

Network exploration and exploitation in international entrepreneurship: an opportunity-based view

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Table of Contents

List of Figures.....	v
List of Tables	vi
Acknowledgements.....	vii
Abstract.....	viii
Chapter 1 Introduction	1
1.1 Introduction.....	1
1.2 Background to the research/research gaps	2
1.3 Research problem and research questions	7
1.4 Significance of the research	7
1.5 Research methodology.....	8
1.6 Organisation of the thesis.....	8
Chapter 2 Literature Review	10
2.1 Introduction.....	10
2.2 Entrepreneurship defined and the opportunity concept.....	10
2.3 International entrepreneurship defined and the international opportunity concept	13
2.4 Types of opportunities and the identification process	15
2.5 Common research themes addressed in entrepreneurship and IE: a comparative analysis	16
2.5.1 Network approach to entrepreneurship	17
2.5.2 Network approach to IE	29
2.5.3 Opportunity-based approach to entrepreneurship	35
2.5.4 Opportunity-based approach to IE	38
2.5.5 The concept of exploration, exploitation and the ambidexterity perspective.....	45
2.6 Conclusion	55
Chapter 3 Research Model and Hypotheses	58
3.1 Introduction.....	58
3.2 The conceptual framework.....	58
3.3 Hypotheses development	63
3.3.1. Something old, something new: Network exploration and exploitation and international opportunity exploration and exploitation	63
3.3.2 Network exploration, exploitation, and export performance	66
3.3.3 International opportunity exploration, exploitation, and export performance	68
3.3.4 The mediating role of international opportunity exploration and exploitation capabilities	69
3.4 Conclusion	70
Chapter 4 Research Methodology	73
4.1 Introduction.....	73
4.2 Unit of analysis	73

4.3 Operationalisation of variables	74
4.3.1 Network exploitation capability.....	76
4.3.2 Network exploration capability.....	77
4.3.3 International opportunity exploration capability.....	78
4.3.4 International opportunity exploitation capability.....	79
4.3.5 Export performance	80
4.3.6 Control variables.....	83
4.4 Research methods	84
4.4.1 Nature of research.....	84
4.4.2 Research instrument: Questionnaire	85
4.4.3 Pre-testing research instrument.....	85
4.4.4 Final questionnaire.....	87
4.4.5 Key informant.....	87
4.4.6 Research setting: Bangladesh apparel export industry.....	87
4.4.7 Population and sampling.....	92
4.4.8 Sample size	93
4.4.9 Data collection procedure	93
4.4.10 Data editing and entry	96
4.4.11 Check for outliers.....	96
4.4.12 Descriptive statistics	96
4.4.13 Validity and reliability of the research instrument	98
4.4.13 Data analysis procedures.....	99
4.4.14 Structural equation modelling (SEM).....	100
4.4.15 Advantages and disadvantages of structural equation modelling (SEM).....	103
4.4.17 Steps in structural equation modelling (SEM).....	104
4.5 Exploratory factor analysis: a precursor to confirmatory factor analysis	109
4.6 Formative versus reflective measurement models	111
Chapter 5 Analysis and Results.....	113
5.1 Introduction.....	113
5.2 Exploratory factor analysis (EFA)	113
5.2.1 Network exploitation and exploration capabilities	115
5.2.2 International opportunity exploration and exploitation capabilities.....	116
5.2.3 Export performance	118
5.2.4 Control variables.....	121
5.2.5 Summary of EFA results	121
5.3 Structural equation model (SEM)	122
5.3.1 Measurement model.....	122
5.3.2 Results of structural equation model (SEM).....	129
5.3.3 The effects of multiple mediators and effects decomposition.....	134
5.3.4 Boundary conditions of the baseline model.....	135

5.4 Discussion of the results	138
5.4.1 The dual capability of network and export performance	138
5.4.2 The dual capability of network and international opportunity	140
5.4.3 The dual capability of international opportunity and export performance	141
5.4.4 The mediating role of the dual capability of international opportunity.....	142
5.4.5 The moderating effect of firm size and age.....	143
Chapter 6 Implications, Contributions and Limitations.....	152
6.1 Introduction.....	152
6.2 Academic, managerial and policy implications	152
6.2.1 Academic implications.....	152
6.2.2 Managerial implications.....	153
6.2.3 Public policy implications.....	157
6.3 Contributions	158
6.3.1 Empirical contributions.....	158
6.3.2 Theoretical contribution.....	160
6.3.3 Methodological contribution.....	163
6.4 Limitