA	Total Entrepreneurial Activities
TMT	Top Management Team
US	United States

I Introduction

Internationalization of business activities has become one of the main fields of interest in management research, influencing a broad range of academic areas such as strategic management, organizational science, operations management or economic institutions. One of the central questions for academia and management regarding internationalization of business activities has been addressed by Porter: "Why do some social groups, economic institutions, and nations advance and prosper?" (1990: xi). In order to examine why some do and some do not advance and prosper, research has highly advanced in terms of theoretical concepts and insights improving knowledge of how to manage the internationalization of business activities during the last decades.

However, the pace of internationalization has even increased in recent years. Several studies (e.g. Shrader, Oviatt and McDougall, 2000; Weerawardena, Mort, Liesch and Knight, 2007; Fan and Phan, 2007; Zhou, Wu and Luo, 2007) have examined the accelerated pace of internationalization within firms. Especially in not yet fully established firms, the accelerated speed of internationalization has been analyzed. From both an entrepreneurial and international business vantage point, quick and early internationalization of firm value chain activities can provide firms with business models that allow them to be as efficient, effective and competitive as possible right from the beginning. However, it can be much more difficult to manage rapid international expansion due to the resulting complexity. Studies from both entrepreneurship and international business literature have shown that quick expansion in foreign markets (e.g. Andersson and Wictor, 2003; Oviatt and McDougall, 2005; Bell, McNaughton, Young and Crick, 2003) can be very difficult to manage. In addition accelerated internationalization is challenging traditional internationalization theories, particularly being at odds with the Uppsala School (Johanson and Vahlne, 1977).

Therefore this thesis focuses on the implications of entrepreneurial early internationalization and organizational design implications due to challenges caused by internationalization. The aim of this thesis is to shed light on how social groups, economic institutions and nations manage to overcome the challenges of internationalization and gain competitive advantages.

G. Rättich, *Four Essays on International Entrepreneurship,*
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Thus the first essay "*Going global early: Liabilities of foreignness and early internationalizing firms*" aims to answer the following research question:

> *How early internationalizing firms can overcome liabilities of foreignness and appear to "skip" stages in their international expansion?*

Through performing a systematic literature review we examine how founder, firm as well as country antecedent characteristics can facilitate the early internationalization of firms. Furthermore these characteristics not only have shown to impact the early internationalizing strategies of firms but also allow these firms to overcome liabilities of foreignness. The essay concludes in propositions that differentiate early internationalizing firms form more traditional multinational firms and help understanding how these early internationalizing firms do gain and leverage competitive advantages.

The second essay "*Performance measurement and antecedents of early internationalizing firms: A systematic assessment*" is designed to answer the subsequent research question:

> *What are the performance drivers of early internationalization?*

Encouraged by the findings of the first essay this second essay thoroughly analyses the performance of early internationalizing firms. As several researchers have confirmed the considerable success of early internationalizing firms, this study conducts a systematic analysis of performance antecedents and performance measures in current empirical research. The aim of this study is threefold. First, by systematically analyzing literature about early internationalizing firms it is identified how performance has been examined empirically in extant studies. Second, this study methodically identifies and synthesizes the antecedents of performance in respect to early internationalizing firms´ specific resources, capabilities and strategies. Third, further research suggestions are derived based on identified understudied areas.

The third essay "*Impact of institutional coordination on national entrepreneurship: A conceptual framework*" focuses on the following research questions:

> *Do these different institutional coordination mechanisms affect the level of entrepreneurship in a country differently? If there is a significant variance*

between the different institutional coordination mechanisms, what are the underlying reasons for a certain mechanism to be more conducive to entrepreneurship than the other?

As the first two essays already give insights on country specific patterns of international entrepreneurship, this essay aims to show how the institutional context of a country affects the rate of its entrepreneurship. In contrast to the previous essays this study analyses the topic on the level of economic institutions rather than on firm level. Therefore it bases on varieties of capitalism theory, entrepreneurship, and network approach and proposes a counterintuitive approach to cross-country institutional environments. The approach elucidates how political and economic institutions are coordinated through strategic non-market relations negatively affecting the early stages of entrepreneurship. To support this assertion an empirical examination using Global Entrepreneurship Monitor data is conducted. By examining the institutional impact on entrepreneurial process, underlying reasons of why institutional arrangements influence early stages of entrepreneurship in different manners are highlighted.

The last essay "*Global organizational design in purchasing and supply management: Headquarters and subsidiaries in a contingency perspective*" is intended to shed light on the following research question:

How do contextual factors influence global sourcing organizational design for centralized organizations at both the subsidiary and headquarters levels?

In addition to the entrepreneurial aspects of internationalization, this essay analyzes international business activities on firm level. For entrepreneurial as well as established firms an effective organizational design is key to leverage international business activities. Therefore a global company´s organizational design in the sector of supply and purchasing management is examined. Even though theoretical developments on global sourcing strategy have been advanced many firms are still facing severe shortcomings in its implementation. Within the implementation tasks, the configuration of an efficient global sourcing organizational design is one of the most crucial. To derive broad but still comparable insights about the complex approach to implement global sourcing strategy a comparable set of cases has to be examined. Therefore a single case study with multiple embedded cases is performed in a decentralized multinational corporation. As extant research has largely neglected the subsidiary perspective of global sourcing, this research is analyzing both from a headquarter and subsidiary perspective. Based on an initial analysis of integrative mechanisms and sourcing-related contextual factors, the findings indicate a high importance of contextual factors for the configuration of organizational design. Finally, testable propositions are derived.

In table I-1 the four essays of this thesis are summarized, giving an overview of the methodology used, the key findings and the main prior work in the respective field.

Table I-1 - Overview of Essays

Title of Essay	Research Method	Key Findings	Key Literature
Going global early: Liabilities of foreignness and early internationalizing firms	Systematic literature review of 326 scholarly journal articles	▪ Positive impact of firm, founder and country antecedent characteristics on reduction of liabilities of foreignness ▪ Early internationalizing firms benefit from experience and knowledge accumulated prior to firm foundation ▪ Entrepreneurial early internationalizing firms provide new firm and founder characteristics that provide important advantages for exploiting their international activities	Johanson & Vahlne, 1977, 1990; Vernon, 1966, 1979; Hymer, 1960; Zaheer, 1995; Oviatt & McDougall, 1994; Autio 2005
Performance measurement and antecedents of early internationalizing firms: A systematic assessment	Systematic literature review and assessment of 364 scholarly journal articles	▪ Identification of key early internationalizing firm performance measures and performance antecedents ▪ Detailed insights on intangible resources, capabilities and strategies significantly related to early internationalizing firm performance ▪ Overview of important areas which future research should consider in the effort to expand the understanding of how performance is achieved in the EIF context	Rennie, 1993; Oviatt & McDougall, 1994; Madsen & Servais, 1997; Knight & Cavusgil, 2004; Rialp, Rialp & Knight, 2005; Hult et al., 2008
Impact of institutional coordination on national entrepreneurship: A conceptual framework	Theoretical analysis; empirical correlation examination	▪ Empirical evidence supporting impact of institutional coordination on national entrepreneurship ▪ Analysis underlying reasons for this relationship ▪ Examination of institutional arrangement by non-market coordination shows negatively relation to early stages of entrepreneurship.	Aldrich, 1990; Hall & Soskice, 2001; Davidsson and Wiklund, 2007; Witt & Lewin, 2007; Hall & Gingerich, 2004; Burt, 1992; Reynolds & White 1997
Global organizational design in purchasing and supply management: Headquarters and subsidiaries in a contingency perspective	Single Case Study with nine nested cases	▪ Evaluation of key contingency relationships between contextual factors and use of integration mechanisms (as part of organizational design) ▪ Insights on challenges of global sourcing strategy implementation in organizational design ▪ Subsidiary and headquarter specific setting of organizational design options	Rozeijer, 2000; Monczka & Trent, 2003; Murray, Kotabe & Wildt, 1995; Lawrence & Lorsch, 1967; Galbraith, 1970, 1973, 1977; Nadler & Tushman, 1997

Paper #1
Under Review in the "Journal of International Business Studies"

II Going Global Early: Liabilities of Foreignness and Early Internationalizing Firms

by Lydia Bals, Heather Berry, Evi Hartmann, Gordian Rättich
(Authors are listed in alphabetical order)

Abstract

In this paper, we examine how early internationalizing firms can overcome liabilities of foreignness and appear to "skip" stages in their international expansion. After performing a systematic literature review, we examine how founder, firm and country antecedent characteristics can facilitate early international expansion by firms. We conceptualize a set of firm characteristics that reduce liabilities of foreignness, but which are not commonly considered in the international business literature. Finally, we offer propositions that differentiate early internationalizing firms from more traditional multinational firms and that explain how firms can overcome liabilities of foreignness early in their life cycle.

Keywords: Liabilities of Foreignness, Early Internationalizing Firms, Founders, Social Networks, International Expansion

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1 Introduction

Over the past fifteen years, there has been an evolution in the literature on multinational firms regarding the speed at which firms internationalize. The more traditional approaches in the international business literature, including the Uppsala school (Johanson & Vahlne, 1977, 1990, 2009) and the product life cycle model (Vernon, 1966 and 1979), have long suggested that firms need to approach international expansion with a slow and sequential pace because firms need to learn about foreign countries, and product cycles and consumer demand needs to evolve to create appropriate market conditions for firm international sales and operations. These more traditional approaches emphasize both differences across countries and the difficulties that firms face in foreign locations, leading to what has been termed "liabilities of foreignness" (Hymer, 1976; Zaheer, 1995). However, despite these constraints, recent studies have documented a much quicker pace of international expansion by firms (Fan & Phan, 2007; Oviatt & McDougall, 1994; Weerawardena, Mort, Liesch & Knight, 2007; Zhou, Wu & Lou, 2007). Studies on early internationalizing and born global firms, for example, suggest that firms can be more efficient and competitive right from the start by exploiting opportunities in foreign countries much earlier in the firm's life cycle. In fact, there is a rather substantial body of research that calls into question the impact of liabilities of foreignness on firm international expansion, dating from the seminal article of Oviatt and McDougall (1994) on early internationalizing firms to the over one hundred subsequent articles that have examined and documented firms that go global early.

In this paper, we embrace the recent phenomenon of early internationalizing firms with the goal of understanding these firms in light of decades of research on more traditional multinational firms, which has long stressed liabilities of foreignness. It is often implicitly assumed that the only way to reduce liabilities of foreignness is by doing business in foreign markets and learning about the local business environment (Johanson and Vahlne, 1977; Zaheer & Mosakowski, 1997). However, in this paper, we focus on several distinctive antecedent firm characteristics that have been shown to facilitate early international expansion by firms, but which are not commonly considered in the international business literature. We perform a systematic review of the literature on early internationalizing firms (following David and Han, 2004), based on the seminal work of Oviatt and McDougall (1994) to guide our analysis of early internationalizing firms and to identify important ways in which these firms differ from more traditional multinational firms. Based on antecedent founder, firm and country characteristics that this literature highlights, we offer several propositions to differentiate early internationalizing firms from more traditional multinational firms that explain how early internationalizing firms can overcome liabilities of foreignness, in their early stage global expansion.

We contribute to the literature that examines speed of foreign expansion in two ways. First, we analyze early internationalizing firms in a way that is more comparable to traditional multinational firms. Though early internationalizing firms have been studied for almost two decades, it can be difficult to compare the internationalization strategies of these firms to more traditional multinational firms because of the different frameworks that are used to describe each of these types of firms. By incorporating speed and mode of entry into our analysis of early internationalizing firms, we extend our understanding of both the concept of liabilities of foreignness and firms that go global early. Second, by focusing on founder, firm and country characteristics, we highlight characteristics that are not commonly considered in the international business literature but that have been shown to impact the early internationalizing strategies of firms and that allow these firms to overcome liabilities of foreignness. Though early internationalizing firms may appear to be at odds with the more traditional approaches in the international business literature, by considering founder and firm characteristics that have been accumulated prior to a firm's inception, we explain how these firms can overcome liabilities of foreignness early in their life cycle and appear to skip stages in their growth and international expansion.

2 International Expansion

In the international business literature, it is commonly assumed that the pace or speed at which firms internationalize their operations should be slow and deliberate. The liability of foreignness concept was first introduced by Hymer in the 1960s in his doctoral dissertation (published in 1976). He and others have argued that local firms have advantages in their home countries that come from being better informed about their country in terms of the economy, the language, the culture, the laws and the politics (Hymer, 1976, Zaheer, 1995; Zaheer & Mosakowski, 1997). In contrast, foreign firms are at a disadvantage vis-à-vis local firms due to their unfamiliarity with the local environment. Zaheer (1995) argued that these disadvantages result from spatial distance, firm-specific lack of knowledge about local markets, additional costs that can come from doing business in host country markets and even costs imposed by a home country government (i.e., high technology sales). Several authors have examined how differences across markets and the need for local market knowledge can impact the pace of foreign expansion by firms (Johanson and Vahlne, 1977; Zaheer, 1995; and Mezias, 2002), with Zaheer and Mosakowski (1997) estimating that it takes more than 15 years for foreign enterprises to overcome the disadvantage of being foreign in the currency trading industry.

The Process Theory of Internationalization (also called the Uppsala School), which has its origins in Johanson and Vahlne (1977) classic study, begins with assumptions about the cognitive limitations and behaviors of individual managers (Cyert & March, 1963) and seeks to understand how firms can move beyond their national borders (Johanson & Vahlne, 1977, Li, 1995) by focusing on the relationship between the level of knowledge about a foreign country and decisions regarding committing to foreign markets. Foreign firms are at a disadvantage relative to local firms who have more local market knowledge of consumers, more connections with and knowledge of the local government, more connections with local players in the market. According to the Uppsala School, firms will only gradually increase their commitment and control in foreign markets because of a tendency to avoid uncertainty. The Uppsala School argues that firms are likely to move through different entry modes that will only gradually increase their commitment in these markets over time. Starting with exporting, firms would only move toward wholly owned subsidiaries when they are more familiar with the local market. Vahlne and Johanson (2002 and 2009) have argued that this approach is still relevant and useful for understanding the internationalization process of firms despite changes in the global environment over the last three decades. Further, analyzing a panel of Dutch firms over a 26 year time period, Vermeulen and Barkema (2002) have shown that the speed with which a firm establishes foreign subsidiaries is negatively related to the performance benefits that come from international operations.

Another classic approach which offers a slow pace for international expansion can be found in Vernon's (1966 and 1979) product life cycle model. In the first stage of this model, a firm manufactures and sells in its home market. As the firm's products mature, low-cost production becomes important because foreign competitors have access to lower cost inputs. Though lower cost production may be initially directed toward the foreign host country, it can also be exported back to the home country. Finally, once host country costs are uncompetitive, this model predicts that all production will be shifted to a lower-cost host country. This approach suggests that firms will focus their innovative activities in their home market and only invest in foreign markets to produce or sell their products in mature production stages and the firm can benefit from lower production costs in these markets. Importantly, demand and production cost evolution determines the timing of foreign expansion in this approach, with market changes occurring only gradually across many countries.

Overall, international expansion has been portrayed as being constrained in the international business literature because firms face liabilities of foreignness in foreign countries (Hymer, 1960, Zaheer, 1998), they need to learn how to operate in different cultural and institutional settings (Johanson & Vahlne, 1977, Lane, 1995) and they need to develop relationships with new suppliers, customers and governments. Because of the complexities involved with international expansion, traditional arguments in the international business literature have tended to focus on a slow and sequential pace when expanding abroad (Vermeulen & Barkema, 2002), and an incremental commitment to foreign markets through entry mode choices.

Despite these traditional arguments, within the last fifteen years there has been increasing attention to a quick pace of internationalization by firms (Fan & Phan, 2007; Oviatt & McDougall, 1994, Weerawardena, Mort, Liesch & Knight, 2007; Zhou, Wu & Lou, 2007). Several studies now argue that quick and early internationalizing of firm value chain activities can provide firms with business models that allow them to be as efficient, effective and competitive as possible right from the start. In contrast to the more traditional approach, this more recent approach focuses much more on the advantages from international expansion. For example, by becoming an early internationalizing firm, a firm can benefit from an accelerated process of accessing competitive advantages across national borders, like increased demand, access to cheaper inputs, access to managerial talent or macro-economic diversification, for example.

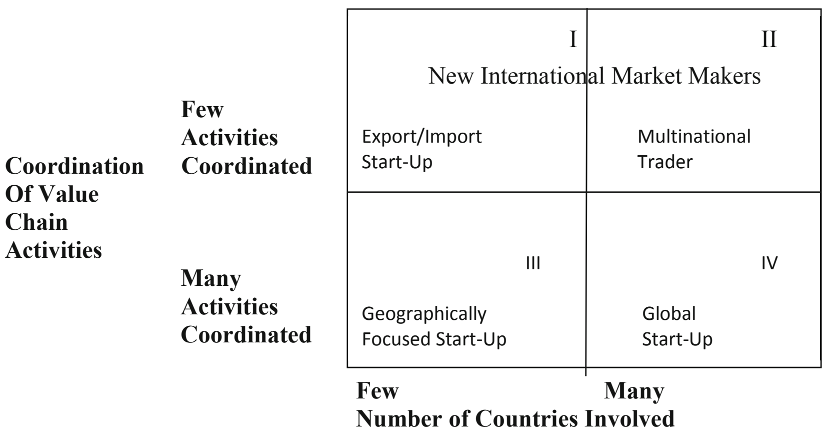
These early internationalizing firm arguments appear to be at odds with the more traditional arguments which focus on the importance of firm learning and competitive advantages. Early internationalizing firm arguments also question long-standing arguments in the international business literature about the importance of firm-specific proprietary advantages that have been created in a firm's home market and then exploited through owned operations in foreign markets (see Berry & Sakakibara, 2008; Buckley & Casson, 1974, Rugman, 1980, and several others who have developed and tested internalization theory ideas in the international business literature). However, extant literature on early internationalizing firms has not analyzed how these firms can overcome liabilities of foreignness in their international expansion and moved quickly into foreign countries.

In this paper, we provide an analysis of how early internationalizing firms can overcome liabilities of foreignness and go global early. One challenge in analyzing early internationalizing firms comes from the difficulty of gathering data on these firms. Accordingly, much of what we know about these firms comes from case studies and it can be difficult to systematically analyze more qualitative studies. However, there is an extensive literature on these firms and by focusing on what is distinct about newly internationalizing firms, we seek to understand how these firms differ from the more traditional notions of multinational firms, and what influences their speed of foreign expansion. Across those studies, terms such as born global firms, international new ventures and several others have been used to describe firms that go global early. In this paper, we summarize the group firms as "early internationalizing firms". Below, we offer a comprehensive review of existing studies on early internationalizing firms to be able to identify important ways in which early internationalizing firms differ from more traditional multinational firms. The purpose of a systematic literature review is to provide as systematically as possible, a review of all the literature that relates to a research issue. In the medical field, so-called systematic reviews have been applied to assess the results of individual studies and to develop clinical guidelines and evidence-based policies. Among others, Higgins and Green (2008) provide with their handbook of systematic reviews a process for conducting a systematic review. In the management literature, a systematic literature review approach has been developed by David and Han (2004) and enhanced by Newbert (2007). The benefit of a systematic review is to use as objective as possible of an approach to synthesize research while minimizing bias (David & Han, 2004). Through our review of the literature on early internationalizing firms, we offer a structured approach to examining how these firms overcome liability of foreignness early in their life cycle.

3 Systematic Literature Review

We start with the foundational study of Oviatt and McDougall (1994) to set the scope for our analysis of early internationalizing firms. In their seminal article, Oviatt and McDougall (1994) offered a framework to characterize early internationalizing firms that identified a richer conceptualization of early internationalizing firms than most subsequent studies have examined. In their original framework, Oviatt and McDougall focused on firm value chain activities to help clarify and differentiate the types of firms that can be called early internationalizers. As shown in Figure II-1, Oviatt and McDougall considered the number of countries (few versus many countries) and types of activities (few versus many activities coordinated across countries) that early internationalizing firms can perform in foreign markets. They differentiated between four types of international new ventures: I) Export/Import Start-up, II) Multinational Trader, III) Geographically Focused Start-up, and IV) Global Start-up.

Figure II-1 - Types of International New Ventures in Oviatt and McDougall (1994)



We conducted our literature review with a fairly wide scope and followed a seven step process to search for relevant studies– including seven of the nine steps laid out by David and Han (2004). We focused on articles published in scholarly journals, using ABI/Inform and EconLit databases and searched on the terms that have been used to describe early internationalizing firms, including the following 12: Export Start-up, Import Start-up, Multinational Trader, Geographically Focused Start-up, Global Start-up, born global*, Born Global Firm*, BGF, Early Internationalizing Firm*, EIF, International New Venture* or International entrepreneur* (the asterisk at the end of a word indicates that variations of the word were permitted). The first five keywords stem directly from Oviatt and McDougall´s typology of international new ventures from their seminal 1994 article and the others come from highly cited articles in this literature (including McDougall, et al., 1994; Oviatt & McDougall, 2005, and Knight & Cavusgil, 2004). We review the approach we followed in Table II-1. We did not include two of the steps of David and Han (2004) because we did not feel the need to use secondary keywords to further limit our search (they were searching in the much larger transaction cost economics literature) and we did not use a methodological filter to limit our search to empirical studies only.

Our approach yielded 107 articles on early internationalizing firms that we use below to identify important antecedent characteristics of these firms. We begin by discussing how Oviatt and McDougall's dimensions of multinationality and functions have been treated across the articles we analyzed and then introducing the more common speed and entry mode characteristics we reviewed above from the more traditional approach to examining multinational firms.

Table II-1 - Overview of Systematic Literature Review Steps

Steps	Description of procedure
Step 1: Search only for articles published in scholarly journal	According to the original argumentation of David and Han, when they refer to Light and Pillemer (1984: 34), the exclusion of book chapters and unpublished work enhances the quality by requiring a review process. Following this logic, the limitation on only scholarly journals further increases the quality due to a rigorous peer review process prior to publication.
Step 2: Search the ABI/Inform and EconLit databases	We chose ABI/Inform and EconLit as our key databases. Because these firms have been examined from several vantage points and theoretical perspectives, the multidisciplinary ABI database provides an appropriate base. To ensure an exhaustive coverage of our research, we enhanced the ABI search by an additional search in the EconLit database to include all studies from economic journals.
Step 3: Safeguard articles´ of substantive relevance	We searched on the terms that have been used to describe EIFs, including the following 12: Export Start-up, Import Start-up, Multinational Trader, Geographically Focused Start-up, Global Start-up, born global*, Born Global Firm*, BGF, Early Internationalizing Firm*, EIF, International New Venture* or International entrepreneur*. As explained by David and Han (2004), the asterisk (‘*’) at the end indicates that variations of the word were permitted. The first five keywords stem directly from Oviatt and McDougall´s typology of international new ventures from their seminal 1994 article. To ensure the identification of most of the articles treating the born global topic, even if called differently, the rest of the keywords were derived from two more, innovative and highly cited, articles contributing to the development of a ‘born global’ theory. On the one hand, Oviatt and McDougall´s 2005 article “Defining International Entrepreneurship and Modeling the Speed of Internationalization” was chosen for its enhancements of the International Entrepreneurship theory, backing the born global phenomenon. On the other hand, Knight and Cavusgil´s 2004 article “Innovation, Organisation Capability and the Born-Global Firm” has been selected for its innovative developments of international business theory supporting the born global topic. In addition to “international new venture*”and the variations/abbreviation of born global, two more frequently used terms, describing the topic, could be derived from these articles (i.e. „Early internationalizing firm*” and “International entrepreneur*”). Applying step 1 to 3 resulted in a sample of 326 studies form both databases.
Step 4: Remove substantive irrelevant articles from the sample by only selecting articles that appear in journals in which multiple articles appear.	Applying this criterion on our sample allowed us to remove 57 of the 326 gathered articles. Having a closer look at all the articles eliminated by this filter, it became apparent that the eliminated articles had quite drifted off the core early internationalizing firm topic. The following example representatives the validity of this criterion. Out of the 326 articles, for example, there were 37 articles of the Journal of International Business Studies gathered, while there was only one article from the International Tax Review in the sample. And this one article concentrates on the effects of globalization and internationalization on fiscal authorities and tax advisers (Van Leent, 1999), treating international entrepreneurship only as a subordinate aspect. For this reason this article was eliminated.
Step 5: Ensure substantive relevance through reading all remaining abstracts for substantive context.	Articles retained had to indicate a contribution to the early internationalizing firm topic in the abstract. This criterion allowed us to reduce the number of articles from 269 to 229.
Step 6: Ensure substantive relevance through reading all remaining articles in their entirety for substantive context.	Articles that did not meet the restriction were eliminated from the sample. For example, the article of Ahmed, Julian and Majar (2006) met all criteria, even passed step 5 because after reading the abstract it seemed as if they provide valuable findings to the early internationalizing firm topic. But after reading this article in its entirety, the article was removed because it treats the international entrepreneurship topic but focuses exclusively on export activities and incentives to export of manufactures and not on EIFs. By applying this last filter on our sample, 67 more articles were removed.
Step 7: Consolidate results from ABI/Inform and EconLit to eliminate duplicate articles.	After applying criterion 6 the number of articles remaining was 162, with still some articles in common from both databases. The 55 duplicates were eliminated in the last step.

3.1 Function

The first dimension that Oviatt and McDougall (1994) incorporated in their framework is the “type of activity” that firms perform in foreign markets. Of the 107 studies we examined, we found 28 studies that mentioned only exporting as the type of activity of the firms in their sample (e.g. Lopez, Kundu & Ciravegna, 2009; Oystein & Servais, 2002). There are 39 studies in our sample that do not give any information on value chain activity (e.g. Casillas, Moreno, Acedo, Gallego & Ramos, 2009; Zhou, Wu & Lu, 2007). When information on value chain activities is given (43 out of 107), it tends to be too broad to really capture what activity the firm is performing in foreign markets. 35 out of the 43 studies mentioning the business function dimension describe value chain activities of the studied firms simply as including more than just export activities without further specification. Notable exception include, for example, biotech firms with major shares of their development activities on another continent (Gassmann & Keupp, 2007) or computer accessories manufacturing firms having their administrative activities spread over three continents (McDougall, Shane, & Oviatt, 1994). All in all, across these studies, the most often mentioned activities performed internationally are research and development, marketing, sales, distribution and after sales services. In addition, production was mentioned in 19 of the 43 studies that give some information on value chain activities.

3.2 Multinationality

Although the wording ‘multiple countries’ was used in the original definition of international new ventures, most of the research on early and rapid internationalization does not specify what multinationality means, i.e, either the number of countries or the distances across countries (Kuivalainen et al., 2007). Twenty-two of the articles provide information on the exact number of countries accessed by the firms in our studies. The number of countries accessed by the 1070 total firms covered across the studies ranged from two to 70 countries. To illustrate the difference between those firms we revert to two representative cases from different studies. On the one end of our range we can find firms starting in Switzerland, expanding international activities to two geographically close countries, e.g. Germany and the Czech Republic (Gassmann & Keupp, 2007). On the other end of the range we found a firm expanding more radically from Sweden to various countries in Europe, North America, South

America, Asia, Africa and Oceania across value chain activities (R&D, production marketing and distribution) in the respective foreign markets (Nordman & Melen, 2008). Beyond these 22 studies, 33 of our remaining 110 studies simply use the term 'multiple countries' to define the scope of a firm's international activities. We find that this concept has been used more to distinguish a domestic or multinational focus by firms, but not to refer to the few or many countries in the Oviatt and McDougall framework.

In addition to these two dimensions that form the axes of Oviatt and McDougall's framework, we believe that there are two additional dimensions that underlie this framework and that are more comparable to the approaches used in the international business literature to examine more traditional multinational firms, including speed to internationalization and mode of entry. As reviewed above, the timing dimension has long been approached from a Process School point of view, which has suggested a slow and incremental approach to international expansion by firms. Mode of entry and ownership issues have also been a mainstay in the international business literature. An important focus in the internalization theory (Buckley & Casson, 1976, Hennart, 1982) is on ownership of foreign operations because it provides firms with the ability to not only reduce risk but also increase their abilities to appropriate the returns from its proprietary assets. For a more holistic comparison of early internationalizing firms with more traditional multinational firms we consider these two more traditional dimensions to be important. Therefore we discuss how our 107 studies have treated these two dimensions for early internationalizing firms below.

3.3 Speed

Though speed is an underlying concept in all studies on early internationalizing firms, our review of the literature suggests that the issue of time has been subject to some controversy (Zahra, 2005). For example, considering the most extreme "Born Globals," a number of studies define a Born Global firm to be created at founding or very shortly thereafter (e.g. Knight & Cavusgil, 2004; Madsen & Servais, 1997; Rialp et al., 2005), while others have considered Born Global firms to be created within 3 years (e.g Zhou, Wu & Lou, 2007). McDougall, Shane and Oviatt (1994) use an eight-year definition, others suggest that Born Globals enter foreign markets between two and six years after inception (Coviello & Munro 1995). Large variations in time measure and time characteristics have not been completely examined in literature (Autio, Sapienza, & Almeida, 2000; Jones & Coviello, 2005). Only in some examples has time been mentioned explicitly, e.g. that firms not fulfilling the time lag criterion must consequently be named “born-again globals” (Bell, McNaughton, & Young, 2001).

Considering the 31 studies using the term Born Global exclusively, the mean time between inception of the firm and its first international activities is 1 year, but includes a range of 0 to 6 years. Of the 63 studies of our sample using the terms “Born Global Firms” combined with others, the variation of the exact time, used to define the firm as their research objectives, is immense. From the rest of the studies that refer more generally to early internationalizing firms, there is generally a wide spectrum of how the time dimension has been operationalized. Some studies keep their operationalization of time to internationalization rather vague by using terms as “in their early life cyles” (Zahra, Ireland & Hitt, 2000), or “almost from birth” (Casillas et al., 2009). Although this may be appropriate to position a study in the realm of early internationalization, it is not very specific for pinpointing the exact behavior of the companies studied.

To be fair, issues of speed and timing are not clear-cut for more traditional multinational firms either. Though the international business literature has long argued that firms need to approach international expansion with a systematic and sequential approach (Johanson & Vahlne, 1977), the speed of international expansion is not a clearly articulated aspect of either the Uppsala approach or the product life cycle approach. Instead, the focus is on the importance of gathering knowledge about foreign markets to reduce liabilities of foreignness, or on the life cycle of a firm’s products. In our literature review, we found studies that considered several different definitions of time to define an early internationalizing firm.

3.4 Mode of Entry

The second underlying issue that we consider is mode of entry. The majority of the analyzed studies do not mention an ownership dimension (in our sample, only 19 of 107 studies provided information about the ownership dimension). Nevertheless, the ownership dimension has been implicitly taken into account in some (more IB-oriented) studies, when for example stating that they will exclude from the analysis companies that only rely on other companies on a subcontractor or private-label manufacturer basis (Fan & Phan, 2007).

This dimension is interesting because in the original definition of INVs by Oviatt and McDougall (1994), it was argued that new ventures do not need to own their resources in order to internationalize operations: "they do not necessarily own foreign assets; in other words, foreign direct investment is not a requirement. Strategic alliances may be arranged for the use of foreign resources such as manufacturing capacity or marketing". And Zahra (2005) stated "[e]ntrepreneurial firms are defined by their actions, not by the types of resources that they have or control." Though we agree that for many firms, ownership may not be warranted, we also see this dimension as helping to distinguish across the early internationalizing firm approaches to foreign markets in the Oviatt and MacDougall framework. In addition, these dimensions of entry mode and ownership correspond well with research in the international business literature on the foreign direct investment choices of firms and allow us to compare across internationalizing and more traditional multinational firms more easily.

In Table II-2, we indicate how the studies we analyzed have incorporated issues of multinationality, function, speed and mode of ownership. While our review of these studies reveal that there is no common approach to defining early internationalizing firms, this table reveals which studies incorporate each of these issues (even if the study does not provide an exact definition, the study needed to use one of the dimensions to describe or define early internationalizing firms to have an X in the corresponding dimension box).

While Oviatt and McDougall (1994) provide an important tool for analyzing early internationalizing firms, we suggest that we can better understand early internationalizing firms by also using the more common dimensions of speed to international expansion and mode of entry. While our approach is more complicated than the Oviatt and McDougall framework, this complexity allows us to focus more clearly on how early internationalizing firms overcome liabilities of foreignness early in their life cycle from several dimensions, including the more traditional dimensions in the international business literature. Therefore we now turn to a specific examination of our analysis of antecedent firm characteristics from the 107 studies.

Table II-2 - Mapping Studies to Dimensions

	Multinationality	Function	Ownership	Timing
Acedo & Casillas, 2007	X			X
Acedo & Jones, 2007				X
Andersson, 2004	X		X	X
Andersson & Evangelista, 2006	X		X	X
Andersson & Wictor, 2003	X	X	X	X
Arenius et al, 2005	X	X	X	X
Aspelund & Moen, 2005	X		X	X
Bell et al, 2001			X	X
Berg et al, 2008	X		X	X
Blesa et al, 2008	X			X
Brännback et al, 2007	X			X
Burgel & Murray, 2000	X	X	X	X
Cabrol, et al, 2009	X			X
Callaway, 2004		X		X
Casillas et al, 2009				X
Chandra et al, 2009	X		X	X
Chetty & Campbell-Hund, 2004	X	X	X	X
Clercq et al, 2005	X		X	
Contractor et al, 2005		X	X	X
Coviello, 2006	X	X	X	X
Coviello & Cox, 2006	X	X	X	X
Dana, Chan & Chia, 2008		X	X	X
DiGregorio et al, 2008		X		X
Dimitratos et al, 2003	X	X		X
Dimitratos & Plakoyiannaki, 2003				X
Drori et al, 2009	X			X
Etemad & Salmasi, 2001			X	
Evangelista, 2005		X		X
Fan & Phan, 2007	X	X		X
Fernhaber et al, 2007	X		X	X
Ferro et al, 2009	X			X
Fletcher, 2004		X	X	
Freeman & Cavusgil, 2007	X			X
Freeman et al, 2006		X		X
Freeman & Reid, 2006	X			X
Gabrielsson, 2005	X			X
Gabrielsson & Gabrielsson, 2003	X	X		X
Gabrielsson et al, 2002		X		
Gabrielsson & Pelkonen, 2008	X		X	X
Gabrielsson et al, 2004	X	X		X
Gassmann & Keupp	X	X		X
Gleason &Wiggenhorn, 2007				X
Hällback & Larimo, 2006	X	X		X
Han, 2008	X	X		X
Han, 2007	X		X	X
Han & Celly, 2008	X	X	X	X
Hansen & Witkowski, 1999	X		X	X
Ibeh, 2005			X	X
Ibeh, et al, 2004		X		
Ibrahim & MacGuire, 2001			X	
Jantunen et al, 2008	X	X		X
Jones & Coviello, 2005	X			X
Katz et al, 2003	X			X
Knight & Cavusgil, 2005	X			X
Knight et al, 2004	X			X
Knight & Cavusgil, 2004	X			X

	Multinationality	Function	Ownership	Timing
Knight & Cavusgil, 1996	X	X		X
Kropp et al, 2006				X
Kropp et al, 2008				X
Kuivalainen et al, 2007	X			X
Lone, 2005				X
Lopez et al, 2009		X		X
Mainela & Puhakka, 2009				X
Mathews & Zander, 2007	X	X		X
McDonald et al, 2003	X			
McDougall et al, 1994	X	X	X	X
McDougall, 1989	X			X
McDougall et al, 2003	X			X
McNaughton, 2003				X
Melén & Nordman, 2009	X	X	X	X
Michailova & Wilson, 2008				X
Moen, 2002	X			X
Moen & Servas, 2002	X			X
Moen et al, 2008			X	X
Morgan-Thomas & Jones, 2009	X			
Mort & Weerawardena, 2006	X			X
Mudambi & Zahra, 2007	X			X
Nordman & Melén, 2008	X	X	X	X
Oviatt & McDougall, 1994	X	X	X	X
Oviatt & McDougall, 2005	X			X
Oviatt & McDougall, 2005	X		X	X
Rhee, 2002	X	X		X
Riap & Rialp, 2006		X	X	X
Rialp et al, 2005	X		X	X

	Multinationality	Function	Ownership	Timing
Sasi & Arenius, 2008		X		X
Servais et al, 2006	X	X		X
Servais et al, 2006	X	X	X	X
Shrader, 2001		X	X	X
Spence & Crick, 2006	X		X	X
Styles & Seymour, 2006	X			X
Terjensen et al, 2008	X	X	X	X
Thai & Chong, 2008		X		X
Vapola et al, 2008	X	X		X
Vissak, 2007		X		X
Vissak, 2007			X	X
Wakkee, 2006				X
Weerawardena et al, 2007	X			X
Welch & Welch, 2004		X		
Westhead, 2008	X			X
Yeoh, 2000				X
Young et al, 2003	X		X	X
Zahra, 2005	X		X	X
Zahra et al, 2003	X	X		X
Zettinig & Benson-rea, 2008	X			X
Zhang & Dodgson, 2007	X			X
Zhou, 2007	X		X	X
Zhou et al, 2007	X			X

4 Antecedent Firm Characteristics and Early Internationalizing Firms

Our systematic literature review revealed several important firm, founder and country characteristics that have been shown to influence the speed and mode of entry decisions of early internationalizing firms. We found several firm characteristics that have been developed prior to the inception of a firm that have been shown to provide firms with important advantages in their early international expansion. These advantages come from both firm-specific and country-specific factors. The common thread in our inclusion of these characteristics is that extant literature on early internationalizing firms has shown each of these factors to allow firms to internationalize early and to reduce liabilities of foreignness for these firms. In Table II-3, we summarize each of the antecedent characteristics and the articles that highlight these characteristics that are included in our discussion. These characteristics are important to consider because they provide an important link between the more traditional notions of multinational firms and early internationalizers by suggesting that the firm competitive advantages that are so important in the international business literature also play a role for early internationalizing firms, but with different internal and external factors driving firm expansion decisions. We discuss internal and external characteristics in turn, both as reflected in the early internationalizing firm studies and in the more traditional multinational firm studies. We offer several propositions to differentiate early internationalizing firms from more traditional multinational firms that focus on explaining how liabilities of foreignness are lower for these types of firms than more traditional multinational firms and how pressures to globalize are higher for these types of firms than more traditional multinational firms. We start by discussing the firm-specific advantages that allow firms to overcome liabilities of foreignness and then move on to country and industry pressures that increase the need for these firms to go global quickly.

Table II-3 - Antecedents and Article Sources

Antecedents	Specific Examples	Articles that Highlight these Antecedents
Founders and Managers	Capabilities and Skills, Entrepreneurial Mindset, Global Mindset, Overseas Education, Overseas Family	Autio, Sapienza & Almeida, 2000; Bloodgood, Sapienza and Almeida, 2006; Birley & Norburn, 1987; Busenitz & Barney, 1997; Cabrol et al., 2009; Clercq, Sapienza & Crijns, 2005; Harveston, Kedia & Davis, 2000; Madsen & Servais, 1997; Shrader et al., 2000; Weerawardena et al., 2007; Zhou, 2007
Organizational Dynamism / lack of Organizational Intertia	Quicker Learning, More Openness to Foreign Expansion	Autio et al., 2000; Knight & Cavusgil, 2004; McDougall et al., 2004; Weerawardena et al., 2007, Zahra & George, 2002.
Social Network	International Networks, Contacts in Foreign Countries, Knowledge Acquired Through Foreign Contacts, Credibility	Berg, Aspelund & Sørheim, 2008; Contractor, Hsu, & Kundu , 2005; Coviello & Cox, 2006; Freeman & Cavusgil, 2007; Freeman, Edwards & Schroder, 2006; Gabrielsson & Pelkonen, 2008; Hallbäck & Larimo, 2006; McDougall, Shane & Oviatt, 1994; Nordman & Melen, 2008; Oviatt & McDougall, 1997; Zhou et al., 2007
Venture Capitalists	Financial Resources, Pressure from Funding Bodies to be Global from the Start; Foreign Knowledge; Foreign Contacts	Andersson & Wictor, 2003; Fernhaber & McDougall-Covin, 2009; Fried et al., 1998; Gabrielsson & Pelkonen, 2008; McDougall, Shane & Oviatt, 1994; McDougall et al., 1994; MacMillan et al., 1989; Nordman & Melen, 2008; Mäkelä & Maula, 2005; Sapienza, 1992; Sapienza et al., 1996.
Home Country Deficiencies	Small or Mature Home Market, Inadequate Access to Raw Materials and Inputs	Andersson & Evangelista; 2006; Fan & Phan, 2007; Freeman, Edwards & Schroder, 2006; Knight & Cavusgil, 2004; McDougall et al., 1994; Madsen & Servais, 1997; McDougall & Oviatt, 1991; Vissak, 2007.
Industry Globalization Pressures	Global Competitors, Price Competition, Knowledge Clusters	Fernhaber, McDougall & Oviatt, 2007; Gabrielsson & Pelkonen, 2008; McDougall & Oviatt, 1991; McDougall, Oviatt & Schrader, 2003

4.1 Firm-specific Advantages

Founders and Managers: Based on the influential writings of Hymer (1976) and the transaction cost approach (following Williamson, 1979 and Buckley and

Casson, 1974), the internalization theory in the international business literature argues that a firm will expand abroad when it can organize interdependencies between agents located in different countries more efficiently than markets (Hennart, 1982). Most applications of the transaction cost/internalization theory have focused on firm know-how (Buckley & Casson, 1976, Hennart, 1982; Hymer, 1960). Markets for firm knowledge suffer from the problem of information asymmetry. As Arrow (1962) argued, the buyer of know-how does not generally know its exact characteristics and the seller cannot provide the buyer with this information because she would be giving away the knowledge free of charge. Knowledge transfer within a firm can be more efficient because the firm can be protected from cheating in a market setting. A firm can reduce risk and increase its ability to appropriate the returns to its knowledge assets by establishing operations abroad and maintaining control over its proprietary knowledge. As noted above, the internalization theory has been used to examine the international expansion decisions of firms (Berry & Sakakibara, 2008; Buckley and Casson, 1974, Dunning 1980, Pugel et al., 1996); many of these studies have focused on the important role that firm intangible assets play in firm international expansion strategies. Because of the importance of ownership and control over firm proprietary assets, these firms need to own operations abroad to successfully exploit their intangible assets in foreign markets and to appropriate the returns from their investments in these assets.

When thinking about firms that internationalize quickly, however, these firms are likely to lack the R&D or advertising intensities or capabilities that are generally examined in the international business literature. Instead, an important asset that these firms have is founders and managers who bring important experiences and knowledge to a firm's plans to create competitive advantage by accessing multi-market inputs or sales. The entrepreneurship literature adds an important dimension in this respect by highlighting the important capabilities and experiences of firm founders to help new ventures enter foreign markets early in their evolution. For example, an entrepreneurial owner-manager with a global mindset, prior international experience or a learning orientation (Weerawardena et al., 2007) can provide important sources of advantages for early internationalizing and born global firms. The aggressive pursuit of international growth opportunities is a function of the founding entrepreneurs' international competences, their vision, and awareness regarding growth opportunities at an international level (Autio, Sapienza, & Almeida, 2000; Bloodgood, Sapienza, &

Almeida, 2006). Founders of early internationalizing firms were also recognized to be more likely to have traveled and to be educated overseas (Birley & Norburn, 1987). Prior founders' international experience has been spelled out as a vital aspect of early internationalizing firms (e.g. Harveston, Kedia, & Davis, 2000; Madsen & Servais, 1997; Oviatt & McDougall, 1997) because the experience and exposure of the managers prior to the start of a new venture can play an important role in the early internationalization decision (e.g. Busenitz & Barney, 1997; Harveston et al., 2000; Madsen & Servais, 1997; Shrader et al., 2000). Further, it was shown that founders of early internationalizing firms were often immigrants and had family and personal contacts overseas (McDougall et al., 1994).

In our first proposition, we argue that founder international experiences prior to the inception of the firm can lead firms to make early internationalizing firm choices. We suggest that the founders of early internationalizing firms are more likely to have experiences within foreign countries than more traditional multinational firms. These founders may also have been born in a foreign country. This antecedent founder characteristic of international experience provides advantages to an early internationalizer in the sense that these countries are known to the founder. The business norms, local culture, government regulations (Hymer, 1960, Johanson & Vahlne, 1977, Zaheer, 1995) that create distance across countries for most firms, do not have the same impact when a founder has lived and worked in different country settings. As Sapienza et al (2005) argue, knowledge embedded in prior managerial experiences with internationalization is likely to influence the choices that managers make in their new positions. As Nordman and Melen (2008) report in their study of Born Globals, these firms state that their "approach has always been to employ industrialists who have experience participating in the internationalization process in their previous place of employment." They state that four of the founders of the Born Global firms in their study were started by individuals with high levels of international knowledge. In addition, the prior international experience of senior managers has also been highlighted as an important characteristic for international new ventures success (see Dimitratos, Johanson, Slow & Young, 2003; Arenius, Sasci & Gabrielson, 2005). This suggests that founder and manager international experiences can provide early internationalizing firms with knowledge about foreign countries that can allow them to expand into these countries much earlier than other early internationalizing firms. We propose that one way that firms can skip the learning phases of international expansion is by focusing on those countries they already know. Having lived or worked in a particular country, these founders have already accumulated knowledge that allows them to be an international firm very close to inception and reduce their liability of foreignness.

Proposition 1: Early internationalizing firms are more likely to have founders that leverage their international experiences than more traditional multinational corporations.

Organizational Inertia: It is also interesting to consider how the literature on early internationalizing firms portrays what has been called the "liability of newness" of young organizations (Stinchcombe, 1965). While the internalization theory in the international business literature focuses primarily on how firms can exploit competencies created in their home market, it is interesting to consider how early internationalizing firms may also have little or no existent organizational routines to unlearn while they pursue foreign opportunities (Autio et al., 2000; Cohen & Levinthal, 1990). Some authors have even gone so far as to state that the learning advantages of newness (Autio et al., 2000; Oviatt & McDougall, 2005) may actually represent a counterpoint to liabilities of newness for young organizations (Stinchcombe, 1965). Also, it has been suggested that the fast-paced learning of these companies that are resource-constrained and technology-oriented would allow them to internationalize early (e.g. Knight & Cavusgil, 2004; Zahra & George, 2002).

Importantly, the youth of these early internationalizing firms does not suggest that these firms have no experience in their industry. On the contrary, previous research has found that entrepreneurs tend to create companies that produce the same goods and services as that of their previous employers (e.g. Cooper & Dunkelberg, 1986; Aldrich, 1990). A founder's knowledge can be crucial to allow her to realize the opportunities that are available (Oviatt & McDougall, 2005). In this sense, the existing know-how of the entrepreneurial actor proves particularly useful in knowledge intensive opportunities. One way of successfully pursuing those opportunities is the specialization and niche-orientation which many authors see as characteristical for early internationalizing firms. The use of their prior experience helps these early internationalizing firms to position products in predominantly niche markets (Madsen & Servais, 1997), to conform to the needs of niche markets, communicating the credibility of the firm and what it offers, identifying appropriate distribution options and also determine adequate pricing for the value of its products in the target markets (Weerawardena et al., 2007).

Youthful organizations with experienced founders may not face the same constraints that more established firms can often encounter when they try to enter foreign countries. In addition to actual difficulties in foreign markets, there can be managerial biases to even trying to invest in unknown foreign countries. Early internationalizing firms, in contrast, have been portrayed as having high organizational dynamism (McDougall et al., 1994) and less organizational inertia when moving into new countries. This leads to our second proposition, which posits that:

> *Proposition 2: Early internationalizing firms are less likely to have organizational inertia or vested managerial interests against international expansion than more traditional multinational corporations.*

Social networks: Networks are essential for the discovery of opportunities, the testing of ideas, and the gathering of resources for establishing the new organizational structures (Aldrich and Zimmer, 1986). Prior research has shown the importance of networks to information and knowledge flows (see for example, Burt, 1992; Chen, 2003; Ellis, 2000; Ellis & Pecotich, 2001; Eriksson et al., 1997; Granovetter, 1985; Gould, 1994; Sharma & Blomstermo, 2003; Yeoh, 2004). Oviatt and McDougal have highlighted the important role of an entrepreneur's international network while Zhou et al. (2007) have identified three types of benefits from (home-base) social networks, including: knowledge of foreign market opportunities; advice and experiential learning; and referral trust and solidarity. Studies on early internationalizing firms suggest that international networks can help firms overcome liabilities of foreignness and can be vital for successfully internationalizing (Liesch et al., 2002). The majority of early internationalizing firms uses extensively their business and personal networks (McDougall et al., 1994) and relies on members of the founders' close personal networks. The referral and solidarity benefit can be an effective way for enhancing legitimacy and credibility, and can help in reducing uncertainty by external parties (Zaheer, 1995; Xin & Pearce, 1996). Reflecting these considerations, the application of the network approach to the founder and organizational levels proves particularly insightful for explaining particular international development patterns of highly entrepreneurial ventures (Rialp et al., 2005).

We propose that early internationalizing firms are more likely to have social networks that allow them to access business opportunities in foreign countries. These ties can allow a firm to enjoy advantages such as trust, status and reputation (Holm, Eriksson & Johanson, 1996, Sapienza et al., 2005). These founders are likely to have "excellent network leverage to foreign markets that allows accelerated pace of internationalization" (Freemen & Cavusgil, 2007), and to use extensive personal networks and contacts (Freeman et al., 2006, Mort & Weerawardena, 2006, and Rialp et al. 2006). These personal contacts are different from international experiences because they provide local contacts who can run the operations of an early internationalizing firm, or at least be on-site to manage the activities of the firms in the country. While international experiences provide knowledge of the norms, culture and regulations in a local host country, a founder's social network can provide the actual people who can run the local operations. This can be seen for example in a Born Global study where the founders describe their proprietary networks as being their key competitive advantage because "only the entrepreneur possessing these competencies is able to combine a particular set of resources across national borders" (McDougall, Shane & Oviatt, 1994). In another case in the same study, the founders were convinced that they gained their critical business knowledge and wisdom due to their personal relationships, which enabled them to have worldwide activities with their small venture. In the third proposition, we propose that early internationalizing firms can skip incremental international expansion because their social networks provide the basis for more extended commitments to foreign markets.

Proposition 3: Early internationalizing firms are more likely to have founders with dense international social networks than more traditional multinational firms.

Venture capitalist funding: Studies taking an entrepreneurship approach also highlight the role of venture capitalists in encouraging early internationalization by firms. Many international new ventures receive financial resources from venture capitalists (Mäkelä & Maula, 2005) and venture capitalists with an international background themselves can put pressure on the founder(s) to internationalize quicker (McDougall et al., 1994). Also, apart from financial resources, the entrepreneurship literature highlights how venture capitalists can contribute to and influence the strategic direction of their portfolio companies (e.g., Fried et al. 1998; MacMillan, Kulow, & Khoylian 1989; Sapienza, 1992; Sapienza, Manigart, & Vermier, 1996). Venture capitalists can contribute international knowledge and reputation resources for firms (Fernhaber & McDougall-Covin, 2009). Another factor driving the founder(s) to compete internationally instead of merely locally is access to superior international networks for funding of INVs (McDougall et al., 1994).

Several studies have argued that venture capitalists can play an important role in pushing firms to internationalize to receive funding (e.g., Fried et al. 1998; MacMillan, Kulow, and Khoylian 1989; Sapienza, 1992; Sapienza, Manigart, & Vermier, 1996). The studies that we reviewed also indicated that some firms have obtained funding from foreign country venture capitalists and this provided local contacts and knowledge from which the firm could benefit. For example, Momenta (McDougall et al., 1994) obtained funding from the US, Singapore, Taiwan and Europe and these firms benefitted from both founder and venture capitalist connections. The extent to which firm investors also have foreign connections and knowledge can contribute to the early internationalizing strategies of firms. Not all venture capitalist funding will provide firms with knowledge and connections in foreign markets and we focus more specifically on those venture capitalists that have characteristics that are similar to founder traits we have discussed in propositions 2 and 3 above. In the fourth proposition, we posit that early internationalizing firms can skip incremental international expansion because of the networks and experiences of venture capitalists.

Proposition 4: Early internationalizing firms are more likely to have investors with international experiences and international social networks, or investors who have worked in foreign countries than more traditional multinational firms.

4.2 Country and Industry-specific Pressures

Industry integration pressures: The level of global integration in an industry can push firms to early internationalization (McDougall, Oviatt, & Schrader, 2003). Global integration refers to the international exchange of resources among firm units resulting from the increased specialization and geographic dispersion of value-added activities (Bartlett & Ghoshal, 1987; Kobrin, 1991). When other firms in an industry benefit from cheaper inputs or expanded sales across country locations, this impacts the competitive advantages of firms without access to such factors (Fernhaber, McDougall & Oviatt, 2007). Moreover, the presence of global competitors can motive firm to internationalize quickly (Oviatt & McDougall, 2005). In this regard, early internationalizing strategies can be interpreted as a more aggressive expansion strategy which is critical to ensuring competitiveness and survival. While global integration pressures are likely to push both early internationalizing firms and more traditional multinational firms to globalize, we argue here that these pressures in industries with high global integration are more likely to push firms to go global early.

Proposition 5: Early internationalizing firms are more likely to originate from industries with higher global integration than more traditional multinational firms.

Country pressures: Extant research on early internationalizing firms has paid less attention to how country factors can allow firms to overcome liabilities of foreignness, but this literature does suggest that there are country deficiencies that can push firms to go global early. Regarding considerations that are relevant to a firm's sales, the size of the product market in a firm's home market has been identified as an important influence on the internationalizing activities of that firm (Fan & Phan, 2007; Knight & Cavusgil, 2004; McDougall et al., 1994; Madsen & Servais, 1997). The home country setting of a firm can impact the need for value chain activities to be located and owned across different countries in particular product markets. Differences in factor costs, availability of inputs, differences in the knowledge assets across different country locations and differences in market size can impact the need for firms to locate activities in different country locations. Early internationalizers may come from countries that offer less resources for their products, and smaller market size for their products. Very specific niche markets can be quite important to early internationalizing firms (Rialp et al., 2005) and the country specific deficiencies to which we are referencing may be quite industry specific – i.e., the size of market for specific products or knowledge assets for particular processes or inputs.

Even though the early internationalizing firms we reviewed may come from large markets in general, the specific product niche of these firms may require either cheaper inputs or greater demand than one market can offer. Foreign markets can allow firms to overcome both supply and demand deficiencies (Yamaka et al. 2008). Arenius et al (2005) examined a Finnish company that aimed to focus its specialized software products in the US market from inception given the demand conditions in this foreign market. If the domestic market is too small, founders will look to international market opportunities much earlier. Other factors found in this context are market scale and domestic inertia (McDougall & Oviatt, 1991). An adequate and efficient supply of inputs (e.g. raw materials or low-cost or talented labor pools) suggest that there can be important differences in where a firm may want to locate value chain activities such as R&D or manufacturing to benefit from the most competitive country locations. In our fifth proposition, we posit that the external country characteristics can play an important role in the choices of early internationalizing firms:

> *Proposition 6: Early internationalizing firms are more likely to originate from countries with deficiencies (i.e., more expensive factor inputs, smaller size of product market or lack of technology resources for products) in their home country than more traditional multinational firms.*

Taken together, these firms, country and industry characteristics reveal several internal and external firm factors that can facilitate quick international expansion by firms. In Table II-4, we summarize these factors and contrast them with the more traditional focus in the international business literature on factors that slow international expansion by firms. The factors that influence quicker international expansion by firms both provide advantages that allow firms to overcome liabilities of foreignness and reveal home market limitations that speed up international expansion. While founder and management experiences in foreign markets and international social networks and family ties help firms to overcome their lack of knowledge of foreign markets, more limited home country supply and demand factors can also push firms to access larger markets and additional inputs from other source countries.

Table II-4 - Factors that Influence Liabilities of Foreignness and Pace of Internationalization

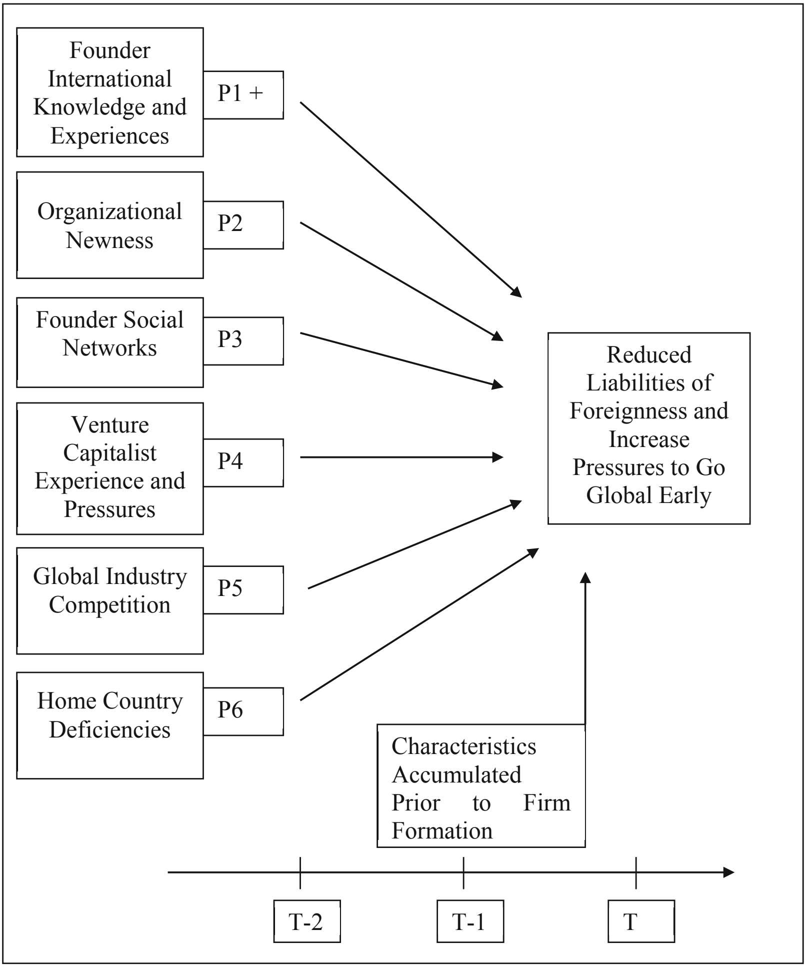
Factors That Increase Liabilities of Foreignness and Slow Internationalization	Factors That Reduce Liabilities of Foreignness and Speed Up Internationalization
Management Lack of Knowledge of Foreign Countries	Founder Experiences in Foreign Countries Manager Experiences in Foreign Countries International Experiences of Venture Capitalists
Lack of Foreign Contacts	International Social Networks Family in Foreign Countries
Organizational Inertia and Bias Toward Foreign Expansion	Advantages of Newness
Primarily Domestic Competition in Home Country Industry	Global Competition in Industry
Large Home Market/Sufficient Demand	Small Home Market for Products/Services
Sufficient Inputs in Home Market	Scarce Inputs in Home Market

Considering the arguments in the Uppsala model and the studies in our literature review, our first four propositions acknowledge the importance of antecedent firm characteristics for early internationalizing firms. Given the findings we have discussed above, there are several founder-specific characteristic that can influence the early international expansion strategies of firms that need to be examined prior to the inception of a firm, including founder international experience and founder social networks. In addition, the home country of a firm suggests that external conditions in terms of demand conditions, related and supporting industries, factor endowments and competition (Porter, 1990) can also provide important stimulus for firms that are based in smaller, less endowed countries to seek these inputs and demand conditions elsewhere. Given the findings from these studies, we argue in our last proposition that the time perspective should be extended beyond a firm's birth for early internationalizing firms. As Madsen and Servais (1997) have argued, "[p]robably many of its 'genes' have roots back to firms and networks in which its founder(s) and top managers gained industry experience… In a legal sense, the company may be new, but were its skills and capabilities not often born and matured prior to its legal birth?" This conception of antecedent characteristics can provide an important difference between more traditional and early internationalizing firms that allows early internationalizing firms to appear to "skip" growth stages that are commonly assumed to exist in the international business literature. We posit that

> *Proposition 7: Early internationalizing firms benefit from the experience and knowledge at the firm and individual levels at t-1, substituting for long-term accumulation normally occurring after t0 in traditional multinational firms*

Through these seven propositions, we have considered how several of the antecedent firm characteristics we identified above can impact the strategic decisions of early internationalizing firms. We present all of these propositions in Figure II-2. The antecedent characteristics we have considered suggest why we see different international expansion choices by firms and explain how and why early internationalizing firms are able to skip the incremental stages that are assumed to exist for more traditional multinational firms. By leveraging international social networks and experiences, these firms tend to be more familiar with foreign environments and they have contacts that help them to do business in foreign countries. Moreover, as part of their workforce may already come from these cultural contexts, there is also less effort needed to familiarize employees with foreign environments, which reduces liabilities of foreignness for these firms. These firms also face pressures to globalize early through both industry global integration and home country deficiencies. Taken together, these propositions explain how liabilities of foreignness can be lower for early internationalizing firms than more traditional multinational firms and how pressures to globalize higher for these types of firms versus more traditional multinational firms. The bottom of the figure represents the important dimension of time and highlights how firm characteristics, and industry and country pressures exist prior to the formation of the firm. Though all of the firm, founder and country characteristics we identified through our literature review and propositions do not need to exist at the same time, the ones that do exist have been shown to pre-date the formation of early internationalizing firms.

Figure II-2 - Impact of Firm, Founder and Country Antecedent Characteristics



5 Discussion

Traditional approaches to studying the pace of international expansion by firms (Johanson & Vahlne, 1977, 1990, Vernon, 1966 and 1979) suggest that firms will make incremental and sequential steps when they expand into foreign countries in order to learn about these countries and/or allow country markets to evolve in their demand for a firm's products. In this paper, we embrace notions of liabilities of foreignness (Hymer, 1960, Zaheer, 1995) that underlie the more traditional approaches to studying the international expansion of multinational corporations and focus on how firms can accumulate foreign learning and experiences prior to inception and appear to "skip" the stages that have long been highlighted in the international business literature. In this sense, we analyze early internationalizing firms within the scope of the long-standing Uppsala school while at the same time carving out distinctive characteristics that stand in contrast to the more traditional multinational firm competitive advantages. In so doing, we follow Autio's (2005) approach of focusing more on enabling conditions that can give rise to early internationalizing firms.

While several studies have documented a quick pace of international expansion by firms (Fan & Phan, 2007; Oviatt and McDougall, 1994, Weerawardena, Mort, Liesch & Knight, 2007; Zhou, Wu & Lou, 2007), we believe that it is important to acknowledge that "liabilities of foreignness" (Hymer, 1960 and Zaheer, 1998) are relevant to all firms that expand across country borders. We have argued that by expanding not only the set of firm characteristics but also the time frame from when a firm can accumulate firm-specific competitive advantages (prior to inception), we can better understand both entrepreneurial early internationalizing firms and when and how these firms can overcome liabilities of foreignness early in their life cycle. We have focused on several founder and pre-inception characteristics that involve founder international experiences and networks. Though these characteristics are underexplored in the current international business literature, we have considered how these antecedent firm characteristics can give rise to important advantages for early internationalizing firms. Though early internationalizing firms appear to be at odds with the more traditional approaches in the international business literature, we consider how these firms can exploit characteristics that have been accumulated prior to a firm's inception to overcome liabilities of foreignness.

We used a systematic literature review to ground our study in extant literature on early internationalizing firms. This approach allowed us to offer far more characteristics than is possible in an empirical study of early internationalizing firms. By considering the group of studies that have examined early internationalizing firms, we were able to offer several propositions that differentiate early internationalizing firms from more traditional multinational firms, and to focus on both explaining how liabilities of foreignness are lower for these types of firms than more traditional multinational firms and how pressures to globalize are higher for these types of firms than more traditional multinational firms. The studies that we examined considered these firm, founder, and country antecedent characteristics separately – leading to many different ideas about how early internationalizing firms can overcome liabilities of foreignness. We have combined these ideas from many different studies to more clearly articulate multiple characteristics that allow firms to go global early.

We have also contributed to the literature on early internationalizing firms by comparing these firms with dimensions that are more commonly used to analyze the international expansion decisions of more traditional multinational firms. Though there are many studies on early internationalizing firms, it is not easy to compare early internationalizing firms to more traditional multinational firms because of the different frameworks that are used to describe each of these types of firms. By incorporating speed and mode of entry into our analysis of early internationalizing firms along with Oviatt and McDougall's dimensions of multinationality and functions, we have extended our understanding of firms that go global early using a more traditional international business lens for these firms. While issues of speed and entry mode underlie the Oviatt and McDougall framework, we believe that they have received much less attention in the literature on early internationalizing firm over the last decade.

With our focus on entrepreneurial global firms, our study also contributes to the entrepreneurship and international business literatures by considering founder characteristics in a global setting. For the entrepreneurship literature, the focus on a founder's social network has not often been extended into global markets. While global expansion strategies may be more difficult to implement, they can provide young, entrepreneurial firms with new markets, inputs and advantages that can be exploited across that firm's operations. Unlike the common focus on technology and marketing abilities in the international business literature (Berry & Sakakibara, 2008;

Buckley & Casson 1974, Morck & Yeung 1991, Pugel et al., 1996), these entrepreneurial early internationalizing firms provide new firm and founder characteristics that provide important advantages that firms can exploit through their international activities.

By differentiating early internationalizing firms and linking them with founder, firm and country antecedents, we offer managers a broader view of firm competitive advantages than technological know-how or brands. By exploiting international experiences and founder networks, smaller and younger firms can access cheaper inputs, higher demand, more technological knowledge than may be available in their home market. By examining early internationalizing firm studies, we have provided insight into the types of firm specific advantages that these firms have exploited. An understanding of how early internationalizing firms have achieved their paths of accelerated internationalization and learning from their choices and experiences is valuable to managerial practice. Future research that explored how these decisions were made over time, how many/which countries were targeted and why different functions were owned would yield even more interesting insights for founders of young, entrepreneurial firms that aspire to go global early.

Autio et al., (2000) argued that early internationalizers are more likely to grow rapidly than older entrants because of "learning advantages of newness." They suggest that younger firms tend to adopt more novel approaches to internationalization than older firms. While we agree that younger firms are less likely to be hampered by competency traps (Cohen & Levinthal, 1990), we offer a broader perspective on what gives rise to early internationalizing firms that complements the learning advantages of newness view. By focusing on how antecedent firm characteristics can provide resources and capabilities that can both be exploited by early internationalizing firms and offset liabilities of foreignness, we focus on advantages that early internationalizing firms possess that can be complemented with novel approaches that older and more traditional firms cannot explore due to embedded approaches to operations (Bettis & Prahalad, 1995) that can constrain exploitation of growth opportunities by older firms.

As with all studies, there are limitations to our paper. First, we have derived our propositions considered the extensive literature that has evolved around the early internationalizing firm phenomenon instead of collecting data to empirically test them. We believe that early internationalizing firms are more likely to have the antecedent characteristics we propose than more traditional multinational firms. However, given the different approaches that have been used across the studies we examined, our ideas need to be analyzed using as consistent of definitions as possible. In this paper, we have provided the firm characteristics that would allow for this empirical test in future research. Second, there may be interesting interactions across the founder, firm and country antecedent characteristics we have examined. For example, founders with international connections who are located in countries with limited demand for their products are likely to face fewer liabilities or foreignness and more opportunities in foreign countries. These interactions have not been explored in extant literature and we leave future research to examine these interactions.

Overall, early internationalization has gained momentum during the last decade. As these firms appear to challenge the conventional wisdom on speed and pace of international expansion, we believe that they deserve more attention. Understanding how these firms go about gaining and leveraging competitive advantages is relevant to a variety of fields – including international business, entrepreneurship as well as strategic management research. With the approach we have taken in this paper, we hope to foster more interdisciplinary efforts to better understand the choices and behaviors of early internationalizing firms.

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Paper #2
Under Review in the "Journal of World Business"

III Performance Measurement and Antecedents of Early Internationalizing Firms: A Systematic Assessment

by Gordian Rättich, Kim Clark, Evi Hartmann

Abstract

With the increasing importance of early internationalizing firms (EIFs), recent literature has shown a rapidly growing research interest in EIF performance. To enhance our understanding of what drives EIF performance, we conduct a systematic analysis of performance antecedents and performance measures in current empirical research. This method allows us to: (i) systematically analyze EIF literature to identify how performance has been examined empirically; (ii) methodically identify and synthesize the antecedents of performance in respect to EIFs' specific resources, capabilities, and strategies; and (iii) to identify areas that are understudied. Based on the analysis, we make suggestions for future research.

Keywords: international entrepreneurship, born global firms, international new ventures, early internationalization, performance measurement, systematic literature review

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1 Introduction

The study of early internationalization of firms (EIF) has been significantly propelled by the cornerstone framework of Oviatt and McDougall (1994), and is still growing and gaining momentum. Young firms, which internationalize early in their life-cycle, defy the traditional view of internationalization (Johanson & Vahlne, 1977) and have, therefore, attracted international business researchers' attention to identifying and understanding the nature and the process of such firm's internationalization. Previous research on EIF has focused on understanding the driving forces of these new firms internationalization (e.g., Andersson & Wictor, 2003; Knight & Cavusgil, 1996; Oviatt & McDougall, 1994) and the unique characteristics of these firms (e.g., Andersson & Wictor, 2003; Rasmussen, Madsen, & Evangelista, 2001; Sharma & Blomstermo, 2003).

Despite the broad knowledge that has been generated about this special type of firms, one eminent, yet scarcely tackled, question is why EIFs are able to do what they do. In other words, what are the performance drivers of early internationalization? To shed light on this important question, we conduct a systematic analysis of performance antecedents and performance measures of current empirical research involving EIF performance. Moving beyond the general understanding of EIFs, we attempt to delve into EIFs' specific resources, capabilities, and strategies and their impact on performance. Thus, we employ a systematic assessment method, proposed by David and Han (2004) to analyze empirical studies concerning EIF performance, to identify *the unique antecedents of EIFs performance*.

Hence, the objectives of this article are to (i) systematically analyze EIF literature to identify what type of performance has been examined previously, compare these findings with findings in traditional international business (IB) literature, and identify what performance measures are unique to EIFs; (ii) to systematically identify and synthesize the antecedents of performance and (iii) to make future research suggestions on issues which might affect EIF performance. The remainder of this article is organized as follows. The paper begins with a brief overview of EIF literature, followed by a description of a methodology used in systematic assessment of literature. Thereafter, we thoroughly analyze the studies to derive how performance measurement has been operationalized, and discuss performance antecedents that have been identified in the existing literature. Based on the assessments and analysis of performance measurement and performance antecedent results, we make suggestions for future research to gain more insights about early internationalization performance.

2 Overview of Early Internationalization

Traditional internationalization theory suggests that firms internationalize following an evolutionary path of development, suggesting that only large and mature firms expand to international markets because the complexities involved in internationalization are too immense for young and small firms (Johanson & Vahlne, 1977). Thus, traditional internationalization theory implies slow incremental processes to reduce the inherent risk involved in internationalization. Accordingly, firms internationalizing at the early stage of their lifecycle challenge the traditional view of internationalization (Oviatt & McDougall, 1994). These firms, which become international at early stage of their lifecycle, or even at inception, have been researched by several international business and entrepreneurship scholars (e.g. Oviatt and McDougall, 1994; Autio, Sapieza & Almeida, 2000; Zahra, 2005; Zhou, Wu & Lou, 2007).

This emergent research area has labeled these young firms in various ways: ‘global start-ups’, ‘born global firms’, ‘international new ventures’ or ‘early internationalizers’ (Rennie, 1993; Oviatt & McDougall, 1994; Madsen & Servais, 1997; Knight & Cavusgil, 2004). Although there is a wide range of factors to define this special breed of firms, the common focus is the age of the firms at internationalization. For example, Oviatt and McDougall (1994) define an ‘international new venture’ as a “business organization that from inception seeks to derive significant competitive advantage from the use of resources and the sale of output in multiple countries” (p. 49). Understandably, defining the exact establishment time of new ventures has been a source of controversy in the EIF field. The gestation periods of firms varies, affecting their level of resources and capabilities (Zahra, 2005), which makes it difficult to determine exactly when a firm is actually founded. However, Zahra, Ireland, and Hitt (2000) suggest that firms six years and younger are considered to be new international ventures, based on the growing consensus in the field (e.g., Brush, 1995; Shrader, 1996). In order to include varied ranges of age at internalization, Rialp, Rialp and Knight (2005) termed these young firms 'early internationalizing firms' (EIF) collectively. In this paper, we will adopt 'early internationalizing firms (EIF)' to include all the firms defined under the various terms in the field.

The question of 'how' some EIFs overcome not only the challenge of scarce resources (financial, human, and other tangible resources) but also the additional costs of doing business abroad (Hymer, 1976) and are still successful in their international endeavors so soon after inception, has intrigued many researchers (e.g. Weerawardena, Mort, Liesch & Knight, 2007; Fan & Phan, 2007). The research has suggested that certain external conditions support the existence of EIFs: a) growing demand for specialized products and the emergence of niche markets, b) advances in process technologies enabling small scale production, c) advances in communication technologies decreasing business transaction costs, d) increased internationalization of knowledge, and e) the trend towards global networks and alliances facilitating the development of mutually beneficial relationships with foreign partners (Rialp et al., 2005). These external factors provide the perfect conditions for EIFs to internationalize at an accelerated rate. Various EIFs were identified in many different countries (Knight and Cavusgil, 2004; Madsen and Servais, 1997; Oviatt & McDougall, 1994), not only in the high-tech sector but also in a wide range of other industries, such as services, agriculture and aquaculture (Ibeh, 2005; Oviatt & McDougall, 1994; Rennie, 1993).

The research efforts have concentrated on understanding the characteristics of EIF founders, who are willing to take advantage of external conditions aggressively, despite the risks and uncertainties of doing business abroad, the challenge of limited tangible resources, and lack of international business experience. Research suggests that these early international ventures are driven by the founding entrepreneurs' international competence, their visions, and their awareness of international growth opportunities (Autio, Sapienza & Almeida, 2000; Bloodgood, Sapienza, & Almeida, 2006). More specifically, research has found that EIF founders tend to have prior international work experience (e.g. Cabrol, Favre-Bonte, & Fayolle, 2009), have participated in educational exchange programs, travel frequently (e.g., Birley & Norburn, 1987), and/or maintain social contacts internationally via family or personal ties (e.g., Oviatt & McDougall, 1994). This internationality was found to play a vital role in motivating founders to internationalize their business early (Busenitz & Barney, 1997; Harveston, Kedia, & Davis, 2000).

Another main area of EIF research has been an attempt to understand how EIFs survive and succeed in the challenging international business environment. The traditional theory of internationalization (e.g. Johanson & Vahlne, 1977) suggests that only large and mature firms can withstand the challenges of internationalization. Unlike traditional multinational corporations (MNCs), EIFs face multiple liabilities, which in turn increases EIFs' failure rate. For instance, EIFs face the liability of newness (Stinchcombe, 1965), or a lack tangible resources (financial, human, etc.) and intangible resources (reputation, legitimacy, etc.). Moreover, they are subject to the liability of smallness (Aldrich & Auster, 1986) which can be disadvantageous in securing capital and labor input. Additionally, EIFs face the liability of foreignness: language barriers, cultural issues, additional costs for shipping, and other disadvantages which a domestic firm does not have to deal with (Zaheer, 1995). Accordingly, understanding how EIFs survive and succeed in the challenging international environment has been one of the key research areas in EIF research field.

Thus, many researchers have attempted to identify the EIFs' unique and distinctive capabilities which make young firms internationally successful. For instance, Knight, Madsen and Servais (2004) reveal the influences of EIFs' marketing capabilities on EIFs performance. Knight and Cavugil (2005) explore how innovativeness, knowledge, and technological competence correspond to superior performance. Additionally, researchers such as Jantunen, Nummela, Puumalainen and Saarenketo (2008) investigate how organizational factors, such as strategic orientation, affect EIF performance.

In an effort to enhance our understanding of EIFs as a unique area of research within international business, which defies the traditional view of internationalization, Rialp, Rialp, and Knight (2005) provided a synthetic review of EIF literature between 1993 and 2003. The review offers a systematic assessment of theoretical framework used for the conceptual development, methodological approaches, and key research findings of 38 theoretical and empirical studies. Although such a review provides an overview of the direction in which EIF research is moving, further systematic examination is required on how these young and small firms survive and succeed in the international arena and what contributes to their success, in order to expand our knowledge on the phenomenon of early internationalization. In particular, investigating which EIF resources as well as capabilities influence EIF success, and what strategies are employed by these young international firms to successfully leverage their unique resources and capabilities will provide the researchers with deeper understanding on how EIF maneuver the challenging terrain of international markets. This systematic examina-tion will also extend the efforts of Rialp et al. (2005), which mainly focused on the underly-ing reasons of the emergence of EIFs and presented a theoretical framework to explain this phenomenon.

3 Methodology

To assess the existing literature on EIF performances and their antecedents, we conducted a systematic literature review, based on an approach developed by David and Han (2004). The systematic assessment method of literature review takes the methodical approach in the selection of studies and employs a quantitative method of evaluation (David & Han, 2004). In this vein, the systematic approach is different from the narrative nature of traditional literature reviews and is regarded as a powerful tool not only to analyze but to synthesize existing literature (David & Han, 2004). Considering the distinctive characteristics of the EIF research domain, we employed the methodology of David and Han (2004) for following reasons. First, to assure validity by avoiding subjectivity in the conclusions of a review, the literature review has to be executed via an efficient and systematic process (Light & Pillemer, 1984). By doing so, the systematic assessment method is exhaustive in scope, and on the other hand, traceable and replicable to ensure objectivity. Second, EIF research has used a variety of data collection methods, including quantitative as well as qualitative approaches (Rialp et al. 2005). Since our study encompasses both approaches, the data has a high degree of heterogeneity. Consequently, it is essential to use explicit and systematic methods (Light & Pillemer, 1984) to assure the quality of conclusions (Miles & Huberman, 1994).

The systematic literature review involved searching for articles published in scholarly journals using key words in the AIB/Inform and Econlit database. In order to ensure substantive relevance of the articles extracted from the database, we implemented multiple procedures to refine our selections, using filters that were grounded in EIF literature. In comparison to the review of David and Han (2004) in the much larger field of transaction cost economies, we did not include two of their steps (selection for additional key words and elimination of 'single journal hits'). Due to the emergent nature of the EIF field, we would like to include more recent literature on early internationalizing firms. The detailed steps and the procedures taken in the systematic assessment of the literature are summarized in Table III-1.

Table III-1 - Seven Steps of Systematic Literature Review

Steps	Description of procedure
Step 1: Search only for articles published in scholarly journals	Following the original argumentation of David and Han, who refer to Light and Pillemer (1984: 34), the exclusion of book chapters and unpublished work enhances the quality of literature.
Step 2: Search the ABI/Inform and EconLit databases	ABI/Inform and EconLit were used because the performance of EIFs has been examined from several vantage points and theoretical perspectives in these multidisciplinary databases. The ABI search was enhanced by EconLit database to ensure exhaustive coverage of business journals.
Step 3: Safeguard articles of substantive relevance	By requiring at least one of the twelve primary key words (Export Start-up, Import Start-up, Multinational Trader, Geographically Focused Start-up, Global Start-up, born global*, Born Global Firm*, BGF, Early Internationalizing Firm*, EIF, International New Venture* or International entrepreneur*) to be contained in title or abstract, substantive relevance could be assured. As explained by David and Han (2004), the asterisk ('*') at the end indicates that variations of the word were permitted. To obtain a representative sample, the 12 applied key words describing EIFs were thoroughly selected. All of our key words stem from highly published and highly cited journal articles. We particularly refer to the articles from Oviatt and McDougall (2005) and Rialp, Rialp and Knight (2005). Applying steps 1 to 3 resulted in a sample of 364 studies from both databases.
Step 4: Remove substantive irrelevant articles	To limit the initial sample to our research objective, we incorporated additional key words based on the discussion of performance operationalization. Hence, we followed Venkatraman and Ramanujam (1986) to derived key words from their three performance dimensions; financial performance, operational performance and overall effectiveness. These three were supplemented by the key word for measurement. By requiring at least one of the five additional key words (perform*, financial*, operational*, effectiveness or measure*) to be contained in the title or abstract, substantive irrelaevant articles could be removed. After this filtering step, 84 articles remained.
Step 5: Ensure substantive relevance by reading all remaining abstracts for substantive context	The remaining articles had to indicate a contribution in terms of performance drivers and effects of EIFs in the abstract. This criterion allowed us to reduce the number of articles to 70.
Step 6: Ensure substantive relevance by reading all remaining articles in their entirety for substantive context.	Articles that did not meet the restriction were eliminated from the sample. By applying this last filter to our sample, an additional 33 articles were removed from the sample, therefore leaving 37 articles.
Step 7: Consolidate results from ABI/Inform and EconLit to eliminate duplicate articles.	Nine duplicates were eliminated; 28 articles remained for the analysis.

Following these steps, we collected a representative sample of studies investigating performance aspects of early internationalizing firms. Steps one to three yielded 258 articles from ABI and 106 articles from EconLit. Steps four to six reduced our sample to 28 articles from the ABI database and 9 articles from EconLit. Deleting the 9 articles that are duplicated in both databases (step7) led to a remaining total of 28 empirical articles presented in Table III-2.

Table III-2 - Summary of Selection Filters: ABI and EconLit

Step	Filter type	Description	ABI result	EconLit result	Total
3	Substantive	All articles with 'Export Start-up' or 'Import Start-up' or 'Multinational Trader' or 'Geographically Focused Start-up' or 'Global Start-up' or 'born global*' or 'Born Global Firm*' or 'BGF' or 'Early Internationalizing Firm*' or 'EIF' or 'International New Venture*' or 'International entrepreneur*' in title or abstract	258	106	364
4	Substantive	At least one of five additional keywords ('perform*' or 'measure*' or 'financial*' or 'operational' or 'effectiveness') must also appear in title or abstract	66	18	84
5	Substantive	Remaining abstracts read for substantive relevance	55	15	70
6	Substantive	Remaining full articles read for substantive relevance	28	9	37
7	Duplicates	Deletion of duplicate articles found in both databases			28

The total sample of 28 empirical articles selected through the systematic literature review approach constitutes the ‘unit of analysis’ for this study. To ensure systematic information gathering when reading the articles, we followed the coding guidelines of study results developed by Cooper (1989). Among others, these encompass the setting of the study, the type of research, the statistical outcomes, effect size or sample characteristics. According to the guideline, we developed a coding table reflecting all of our categories of interest, including type of data source, method of performance measurement, each measure, level of analysis, etc. Thereafter, a random subset of five studies was independently pretested by two of the authors, coding and gathering information according to our scheme. Initial inter-rater agreement (as measured by percentage of agreement) ranged between 85 and 98 percent. Despite the fact that the significant number of data coded was qualitative in nature, our initial inter-rater agreement is within the comfortable range of other studies of integrative research (see e.g. Tihany, Griffith & Russel, 2005; Geyskens, Steenkamp, & Kumar, 2006). Comparing and discussing the remaining differences in the analyses, the coding system was adapted in a few minor aspects. The adapted coding scheme was tested on an additional five articles. In this second iteration, inter-rater agreement was almost 100 percent. According to the briefly outlined analysis, we analyze all 28 identified EIF performance studies thoroughly.

4 Analysis and Discussion of Systematic Assessment Results

Our systematic assessment of the literature confirms a continuous increase of studies in the subject of EIF performance (Table III-3). Whereas in the first year

(2000) just one study could be identified, in the year 2009 five studies examined the EIF performance questions. This increasing number of articles has been published in a wide range of scholarly journals. Altogether, 15 journals published early internationalizing firm related articles, which investigated their performance. The top 3 journals, in terms of number of publications, are *Journal of World Business*, *Journal of Marketing Review* and *Management International Review*. All journals included in our sample are shown in Table III-4, which illustrates the increase not only in the number of publications but also in the number of journals dedicating themselves to this topic.

Table III-3 - Literature Review Results: Results by Year

Year of publication	No. of articles published
2010	1 *
2009	5
2008	3
2007	5
2006	3
2005	4
2004	2
2003	1
2002	1
2001	2
2000	1
	28

* Including articles published until May 2010.

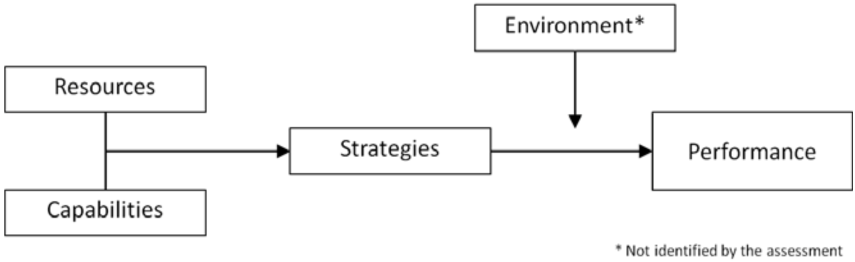
Table III-4 - Literature Review Results: Results by Journal

Journal	No. of articles published	First article published in
Journal of World Business	4	2007
International Marketing Review	4	2004
Management International Review	3	2005
Journal of International Entrepreneurship	3	2005
European Journal of Marketing	2	2007
Journal of International Business Studies	2	2004
Strategic Change	2	2001
Academy of Management Journal	1	2001
Canadian Journal of Administrative Sciences	1	2008
International Journal of Managerial Finance	1	2006
Journal of Business Venturing	1	2010
Journal of Chinese Economic and Foreign Trade Studies	1	2009
Journal of Enterprising Culture	1	2007
Journal of International Marketing	1	2000
New England Journal of Entrepreneurship	1	2002
	28	

Concerning the theories employed to explain the EIF and their performance link, the overwhelming majority (19 out of 28) of the studies examined in our analysis were based on the resource-based view or the dynamic capability view explicitly or implicitly. Only one study was based on transaction cost economics theory. The rest of the studies were not anchored on a specific theory.

In regards to the EIF performance and its antecedents, we analyzed the content of 28 empirical studies. In order to provide a conceptual framework based on theory, we adopted a theoretical model brought up by Rialp et al (2005). This model is grounded in the resource/ knowledge–based view of the firm (Barney, 1991; Grant 1991, 1996; Peng, 2001) and their own cross-comparison of key research models and findings available in the EIF literature. We have modified the model to include the EIF performance as outcome of the following key areas of the EIF; 1) firms intangible resources (technological capital, organizational capital, relational capital, and human capital); 2) firm-specific capabilities; 3) scope of international strategy, and 4) external factors. We adopt this model to organize the constructs of the studies in this analysis. This approach will also help us identify areas that are underexplored in the EIF literature. This framework is shown in Figure III-1.

Figure III-1 - Revised Exploratory Model of Early Internationalizing Firms by Rialp et al. (2005)



Surprisingly, our analysis has revealed that only two studies in our assessment have examined the external factors directly. For example, Jones & Crick (2001) and Crick (2009) found insignificant impact of government assistance and the proximity to the overseas markets on the EIFs' perceived competitive advantages in the overseas market. Since marginal insights have been gained from their limited findings, we consequently will concentrate our discussion on the intangible resources, capabilities, and strategies in the following section.

4.1 Performance Measurement

Our analysis found that these 28 empirical measurement studies used an average of 3.50 measures ranging from one to six measures. Comparing these findings to the findings of Hult et al. (2008) for IB performance measurement in general, we observe a significant higher proportion of EIF studies basing their measurement on multiple measures (60.7% of EIF studies vs. 39.6% of IB studies). Nevertheless, we could not identify any consensus in terms of number of measures within EIF studies.

This variety in number of measures seems to be complemented by the variety of type of performance measures. Brush and Venderwerf (1992) discovered 35 different performance measures by reviewing 34 articles related to new venture performance published in 1987 and 1988. In the same manner, Richard et al. (2009) examined 213 performance-related papers published between 2005 and 2007 and found 207 different performance measures. Similarly, we identified 98 measures in 50 different types of measures in the 28 studies we examined. Similar to other disciplines, the EIF field also employs a wide spectrum of measures, resulting in this variety of measures. According to Richard et al. (2009), this phenomenon is a general problem with performance measurement. In respect to a large variety of performance measures being used in the research, Richard et al. (2009) highlight the limited effectiveness of commonly accepted measurement practices. For this reason, they conclude that it is difficult to make effective scientific comparisons among papers as well as valid normative recommendations.

Although international performance has gained a great deal of attention during the last decade, Jantunen et al. (2008) conclude that there is no valid common operationalization of the international performance concept. Especially in the EIF context, there is no consensus on how to measure performance (Crick, Chaudhry, and Bradshaw, 2003) even though theoretical developments of EIF performance implications have been the focus of the debate in the field of international entrepreneurship (Autio, Sapienza & Almeida, 2000; Etemad & Wright, 2003; Knight & Cavusgil, 2004; Oviatt & McDougall, 2005; Zahra, 2005). Regardless of the debate on performance measurement, the empirical studies we examined have mostly adopted performance measurements typical in management science, which do not reflect unique characteristics of the EIF field. We believe this tendency is due to the variations in accounting standards of the countries that EIF enter, the nature of firm boundaries, the geographic scope of operations (e.g., Hooley, Cox, Fahy, Beracs, Fonfara, & Snoj, 2000; Ariño, 2003) and EIF´s characteristics, such as a relatively short history. These issues make operationalization and comparison of performance in the international business context particularly difficult. This validates Hult et al.'s contention that there is a "lack of performance findings in the IB literature" (2008: 1064). Although there has been a large amount of studies in EIF perfor-mance, until today the results have not been consolidated and analyzed. Therefore, possible conclusions have not been fully derived. In order to highlight the status of EIF performance research, we begin with analysis of how EIF performance has been measured.

Since it is well known that the measurement of international performance is a difficult task (Madsen, 1998, Lages and Lages, 2004), we examine the following basic performance measurement features to evaluate the methodological status of EIF performance measurement and ensure objectivity of the results. First, we adopt three basic domains of business performance by Venkatraman and Ramanujam (1986): financial performance, operational performance and overall effectiveness. The narrowest, financial performance includes market and accounting-based indicators, reflecting the economic goal fulfillment of the firm, such as profitability, sales growth, earnings per share and so forth (Venkatraman & Ramanujam, 1986). Operational (nonfinancial) performance focuses on market, product and internal process outcomes. These operational factors might lead to financial performance. Typical measures of operational performance are market share, new product developments, or efficiency (Venkatraman & Ramanujam, 1986; Hult et al., 2008). The broadest form of performance is captured in overall or organizational effectiveness, including for example reputation, perceived overall performance (or in comparison to competitors), or goal achievement (Venkatraman & Ramanujam, 1986; Hult et al., 2008).

Hult et al. (2008) suggested that a better performance measurement in international business research can be achieved by using “measures that capture objective financial, operational and overall effectiveness performance whenever possible” (p.1070). In our analysis of the 28 studies, 11 studies measure within one performance category (9 only financial; 2 only operational). An additional 11 studies use measures from two performance categories (financial & operational). While 6 studies use measures form all three categories (financial & operational & effectiveness) to examine EIF performance. In comparison to Hult et al. (2008) findings on IB studies, our finding indicates that EIF studies fair better in terms of rigor. For example, 40 percent (11/28) of EIF studies, while only 32 percent (31/96) of IB studies, used performance measures from two performance domains. In comparison to 7 out of 96 (7.3%) IB studies, 6 out of 28 (21%) EIF studies measured all three performance domains. This result may be due to the large number of primary data used in the EIF studies, which made the collection of all three performance measure domains easier.

Second, to comprehend the composition and development of the measures within the different performance domains, we also analyzed the sources of the data. To be consistent with extant literature, we based our analysis on the above mentioned terminology of Venkatraman and Ramanujam (1986) where primary data refers to subjective data and secondary data refers to objective data. Since it is difficult to obtain objective accounting or financial market data in the international context, researchers had to rely on subjective data based on the estimations of managers (Richard et al., 2009). Although there is a general perception of weak validity of primary data, research (e.g., Geriger and Hebert, 1991; Brush & Vanderwerf, 1992; Lukas, Tan & Hult, 2001) has shown that primary data can be as reliable as secondary data, or even more reliable in certain contexts, such as in emerging markets where secondary data is often unreliable. In general, a multiple data source approach is recommended (Ariño, 2003; Venkatraman & Ramanujam, 1986) and especially in the international business context (Hult et al., 2008).

In our EIF sample, 22 of out 28 studies (79%) have used primary data sources, such as interviews, surveys or questionnaires. An additional 4 studies relied on secondary data sources: data from public or private databases, or annual reports. Only two studies (7.1%) used both data sources to complete missing secondary data by interviewing CFOs (Shrader, 2001) or adding background information from additional secondary data, or from interviews (Han, 2007). Accordingly, extant EIF performance studies indicate the difficulties in obtaining reliable secondary data and, therefore, draw their research mainly on primary data. Additionally, Hult et al. (2008) provides the following conditions for which primary data can be used; 1) when financial measure are likely to be unreliable or unavailable; 2) when privately held firms are studied and secondary data cannot be accessed; and 3) when comparability of different types of firm is difficult to achieve because of heterogeneous attributes. Considering that a high proportion of the studies in our sample were operating in developing countries, a large number of EIFs are privately held firms or different nationalities, and of heterogeneous nature, relying on primary data sources seems adequate. Although incorporation of multiple data sources will improve the overall reliability of the EIF research, considering the afore-mentioned conditions, obtaining multiple data sources may remain a challenge for EIF re-search.

Third, to ensure a systematical measurement of performance, the level of analysis and direct and/or indirect (mediating) effects of measurement have to be thoroughly assessed. For example, Zhou et al. (2007) indicate that a possible source for conflicting results in literature is that earlier studies have ignored the indirect mediating effects, mainly focusing on the direct influences of international performance. Therefore, we examine both indirect and direct influences on performance. Six out of the 28 studies take into account both direct and indirect effects on EIF performance. Especially considering mediating effects, such as entrepreneurial or learning orientation, allows researchers to draw a more complete image of the determination of EIF performance.

With respect to measures used in the performance measurement, the 28 studies used 50 different types of measures consisting of 98 measures. To bring more clarity into the variety of measures, we categorized them according to the three basic performance dimensions proposed by Venkatraman and Ramanujam (1986). As illustrated in Table III-5, more than the half of these 98 measures were financial ones (57). Another 30 operational measures and 11 effectiveness measures were used. Within the financial measures, we could identify a group of 31 sales-related measures. More specifically, more than two thirds of financial measures used sales growth (with varying definitions) as a key measure. This is not surprising for a type of firm mainly oriented toward global expansion and could probably be best evaluated according to its increase in sales. The second dominating financial measure group is profitability-related measures (24). As one of the most important characteristic of entrepreneurial firms, its intention to grow (Timmons, 1994), the combination of sales growth and profitability seem to be the most appropriate measures. Only substantial positive returns can back EIFs multinational growth and thus increase the probability of their long-term survival.

Table III-5 - Literature Review Results: Identified EIF Performance Measures

Measures	#	Performance Dimensions			
Sales growth	14	Financial measures	58,16%	Sales-related measures	54,39%
Sales growth relative to competitors	1				
Overseas sales growth	3				
International sales growth	1				
Sales volume	3				
Turnover growth	3				
Export growth	2				
Growth in export volume	2				
Percentage of export to sales	1				
Export intensity	1				
Profitability	3			Profitability-related measures	42,11%
Profitability growth	1				
Overseas profitability	3				
Pre-tax profitability	3				
Effect of internalization on firm's profitability	1				
Return on investment	6				
Return on equity	2				
Net profits	3				
Profit margin	2				
Market perceived performance: abnormal return	1			Other financial measures	3,51%
Long-horizon average holding period abnormal returns	1				
Market share	8	Operational Measures	30,61%	Market-related measures	60,00%
Overseas market share	3				
Market share objectives	1				
New market entry	1				
Entry into multiple markets	1				
Market entry	1				
International market penetration	1				
Rapid market expansion	1				
New market creation	1				
Employment growth	1			Other operational measures	40,00%
Employee growth	1				
Development of knowledge/technology	2				
Knowledge development	1				
Effect on development of expertise	1				
Success of product	3				
Sales efficiency	1				
Productivity (sales per employee)	1				
Customer satisfaction	1				
Strategic objective achievements	1	Effectiveness Measures	11,22%		
Extent to which financial and other goals are achieved	1				
Achieving goals	1				
Effect on image	1				
Image development	1				
Perceived international performance	1				
Satisfaction with success in international markets	1				
Perceived self success	1				
Competitor's perception of firm performance	1				
Performance relative to competitor	1				
Perceived firm growth likelihood	1				

Within the 30 operational measures used, the market-related measures dominate (18). Researchers have mainly chosen measures capturing EIFs market share within the market entered or measures gathering how many and how fast new markets are entered. McDougall, Oviatt and Shrader (2003) suggest that home country deficiencies, such as insufficient availability of inputs or factor costs, and the level of global integration in an industry, can further force new ventures to outgrow its home country. Accordingly, measures such as new market entry and market growth seem to be very valuable measures, which EIF researchers should incorporate because they consider how EIFs outgrow their home country deficiencies. The organizational effectiveness measures cover broad ranges from perception of goal achievement to organizational image development. For the six studies using effectiveness measures in conjunction with their financial and operational measures, we could not find any conformance in terms of organizational effectiveness measures used.

4.2 Antecedents of EIF Performance

All antecedents of EIF performance identified are illustrated in Table III-6. The antecedents listed in Table III-6 are identified as significantly related to EIF performance through statistical measurement, or identified as a major competitive advantage, leading to EIF performance through surveys or interviews. The antecedents listed in Table III-6 are the exact terminology of the constructs used in the studies we analyzed. There were 44 different EIF performance antecedents: 64 antecedents in total used in the 28 studies. These antecedents are sorted into three constructs of resources, capabilities, and strategies.

Studies in our analysis examined the influences of various constructs on EIF performance. In particular, research focused on identifying patterns of EIF internationalization concerning its scale, scope, speed, and timing. For example, Kuivalainen et al. (2007) examined the effects of scale (i.e. number of countries) and scope (i.e. distance between countries) of internationalization on EIFs performance. With their empirical study, they demonstrated that 'true' born-global companies, which operate not only in markets close to each other but also in extensive global markets, show a better export performance than firms which only operate in market close to their home markets. Similarly, Gleason et al. (2006) concluded that EIFs, which diversify sales across countries and remain within their managerial resource capacities, are the best performers. Finally, Autio et al (2000) focused on the impact of firms' age at internationalization on performance.

Table III-6 - Literature Review Results: Identified EIF Performance Antecedents

Antecedents	#		
Entrepreneurial orientation	3	Entrepreneurial	Capabilities
Innovativeness Component of Entrepreneurial orientatio	1		
International entrepreneurship	1		
Learning orientation	2	Learning	
International Marketing Orientation	1	Marketing	
Marketing Competence	1		
Marketing orientation	1		
Global Technological Competence	1	Technology & Innovation	
Technology Advantage	1		
Technological Innovativeness	1		
Organizational innovation intensity	1		
Unique Products Development	1	Product related	
Product and Product Quality	1		
Product uniqueness/tailored product	4		
Range of products	1		
New product development capability	3		
Products' technical sophistication/Technical sophistication of products	3		
Quality Focus	1	Operational	
Quality control process	2		
Product quality/control	1		
Meeting customers' specifications	2		
Meeting delivery dates	2		
Leveraging Foreign Distributor Competencies	1		
Company reputation	3	Organizational	Resources
Cooperation	1	Relational	
Networking capability	1		
Personal visits to the market	2		
Venture capital participation	1		
Foreign market knowledge	1	Knowledge	
Overseas market/marketing knowledge	1		
Management commitment	2	Human	
International experience	3		
Personnel's experience & training	1		
Level of business experience of start-up team members	1		
Educational Background	1		
Differentiation Strategy	1	Strategy	Strategies
Niche Market Strategy	1		
Strategic ambidexterity	2		
Mode of entry	1		
Strategic orientation	1		
Technology oriented strategy	1		
Customer Focus	1		
Price competitiveness	1		
Market Advantage	1		

Although these antecedents help us to understand the phenomenon of EIF internationalization, we will focus on constructs that are directly linked to EIF performance as main drivers. As mentioned earlier, this section is based on the modified model of Rialp et al. (2005), examining the relations among EIFs' resources, capabilities, and distinctive strategic features. It is important to note that some measures that we discuss cannot be neatly categorized under a dimension because there is no consensus on the nature of the construct. For example, some researchers (e.g., Deshpande, Farley, & Webster, 1993; Noble, Sinha, & Kumar, 2002) regard strategic orientation as a reflection of the management philosophy and corporate culture which guide company behavior. Other researchers (e.g., Deng & Dart, 1994; Homburg, Krohmer & Workman, 2004; Kohli &Jaworski, 1990) emphasize the strategic aspect of the construct and perceive it as responsiveness to market signals: strategically implementing certain activities to respond to the market. Although we attempted to sort the measures according to existing theories, we had to rely on our own judgment occasionally.

Resources: Oviatt and McDougall (1994) suggested that unique resources are one of the necessary and sufficient elements for sustainable international ventures. The theoretical foundation for this assertion is rooted in the resource-based view (Barney 1991), which argues that differentiated endowment of resources is an important determinant of organizational capabilities and performance. EIF literature (e.g., Oviatt and McDougall, 1994; Zahra et al., 2000) has argued that EIFs must rely on intangible resources because of their limited access to resources. In particular, knowledge that is tacit and unique and can deter imitations has been emphasized as a source of sustainable competitive advantage (Eisenhardt & Schoonhoven, 1990). Accordingly, most of the studies we examined in our analysis reflect this theoretical foundation. The analysis of the studies indicates that extant research has focused on the EIFs' intangible resources such as human capital (top managers' prior business or international experience, network ties, personnel's experience and training), relational capital (e.g. networking capabilities, etc.), organizational capital (company reputation, organizational culture, etc.), and technological capital (technological competence, etc.).

The studies in the analysis emphasize the importance of managers' international experience which leads to knowledge of cross-border business as well as a deeper understanding of cultural issues. Similarly, a strong global business network, with relationships based on trust, is an important element for securing financial support, establishing a supplier base and distribution chain (Oviatt and McDougall, 1995). Organizational culture which is operationalized as organizational orientation is also considered to be an important antecedent of EIF performance. In particular, a strong culture of innovation facilitates learning, which in turn fosters firms' capabilities. In addition, an entrepreneurial culture encourages EIF managers to leverage their resources and capabilities to access foreign markets (Knight & Cavusgil, 2004). Most importantly, the studies in the analysis focused on EIFs' technological capital, which provides the foundation for the development of unique products or services. EIFs need to possess a very clear and distinctive advantage to overcome the liability of foreignness compared to local firms and the liability of smallness to compete with traditional MNCs. In order to face these challenges, EIFs have to provide a distinctive product or service based on superior technological capital.

Capabilities: Capabilities reflects a firm's ability to efficiently perform productive tasks that related to the firm's capacity to create value by transforming inputs into outputs (Nelson & Winter, 1982; Teece & Pisano, 1994). Similarly, Rialp et al. (2005) suggests that EIFs' firm-specific international capabilities can be regarded as unobservable strategic assets that lack home-based path dependencies. This tacit knowledge transfer accumulates over time and is moderated by the effects of causal ambiguity. Capabilities are an outcome of integrated knowledge that is dispersed across a number of individuals and becomes embedded into organizational memory through routinization of organizational practices (Knight & Cayusgil, 2004). Thus, organizational capabilities are the main source of competitive advantage (Grant, 1991).

The studies in the analysis examined EIF capabilities along the value chain focusing on the EIFs' unique international market constraints. For example, the studies paid special attention to EIFs' product-related capabilities including uniqueness, quality, technical sophistication, and the range of products, as well as new product development capabilities. This unique product development yields a differentiation strategy benefit (e.g., Porter, 1980), which enables EIFs to serve niche markets more efficiently (Knight & Cavusgil, 2004). Subramaniam and Venkatraman (2001) found that product development capabilities are significantly dependent on their ability to transfer and deploy tacit knowledge concerning overseas markets. Moreover, product development capabilities are positively related to cross-national teams with prior overseas experience.

Being closely related to product manufacturing and development capabilities, the analysis identified EIFs' strong focus on quality control. Quality focus implies that a firm's resources are specifically allocated to creating superior product or service offerings to enhance customer satisfaction and yield differentiation benefits (e.g., Deming, 1982; Knight & Cavusgil, 2004). EIFs' marketing capabilities have also been emphasized because many EIFs market their products and services to multiple countries simultaneously (Oviatt & McDougal, 1995).

Strategies: EIFs face challenges of general resource scarcity and lack of physical global presence. The former element causes general vulnerability to competition from larger MNCs, while the latter would require resources to build global marketing, sales, and distribution capabilities (Aspelund & Moen, 2005). To cope with these challenges, researchers have suggested that EIFs follow different strategies than larger MNCs. More specifically, our analysis shows that EIFs are often set up to pursue specific market niches (Bloodgood et al., 1996; Keeble et al., 1998; Knight et al., 2004; Knight and Cavusgil, 2004; Moen, 2002) where competition from global players is less intense, but opportunities for profit are significantly higher. In addition, EIFs are more likely to compete with differentiation strategies than domestic start-ups (McDougall et al., 2003). Another strategic approach that EIF research has examined concerns strategic ambidexterity which refers to a way of executing paradoxical strategies (Han, 2007). Han and Celly (2008) applied the concept of organizational ambidexterity to EIF performance and found a positive impact of standardization and innovation on performance. The notion of ambidexterity is based on March´s (1991) exploration (i.e. search, discovery, experimentation, etc.) and exploitation (i.e. refinement, efficiency, etc.) of learning that requires fundamentally different organizational structure, strategies and context.

Learning is an important factor in internalization. The traditional stage model (Johnason & Vahlne, 1977) is built upon this factor. The stage model suggests that firms learn through experience as they penetrate foreign markets, which provides a basis for subsequent higher control entry modes (e.g. foreign direct investment FDI). This incremental accumulation of knowledge through different stages of entry modes influences the evolutionary trajectory of organizational learning (Zahra, 2005). However, EIFs theory (e.g. Oviatt & McDougall, 1994) suggests that EIFs are able to bypass these steps and enter foreign markets via a higher mode of entry (Zahra et al. 2000). Moreover, EIFs learn from foreign markets about new technology trends and competences, which in turn can improve EIFs' future profitability and growth (Zahra et al. 2000). The learning orientation as a subset of strategic orientation is found to be much more critical for EIFs than other traditional firms for their performance (Jantunen et al., 2008). This issue emphasizes the importance of learning for EIFs' successful performance (Zahra, 2005). Similarly, Autio et al. (2000) found that EIFs with intense knowledge are more likely to develop the learning capacity necessary to rapidly adapt to a foreign environment, which leads to higher performance.

5 Future Research Suggestions

This review has highlighted a number of underexplored areas. Building upon our analysis of the extant studies on EIF performance and its antecedents, we have identified important areas which future research should consider in the effort to expand our understanding of how performance is achieved in the EIF context. Based on our analysis, we make our suggestions on areas that have been underexplored.

5.1 Performance Measurement

As we discussed earlier, EIF present unique research challenges for researchers in measuring EIF performance. Accordingly, it is important to be aware of these challenges, while meeting the most rigorous standard of specification for performance measurement (cf. Lewin & Minton, 1986; Venkatraman & Ramanujam, 1986). Thus, we attempt to establish our suggestions on IB performance measurement research in general, while being aware of the unique challenges that EIF research faces. In their analysis of performance measurement in IB research, Hult et al. (2008) raised the question of possibly using a country-specific pattern in the use of data sources. In comparing the nine studies about US-based companies, as a representation of developed countries, to the seven studies from the developing countries: China and India, we find a usage rate of primary data sources in the US-based studies of 55% compared to an over 80% rate for China or Indian based studies. One major reason for using more primary data in developing countries according to the authors of these studies seems to be the lack of available and reliable secondary data. Consequently, improving reliability of the primary data is a crucial task for the researchers. In particular, performance aspects related to EIFs newness, such as rate of market extension or export share, are not easily available as secondary data, researchers are forced to collect data on their own. When collecting primary data, overcoming managers' reluctance to share firm-specific information, such as performance, is essential. Managers' unwilling to share the information may stem from competitive or proprietary concerns (Hult et al. 2008) or cultural differences (Harpaz, 1996). Thus, in order to reduce the managers' unwillingness or distrust, researchers can employ strategies such as cooperating with local research assistants (Zhou, Wu & Lou, 2007) to improve the reliability of the data. Although we agree with Hult et al.´s recommendation to use a combination of primary and secondary data whenever possible, usage of primary data will remain a dominant source due to the young and developing nature of firms and the host country characteristics. Thus, researchers' effort to improve reliability of the primary data will be essential to draw a more accurate inference from the findings.

Another area that requires our attention is the composition of the samples with respect to industry sectors. Several studies focus on companies operating in a special industrial or service sector. Therefore, some conclusions seem to lack comparability and generalizability. Our findings indicate that EIF studies have focused on high-tech firms. Although it was previously assumed that EIFs are typical for the high-tech sector, some studies have identified EIF phenomenon in other areas, like medical solutions, textile printing, woodwork or various types of manufacturing (see e.g. Knight & Cavusgil, 2004; Mostafa, Wheeler & Jones, 2006; Han & Celly, 2008). To enhance cross-industry comparisons, we encourage future researchers to further expand the focus from the high-tech sector and incorporate new industry and service sectors to improve the generalizability of the results.

One last suggestion regarding EIFs performance measurement is the stronger incorporation of longitudinal data. Considering the young nature of the research object, this suggestion seems contradictory. However, in order to make valid causal inferences on EIF performance, researchers need to collect performance data across organizations and over multiple time periods (Hult et al. 2008). This is particularly important because the majority of EIF performance studies use primary data. Consequently, special attention is necessary to collect performance data at a time later than the data on antecedents or other explanatory data. In order to derive more holistic insights on EIFs performance and its antecedents, future research needs to examine more longitudinal data, which would strengthen the value of EIFs performance and antecedent results.

5.2 Performance Antecedents

Resource factors: Our analysis on EIF studies indicates that the focus of EIF research on the effect of human resources on performance has been limited to the founding members or top management teams. The research mostly focused on the human capital of top management teams (TMT) by examining the effects of their international experience, educational background, and business experience, etc. Although TMT's human capital is an essential factor for the EIF's survival, as well as their success in foreign countries as unique organizational human assets, how TMT human capital interacts with other factors also requires future attention. The upper echelons perspective (Hambrick and Mason, 1984) suggests that top managers' demographic characteristics can be proxies for unobservable psychological constructs that will lead to firms strategic choices, which in turn affect firms' performances. In order to expand our understanding of TMTs of EIFs, future research should examine the effect of various theoretical constructs, such as composition, access to resources, access to information, etc. on performance. For example, many anecdotal examples illustrate that EIF founding members having various nationalities. Is the heterogeneity of founding members' nationality an essential ingredient for international success? Or will the same nationals with various international experiences with superb foreign language skills suffice? Moreover, it would be helpful to understand how TMT group dynamics, power distribution among members, team processes, or incentive systems affect the relationship between TMT characteristics and TMT's strategic choices.

While considerable attention has been given to TMT characteristics, how EIFs manage their human resources to recruit, select, train and develop their talent has been understudied. EIFs' motivation for internationalization is not to seek inexpensive labor, which tends to be unskilled. Instead, EIFs mostly rely on highly skilled talent and many founders identified their own special knowledge that the people on the venture has as their competitive advantage (Oviatt & McDougall, 1995). Based on their extensive interviews with EIFs, Oviatt and McDougall (1995) suggested that EIFs must take "great pains to recruit, train, and manage their human resources very effectively" and have a system to utilize those resources for continual innovation of sustainable competitive advantage. Therefore, it is essential for the EIFs to recognize the value of the resource and develop a human resource system to attract, develop, and retain human resources that lies in the heart of the EIFs' strategic advantage and performance. Concerning investigation on EIFs that have failed, Oviatt and McDougall (1995) identified that losing critical human resources leads to a loss of essential technical skills and knowledge, which in turn resulted in firms' failure. Researchers (e.g., Boxall, 1996; Lado & Wilson, 1994; Oviatt & McDougall, 1995) in the field of strategic human resource management argue that HR system can be unique, causally ambiguous, and synergistic in enhancing firm's competencies. Thus, future research may investigate what type of human resource system may be most conducive to EIFs performance. The research questions may ask; if traditional human resource systems can sustain the EIFs unique characteristics, such as high reliance on human capital, dispersed human resources throughout the world, need for global coordination, etc.

Capability factors: The ability to internationalize early and be successful is a function of internal capabilities (Autio et al., 2000; Oviatt & McDougall, 1994; Zahra et al., 2000). The assessment results suggested that EIFs' capabilities in marketing, technological innovativeness, and unique product development are associated with their performance. That is, EIFs' capabilities to create distinctive products or services along with strong marketing competence are the main source of competitive advantage. With these capabilities, in comparison to traditional MNCs' economies of scale and other advantages stemming from their large size and long experience, EIFs can overcome the multiple liabilities of small size, and lack of experience, being in the foreign countries. The capabilities that lead to EIF are characterized as tacit and causally ambiguous.

Some EIF studies in our analysis have examined the dynamic capabilities of EIFs (e.g. Jantunen, et al., 2008) using proxies such as strategic orientation as a part of the firm's bundle of dynamic capabilities that are essential in the internationalization process. However, further research on the dynamic nature of the capabilities will be valuable in order to deepen our understanding of how EIFs create competitive advantages and sustain their competitiveness. The 'dynamic capability' refers to a firm's ability to modify, reconfigure, and upgrade resources and capabilities in order to strategically respond to or generate environmental change (Eisenhardt & Martin, 2000). A clear understanding of dynamic capabilities of EIFs is critical because of EIFs' very characteristics. EIFs are smaller in size and possess relatively fewer resources so that EIFs are much more vulnerable to environmental turbulences. Consequently, further research could support in better understanding how EIFs integrate different resources and capabilities to create new value-creating products and services, or reconfigure resources and capabilities through strategic alliances or acquisitions. Dynamic capabilities account for the changing external environmental and emphasize the firm's capability to renew its resources and capabilities. Dynamic capabilities are critical for firms in industries in which time to market is critical, technological change is fast, and future competition are difficult to predict (Teece & Pisano,1997). Therefore, these firms need to be very agile to be able to make dramatic changes in a very short period of time. Given that EIFs tend to thrive in technology intensive industries (Oviatt & McDougall, 1995), being able to adapt to a quickly changing environment by renewing their resources and capabilities will allow them to sustain their competitive advantages.

Although the "essence of a firm's …dynamic capabilities is …in the firm's organizational processes" (Teece, Pisano, and Shuen, 1997; 524), current research on dynamic capabilities has placed less emphasis on the process that underpins dynamic capabilities and the constraints that firms face in taking a certain strategic path (Helfat et al., 2007). Thus, future research about EIFs may investigate the process of search and selection of appropriate resource bases involving managerial dynamic capabilities. For example, how do EIFs identify threats and opportunities, and decide on their relevance to performance and survival? It would also be valuable to investigate if EIFs require different types of dynamic capabilities in reconfiguration and coordination of resources in comparison to traditional MNCs. For example, what mechanisms do EIFs use to reconfigure their resources? Do they follow typical acquisition and alliance procedures? Lastly, what is the sustainability of performance driven by dynamic capabilities?

Strategy factors: The systematic assessments of the literature suggests that EIFs employed differentiation strategy through unique products and services, or targeted niche markets to penetrate into foreign countries, or focused on developing new technology. Furthermore, EIFs adopt strategic ambidexterity to survive and succeed in the early internationalization. Strategic ambidexterity refers to organization's ability to be aligned and efficient in its management of today's business demands while simultaneously being adaptive to changes in the environment (Raisch & Birkinshaw, 2008). Duncan (1972) first proposed the ideas of dual structures as a way to deal with the conflicting demands of efficiency and effectiveness. However, March's (1991) seminal work on *exploitation* and *exploration* proposed two fundamentally different learning activities between which firms divide their attention and resources. This brought attention to conflicting tensions that firms have to negotiate. While exploitation includes “such things as refinement, choices, production, efficiency, selection, implementation and execution”; exploration includes things “such as search, variation, risk-taking, experimentation, play, flexibility, discovery, and innovation” (March, 1991; Raisch & Birkinshaw, 2008). Tushman and O’Reilly proposed that ambidextrous organizations possess “the ability to simultaneously pursue both incremental and discontinuous innovation and change” and called for organizational architectures that host “multiple contradictory structures, processes and cultures within the same firm” (Tushman & O'reilly, 1996). The core ideas of ambidexterity deal with an organization’s capability to manage contradictions and multiple tensions in dealing with issues of the present and the future, efficiency and effectiveness, alignment and adaptation, and optimization and innovation.

Although a small amount of research concerned the EIFs strategic ambidexterity (e.g. Han, 2007; Han & Celly, 2008), we believe this topic is especially salient in EIF research. Since EIFs are small firms facing many conflicting challenges, future research delving into the effectiveness of strategic ambidexterity would shed light on sustainable advantages of EIFs. EIFs with limited resources need to achieve efficiency while looking for ways to innovate continuously. Ensuring a firm’s advantage is a “moving target” (Oviatt and McDougall, 1995). Thus, in order to succeed, EIFs not only have to emphasize exploitation and alignment during periods of evolutionary change but also pursue radical transformation and exploration in periods of revolutionary change (Tushman & O’Reilly, 1996). That is, EIFs have to simultaneously pursue both incremental and discontinuous innovation (Tushman & O'Reilly, 1996). Similarly, EIFs have to cultivate organization’s capacity for change with its ability to balance the need to implement changes and the need to maintain daily operations (Meyer & Stensaker, 2006). Future research could focus on resource endowment of EIFs and its impact on their strategic ambidexterity. Research (e.g., Ebben & Johnson, 2005; Lubatkin, Simsek, Ling, & Veiga, 2006) suggests that organizational ambidexterity may be dependent on the availability of organizational resources. Consequently, EIFs’ limited resources may impede EIFs pursuing strategic ambidexterity. Thus, investigation on EIFs with successful strategic ambidexterity may shed light on the determinants of successful implementation of the strategy.

Environmental factors: One of the most understudied areas of EIF performance research is the impact of environmental factors on performance. As mentioned earlier, only two studies slightly covered the direct measurement of the external environment impact. Considering the nature of smallness and newness, EIFs are much more vulnerable to environmental factors. In addition, transnational operations incur additional risks. Consequently, understanding the role that the external environment plays in EIF performance will have theoretical as well as managerial importance. Thus, future research needs to investigate how environmental factors (e.g. industry, local market, international market, and institutional context) influence EIF performance. Although all external factors are critical, we focus on the institutional context of EIFs.

Institutional settings of the host country can enable or constrain EIFs activities. The extent of institutional development in the host country, as well as home country, can affect the firm's performance. For example, Makino, Isobe and Chan (2004) identified that the level of the host country's institutional development affects foreign affiliates' performance. More specifically, the absence of effective market-based institutions protecting property rights and ensuring fair competition have negative impact on business activities (Broadman et al., 2004). In addition, EIFs face additional liabilities for being foreign. This liability of foreignness (Zaheer, 1995) increases the cost of doing business abroad (Hymer, 1976) because of lack of knowledge or experience in the host country and possible differential treatment from the government and/or public (Eden and Miller, 2004). EIFs not only face liability of foreignness, but also face the liabilities of newness and smallness (in comparison to traditional MNCs) in the environment. Consequently, EIFs' ability to overcome these liabilities and gain legitimacy will not only determine their survival but also their financial success and organizational effectiveness. Legitimacy refers to the right to exist and perform an activity in a certain way (Suchman, 1995). It is essential for EIFs to legitimize their activities to gain access to resources and secure support from stakeholders and local society (Aldrich and Fiol, 1994). Consequently, it will be an important effort to understand how the institutional environment of the host country(s) affects EIF performance. Furthermore, understanding how EIFs respond to the institutional pressure of the host country and what legitimation strategies are used to gain access to the necessary resources would shed light on how EIFs negotiate difficult institutional challenges and overcome enormous liabilities. Traditional internationalization theorists such as Johanson and Vahlne (1990) argued that those challenges are to too risky for new and small firms, yet EIFs are not only increasingly prevalent, but many are also proven to be successful.

6 Conclusion and Limitations

In this paper, we contribute to the growing body of research on early internationalizing firms, their special performance measurement and performance antecedents. First, by systematically analyzing EIF literature, we identified the types of performance measures used, compared these to traditional IB literature, and identified some unique characteristics of EIF performance measures. There is a strong need for EIF researchers to base their performance measurement on a well-balanced set of financial, operational and effectiveness measures. Additionally, EIF research needs to incorporate both primary and secondary data to overcome the inherent challenges of EIF performance measurement, owed by scarce sources of reliable and valid secondary data, especially financial data. Second, we systematically identified and synthesized the antecedents of EIF performance. By doing so, we could find a set of 44 different EIF performance antecedents – composed of EIF specific resources, capabilities and strategies – that have been implemented by extant research. Several EIF-specific antecedents were identified: special organizational and technological resources, product related-capabilities, niche market strategy and strategic ambidexterity. Third, we reflected on our findings to provide suggestions for future research. With our suggestions for future research including performance measurement aspects and environmental, strategic, resource and capability factors, we aim to shed light on promising areas of EIF research not yet fully explored.

Despite our extensive assessment approach, our research is not without limitations. Our systematic collection of literature was based on a selected set of keywords in order to obtain the most relevant literature. Nevertheless, we are unable to guarantee having included all relevant studies. In combination with the extensive literature review to test the validity of the results of our sample, we feel confident to have incorporated interesting insights from studies slightly different than our research topic, which provided a relatively comprehensive presentation of current research. Furthermore, to be able to analyze our sample of 28 studies in depth, we had to set certain criteria ex ante. We are quite satisfied with our criteria but were unable to include all criteria, such as industry-specific patterns. Therefore, we suggest future research to incorporate industry-specific effects on EIF performance.

As stated by Kuivalainen et al. “it is not easy to distinguish what are the performance consequences of the internationalization strategy” (2007: 254), but we feel confident that our combined analysis of performance antecedents and performance measures demonstrates helpful venues for future research to gain more insight about early internationalization performance results.

7 References[1]

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8 Appendix

Table III-7 - Performance Measurement Details of Analyzed Studies (Part I)

Study	Name of Performance Construct Used	Mode of Measure-ment	Type of Data Used	Performance Measures Used in Article						Performance Dimensions* F	O	E
Knight et al. (2004)	international performance	subjective	primary	sales growth	pre-tax profitability	market share	sales growth relative to competitors	success of product		x	x	
Knight and Cavusgil (2004)	performance in international markets	subjective	primary	market share	sales growth	pre-tax profitability	ROI	success of product	development of knowledge/ technology	x	x	
Knight and Cavusgil (2005)	international performance	subjective	primary	market share	sales growth	pre-tax profitability	gaining new knowledge/ technology	ROI	success of product	x	x	
Kropp et al. (2006)	international entrepreneurial business venture performance	subjective	primary	before-tax profits	market share	ROI	pre-tax profit margin	achieving goals		x	x	x
Kuivalainen et al. (2007	export performance	subjective	primary	sales growth	export volume	market share	new market entry	sales efficiency	export profits	x	x	
Mort and Weerawardena (2006)	international market performance	subjective	primary	BG's entry into multiple markets	rapid market expansion						x	
Mostafa at al. (2005)	export performance	subjective	primary	sales growth	profitability	strategic objective achievements	perceived self success	competitor's perception of firm performance		x	x	x
Naudé (2009)	firm performance	objective	secondary	productivity (sales per employee)	growth in export volume	sales growth				x	x	
O'Cass and Weerawardena	marketplace performance	subjective	primary	entering new markets	market share	customer satisfaction					x	
Rhee (2002)	performance in international expansion	objective	secondary	sales growth						x		
Shrader (2001)	performance	objective	primary & secondary	profitability	sales growth					x		
Yeoh (2000)	export performance	objective	primary	percentage of exports to sales	growth in export volume					x		
Zhang et al. (2009)	international market performance	subjective	primary	financial	strategic	performance relative to competitor				x	x	x
Zhou et al. (2007)	business performance	subjective	primary	export growth	profitability growth	sales growth				x		
Zhou (2007)	effectiveness of international performance	subjective	primary	international sales growth						x		

* F-Financial; O-Operational; E-Effectiveness

Table III-8 - Performance Measurement Details of Analyzed Studies (Part II)

Study	Name of Performance Construct Used	Mode of Measure-ment	Type of Data Used	Performance Measures Used in Article						Performance Dimensions* F	O	E
Knight et al. (2004)	international performance	subjective	primary	sales growth	pre-tax profitability	market share	sales growth relative to competitors	success of product		x	x	
Knight and Cavusgil (2004)	performance in international markets	subjective	primary	market share	sales growth	pre-tax profitability	ROI	success of product	development of knowledge/ technology	x	x	
Knight and Cavusgil (2005)	international performance	subjective	primary	market share	sales growth	pre-tax profitability	gaining new knowledge/ technology	ROI	success of product	x	x	
Kropp et al. (2006)	international entrepreneurial business venture performance	subjective	primary	before-tax profits	market share	ROI	pre-tax profit margin	achieving goals		x	x	x
Kuivalainen et al. (2007	export performance	subjective	primary	sales growth	export volume	market share	new market entry	sales efficiency	export profits	x	x	
Mort and Weerawardena (2006)	international market performance	subjective	primary	BG's entry into multiple markets	rapid market expansion						x	
Mostafa at al. (2005)	export performance	subjective	primary	sales growth	profitability	strategic objective achievements	perceived self success	competitor's perception of firm performance		x	x	x
Naudé (2009)	firm performance	objective	secondary	productivity (sales per employee)	growth in export volume	sales growth				x	x	
O'Cass and Weerawardena	marketplace performance	subjective	primary	entering new markets	market share	customer satisfaction					x	
Rhee (2002)	performance in international expansion	objective	secondary	sales growth						x		
Shrader (2001)	performance	objective	primary & secondary	profitability	sales growth					x		
Yeoh (2000)	export performance	objective	primary	percentage of exports to sales	growth in export volume					x		
Zhang et al. (2009)	international market performance	subjective	primary	financial	strategic	performance relative to competitor				x	x	x
Zhou et al. (2007)	business performance	subjective	primary	export growth	profitability growth	sales growth				x		
Zhou (2007)	effectiveness of international performance	subjective	primary	international sales growth						x		

* F-Financial; O-Operational; E-Effectiveness

Paper #3
Under Review in "Entrepreneurship Theory and Practice"

IV Impact of Institutional Coordination on National Entrepreneurship: A Conceptual Framework

by Kim Clark, Gordian Rättich, Evi Hartmann

Abstract

The objective of this paper is to understand how the institutional context of a country affects the rate of its entrepreneurship. Drawing upon varieties of capitalism and the network approach, we propose a counterintuitive approach to cross-country institutional environments to elucidate how political and economic institutions of coordinated market economies (CMEs) negatively affect the early stage of entrepreneurship. To support our assertion, an empirical examination is conducted using Global Entrepreneurship Monitor data. Furthermore, we examine the institutional impact on the early stages of entrepreneurial process to explore underlying reasons why institutional coordination of CMEs constrains the early stages of entrepreneurship.

Keywords: Entrepreneurship, New Ventures, Varieties of Capitalism, Institutional Environment, Network Theory

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1 Introduction

Many researchers have suggested that entrepreneurship is "at the heart of national ad-vantage" and have discussed the links between entrepreneurship and national economic growth (Porter, 1990; Schumpeter, 1934). However, there is only limited understanding of why entrepreneurship rates vary across different countries and what national factors promote or constrain entrepreneurship (Bruton, Ahlstrom & Li, 2010). Consequently, understanding the contextual aspect of entrepreneurship is an important part of entrepreneurship research (Low & MacMillan, 1988). Entrepreneurship researchers (e.g., Alexander, 1967; Cochran, 1965, etc.) have recognized the significance of complex economic, social, and psychological impacts on the entrepreneurial process. In particular, a stream of research (e.g., Martin, 1984; Vesper, 1983, etc.) has focused on specific social and cultural settings of an "opportunity structure" referring to "integral features of any given situation are both an objective structure of economic opportunity and a structure of differential advantage in the capacity of the system's participant to perceive and act upon such opportunities" (Glade, 1967, p. 251).

However, entrepreneurship research on how the institutional context of a country af-fects the rate of its entrepreneurship, and how these different institutional conditions influence the entrepreneurial process has not been fully examined. Based on varieties of capitalism theory, our main focus is to understand how the extent of institutional coordination of a country influences its rate and the process of entrepreneurship (conception, gestation, infancy and adolescence stages). Entrepreneurs are both constrained and enabled by institutional arrangements in their environment (Bruton & Ahlstrom, 2003). Institutions are the "rules of the game", constraining and shaping human interactions (North, 1990, p.3). Thus, the institutional environment defines entrepreneurial activities and affects the rate and size of new venture creation (Aldrich, 1990). Researchers have focused on understanding the impact of specific institutional arrangements of a country on its entrepreneurship. For example, Bartholomew (1997) investigated how a pattern of national institutions, such as access to research, education, and financing, as well as the availability of an educated labor pool, influence the emergence of national innovation. Researchers have also examined the effect of institutional development level on entrepreneurship. They argue that an inadequate institutional development can hamper entrepreneurship

(Baumol, Litan, and Schramm, 2009), while a highly developed institutional environment with overly restrictive regulations can also discourage entrepreneurship (Soto, 2000).

Within the field of crosscountry studies, political economics has been interested in un-derstanding the differences in economic and political institutions across countries (Hall & Soskice, 2001). Among which, the comparative capitalism research domain integrates comparisons of institutions into broad theoretical approaches to understand different institutional systems (Jackson & Deeg, 2008). Comparative capitalism views institutions as being systematically interdependent configurations (Aoki, 1994). Hence, the society solves coordination problems in a way that it creates strategic complementarities among different sets of institutions (Milgrom & Roberts, 1990). They suggest that these complementarities of different institutions lead to distinctive patterns of institutional configurations at a national level (Whitley, 1999) to form “varieties of capitalism” (Hall & Soskice, 2001). These distinct types of institutional configurations engender a particular logic of economic action which in turn leads to a national comparative advantage for specific types of business activities.

In a similar vein, we argue that these different patterns of institutional configurations affect national levels of entrepreneurship. We suggest that various political and economic institutions of a country coordinate and interact with each other in ways that influence the creation of an entrepreneurial environment. The mechanisms that coordinate these institutions can range from non-market coordination among firms to market coordination among markets (Hall & Soskice, 2001). Thus, our two main research questions are: Do these different institutional coordination mechanisms affect the level of entrepreneurship in a country differently? If there is a significant variance between the different institutional coordination mechanisms, what are the underlying reasons for a certain mechanism to be more conducive to entrepreneurship than the other? The configurational approach of comparative capitalism, the varieties of capitalism theory in particular, is salient in explaining the institutional impact on entrepreneurship and cross-country differences in entrepreneurial phenomena because it goes beyond the current research of viewing the institutional setting of entrepreneurship as a static factor. Accordingly, authors such as Witt and Lewin (2007) and Redding (2005) have argued for a more dynamic, yet nuanced framework of understanding the institutional environment of a country as a complex system. Institutions are not isolated entities. Instead, they are interconnected with each other, evolve in response to the challenges they face, and influence each other's actions. By examining the institutions as a complex system impacting entrepreneurship, this study attempts to account for their complexity, uniqueness, and richness.

We argue that the level of national entrepreneurship is directly related to the institutional coordination mechanism. Drawing upon varieties of capitalism theory from comparative political economy literature, entrepreneurship literature, institutional theory (e.g., Meyer and Rowan 1977; DiMaggio and Powell 1991) and the network approach (e.g., Burt, 1992; Granovetter, 1985), we extend this assertion and propose a counterintuitive approach with regard to cross-country institutional environments. We contend that political and economic institutions of a country, coordinated through strategic non-market relations, will negatively affect the early stages of entrepreneurship. In other words, the more the institutions are coordinated by non-market mechanisms, the less likely those entrepreneurs will be able to identify and exploit opportunities available in the environment. In order to provide evidence to support our assertion, we conduct an initial empirical examination of this association using Global Entrepreneurship Monitor (GEM) data and an institutional coordination index. Furthermore, we examine implicit reasons why non-market institutional structures are negatively related to the early stages of entrepreneurship, by examining the impacts of different institutional domains on the various stages of *conception, gestation, infancy, and adolescence* in the entrepreneurial process of venture creation.

By answering these research questions, we attempt to make contributions to interna-tional business (IB), international entrepreneurship and institutional theory in three ways. First, we introduce the concept of comparative capitalism from political economics from the international business literature. Jackson and Deeg (2008) argue that IB research has paid little attention to comparing institutional patterns and understanding their diversity, and suggest that cross fertilization of IB and comparative capitalism has strong potential for theoretical and empirical contributions. We address this gap in the IB literature by comparing the impacts of different institutional configurations on entrepreneurship. Second, international entrepreneurship research has called for more research on cross-country studies which examine the institutional impacts on the national level of entrepreneurship (e.g., Davidsson and Wiklund, 2007). By examining the impact of different types of institutional patterns on national entrepreneurship across countries, we endeavor to make contributions to international entrepreneurship literature. Third, by examining the institutional impact on individual levels of entrepreneurship, we attempt to link institutional impact to individual behavior. The phenomena of entrepreneurship simultaneously take place in and affect different societal levels (Davidsson and Wiklund, 2007). Entrepreneurial activities that start at an individual level can result in industry creation (Aldrich and Martinez, 2001) through innovation, which, in turn, can have positive effects on the creation of jobs and economic growth at the societal level (Baumol, 1993). Consequently, researchers, such as Low and MacMillan (1988), argued that multi-level research considering micro- and macro-perspectives is most salient in entrepreneurship research. We therefore attempt to expand the institutional theory by linking macro level institutions to micro level individual behavior, integrating different levels of analysis (Burton, Ahlstrom, and Li, 2010).

The paper is organized as follows: it begins with an overview of the varieties of capitalism perspective from comparative capitalism literature to provide a conceptual background. Next, we discuss specific institutional arrangements in the domain of comparative capitalism and describe its link to entrepreneurship. We then examine GEM data and the coordination index from varieties of capitalism literature to support our assertion. Thereafter, we investigate reasons why non-market institutional coordination affects early stage of entrepreneurship negatively. Finally, we conclude with suggestions for future research.

2 Conceptual Overview

One of the key areas of political economists' interest is to understand national variations of political economic institutions. Within the domain of comparative political economy, a recent body of work termed *varieties of capitalism* (Hall and Soskice, 2001) focuses on the nature of institutional complementarities found in the political economies of the developed world. The following section provides a brief overview of varieties of capitalism and its core concepts. We then present an overview of network perspectives that offer a theoretical link between varieties of capitalism theory and entrepreneurship.

2.1 Varieties of Capitalism and Institutional Coordination

Institutional environments vary systematically across different countries. The research field of comparative capitalism focuses on these variations amongst countries. The major tenet is that different societies have evolved structurally distinct forms of capitalism, as expressed in the institutional framework within which individuals, firms and industries are embedded (Witt & Lewin, 2007). Built upon a relational view of the firms, the varieties of capitalism theory is based on the assumption that firms are the central actors in the economy, in which multiple actors (e.g., individuals, firms, producers, governments, etc.) seek to advance their interests in a rational way through strategic interactions with each other (Scharpf, 1997). The main assumption of varieties of capitalism is that firms engage with others in multiple domains of the political economy to develop their core competences and dynamic capabilities. These interrelationships between the firms and other actors are organized and structured within a framework of incentives and constraints or "rules of the game" to resolve coordination problems. In this framework, firms are embedded in a context with four institutional domains: a) industrial relations to regulate wages and working conditions, b) vocational training and education to ensure that workers have the requisite skills, c) corporate governance to access finances, and d) interfirm relations to secure inputs and technology (Jackson & Deeg, 2005)[2]. This institutional framework is determined by coordination mechanisms such as markets and hierarchies (Williamson, 1975), or other non-market mechanisms, such as social networks (Powell, 1991), associations (Streeck & Schmitter, 1985), and government intervention. Hall & Soskice (2001) suggest that a complementarity exists when "the presence (or efficiency) of one institution increases the return from (or efficiency of) the other" and complementarities between the institutional domains characterize political economy of a country. (p. 17).

The varieties of capitalism approach draws distinctions from two major modes of coordination along a continuum. On one end, called "*liberal market economies* (LMEs)", firms coordinate with others through competitive market relationships with arm's-length exchanges of goods, services and formal contracting. The actors adjust

2 Hall and Soskice (2001) propose five distinct spheres. The fifth sphere is "employees" which are internal elements of the firm. The central problem for the firm, in regards to employees, is to ensure that employees have the requisite competencies and cooperate with others to advance the objectives of the firm. (p. 7).

their behavior based on the supply and demand of neoclassical economics. On the other end, termed "*coordinated market economies* (CMEs)", firms coordinate strategically with others through processes of non-market relationships entailing incomplete contracting, network-monitoring based on the exchange of private information, and more reliance on collaborative relationships to build the competencies of firms. Hall and Soskice suggest that "the institutional framework of the political economy provides firms with advantages for engaging in specific kinds of activities" (2001, p. 32), implying firms in different market economies (e.g., LMEs vs. CMEs) will behave differently.

Hall and Gingerich (2004) establish *coordination* as a crucial dimension reflecting variation along a spectrum: from market coordination (LME) to strategic coordination (CME). The empirical measurement of coordination, the coordination index (Hall & Gingerich, 2004) revealed that the United States is a typical LME that is coordinated by market mechanisms. Specifically, firms in the United States face large equity markets characterized by high levels of transparency and dispersed shareholdings, where firms' access to external finances depends on publicly accessible criteria such as market valuation. Regulatory regimes allow hostile takeovers that depend on share price, rendering managers sensitive to current profitability. Due to relatively weak trade unions and low employment protection, labor markets are fluid, and wage-setting is generally done through contracts between workers and individual employers. The deregulated labor markets allow the firms to hire and fire employees at low cost, set flexible reward systems, and have no co-determination rights. Additionally, fluid labor market with low employment protection and unemployment protection encourages workers to invest in developing general skills that are easily transferred to other jobs. This system permits mobility of workers, and firms do not rely on inter-firm collaboration for diffusion of technology. Instead, it is primarily achieved by the market (e.g., new hires, alliances, licensing, etc.). Furthermore, weak industry-related associations suppress the collaborative training programs fostering industry-specific skills (Hall & Soskice, 2001). Other examples of LMEs are Australia, the United Kingdom, Canada, and Ireland.

On the other hand, Germany contains examples of CMEs. In Germany, firms are connected by dense networks of cross-shareholding and influential employers' associations. This network of inter-company relations allows cooperation, standard setting, and technology transfer among firms, through which firms develop reputations. Accordingly, firms can rely on their reputation to gain access to capital rather than their share value. Because the corporate governance system is allowed to use reputation-based monitoring systems, firms' access to capital is relatively independent of fluctuations in their profitability, which allows long-term financing as well as long-term job security to their employees. Education and training systems in Germany provide workers with industry-specific skills that are not easily transferred to other jobs. The risk of sunken investment in industry-specific skills, however, is reduced by the presence of strong trade unions and powerful work councils that provide high employment protection and the state with high unemployment protection. These trade unions and work councils also play important roles of supervising collaborative training schemes and coordinating wage-setting. Wage-setting, through collective bargaining at industry level, equalizes wages at equivalent skill levels, which, in turn, make labor poaching from other employers more difficult. The interaction effect of these systems makes labor markets less fluid, which makes firms rely on industry-level collaboration for knowledge transfer. Other examples of CMEs are Austria, Italy, and Belgium. These institutional variations across different coordination mechanisms are summarized and compared in Table IV-1.

Table IV-1 - Comparison between CMEs and LMEs

Complementarities of Institutions

Coordination Mechanism	CME	LME
	Strategic non-market	**Market**
Education and training system	Firm or industry specific skills are trained	General skills are trained
Corporate governance	Monitoring based on relations and reputation	Monitoring based on publicly assessable information
Industrial relationship	Employee cooperation in companies and wage moderation; co-determination rights	Deregulated labor markets, low cost hiring and firing, no co-determination rights, flexible reward-setting
Intercompany relations	Cooperation, standard setting & technology transfer	Strong competition policy, market competition, technology transfer via market
Example country	Germany	United States

2.2 Network Perspective

Network research stems back to classic literature in economics and sociology that social and relational structure influence market processes (Thornton & Flynn, 2005). Granovetter (1973) asserts that weak ties are important in accessing information leading to opportunities because, in contrast to close ties that lead to a small number of relations, weak ties lead to a large number of relations which may lead to more opportunities. In addition, Granovetter (1973) argues that bridging the ties between networks exposes actors (e.g., entrepreneurs) to new information and opportunities.

Burt (1992) extends this notion of bridging the ties with the theory of 'structural hole', linking the concepts of network structure and entrepreneurship (Stuart and Sorenson, 2005). Burt (1992) refers to structural holes as "disconnections or nonequivalence between players in the arena" and argues that in market competition, actors' structural positions in social relations matter because information is never evenly distributed throughout the relations (p. 2). Emphasizing the importance of open networks, structural hole theory suggests that network positions with the highest economic returns lies between, not within, dense regions of relationships (Walker, Kogut, & Shan, 1997). Accordingly, by bridging structural holes, actors can gain profits by establishing ties to bridge these otherwise unconnected actors (Burt, 1992). Occupying a bridging position provides an opportunity to wield power, or influence those who are not connected to the broader network (Krackhardt, 1995).

In comparison to the open network of structural holes, Coleman (1988) emphasizes the importance of network closure in which cohesive ties promote a normative environment that facilitates trust and cooperation between actors. Similarly, Granovetter (1985) argues that embeddedness in dense networks leads to effective cooperation. Coleman (1988) also suggests that networks should be closed or dense to create social capital, a resource that helps developing norms of acceptable behavior and diffusion of information about behaviors. Consequently, closed networks increase predictability of behaviors, constrain self-seeking opportunism, and enhance cooperation (Walker et al., 1997). Dense or closed networks are also seen as the means by which collective capital can be maintained when resources inside the network are sufficient and mobilized for its members' gain (Lin, Cook, and Burt, 2001).

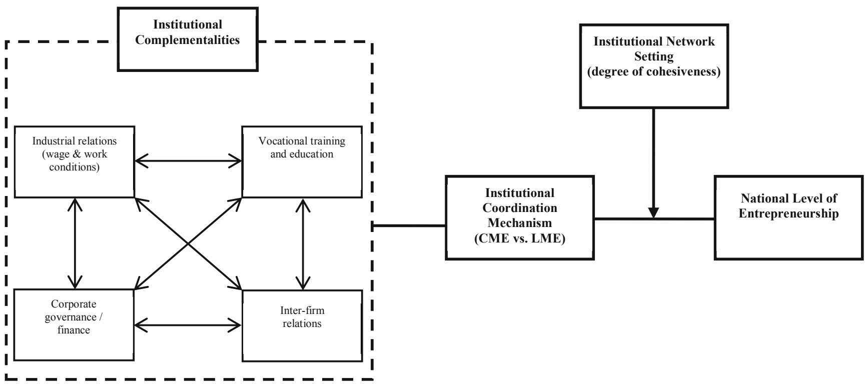
Social capital emphasizes the value of stability fostered by cohesive network, while structural holes focus on utility of social capital coming from the diversity of information and brokerage opportunity by connecting separate information (Gargiulo & Benassi, 2000) Thus, tension exists between two opposite views on how social capital is created. Although cooperation among members in a cohesive network may lead to safety or stability of the network, Gargiulo and Benassi (2000) found that closed networks can be a source of rigidity. They suggest that cohesive network can be an obstacle for adaptation and a network rich in structural holes may be a source of information about opportunities and flexibility. Similarly, Podolny (1993) examines tradeoffs between a network rich in structural holes and a cohesive network. Through a firm level analysis, the author suggests a contingency perspective that saliency of network depends on the different types of market uncertainty. Finally, Adler and

Kwon (2001) note that the ultimate value of weak or strong ties depend on contextual factors of the task at hand and the symbolic demand of legitimacy.

3 Institutional Coordination and Entrepreneurship

The network theory has become ubiquitous in the field of entrepreneurship research (Veciana, 2007). Malecki (1997) emphasizes the importance of entrepreneurial environments with thriving and supportive networks that provide the institutional arrangement, linking individual entrepreneurs to organized sources of learning and resources. Thus, in this section, we integrate institutional coordination and entrepreneurship through the lens of network perspective, and explore what type of institutional arrangement is more conducive to provide a nurturing entrepreneurial environment. In particular, we focus on understanding how different coordination mechanisms for the key political and economic institutions impact early stages of entrepreneurship. The key variables and their relationships are illustrated in Figure IV-1 and are discussed in detail afterward.

Figure IV-1 - Conceptual Framework



3.1 The Network Perspective on Institutional Coordination and Entrepreneurship

In the field of entrepreneurship research, the network approach provides an important theoretical foundation in explaining the identification of entrepreneurial opportunities and mobilization of resources (Stuart and Sorenson, 2005). Aldrich and Zimmer (1986) suggest that entrepreneurship can be viewed as embedded in networks of continuing social relations, facilitated or constrained by linkages between aspiring entrepreneurs, resources, and opportunities.

They argue that increasing an individuals' social network diversity will broaden the scope of opportunities available for them. In particular, having ties to those contacts with the most needed resources will provide the most access to the resources and more entrepreneurial opportunities.

Comparative capitalism theories have examined how various domains in the institutional constellations are structured and fitted together. For example, researchers (e.g., Roberts, 2004) suggest that the extent to which various institutions are tightly or loosely coupled will determine how easily institutions are changed or combined. Similarly, institutional arrangement in the varieties of capitalism approach can be considered a network of functional interdependence of institutions (Milgrom and Roberts, 1990), leading to a different level of "internal cohesion" among institutions (Jackson and Deeg, 2008: 546). As previously mentioned, varieties of capitalism is based on a relational view of the firms where firms build relationships with a range of other actors to resolve coordination problems central to their core competences. This relational network of firms and other institutional actors are embedded in the institutional framework (Granovetter, 1985). Relational network can also be characterized as governance structures for economic, social, and political exchanges, embodying unique "logics" (Powell, 1990, p. 307) that refer to a shared understanding among the actors. These structures play the role of informal rules, encouraging actors to coordinate with one another in strategic interactions (Hall and Soskice, 2001).

The varieties of capitalism concept suggests that the institutional complementarities are coordinated through different mechanisms, such as market (LMEs), and strategic non-market relations (CMEs). Accordingly, institutional arrangement by different mechanisms would have resulted in distinctively different network structures. We suggest that the more institutional coordination depends on strategic non-market relations among organizational actors, the more closed the network is. Moreover, we argue that the more institutional domains are closed, the less likely that the political economic environment is conducive to entrepreneurship. This assertion is based on the network perspective, which suggests open networks with deep structural holes will be more favorable for entrepreneurs to identify entrepreneurial opportunities. In addition, in an open network structure setting, it will be easier for entrepreneurs to enter and gain access to information and resources.

We suggest that the network structure of CMEs has higher internal cohesion of organizational actors. The reasoning is that CMEs are coordinated through strategic non-market mechanisms, in which organizations resolve problems through interaction with other organizations, resulting in dense and cohesive networks. These networks resemble "a network of multiple alliances of organizations" (Witt and Lewin, 2007). The core logic that governs the CME is that coordination in one institutional domain can be used to support another domain through collaboration of organizational actors, creating a dense, richly cohesive network (Hall and Soskice, 2001; Witt and Lewin, 2007). Granovetter (1973) suggests that the embeddedness in dense networks leads to cooperation, and, in turn, leads to cohesion that is determined by the combination of the amount of time, mutual confiding, and reciprocity among members. Cohesion of networks is also related to density (Scott and Davis, 2007), which refers to the extent to which an actor's contacts are interconnected (Hoang and Antoncic, 2003). Coleman (1992) characterizes this type of fully connected network as 'closed.'

Entrepreneurship literature also maintains that individual entrepreneurs with deep structural holes in their networks will increase their chances of successfully identifying and optimizing entrepreneurial opportunities (Burt, 1992). This is because they are centrally and well positioned to manipulate a structure more likely to produce higher levels of information (Thornton, 1999). Organizational actors in CMEs coordinate each other's actions: there are high levels of interconnectedness as well as interaction based on mutual reciprocity, coordination, and cooperation For example, in Germany, firms are closely connected by a dense network of cross-shareholding, revealing a close-knit industrial economy in comparison to the United States (Kogut and Walker, 2001). Although the network maybe cohesive, we suggest it is a tightly-woven, closed network, and that it will be harder for the potential entrepreneurs to discover opportunities because the network is less likely to be rich with structural holes.

Hite and Hesterly (2001) suggest that emergent firms rely on their identity-based network, consisting of ties drawn from densely-cohesive sets of connections. The identity-base network, which has a high proportion of ties based on personal or social identification with other actors motivates economic actions (Granovetter, 1992; Uzzi, 1996). These ties come from pre-existing relationships with social, family, or historically long-held sources and are composed of strongly embedded ties within a network high in closure and cohesion (Aldrich, 1999; Coleman, 1990; Walker et al., 1997). Accordingly, entrepreneurs who have ties with a closed cohesive network are more likely to have access to resources. In such networks, resources will be more accessible based on mutual identification, adding a sense of social obligation and trust (Portes & Sensenbrenner, 1993). Consequently, it is paramount for new ventures to establish ties with a cohesive network for resource acquisition. However, the paradox is that cohesive closed networks tend to be exclusive and do not readily allow new ties to form. Researchers (e.g., Adler & Kwon, 2002; Ahuja, 1998; Gargiulo & Benassi, 2000) have examined the risk of closed networks. For instance, Adler and Kwon (2001) note the solidarity benefit of social capital can result in over-embeddedness of actors, and reduce the flow of new information in to the group. Kern (1998) argues that strong inter-firm cohesion in German industry hinders radical innovation by being too slow to seek and adopt new ideas. Similarly, we suggest that CMEs are less likely to explore new relationships and opportunities that new ventures can bring, unless they have existing ties with the network. Thus, the dense network of CMEs will make it difficult for potential entrepreneurs to gain access to information and resources located within the network.

On the other hand, we suggest that the network structure of LMEs is loosely connected, relative to that of CMEs. LMEs are coordinated through arm's-length market mechanisms where firms are more autonomous and rely on solving coordination problems through market relations instead of relying on cooperation from others (Witt and Lewin, 2007). Organizations are not closely connected to each other and are coordinated by arm's-length mechanisms. Instead, they represent a more open network, where cooperation and cohesion among members are difficult (Walker et al., 1997). Thus, we argue that LMEs will more likely be rich in weak ties or structural holes implying more entrepreneurial opportunities and fewer barriers for entrepreneurs to gain accesses to needed resources for new ventures.

In sum, looking at the varieties of capitalism approach through the network perspective, we suggest that different institutional coordination will affect the rate of national entrepreneurship differently. Specifically, we argue that CMEs' network system's cohesive, tightly-woven, closed network will be harder for the potential entrepreneurs to take advantage of opportunities because the network is less likely to be rich with structural holes and provide access to the necessary resources.

3.2 Correlation between Institutional Coordination Index and National Entrepreneurship

In order to provide some evidence to support our assertion, we conduct an initial empirical examination of this association using GEM data and a coordination index in the following section. Establishing coordination as a crucial dimension, Hall and Gingerich (2004) developed an Index of Coordination for 20 OECD countries. The standardized index represents the extent of reliance on strategic coordination, "0" indicating the countries with the relatively smallest reliance on strategic coordination; while "1" for the countries with the relatively highest reliance. The coordination index shows Austria has highest coordination of 1, while the United States has lowest coordination of 0. Coordination index scores of 20 OECD countries are illustrated in Table IV-2.

For our entrepreneurship measures, we use the Total Entrepreneurial Activities (TEA) data from Global Entrepreneurship Monitor. TEA measures represent early-stage entrepreneurial activity, including the number of people currently setting up a business (nascent) and owning/managing a business existing up to 3.5 years (young firms), relative to the adult population 18-64 years in a respective country. As shown in Figure IV-2, the coordination index was plotted against the average national entrepreneurship level in 20 OECD countries from 2002 to 2006. We use TEA as national rates of entrepreneurship since they capture the process of nascent entrepreneurs, who have committed tangible resources, as well as the young firms who manage their operations successfully.

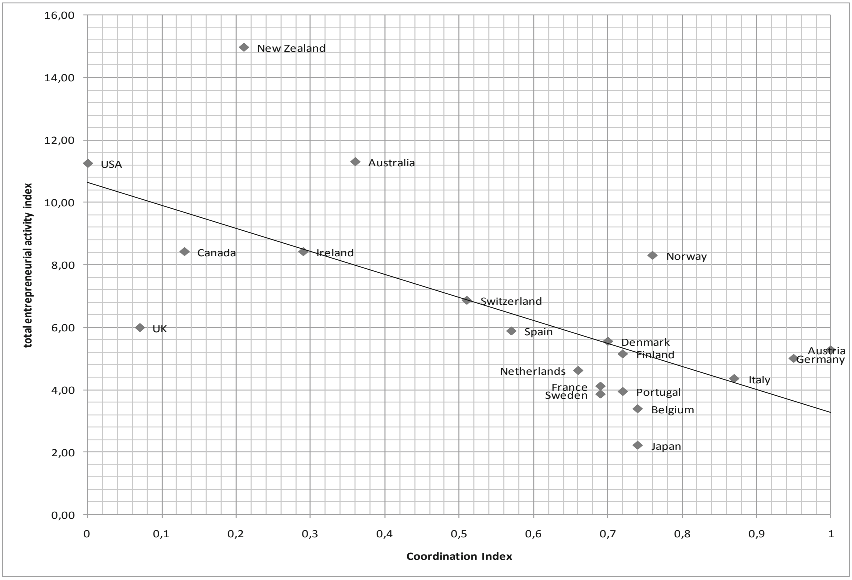
Table IV-2 - Coordination Index

Country	Coordination Index
Australia	0.36
Austria	1.00
Belgium	0.74
Canada	0.13
Denmark	0.70
Finland	0.72
France	0.69
Germany	0.95
Ireland	0.29
Italy	0.87
Japan	0.74
Netherlands	0.66
New Zealand	0.21
Norway	0.76
Portugal	0.72
Spain	0.57
Sweden	0.69
Switzerland	0.51
United Kingdom	0.07
United States	0.00

Source: Hall and Gingerich (2004: 14)

As illustrated in Figure IV-2, the correlation coefficient of coordination index and TEA (-0.683) provides *prima facie* evidence that the more institutional coordination depends on strategic non-market relations, the less likely the political economic environment is conducive to entrepreneurship. CME countries, such as Germany, Austria, and Belgium, have lower levels of national entrepreneurship, while the LME countries, such as the United States, Australia, and Canada, have higher levels of entrepreneurship.

Figure IV-2 - Correlation between Coordination Index and Total Entrepreneurial Activities Index



In sum, we propose that the more the institutional domains of education and training, finance, labor relations, and inter-firm relations [3] are coordinated by non-market mechanisms, the less likely entrepreneurs will be able to identify and exploit opportunities available in the environment. The initial empirical examination on this association is consistent with our argument. In order to understand the underlying reasons as to why institutional arrangements with non-market coordination might be negatively related to early stage of entrepreneurship, we explore how institutional arrangement of CME influences the entrepreneurial process in comparison to that of LME in the next section.

[3] The fifth political economic sphere 'employees' of Hall and Soskice (2001) is not included here because our main focus is the impact of external institutional environment on the entrepreneurial process.

4 Examination of Institutional Coordination Impact on Entrepreneurship Process

Entrepreneurship is a process involving many stages of action. Although various stage models include a range of functions and activities leading to venture creations (Bygrave and Hofer, 1991), most of the stage models of entrepreneurship have focused on the nascent and early phases (DeTienne, 2010). Among which, Reynolds and White (1997) propose that the entrepreneurial process consists of four distinct phases - *conception, gestation, infancy and adolescence.* These phases involve three entrepreneurial transitions: from an adult with a new venture idea to a nascent entrepreneur, to a fledgling firm and finally to an established firm. Understanding the nascent and early phases of entrepreneurial process is important because research (e.g., Reynolds, Camp, Bygrave, Autio, & Hay, 2001) has shown that entrepreneurs must overcome challenges and uncertainties in the early formative years to successfully survive and grow. The stage model allows us to identify how institutional domains specifically hinder or facilitate the progressive stages of the entrepreneurial process because each phase presents unique resource requirements and resource acquisition challenges (Hite & Hesterly, 2001).

Green and Brown (1997) note the success and failure of a new venture is determined by its resource profile because transforming an idea into a new venture requires entrepreneurs to acquire the necessary resources. According to Aldrich and Martinez (2001), three essential elements for the success of entrepreneurs are *human capital, financial capital, and social capital*. Potential entrepreneurs have to possess a certain amount of knowledge to maneuver through the entrepreneurial process. Entrepreneurs also require financial capital in order to obtain inputs necessary to produce the goods or services. Additionally, social capital is needed in order to gain access to necessary information, knowledge, and resources.

In the process of creating a new venture, entrepreneurs are subject to environmental constraints (Aldrich & Fiol, 1994). That is, the entrepreneurial process is continually influenced by institutional factors. We suggest that the entrepreneurial process will be affected differently by the distinct institutional frameworks of CMEs and LMEs. For example, highly coordinated CME institutions may affect how nascent entrepreneurs go about the process of starting firms differently than LME institutions. We also suggest each institutional domain of financial system, education, industry relations, and inter-company relations may influence different phases of the entrepreneurial process more significantly. For example, Baum et al. (2000) explored the question of what specific kinds of skills and training facilitate entrepreneurial behavior. Consequently, the education and training system of CMEs may influence its constituents' entrepreneurial skills differently than of LMEs.

Our logic for significant importance of a specific institutional domain at a particular entrepreneurial stage is based on the most critical resource requirements at each entrepreneurial stage to survive that stage and progress on to the next stage. Integrating the entrepreneurial process stage model proposed by Reynolds and White (1997) and three essential resource requirements by Aldrich and Martinez (2001), we explore our assertions by examining the impact of the four different institutional domains on the conception, gestation, infancy and adolescence phases of entrepreneurial process.

4.1 Conception Phase: Impact of Education and Training Systems

The conception phase of entrepreneurship is the transition stage in which an individual with a business idea begins thinking about starting a new business and actually engages in activities (e.g., taking classes on starting a business, saving money, etc.) to advance the objective (Reynolds and White, 1997). Entrepreneurship usually involves taking significantly planned actions (Krueger, 2007). The theory of planned behavior (Ajzen, 1987) posits that intentions toward a given target behavior depends on underlying attitude. Specifically, the theory of planned behavior suggests that an individual's perceptions affect their intention to engage in entrepreneurial behavior. The specific individual perceptions include; a) desirability that entrepreneurship is regarded as desirable choice, b) feasibility that individuals' entrepreneurial activities are within the individual's capabilities and knowledge, and c) normative beliefs of significant others such as family, friends, etc. This attitude-intention-behavior process is also influenced by exogenous factors. For example, desirability, personal as well as social, is influenced by cultural values. Hayton, George, & Zahra (2002) suggested that cultural values of a nation affect individuals' attitudes toward entrepreneurship, which in turn influences the entrepreneurial intention.

While the perception of desirability is influenced by culture, the perception of feasibility for entrepreneurship will more likely be influenced by institutional factors, especially by education and training systems. The formal education and training system is an institution that is legitimized, as a source where individuals are socialized, knowledge and skills are constructed, and professions and professionals are created (Meyer, 1977). Consequently, formal education and training systems help individuals gain knowledge and skills useful to entrepreneurs. Contingent upon these knowledge and skills, individuals will perceive the feasibility of the entrepreneurial task.

In order to be an entrepreneur, two different types of human capital (e.g., knowledge and skills) is required, as Minniti & Bygrave (2001) suggest. First, there is specific knowledge about a chosen market. This type of knowledge involves technical aspects of products, firms and industries. It may be acquired through direct means, such as education and training, or indirect means, such as hiring people with the specific technical skills and knowledge. Second, there is the more general entrepreneurship knowledge about 'how to be entrepreneurial'. This knowledge represents their knowledge and understanding of starting and managing a business, including opportunity recognition, business idea generation, and the marshaling of resources for venture initiation (Kourilsky & Walstad, 1998). It is this type of knowledge that marks the difference between an engineer and an entrepreneur. For example, Davidsson and Honig, (2003) found that explicit knowledge through formal education does not have an effect on individuals' entrepreneurial propensity, while wide ranges of information, including legal, procedural, marketing, and strategic aspects of starting a new firm, has an impact on individuals moving onto nascent phase of entrepreneurship.

In the context of varieties of capitalism theory, the education and training system of CMEs and LMEs differ in their specificity. For example, CMEs' education and training systems tend to focus on industry or firm specific skills to provide labor with usable skills that fit specific industry needs. Consequently, these skills have value when used within a single industry or in employment within that company (Hall & Soskice, 2001). Although CME education and training systems may provide individuals with sufficient technical knowledge specific in a certain industry or a company, we assert they may lack the general knowledge (e.g., marketing, financing, networking, etc) to be an entrepreneur. In CMEs, although individuals may have depth of knowledge in a specific industry, we suggest that these specific skills and knowledge may lack breadth of knowledge to manage multidimensional aspect of entrepreneurial process. This specialization of skills and knowledge is also reinforced by workers councils which coordinate industry-specific training. For example, Witt and Redding (2009)'s study illustrates that German executives' perceptions are that the strong state-run education system of Germany lacks initiatives and fosters 'insurance thinking' instead of instilling a sense of entrepreneurship. On the other hand, the LME education and training system nurtures more general skills that can be useful in many settings. Thus, individuals will have a higher perception of feasibility to perform the entrepreneurial actions, primarily because of broad knowledge bases that may be more applicable to many areas that are essential to entrepreneurship. We therefore propose:

> *Proposition 1: Potential entrepreneurs in CMEs are less likely to have high feasibility perceptions of entrepreneurship than potential entrepreneurs in LMEs.*

4.2 Gestation Phase: Impact of Governance Systems/Financial Systems

The gestation phase of the entrepreneurial process is referred to as nascent entrepreneurship in which someone initiates serious activities intended to culminate in a viable start-up (Reynolds and White, 1997). In this phase, the entrepreneurs may begin to consider the idea of new venture creation, search for and identify opportunities (Gaglio and Katz, 2001), elaborate on the entrepreneurial project, and make decisions about whether or not to commit time and resources (Reynolds and White, 1997). Many entrepreneurial endeavors eventually result in termination before the emergence of a firm because entrepreneurs assess the probability of achieving their goals and values negatively (Maertz and Campion, 2004). One of the reasons that nascent entrepreneurs may determine the probability of success as low is because of the realization that resource acquisition is difficult (Detienne, 2010; Green & Brown, 1997).

Nascent entrepreneurs must prepare a variety of resources to begin operations (Stuart and Sorenson, 2005). Many start-up companies require substantial financial capital and entrepreneurs may seek external financing. Securing sufficient financial resources is a crucial part of the nascent stage of the entrepreneurship. Exploitation of opportunities is unlikely to occur when entrepreneurs cannot mobilize needed financial capital (Evan and Leignton, 1989). For example, Aldrich & Martinez (2001) suggests that one of the biggest challenges for potential entrepreneurs is limited availability of capital. There are various ways that entrepreneurs can mobilize financial capital, including angel investing, seed funding options and venture capital. Venture capital is particularly attractive for nascent entrepreneurs because they have limited operating history, and have not reached the point where they can secure a bank loan or complete a debt offering. It is beyond the scope of this paper to discuss all possible financial options available for entrepreneurs, or different characteristics of bank vs. market based financial systems. We will only focus on different monitoring mechanisms of CMEs vs. LMEs through network perspectives.

One of the factors facilitating the acquisition of financial resources is social ties to resource providers (Aldrich and Zimmer, 1986; McGrath, 1996; Johannisson, 1988). Social capital theory suggests that investors are more likely to invest in new ventures when they have previously established direct and/or indirect ties with the entrepreneur than when they do not. Investors use social ties to overcome the problem of information asymmetry in venture finance decisions (Venkataraman, 1997). Gulati (1995) suggests that social ties serve two important functions in resource acquisitions. First, social ties may provide investors with access to private information about the entrepreneur and their ventures, which allows them to remove some uncertainty from the decision. Second, direct and indirect ties between parties may create social obligations between the parties, which causes them to behave generously towards each other.

In order to mobilize outside financial resources, entrepreneurs have to confer with distinctive financial systems, and we suggest that the importance of social ties is much more critical in CMEs than in LMEs. For example, financial systems in CMEs rely on monitoring schemes of private information about the firms' performance than more publicly available financial data like in LMEs. In order to collect private information, CME firms utilize the dense network of relationships to gain reliable information about other firms. Accordingly, reputation is an important asset in a network-centered monitoring system. Reputation is built through close relationships which companies cultivate with major clients and suppliers, and/or through extensive networks of cross-shareholding, and joint membership in industry associations (Hall and Soskice, 2001). Hence, the dilemma for potential entrepreneurs in the CMEs is the absence of previous information about their performance. Additionally, they have not had a chance to build social ties with bankers, suppliers, or clients, and be a part of an extensive network of firms through cross-sharing or industry associations. Venture capital in CMEs is smaller in size and substance, and tends to provide primarily later stage financing (Black & Gibson, 1998; Mayer, Schoors, & Yafeh, 2005). Thus, venture capital may not be an easily available alternative to conventional financing institutions, such as banks.

On the other hand, financial systems in LMEs promote firms to focus on the publicly accessible dimensions of their performance, such as profitability (Hall and Soskice, 2001). The conditions that allow large firms to secure finance mostly depend on their valuation in the equity market, and investors rely on publicly available information in their decision making. Although nascent entrepreneurs may lack the track record of firms' performances, they can rely on other means, such as venture capital companies that provide not only financial resources but also management assistance, intensive monitoring and control, and reputational capital (Black & Gibson,1997). Venture capital in LME countries like the U.S. is extensive in size and scope and is more heavily invested in early stage ventures (Black & Gibson, 1998). Although social capital can play an important role in LMEs, entrepreneurs do not have to infiltrate close-knit industry networks to build social networks and gain access to needed financial resources because there are other options available. Therefore, we suggest following proposition.

Proposition 2: Entrepreneurs in the gestation phase have a lower probability to create a firm in CMEs than LMEs due to more difficult access to financial resources.

4.3 Infancy Phase: The Impact of Industrial Relations

In the infancy phase of the entrepreneurial process, referred as 'fledgling firm stage' (Reynolds and White, 1997), the ventures are very fragile and face greater chance of failure. The rate of failure is higher in this stage because the new ventures may be subject to both liability of newness (Stinchcombe, 1965) and liability of smallness (Aldrich and Auster, 1986), but also the organizational structure lacks reliability and stability (Aldrich & Martinez, 2001). Among other circumstances, they may face limited resources. Many established organizations with comparative advantages over new and small firms compete for the same resources.

One of the essential resources entrepreneurs need to secure is key human resources, which presents inherent difficulties due to the liability of newness. For example, potential employees might regard an employment prospect at a new and unknown venture with suspicion when compared to their current job. Prospective employees face the very same information asymmetry problems investors do when considering an offer to join a nascent venture. Consequently, a potential employee might not simply accept all of the entrepreneur's claims since company principals might have a clear incentive to provide incomplete or misleading information to sign on a prospective hire (Stuart and Sorenson, 2005).

In addition to the issues related to the liability of newness, other characteristics of the national industrial relations systems in which the firm is founded will influence the new ventures' effort in securing skilled human resources. In CMEs, industrial relations systems set wages through industry-level bargaining between trade unions and employer associations, which results in adjusting wages for equivalent skill levels across an industry. This balancing out of the wage system also discourages employee poaching by other firms (Hall and Soskice, 2001). At the company level, work councils exercise considerable power on layoffs and the working conditions of employees, which encourages employees to invest in developing firm-specific skills. Consequently, employees in CMEs tend to enjoy long-term employment in exchange for the risk they take by investing in firm-specific skills.

On the other hand, firms in LMEs generally rely on the contractual relationship between an employer and individual workers based on market economies to organize labor forces (Hall and Soskice, 2001). Firms do not have obligations to establish employee representative bodies, and trade unions are less powerful, which makes industry-wide wage coordination generally difficult. This market makes it relatively easy for the firms to hire and fire laborers. Consequently, the LME system encourages individuals to invest in more general skills that are easily transferable to other firms. Thus, employees do not maintain long-term employment, and there is substantial labor mobility among firms.

During the infancy phase of entrepreneurship, we suggest fledgling firms will have lower probability of survival in CMEs than LMEs due to difficult access to human resources. Our reasoning for this argument is: First, it will be much more difficult for the new firms in CMEs to securing skilled human resources because potential employees are less likely to leave their secure jobs to join inherently risky new ventures. Second, the high cost of hiring and firing in CMEs will make it more difficult for the new firms to find the person-organization fit. Even if an individual is not a good fit for the job, the firms in CMEs may have to continue the employment due to strong labor unions. Third, inflexible wage negotiation may be cost inefficient for new firms since they may not be able to adjust wages based on organizational or environmental factors. On the other hand, fledgling firms in LMEs may persuade potential employees more easily because labor forces are much more mobile due to lack of long-term based job security. In addition, firing and hiring is much easier and wages negotiation between an employer and its employees is flexible. Therefore, the new firms can be much more persuasive and flexible in human resource recruitment. We propose:

Proposition 3a: Having reached the infancy phase, entrepreneurial firms have a lower probability to survive in CMEs than LMEs due to more difficult access to human resources.

4.4 Infancy Phase: The Impact of Interfirm Relations

In addition to acquiring human resources, new firms have to acquire knowledge to create and introduce new products to new market niches through new procedures (Greiner, 1972; Stuart and Sorenson, 2005). This perspective is based on the knowledge-based view (Kogut & Zander, 1996) that accumulation of knowledge through learning constitutes a driving force in the development and growth of a young firm (Penrose, 1959). Knowledge acquisition opens new opportunities and enhances the firm's ability to exploit these opportunities. Due to limited resources and the liability of newness (Stinchcombe, 1965), it is vital for fledgling firms to acquire knowledge to ascertain essential firm-specific capabilities. Lane & Lubatkin, (1998) suggest that acquiring knowledge is particularly important for technology-based firms. One of the major sources of knowledge acquisition is inter-firm relations. By leveraging their social capital, fledgling firms can acquire difficult-to-imitate external knowledge embedded in network relationships and combine them with their own knowledge to create new knowledge (Yli-Renko, Autio, & Sapienza, 2001). Research (e.g., (Klepper & Sleeper,2000; Liles, 1974) suggests that this type of knowledge can be an important resource, and fledgling firms capable of mobilizing it have a substantial advantage over competitors that cannot.

Knowledge transfer literature suggests that organizations intimately connected to one another (Huber, 1991), and the centrality of their network position (e.g., Tsai, 2001) are important factors in knowledge transfer and learning. Specifically, the more central a firm is in the network, the broader the knowledge sources. Furthermore, it is argued that cohesive groups have more willingness and motivation to invest time, energy, and effort in sharing knowledge with others (Reagans and McEvily, 2003). This network perspective of knowledge transfer emphasizes the role of common knowledge, and relational embeddedness, which stresses the importance of relational strength (Reagans and McEvily, 2003). In short, how embedded, connected, or cohesive the fledgling firms are with major inter-firm networks will determine the level of knowledge transfer they will be able to receive.

In CMEs, Hall and Soskice (2001) suggest that inter-firm relations are used to secure access to specific knowledge, such as technology. As previously mentioned, the movement of the labor force (e.g., scientists, engineers, etc.) is limited in CMEs. Therefore, firms have to rely on inter-firm relations to facilitate technological transfer and diffusion across the economy. Firms tend to collaborate with other firms in the industry to promote technology transfer, which is also complemented by the legal system reflecting relational contracting among companies (Casper, 2001). Technology transfer is also facilitated by common-knowledge bases established by a technical standard that is typically set by industry associations.

The task of knowledge transfer requires strong ties with trust and cooperation among the actors to facilitate the efficient transfer of complex and tacit knowledge (Hansen, 1999; Uzzi, 1997). Therefore, in order to receive knowledge transfer in CMEs, firms have to be embedded in or have very strong and trusting relational ties with the intricate and cohesive network of industry associations. However, cohesive network will be less likely to welcome the new entrepreneurial members. Gabbay and Zuckerman (1998) demonstrated that organizational settings, in which norms encourage cooperation, are often inhospitable to entrepreneurs, and do not reward brokering activities. Consequently, it will be more difficult for new firms to receive knowledge transfer in CMEs because it is unlikely that they would have had a chance to position themselves in the center of the network, or build such strong inter-firm relations as new firms. Furthermore, symbolically, the new firms lack legitimacy and have not been established as viable entities. Few existing firms will be interested in establishing collaborative relationships and eagerly share their knowledge.

In contrast, inter-firm relations are based on standard market relationships with legal systems enforcing formal contract practices in LMEs. Accordingly, technology transfer is achieved by fluid movement of labor, in which scientists and engineers move from one company to another with their technological knowledge. Technology transfer can also occur through licensing or sales of innovation (Hall and Soskice, 2001). In regards to standard setting, unlike in CMEs, technical standards are set through market competition and the leader can profit by licensing their technology to others. This type of competitive race explains the much larger number of venture capital firms in LMEs because one successful standard setting can compensate other failed ventures (Borrus & Zysman, 1997).

In LMEs, to gain access to knowledge, it will be easier for the new firms to build social relationships with others in the industry based on mutual interests and on market mechanisms. Venture capital firms can also facilitate knowledge transfer by providing managerial expertise, or play the role of knowledge brokers. Thus, we propose that it will be more difficult for fledgling firms in CMEs to receive knowledge transfer than the firms in LMEs, which in turn will enhance the chance for survival.

Proposition 3b: Having reached the infancy phase, entrepreneurial firms have a lower probability to survive in CMEs than LMEs due to more difficult access to technical as well as tacit knowledge.

4.5 Adolescence Phase: The Impact of Institutional Complementarities

As firms survive the infancy phase and their legitimacy increases, they enter the adolescence phase. In this phase, the primary process is that of growth in areas such as sales, employees, and market share or resource acquisition (Bamford, Dean, & Douglas, 2004). Firms begin to become more formalized, instituting a more formal structure, rules and procedures (Lynall, Golden, & Hillman, 2003). Through their growth, firms can increase their division of labor and specialization, and thus develop competitive advantages allowing for further growth.

As the firms grow, their increasing size and age improve their chances of survival (Dunne, Roberts, & Samuelson, 1989). We suggest, however, there will be a significant variance in the survival rate of established firms between CMEs and LMEs. We argue that the firms in CMEs that have survived the critical stage of infancy and entered into adolescence phases will have higher chances of survival than in LMEs.

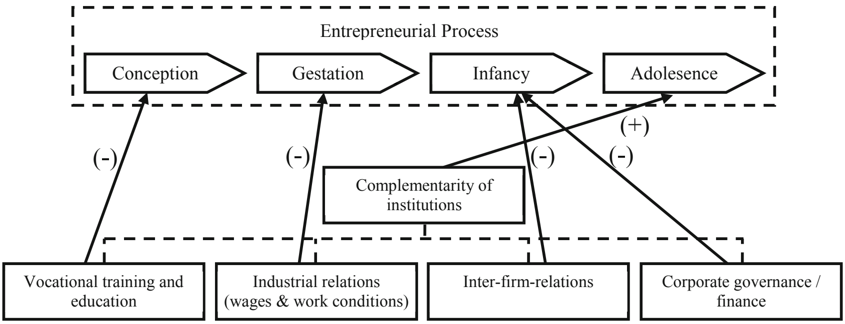
Institutional arrangement in CMEs is based on strategic interaction among firms and other actors. Complementarities between these institutions will have synergy effects on the deliberate strategic coordination by actors across institutional domains (Aoki, 2001). More specifically, CMEs is characterized by labor forces with specialized skills and high levels of commitment to the firm. In addition, the corporate governance system permits long-term financing that is entirely dependent on profitability, which allows firms to retain skilled workers through economic downturns (Hall & Soskice, 2001). Furthermore, inter-firm relations promote inter-firm cooperation for knowledge transfer, and the industrial relations system encourages employee cooperation and wage moderation. This institutional arrangement allows firms to sustain a decline in case of environmental changes because CMEs financial systems provide the firms with access to capital independent of their profitability. Consequently, we suggest firms in CMEs will have a greater opportunity to cope with and survive difficulties that may lead to a failure in LMEs.

In comparison to CMEs, LMEs are based on competitive market arrangements where equilibrium outcomes of firm behavior are driven by supply and demand of the market (Hall and Soskice, 2001). The institutions are arranged in a way to compliment the premise of the market where firms are engaged in strong competition. The financial market system is based on the market performance which can result in risk of mergers, acquisitions, and hostile takeovers when the market valuation of the firm declines. The labor market is fluid. The labor force with general skills easily moves from one firm to another, and flexible wage systems make poaching of key human capital more plausible. Firms in LMEs face a strong natural selection process in the population ecology model (Hannan & Freeman, 1989) that ensures the survival of organizations that best fit with the competitive environment. Firms in LMEs need to continuously develop skills and competences to increase their chance of survival since new firms continuously emerge to take advantages of new opportunities.

Proposition 4: Having reached the reached adolescent phase, entrepreneurial firms have a higher probability to survive in CMEs than in LMEs due to complementarities of institutions.

In sum, we have explored the underlying reasons why institutional arrangement, with non-market coordination, might be negatively related to the early stage of entrepreneurship. We suggest that potential entrepreneurs will have lower feasibility perceptions of entrepreneurship due to the CMEs' distinctive educational system. Additionally, we propose that CMEs' governance structure and labor relations obstruct nascent entrepreneurs and fledgling firms from gaining access to financial and human resources. Finally, CMEs' inter-firm relations hinder knowledge transfer that is essential for them to survive and grow into more established firms. The propositions concerning the impact of the financial education, and industry relations systems, as well as inter-company relations of political economy systems on different phases of the entrepreneurial process are illustrated in Figure IV-3.

Figure IV-3 - Institutional Impact on Entrepreneurial Process in Coordinated Market Economies



5 Conclusion

In this paper, we have introduced the concept of varieties of capitalism from the political economics in the IB literature to demonstrate that the extent of national entrepreneurial activity is directly related to the extent to which institutions are coordinated by non-market mechanisms. To demonstrate the impact of institutional coordination mechanism on entrepreneurship, we drew on comparative political economy literature, entrepreneurship literature, institutional theory, and the network perspective. We argued that institutional arrangement of non-market coordination is negatively related to the early stages of entrepreneurship because it is much harder for entrepreneurs to penetrate the cohesive network of actors within the institutional arrangement. We also conducted an initial empirical examination of this association using GEM data and a coordination index to provide evidence to support our assertion. Additionally, we examined underlying reasons why institutional arrangement with non-market coordination constrains the early stages of entrepreneurship by investigating the impacts of different institutional domains on the early stages of the entrepreneurial process of venture creation. Varieties of capitalism theory is appropriate for examining the institutional impact on the rate of entrepreneurship because it views institutions as a complex system of interdependent and interacting actors, not static entities. By examining the institutional conditions through the lens of varieties of capitalism, this study attempted to account for their complexity, uniqueness, and richness.

In this study, we strived to contribute to IB research by comparing institutional patterns and verities by using comparative capitalism. This cross-fertilization of IB and comparative capitalism provides rich insight on the impact of institutional configuration on individual behaviors as well as firm behaviors. Furthermore, we shed light on the impact of different types of institutional patterns on the national level of entrepreneurship across countries and thus contribute to international entrepreneurship research. We proposed a counterintuitive approach with regard to the institutional impact on the national level of entrepreneurship. During the conception, gestation, and infancy phases of entrepreneurial processes, we proposed that entrepreneurial activities have a higher probability of success in liberal market economies (LMEs), while coordinated market economies (CMEs) are more likely to be conducive in providing institutional conditions for entrepreneurship during the adolescence phase. Lastly, by linking macro-level institutions and micro-level individual behavior, we contributed to the understanding of how national institutional setting influences individual entrepreneurial behavior.

This paper also has implications for future research. First, further empirical work is needed to substantiate the negative relationship between the institutional coordination index and national entrepreneurship. More thorough empirical investigation controlling for multiple causalities is warranted. Additionally, the five propositions presented here should be empirically validated. We took a small step by examining the institutional impact on entrepreneurship. Further investigation on this topic will enrich the entrepreneurship research.

Second, future research may also explore moderators affecting the relationship between institutional coordination and entrepreneurship. Governments now recognize the important role entrepreneurship plays in economic and social development. Thus, investigation on the role of public policies promoting entrepreneurship, especially in CMEs, will be valuable information for policy makers. In addition, other moderators, such as unemployment rates, market dynamics (e.g., competition, complexity, etc), and culture, just to name a few, would provide insight on relationship between institutional configuration and national level of entrepreneurship.

Lastly, varieties of capitalism literature identified four different institutional domains in which firms must develop relationships to achieve their competences. We located the entrepreneurial processes in the center of the analysis. However, another area that warrants future research is if there are other institutional spheres that would affect entrepreneurial processes. In particular, the regulatory domain of a country would have a large influence on the process of creating a new venture: business permits, proprietary protection, taxation, legal enforcement, and so on. Identifying the most critical institutional spheres for entrepreneurship will be an important effort for entrepreneurship research.

In conclusion, entrepreneurship is an important engine that drives innovation and promotes economic development. We argue that the level of national entrepreneurship is directly related to the institutional coordination mechanism and the correlation between them shows clear association. Furthermore, we shed light on the underlying reasons for such a relationship. Although further empirical work is needed to substantiate the relationship, we have initiated an important investigation on how institutional coordination may affect entrepreneurship. By examining the impact of institutional coordination on the level of national entrepreneurial activity and proposing institutional impact on entrepreneurial processes, this paper takes an important step in providing insight into the role of complex interaction among institutions on entrepreneurship.

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Paper #4
Under Review in the "Journal of Supply Chain Management"

V Global Organizational Design in Purchasing and Supply Management: Headquarters and Subsidiaries in a Contingency Perspective

by Gordian Rättich

Abstract

Global sourcing strategy has become one of the most important topics for multinational corporations (MNCs) to cope with the increasing global competition. Although the topic has been advanced in theory, many MNCs still have difficulties in implementing a global sourcing strategy. Designing an efficient organizational structure for global sourcing is essential in order for strategies to be successful. Thus far, extant research has mainly focused on organizational design from the headquarters' perspective. Based on an analysis of integrative mechanisms and sourcing-related contextual factors, this study aims to identify how contextual factors influence the global sourcing organizational design of centralized organizations at both the subsidiary and headquarter levels. A case study was conducted with nine cases in one MNC: the findings indicate a high importance of contextual factors for the configuration of organizational design. This study addresses the headquarters and subsidiary levels and analyzes the implementation of theoretical concepts. The derived propositions help managers to clearly understand contextual factors and effectively respond to environmental and internal issues with specific organizational design choices.

Keywords: International/Global Purchasing, Organization, Case studies

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1 Introduction

Due to continuously increasing competition, corporations must develop and execute global strategies in order to succeed (Yip, Johansson and Ross 1997). Global sourcing strategy has been one of the most crucial strategies for multinational corporations (MNC) to realise and gain competitive benefits (Narasimhan and Carter 1996). The integration of a firm´s purchasing entities throughout worldwide locations to source common items, designs, processes, technologies, knowledge and suppliers is referred to as global sourcing (Faes, Matthyssens and Vandenbempt 2000; Rozeijer 2000; Monczka and Trent 2003). Especially in terms of cost savings, quality improvements, technical expertise, know-how and close access to commodities, global sourcing strategy creates benefits for MNCs (see e.g. Monczka and Trent 1991; Trent and Monczka 2002; Kotabe, Mol and Murry 2009). When it comes to its implementation, the organizational design of global sourcing strategy is an essential but often overlooked topic (Trent 2004; Trautmann, Turkulainen, Hartmann and Bals 2009). Although the design of global sourcing organizations has been identified as challenging and critical for the successful implementation of global sourcing strategy (Trent and Monczka 2003; Quintens, Pauwels and Matthyssens 2006), the factors which influence global sourcing organizational design are not well known. Cohen and Mallik (1997) observed a gap between theoretical developments and researcher recommendations in the field of supply chain management for business practice implementation. Kouvelis, Chambers and Wang (2006) called for more research projects reflecting the complexity of supply chain issues, shedding light on the application and implementation of theoretical concepts. Especially in supply and purchasing management researcher agree in this gap. For example, Paulraj and Chen (2007) highlighted problems in the implementation of supply management initiatives, especially the crucial role of environmental uncertainty in the implementation of strategic supply management initiatives.

Concerning the implementation of global sourcing strategy, the establishment of an organizational design has to enable the company to deal with the different environmental conditions (Lawrence and Lorsch 1967). As developed by Tushman and Nadler (1978) and refined and adjusted to the global sourcing context by Trautmann et al. (2009), key contingencies could be identified. Nonetheless, the study from Trautmann et al. (2009) solely reports on the headquarters perspective when analyzing the effective implementation of global sourcing strategy, completely disregarding the role of subsidiaries. However, knowledge flows or spillovers between MNCs and subsidiaries are reciprocal (Cantwell 2009). Since MNCs manage and integrate their purchasing activities at several locations, different subsidiary contexts have to be taken into consideration (Prahalad and Doz 1987) in order to safeguard a holistic approach. For this reason, this study concentrates on the headquarters and subsidiary aspects of global sourcing organizational design. Furthermore, since decentralized and centralized organizations face distinct types of organizational design implications, this study focuses explicitly on centralized organizations. This focus seems particular essential as Trent (2004) identified a shift back towards a more centrally-led purchasing control or coordination for MNCs. Consequently, the aim of this study is to answer the following research question: How do contextual factors influence global sourcing organizational design for centralized organizations at both the subsidiary and headquarters levels?

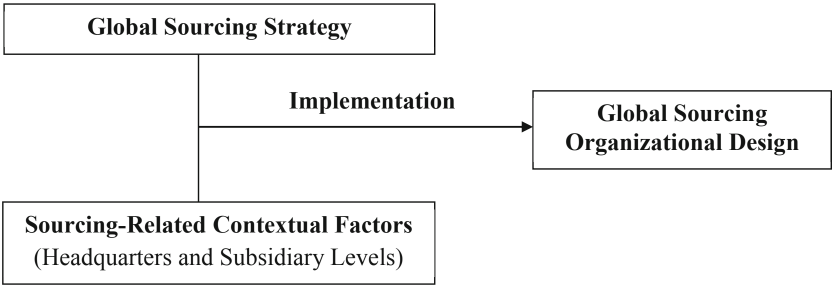
Thus, the purpose of this study is twofold. First, the author aims to give insights into the implementation of theoretical concepts at both headquarters and subsidiary levels. Second, through the analysis, propositions will be derived to improve the managerial understanding of contextual factors when deciding upon the most efficient organizational design for global sourcing.

The remainder of this article is structured as follows. In the next section, the contingency model of global sourcing strategy is introduced and global sourcing strategy, organizational, and contingency literature is analyzed. In the third section, the research methodology is presented on a single case study approach with multiple nested cases, each analyzing the subsidiary and headquarters perspective of the respective business units. Thereafter, the findings of the analysis are presented and discussed, leading to testable propositions. The article concludes by highlighting managerial and theoretical implications and suggesting areas for future research.

2 Conceptual Framework

In order to develop a more holistic understanding of the "contingency" relationship between global sourcing strategy and global sourcing organizational design, the influence of the different internal and external environmental factors on the implementation of global sourcing strategy has to be examined. Therefore, this study is based on the contingency approach, which contends, "if an organization´s internal states and processes are consistent with external demands […] it will be effective in dealing with its environment" (Lawrence and Lorsch 1967, p. 157). This study draws on the adapted contingency model of global sourcing strategy from Murray, Kotabe and Wildt (1995) shown in Figure V-1.

Figure V-1 - Revised Contingency Model of Global Sourcing Strategy by Murray et al. (1995)



The model illustrates the relationship between the response variable *global sourcing strategy*', the output variable *global sourcing organizational design* and the contingency variable *sourcing-related contextual factor*'.

2.1 Global Sourcing Strategy and its Implementation

Global sourcing has evolved into a strategic necessity for most MNCs (Trent and Monczka 2003). Kotabe is more specific: "the ultimate objective of global sourcing strategy is for the company to exploit both its own competitive advantages and the comparative locational advantages of various countries in global competition" (1998, p. 108). Thus, its key significance for MNCs: the global sourcing strategy have to be part of corporate strategy (Fraer, Metcalf and Alguire 1992; Carter and Narasimhan 1996). Extant research has covered a broad range of topics about global sourcing strategy. Among other areas, factors related to global sourcing effectiveness and success (Monczka and Giunipero 1984; Birou and Fawcett 1993), strategic advantages and disadvantages of global sourcing strategy (Bozarth, Handfield and Das 1998; Cho and Kang 2000) and analysis of how to achieve competitive advantage from global sourcing (Trent and Monczka 2002, 2003) have been examined.

Empirical results indicate that global sourcing structures and processes shape global sourcing business capabilities and thus impact global sourcing effectiveness (Petersen, Frayer and Scannell, 2006). Despite the existing knowledge about global sourcing, the effective implementation of global sourcing strategy still remains one of the most crucial challenges (Kotabe and Murry 2004). Within the implementation challenges, the design of global sourcing organizations has simultaneously been identified as critical for its success while being underexplored (Trent 2004; Quintens, Pauwels and Matthyssens 2006).

2.2 Global Sourcing Organizational Design

In the implementation of global sourcing strategy, recent research has started to draw more attention to organizational design issues. Hartmann et al. (2008) derive explanations for variation in control mechanisms that determine how global sourcing is implemented in the organization. To do so, they draw on a contingency perspective. Trautmann et al (2009) explored three contingencies influencing the global sourcing organizational design. The main limitation of both studies is the narrow focus on headquarter perspective of global sourcing organization, as well as a predefined selection of contextual factors influencing global sourcing.

Organizational design refers to the process of assessing and selecting the structure and formal system of communication, coordination, division of labour, authority and responsibility in order to achieve the organization´s goal (Hamel and Pralahad 1994). Within the global sourcing context, organizational design features, such as centralization and decentralization, or design mechanisms for communication and coordination have been previously discussed (see. e.g Giunipero and Monczka 1990; Carter and Narasimhan 1996; Arnold 1999; Trent 2004; Quintens, Matthyssens and Faes 2005).

According to the arguments of contingency scholars, organizational effectiveness is achieved when there is a fit between the organization’s characteristics and its idiosyncratic context (Lawrence and Lorsch 1967; Burns and Stalker, 1968; Child 1975; Donaldson 2001). Within contingency theory, the information processing theory illustrates organizations as information processing systems facing several sources of uncertainty (Galbraith 1970, 1973, 1977; Tushman and Nadler 1978; Nadler and Tushman 1997). Effective organizations are a reflection of the of their information processing capacity (for gathering, transforming, storing and communicating information) according to the level of uncertainty they face (Egeloff 1991). Due to different business and environment contexts, organizations differ in their requirements for information processing. To achieve an effective level of information processing capacity, organizations particularly differ in their use of integration mechanisms. Within the integrative mechanisms, the vertical mechanisms cover formalization, centralization, standardization or vertical information systems. The lateral mechanisms encompass cross-unit teams, direct contact, liaison roles or task forces (Galbraith 1973, 1977, 2000). To effectively manage global sourcing organizations, the implementation of different types of integration mechanisms is required to cope with the information-processing needs (Trautmann et al. 2009). The integration mechanisms displayed in Table V-1 have been determined to be particularly crucial for global sourcing in prior examination of organizational and purchasing literature.

Table V-1 - Selection of Identified Integration Mechanisms

Integration Mechanisms	Description	Reference
Formalization	Implementation of rules and procedures to routinize decision-making	Hedlung 1981; Nohria and Ghoshal, 1997; Nobel and Birkinshaw 1998;
Communication	Establishment of options to exchange information through various media: from face-to-face visits to phone calls or virtual or personal meetings.	Nobel and Birkinshaw 1998, Rozemeijer 2000, Chimhanzi 2004
Use of information management system	Organizational infrastructure permitting exchange of high volumes of information without face-to-face communication	Galbraith 1973,1977, 2000; Jarvenpaa and Ives 1993; Doz and Prahalad, 1981; Kim, Park and Jaeger 2003
Control	Assessment performance to control output with appropriate measures to monitor task compliance	Galbraith 1973,1977, 2000 Baliga and Jaeger, 1984; Ouchi, 1977; Thompson, 2003; Nobel and Birkinshaw 1998
Socialization	Alignment of values and norms between managers and employees. In the context of MNCs, especially the alignment between headquarter sand subsidiaries	Gupta and Govindarajan, 1991; Nobel and Birkinshaw, 1998; Nohria and Ghoshal,1994; Faes et al. 2000; Cousins and Lawson 2007

If firms have to deal with high levels of requirements for information processing, various complex lateral mechanisms are needed. When information processing requirements are low, the firm can address them with vertical mechanisms (Trautmann et al. 2009). Therefore, information processing requirements depend on contextual factors, reflecting sources of uncertainty for organizations. Thus, the interplay between contextual factors related to the global sourcing activities and their inherent uncertainty evokes the individual use of integration mechanisms and thereby determines the organization´s design.

2.3 Sourcing-related Contextual Factors

Traditional contingency theory scholars basically try to determine what kind of organization can deal with different environmental conditions (Lawrence and Lorsch 1967). To cope with its environmental conditions organizations endeavor to achieve a fit within its strategy, processes and structure. This 'fit' is dynamic in nature, being a process as well as a state (Miles and Snow 1984). Organizational design sets the boundaries around organizations´ activities and thereby interacts through exchange with the organization's environmental conditions (Thompson 1967). Previous research on organizational design has coincided that the structure of an organization should match or fit the characteristics of certain variables both inside and outside the organizational system (Tushman and Nadler 1978). Only consistent consideration of both internal and external requirements leads to the aspired organizational fit (Miller, 1992). In extant literature, these contextual variables have been labeled as contingencies or contextual factors and include: "any kind of factors (i.e. conditions and trends) within the external and internal environment which the organization is contingent upon" (Baumueller, 2007, p. 209). In the context of global sourcing organizations, Trautmann et al. (2009) identified a set of three key contingencies (category characteristics, supply environment and interdependence of the purchasing units) based on the model of Tushman and Nadler (1978) to analyze organizational design from the headquarters perspective. For contextual influences on international subsidiaries, Allred and Swan (2004) identified resource endowment, configuration, strategic and environmental factors. Since a set of sourcing-related factors including both the headquarters and subsidiary perspectives does not exist, extant literature was reviewed to identify the most crucial internal and external contextual factors.

Among internal sourcing-related contextual factors, organizational structure, organizational size, strategy and goal alignment and geographical dispersion were examined within extant contingency and purchasing literature. Organizational structures enable a flexible response to various subsidiary contexts. By solely creating an adequate system, MNCs can benefit from the opportunities, global scale effects and synergy potentials (Morschett, Schramm-Klein and Zentes 2009). Therefore, organizational structure is critical for the ability to coordinate organizational activities (Ensign 1999). Within organizational design studies, structural options such as centralization-decentralization and international matrix structure (Narasimhan and

Carter 1989), ethnocentric, polycentric and geocentric attitudes of organizations (Kotable and Omura 1989; Perlmutter, 1969) and network structures (Ghoshal and Bartlett 1990; Ensign 1999) have been discussed. Especially for the analysis of different organizations, this internal contextual factor is crucial. Since this study draws on various cases within one organization, organizational design is not further examined. Although the size of an organization has been discussed by several researchers (see, e.g. Hickson, Pugh and Pheysey 1969; Child 1973; Baligh, Burton and Obel 1996) as an important internal contextual factor, it is not further considered in this study for the same reason. In contrast, strategy and goal alignment, as well as geographical dispersion are the key decisive internal sourcing-related factors.

Strategy and goal alignment: For MNCs, global sourcing strategy is pursued throughout the entire company and strategic corporate objectives have to be transferred into subsidiary-specific goals (Roth and Ricks 1994; Allred and Swan 2004). To cope with these organizational goals as a whole and to integrate subsidiaries with their individual idiosyncratic conditions and demand, the implementation of organizational coordination and control mechanisms are required (Baker and Baker 1992; Hellriegel and Slocum 1996; Morschett et al. 2009). Thus, inter-company relationships and the connection of the distributed subsidiaries have to be coordinated in order to achieve objectives (see, e.g. Van de Ven, Delbecq and Koenig 1976; Hellriegel and Slocum 1996). Furthermore, to enable company-wide goal alignment, internal preconditions, such as intra-company pooling of common material requirements (Van Weele 1994), sharing of purchasing information, know-how and "best-practices" across the different units of the organization (Rozemeijer, Van Weele and Weggeman 2003), as well as benefits through locational advantages have to be established in a coordinated purchasing strategy. In order to do so, firms need to establish global information systems (White and Poynter 1990). Furthermore, qualified personnel, cross-functional cooperation, and enhanced support from executive management are critical to the success of the global sourcing strategy (Monczka and Trent 1991).

Geographical dispersion: Due to challenges of globalization, such as global dispersion of activities or increasing size, the need and extent of integration, coordination and controlling in MNCs have fundamentally changed (Roth and O´Donnell 1996). The geographic dispersion of multinational organizations refers to the location of various subunits of the parent organization in different countries (Adler

1983). The international dispersion of subsidiaries require MNCs to design appropriate and flexible structures, processes and systems, which are applicable to heterogeneous local conditions in the different countries and at the same time maintain coherency as one organization (Morschett et al. 2009). Accordingly, coordinating and monitoring become more complex and costs are likely to rise (Ragozzino 2009). Geographic distance was often considered to be a surrogate for cultural and psychic distance (see, e.g. Kogut and Singh 1988; Sousa and Bradley 2008). Other studies also considered the influence of increasing transportation and trading costs triggered by distance. In addition, the impact of conflict potential and decreased collaborative work was noticed (Chang, Polachek and Robst 2004). Global supply chains, which operate across sites, are subject to varying environments, institutions and operating conditions. Therefore, this implies longer and unpredictable lead times, as well as coordination and uncertainty problems in all aspects of supply chain management (Meijboom and Vos 1997; Prater, Biehl and Smith 2001). Since information and communication technology, and transportation infrastructures have developed successfully, geographical boundaries decreased and the world seems to be more easily accessible (Vernon 1977). Although distance still matters and efficient transportation and communication links can only reduce geographic distance issues (Ghemawat 2001), competitive advantages and other benefits of global sourcing encourage companies to disperse their procurement activities and subsidiaries around the globe.

In contrast to the aforementioned factors, scholars of academic studies have published more contrary results regarding external contextual factors. Some argue that external factors have to be generally accepted because of the organizations' inability to influence these factors, such as other organizations and their respective environments (Child 1972; Baumueller 2007). Other studies (see, e.g. Hedlund and Rolander 1990; Trice and Beyer 1993) revealed that the relationship between an organization and its external environment is more reciprocal and a complex construction of interdependencies exists rather than a one-way dependence. This view is also shared by the open system model of organizations (Katz and Kahn 1966; Scott 1992). Two main external contextual factors have been discussed in literature: economic environment and culture (see e.g. Lawrence and Lorsch 1967; Ghoshal and Nohria 1989; Hall and Hall 1990). Due to the focus of this study on multiple cases within one MNC operating in the same economic environmental, culture proved to be a key internal sourcing-related factor.

Culture: According to the nature of MNCs, which by definition consist of units located in various countries, people with different nationalities have to work and cope with each other. Several studies and definitions about culture have been developed (see, e.g. Hall and Hall 1990; Hofstede 1980). These studies emphasize national cultural characteristics as the external influence on organizations. Thus, culture is mainly based on values, is specific to the inhabitants of a country, is learned and influences people's behavior in a uniform and predictable way. Whereas other studies added the importance of corporate culture (see e.g. Deal and Kennedy 1982; Smircich 1983), which is more an internal variable rather than an external factor and is expressed through shared values, beliefs, or meaning of the members of an organization (Hollensen 2007). Hence, the question is how cultural differences affect organizations. Assuming that the greater the difference between two cultures, the more misunderstandings and barriers of communication (Mishler 1965), risk of mistrust (Child and Faulkner 1998) and operational problems in the workflow, the more coordination and management of these differences is required. Especially when interactions and interdependences between the partners or subsidiaries are strong, the potential for cultural conflicts is even higher (Hall 1995). Tasks and objectives of global sourcing include sharing and bundling of volumes, knowledge and information, good cooperation, trust and communication are prerequisites for effective implementation of global sourcing initiatives. In order to deal with these challenges, socialization and acculturation can play an important role for MNCs. Socialization describes mechanisms which aim to build organizational culture by developing shared values, via training programs or transfering of managers, career paths and reward systems (Martinez and Jarillo 1989). Acculturation implies the process of understanding foreign cultures through modifying and adapting organization’s and manager's behavior to make it reconcilable with other cultures (Cavusgil, Knight and Riesenberger 2008).

An overview of the selection of sourcing-related contextual factors identified in literature is displayed in Table V-2:

Table V-2 - Selection of Identified Sourcing-Related Contextual Factors

Sourcing-Related Contextual Factors	Description	Reference
Strategy and Goal Alignment	- To achieve strategic goals organizations have to coordinate, share and pool information and know-how through worldwide information systems and cross-functional cooperation	Van Weele 1994; Rozemeijer et al. 2003; White and Poynter, 1990; Hartmann et al. 2008
	- In order to achieve goals and align the organization to its goals coordination and control mechanisms have to be established	Morschett et al. 2009; Hellriegel and Slocum 1996; Baker and Baker 1992; Van de Ven, Delbecq and Koenig 1976
Geographical dispersion	- Geographical dispersion increases complexity of coordination and monitoring and requires efficient transportation and communication links in organizations	Raggozino 2009; Roth and O´Donnell 1996; Prater et al. 2001; Vernon, 1977
Culture	- Due to cultural differences organization have to use socialization to creating an organizational culture, use trainings, transfer of managers, develop career paths, adapt reward systems and pursue acculturation to understand foreign cultures and behaviours	Martinez and Jarillo 1989; Cavusgil et al. 2008

3 Research Methodology

3.1 Research Design

Due to the relative immature stage of research on global sourcing strategy implementation and especially the underexplored area of global sourcing organizational design, the present study is exploratory in nature. Building on previous research on organizational design implications of global sourcing (especially Hartmann et al. (2008) and Trautmann et al. (2009)), this study aims to deepen the understanding of *how* contextual factors influence global sourcing organizational design for centralized organizations at headquarters and subsidiary levels. In order to address "how" or "why" questions, case study research is the preferred method (Yin 2009). In contrast to surveys for example, case study research allows interaction between researchers and informant. Therefore, multiple sources of information lead to information-rich cases and broad insight (Crane 1999; Yin 2009). In recent years, criticism has been raised that research in the field of purchasing and supply chain management overlooks the gap between theoretical developments and the difficulties in practical implementation (Cohen and Mallik 1997; Paulraj and Chen 2007). There is a lack of in-depth qualitative research addressing the difficulties in implementation of new supply chain initiatives (Kuovelis et al. 2006). To derive broad but still comparable insights about the complex approach to implement global sourcing strategy, a comparable set of cases has to be examined. Due to differences between companies in terms of approaches and timelines in global sourcing, the potential for implementation comparison seems to be limited. Hence, the research design of this paper is based on a single case study with multiple embedded cases in a representative and typical MNC. Within the focal company, the purchasing entities of different business units, each consisting of headquarters and subsidiary entities, form the embedded cases.

This ‘nested’ case study approach illustrates in-depth strategic aspects (Dubois and Araujo 2007; Gibbert, Ruigrok and Wicki 2008) of global sourcing organizational design with multiple units of analysis provided under the same conditions (Yin 2009). Since this research contains several cases within one MNC, the selection of the focal MNC was one of the most critical steps in this research project. Since large international companies are more likely to source globally (Bozarth et al. 1998), the focal MNC had to be large in size and international in its business activities. Preferably, the focal MNC should operate in different industry sectors to provide more representative and industry-independent insights on implementation efforts of the global sourcing strategy. In order to choose a typical and representative firm, the author examined the eight MNCs of the Hartmann et al. (2008) study. Therefore the author got access to the case study data base gathered at that time. The MNCs were evaluated according to certain criteria, such as the number of countries and regions involved, the amount of global sourcing experience, and the global sourcing ratio. Thereby, one MNC evolved to be the most representative of the global sourcing approach. No other MNC among the eight MNCs had the company´s characteristics considering the global sourcing approach in this many facets. Thus, particularly this case fulfilled the important characteristics for a single case study to be typical and representative (Yin 2009) and followed the commonly used technique of theoretical sampling (Glaser and Strauss 1967; Eisenhardt 1989; McCutcheon and Meredith 1993). The selected case company is among the top 30 of the Fortune 500 companies in terms of revenue. It is organized under a matrix structure, in which global businesses and regional companies have centrally managed control and coordination. Within this company, nine business units in different industry divisions formed the nested cases and units of analysis. These businesses units were selected after thorough analysis in cooperation with the strategic staff division for global sourcing at the corporate headquarters. The criteria for case selection were size of purchasing unit in terms of employees and purchasing volume, as well as spent categories (direct material, services, etc.). For example, all purchasing units had between eleven and twenty-six employees. In each business unit, a purchasing team at headquarters and at the subsidiary held responsibility for the respective global purchasing of the business unit. Location-wise, we selected pairs of headquarters and subsidiary purchasing units classified as mature in terms of experience and strategic importance.

Table V-3 - Description of Nested Cases

Nested Case	Informant No.	Informant Job Title	Headquarters (HQ) / Subsidiary (Sub.)	Country
SILVER	(1)	Purchasing Manager	Sub.	Turkey
SILVER	(2)	Purchasing Manager	Sub.	Turkey
SILVER	(3)	Purchasing Manager	HQ	Germany
BROWN	(4)	Purchasing Manager	Sub.	Brazil
BROWN	(5)	Purchasing Manager	Sub.	Brazil
BROWN	(6)	Purchasing Manager	HQ	Germany
GREY	(7)	Purchasing Manager	HQ	Germany
GREY	(8)	Purchasing Manager	Sub.	China
GREY	(9)	Purchasing Manager	Sub.	China
GREEN	(10)	Purchasing Manager	HQ	Switzerland
GREEN	(11)	Purchasing Manager	HQ	Switzerland
GREEN	(12)	Purchasing Manager	Sub.	China
YELLOW	(13)	Purchasing Manager	HQ	Germany
YELLOW	(14)	Purchasing Manager	Sub.	China
BLACK	(15)	Purchasing Manager	HQ.	Germany
BLACK	(16)	Purchasing Manager	Sub.	China
BLUE	(17)	Purchasing Manager	HQ.	USA
BLUE	(18)	Purchasing Manager	Sub.	China
WHITE	(19)	Purchasing Manager	HQ.	Germany
WHITE	(20)	Purchasing Manager	Sub.	China
ORANGE	(21)	Purchasing Manager	HQ.	Germany
ORANGE	(22)	Purchasing Manager	Sub.	China

Among the selected nested cases, only the Turkish subsidiary (SILVER) was less mature in terms of years of experience. However, its strategic importance (spent volume and closed markets) matched the other cases. Table V-3 illustrates the key facts about each case and informant.

3.2 Data Collection

Data collection was based on the literature review initially executed, which included examination of global sourcing strategy approaches, insights on organizational design features for the implementation of global sourcing strategy, and crucial contextual factors likely to influencing the implementation process. In order to allow a longitudinal comparison with the study of Hartmann et al. (2008), key elements of their interviews, such as status and organization of global sourcing strategy, were also incorporated. Based on these elements a semi-structured interview protocol was developed to form the interview guide (Eisenhardt 1989; Perry 1998). The semi-structured interview approach was most suitable for this research aim because it ensures a high level of result comparability by providing structural clarity and sets rules for the interviewer to focus on the relevant research questions (Miles and Huberman 1994). The semi-structured approach also allows the interviewer to react according to the progress of the discussion by incorporating additional relevant aspects or reducing questions of minor relevance. Due to the clear focus, definitions and ability to perform cross-case analysis through high degree of comparability, the structured approach bolsters internal validity.

Qualitative as well as quantitative data (measured by 5-point Likert scale) was collected via a questionnaire which was introduced and discussed within the interviews. Before starting data collection at the focal company, the interview guide was presented to experts from academia and business practice, who are highly experienced in global sourcing strategy and implementation. Based on their comments, minor adjustments were made to the questionnaire before pre-testing the interview protocol with two purchasing managers from the headquarters for global supply management and one purchasing manager at a subsidiary. Further adaptions to the questionnaire were not necessary. The final interview guide started with questions on global sourcing strategy implementation and the role of contextual factors, then organizational design features as specification or coordination were inquired, finally details on integration mechanisms were addressed.

In order to be able to compare results of the headquarters and subsidiary perspective, certain purchasing managers were chosen as key informants. During initial conversations and discussions with managers from the strategic division responsible for global sourcing strategy implementation at the corporate level, it was determined that the purchasing manager level was most suitable to obtain the desired information. In the focal company, purchasing managers in headquarter and subsidiaries perform similar tasks, have similar responsibilities, and pursue the same strategic and operational goals. In some cases, the responsible purchasing managers passed on the interview to their official representatives.

Worldwide interviews were arranged in advance and a total of 22 interviews were conducted via telephone following the guidelines of Walton (1997). Interviews lasted between 70 and 90 minutes. During the interviews, notes on major aspects were taken. All interviews were recorded digitally, transcribed within 24 hours and sent back to the respective informants to correct misunderstandings or add information if they wanted to clarify some aspects. However, only a few comments were added. By allowing case informants to review the case material, further improvement of validity is addressed (Yin 2009). All interviews took place between October 2010 and February 2011.

Data collection did not solely rely on interviews. Annual reports, company website information, press releases, as well as internal presentations and archival data provided by key informants were used for triangulation. This additional information confirmed interviewees' responses.

3.3 Data Analysis

During data collection, all data was subsequently organized in a case study database. For data analysis, a two-step analysis process was followed. First, collected data was structured and summarized using the case guide as a template. Through this process, data was reduced and an initial level of analysis provided (Miles and Huberman 1994). On this basis, an in-depth within-case analysis was conducted comparing each case with what was expected through the literature review. In a second step, cross-case analysis with open and axial coding following the guidelines set by Miles and Huberman (1994), Strauss and Corbin (1990) and Yin (2009) was executed. As recommended by Eisenhardt and Graebner (2007) and Yin (2009), cross-case analysis was displayed in tabular form drawing on the initially presented contingency framework for global sourcing strategy. To assess the quality of the research design, internal validity, external validity, construct validity and reliability were tested throughout the research process.

4 Results

In the subsequent section, the results of the analysis of gathered data are presented to answer the research question of how contextual factors influence global sourcing organizational design for a centralized organization at both the subsidiary and headquarters levels. To highlight the findings, a separate section for each integration mechanism is examined (as part of the organizational design). First, the use of the respective integrative mechanism at either the headquarters or subsidiary is described. Then, the influence of the corresponding sourcing-related contextual factor is revealed.

4.1 Formalization

In the focal company, formalization instruments such as guidelines, processes, handbooks, job descriptions or rules of conduct are considered highly important. Informants from both headquarters and subsidiaries described them as supportive measures, although many respondents perceive their implication on daily business as critical. Interestingly, the subsidiary informants described the current state of formalization as ‘formalized’ whereas headquarters described it as ‘strongly formalized’. However, subsidiaries view the formalization of processes even more important than headquarters. Within the focal company, monitoring of adherence to processes, guidelines, rules of conducts and handbooks was ‘strongly monitored’ in general (with a mean of 4,0 on 5-point Likert scale). For subsidiaries, it was even higher than for headquarters. This is especially interesting considering that formalization is less developed in subsidiaries but its adherence is stronger monitored. Overall, respondents from both headquarters and subsidiaries stated that formalization increases the efficiency of their sourcing organization. This discrepancy in the perception of the level of formalization is representatively demonstrated in contrary to statements from two purchasing managers at the same business unit. At headquarters, the purchasing manager (BLACK 15) considers the processes and different roles in the purchasing unit as "clearly defined" whereas his counterpart at the subsidiary (BLACK 16) commented, "Currently, we do not really have this kind of guidelines or instructions and handbooks". In analyzing the entire sample and comparing the respective headquarters to the subsidiary perception of formalization, it became apparent that the more similar the perception of formalization was, the higher its positive influence on global sourcing efficiency was evaluated. Moreover, taking into account the cultural setting of the subsidiary-headquarter couples, the nine cases showed that respective differences in culture did not seem to have an influence. Furthermore, taking a closer look at the respective cultural setting of the purchasing units, particularly those of subsidiary-headquarter couples that described the current status as almost equal, it was concordantly reported that formalization fosters general global sourcing efficiency. Thus, the first proposition can be formulated:

Proposition 1: The better the perception of formalization between headquarters and subsidiaries is aligned, the less critical cultural differences are.

4.2 Communication

The focal company uses a variety of measures to optimize its organizational design with regard to communication. For example, to foster informal ties and corporate networks, the focal MNC conducts workshops and sourcing conferences. Both headquarters and subsidiary informants consider these measures to be good communication platforms within their organizational business unit or regional cluster. During the interviews, informants emphasized the efficiency of workshops to improve communication. In particular, subsidiary informants claimed that there is not enough opportunity to foster personal relationships at a higher level (e.g. sector level), which would further increase informal communication.

According to the purchasing managers, informal ties and relationships are very helpful and important for communication. It is noteworthy that all purchasing managers indicated this form of communication to be crucial in order to collaborate with their globally dispersed teams. The main benefits are: more pragmatic and quicker decision making, easier access to new and important knowledge, quicker solutions especially in critical situations, and the ability to exert pressure. Particularly informants from or working within the Asian culture confirmed that a great deal of networking was crucial for inter-subsidiary communication and cooperation and therefore improved efficiency. A purchasing manager located at the headquarters (ORANGE 21) explained his dependence on good personal relationships because he can be relatively sure that people are doing what was agreed upon without being present all the time. Independently from each other, various informants at the subsidiaries and headquarters (WHITE (19); GREEN (10 + 11); ORANGE (22); BROWN (5)) confirmed that relationships with colleagues and suppliers built upon informal ties or triggered by corporate networks helped them to overcome cultural and especially geographical differences. As a consequence, they experience not only a quicker and easier information flow but also higher quality and better reliability of information. In this way, uncertainty of global sourcing activities, especially decision making, has been lowered. Thus, the second proposition is formulated as followed:

> *Proposition 2: The higher the use of informal ties/corporate networks for communication in global sourcing organizations at both headquarters and subsidiary levels, the less critical geographical dispersion is.*

4.3 Information Management Systems

To cope with the requirements of a worldwide network of subsidiaries, the focal company developed and implemented a corporate-wide information management system. Especially for coordinating global purchasing activities, all informants regarded this system as highly important. This is in line with findings of other studies (e.g. Hartmann et al. 2008). According to the informants' evaluations, collaborative information platforms and cloud computing are required for purchasing activities to have unified performance measures and performance measurement tools. Furthermore, effective monitoring projects made possible with a corporate-wide information management tool. The main problems identified by respondents are redundancies in data keeping, unclear information system structures, and unsynchronized enterprise resource planning (ERP) systems. A special regional pattern of challenges with information management systems was the difficult inclusion of the Chinese internet environment.

Furthermore, the transparency of relevant data, such as spending volumes, prices, specifications, etc., was surprisingly regarded as high, considering the multitude of available systems in the focal company. Headquarters claimed a much higher transparency (using the same databases and systems as subsidiaries). Exemplary for this, informants from subsidiaries felt burdened by “too many systems with insufficient transparency” (BROWN (5)) and “inefficiencies caused by redundant data keeping”. Another identified problem was the information transparency with non-business unit data. Representative for most business units, informants from case BLUE (headquarters and subsidiary) claimed very good transparency for relevant data within their business unit through continuous development of their system. However, they complained about non-transparent data and processes at other business units when they purchase together. This finding corresponds with the organizational boundaries described by Egelhoff (1991).

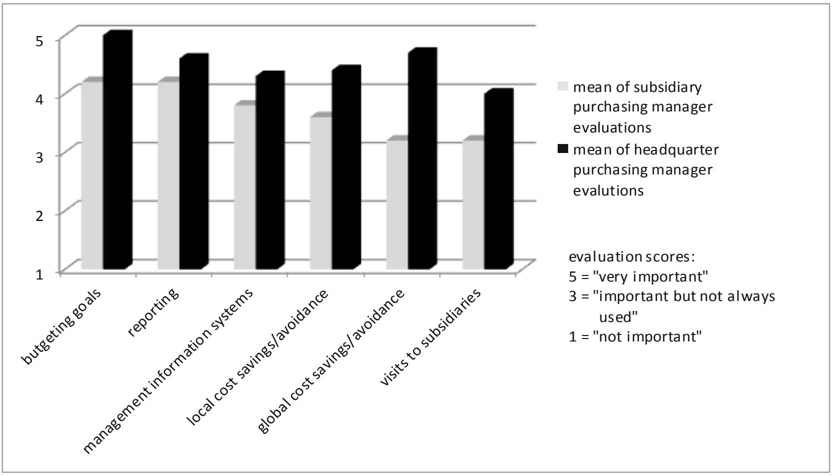
In evaluating the role of information management systems to satisfy the information needs of globally dispersed decision makers, informants nearly concordantly state a high importance especially for coordinating all entities involved in purchasing processes. Thus, the higher the availability of relevant data through information management systems was, the more effective coordination between purchasing units was perceived. This leads to the third proposition:

Proposition 3: The better aligned the information management systems for headquarters and subsidiaries are, the less impact global dispersion has among entities.

4.4 Control

The control mechanisms throughout all analyzed cases was high; performance goals are prevalent, whereby they are usually conducted monthly. The most frequently used measures in the focal companies purchasing entities have been financial key performance indicators (KPIs) and purchasing volume KPIs. The evaluation of the most appropriate instruments to control activities of purchasing managers in subsidiaries is shown in Figure V-2. In all categories, the mean of the headquarter’s purchasing manager rating is higher than the evaluation of subsidiary purchasing managers. The most striking differences between both evaluations is the fact that headquarters evaluated global cost savings as ‘very important’, whereas subsidiaries evaluated global cost savings ‘important but not always used’. This result indicates problematic goal alignment from headquarters to subsidiaries.

Figure V-2 - Evaluation of Control Activities



In order to measure if performance has reached expected targets, standard performance management measures are initiated by local managers, including plan reviews and actual situation comparisons of measured and targeted performance. Several informants from both levels identified the same problem: the weak direct disciplinary power of headquarters on local purchasing organizations. Therefore, global sourcing goals were often regarded as "soft" goals without incentive or threats of punishment. A purchasing manager from headquarters summarized this situation, “The local managers do not consider global sourcing as their first priority since they know that their performance is monitored but nothing really happens” (BLACK (15)).

With regard to the way subsidiary manager’s performance is evaluated, several interviewees criticized the matrix organization’s dual leadership problems and trade-offs between local vs. global issues. Decisions are most often made to the advantage of local subsidiaries. Local subsidiary objectives strongly influence individual evaluations. However, in order to create a truly global sourcing network, globally unified objectives have to be emphasized. Moreover, as demonstrated in the accompanying questionnaire, more emphasis was placed on global objectives, such as global cost savings, by headquarters than subsidiaries, thereby confirming the impression of a gap between global and local goal orientation. Moreover, it was observed that the less power, in terms of control and sanctions, that the purchasing unit responsible for the global sourcing goal achievement has, the more likely subsidiaries pursue local goals instead of global goals. As informants from headquarters commented, this situation significantly increases the organizational effort required. Thus, the forth proposition concludes:

Proposition 4: The less consequent global sourcing strategy is aligned in corporate-wide global goals, the more organizational control of headquarters over subsidiaries is required.

4.5 Socialization

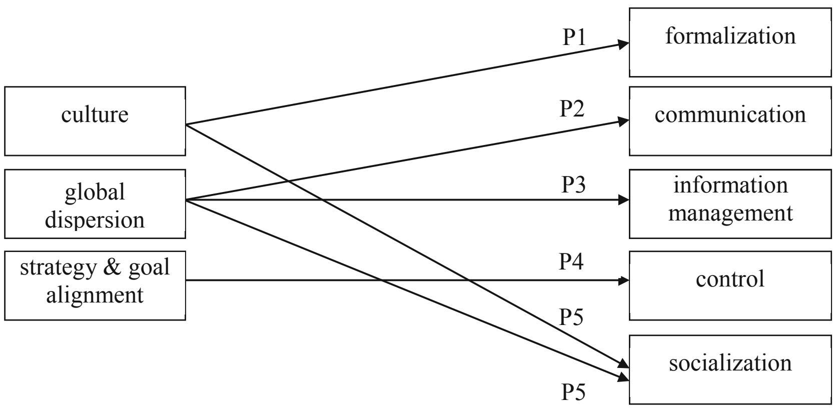
The majority of the respondents consider socialization to be a highly effective tool to control purchasing staff behaviour, however, only in combination with other mechanisms. Respondents unanimously emphasised the important role of socialization to master difficult tasks, especially with a globally dispersed team with different cultural backgrounds. Therefore, team building via direct socialization was the preferred option. Internal competition restricted the benefits of socialization. As a positive example for effective socialization, case WHITE regularly executes workshops involving the entire regional organization. The informants praised these workshops because the employees have the opportunity to share information on current projects. The same informants suggested implementing first purchasing workshops and in a next step global sourcing KPIs should be extended to the closely related business areas, such as research and development (R&D) and production. In this way, commitment to and the execution of global sourcing targets could be achieved.

Another noteworthy aspect was that headquarter purchasing managers were perceived as much more theory-driven, often neglecting the importance of detailed knowledge at subsidiaries. According to subsidiary informants, the combination of headquarters managers' corporate-thinking with subsidiary expertise is sufficient to achieve corporate global sourcing objectives. Therefore, measures of socialization were perceived as very useful to combine local and global expertise for unified goal achievement. As stated by subsidiary purchasing manager (BLUE 18), "Global sourcing means international business with colleagues and team members in different locations, even in different countries and with a variety of cultural backgrounds. Therefore, for socialization it is important to learn these interpersonal skills". In conclusion, the higher the amount of socialization between headquarters and subsidiaries, and between functional units is, the higher the probability of goal achievement is. This leads to the fifth proposition:

Proposition 5: The better socialization between headquarters and subsidiaries is aligned, the easier global sourcing organizations can overcome challenges of geographical dispersion and cultural differences.

The contingency relationships, which became apparent throughout the analysis, between contingency variables 'sourcing-related contextual factors' and output variable 'global sourcing organizational design' throughout the implementation of global sourcing strategy are displayed in Figure V-3.

Figure V-3 - Contingency Relationships between Sourcing-related Contextual Factors and Integration Mechanisms



5 Implications

In this paper, the influence of sourcing-related contextual factors on organizational design was analyzed based on nested case studies of nine business units at one MNC. The insight on global sourcing at the subsidiary and headquarters levels of the MNC have implications for managers as well as researchers.

First, for management the findings indicate a clear need to always incorporate both headquarter and subsidiaries contexts when configuring global sourcing organizational design. Second, when implementing global sourcing strategy, country and cultural differences between headquarters and subsidiaries have to be taken into account. Third, managers should pay particular attention that formal processes of socialization, goal setting, or formalization are not only aligned but also the perceptions thereof by subsidiaries and headquarters. As demonstrated in the analysis of the interview transcripts, the divergent perception of organizational design seems to be one of the most salient challenges for managers. Therefore, in order to cope with this challenge and align purchasing managers' perceptions at headquarters and subsidiaries, it is essential to have a formally aligned purchasing organization as well as a thriving purchasing organization following the same objectives.

For researchers, the findings demonstrate a broad range of facets in global sourcing strategy, which are key factors for MNCs to implement and leverage global sourcing. For example, the contingency relationship between the corporation's strategy and goal alignment and the organizational effort to control the adherence to strategy are quite strong and influence the organization's global sourcing efficiency, according to interviewees. Furthermore, the influence of geographical dispersion on communication and information patterns of global sourcing organizational design is less influential than expected. In other words, due to highly developed communication and information mechanisms, the focal MNCs strived to diminish the influence of this factor. Furthermore, only by including also the subsidiary perspective in a holistic research approach enabled to evolve those results. In summary, the findings confirm the need stated by Kouvelis et al. (2006) that theoretical concepts in purchasing and supply management can only develop further by shedding light on the application of theoretical concepts.

6 Limitations and Further Research Directions

Global sourcing organizational design is a multifaceted area. Although this study on global sourcing organizational design provides various new insights, it has its limitations. First, to enable an analysis of a comparable set of purchasing units at the headquarters and subsidiary levels, this study was conducted at one MNC. In this way, it was possible to compare the approaches to global sourcing implementation at all units. However, this analysis also limits the generalizability of the findings. Second, this study focused on a centralized organization. Third, focusing on the most important sourcing-related factors leads on the one hand to specific results, on the other hand to not taking into account other important factors.

Future research is needed to better understand the implementation interdependences of sourcing-related contextual factors and organizational design. Therefore, future research should analyze more MNCs and their respective reactions to external and internal influences. The study of decentralized MNCs should be included to verify if there are specific patterns for centralized and decentralized MNCs in terms of shaping its global sourcing organizational design. As initially shown, the 'fit' itself is dynamic (Miles and Snow 1984). Thus, the importance of sourcing-related factors is changing. Consequently, further research should reevaluate its importance and further adapt or enhance the set of contextual factors. Based on the findings of this study, the implications of the respective organizational design setting on the global sourcing performance should be analyzed.

In conclusion, the implementation of global sourcing strategy and especially its organizational design are crucial for MNCs to compete against the global competition. By analyzing the impact of sourcing-related contextual factors on global sourcing organizational design, this paper makes an important step to shed light on the complex interactions of internal and external contingencies on global sourcing organizational design.

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VI Final Conclusion

Each of the four presented essays of this thesis has analyzed and highlighted varying aspects of the initially raised question why some social groups, economic institutions and nations advance and prosper in international business. Each essay is contributing to the research in the fields of international entrepreneurship and identifies opportunities for further research.

By expanding not only the set of firm characteristics but also the time frame from when a firm can accumulate firm-specific competitive advantages (prior to inception), the first essay "*Going global early: Liabilities of foreignness and early internationalizing firms*" helps to better understand when and how entrepreneurial early internationalizing firms can overcome liabilities of foreignness early in their life cycle. Furthermore by incorporating speed and mode of entry into our analysis of early internationalizing firms along with Oviatt and McDougall's (1994) dimensions of multinationality and functions, the understanding of firms that go global early has been extended by using a more traditional international business perspective for these firms. In terms of further research opportunities, this study has provided propositions on firm, country and industry specific characteristics that would allow empirical tests. Furthermore the highlighted interactions between founder, firm and country antecedents should be examined in future research. As these early internationalizing firms seem to challenge the conventional wisdom on speed and pace of international expansion, the approach chosen for this study fosters the understanding of the choices and behaviors of early internationalizing firms.

In the second essay "*Performance measurement and antecedents of early internationalizing firms: A systematic assessment*" the extensive analysis of studies on early internationalizing firm performance has revealed a strong need for early internationalizing firm research to base performance measurement on a well-balanced set of financial, operational and effectiveness measures. Especially the identification of 44 different early internationalizing firm performance antecedents – composed of early internationalizing firm specific resources, capabilities and strategies – is offering a broad base for future research. Among others, organizational and technological resources, product related-capabilities, niche market strategy and strategic ambidexterity have been identified as early internationalizing firms´ specific performance antecedents. In sum, the executed assessment provides helpful venues for

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future research to gain more insight about early internationalization performance results.

In the third essay "*Impact of institutional coordination on national entrepreneurship: A conceptual framework*", we successfully demonstrated the impact of institutional coordination mechanism on entrepreneurship. By investigating the impacts of different institutional domains on the early stages of entrepreneurial process of venture creation, the underlying reasons why institutional arrangement by non-market coordination constrains early stages of entrepreneurship are highlighted. This way, we propose that during the conception, gestation, and infancy phases of entrepreneurial processes, entrepreneurial activities have a higher probability of success in liberal market economies. In change, if entrepreneurial activities have once reached adolescence phase, coordinated market economies are more likely to be conducive in providing institutional conditions for entrepreneurship. For further research this study offers the opportunity to substantiate the negative relationship between the institutional coordination index and national entrepreneurship in further empirical examinations. Furthermore, the exploration of moderators affecting the relationship between institutional coordination and entrepreneurship provides opportunities for future research.

In the fourth essay "*Global organizational design in purchasing and supply management: Headquarters and subsidiaries in a contingency perspective*", the organizational design as one of the key managerial tools to leverage international business activities has been examined. Therefore the author has shed light on the contingency relationships between sourcing-related contextual factors and global sourcing organizational design throughout the implementation of global sourcing strategy. As a consequence, the importance of aligning integration mechanisms between headquarters and subsidiaries has been highlighted. This seems especially valid for formalization, use of information management system and socialization. Due to the dynamic nature of 'fit', further research is needed to better understand the implementation interdependency of sourcing-related contextual factors and organizational design in the field of global sourcing strategy.

In conclusion, future research in the field of international entrepreneurship can draw on the findings and theoretical developments of this thesis. Results could be used to further advance the understanding of areas being conducive to take advantages of internationalization of business activities as well as how to leverage strategies as global souring strategy in firms.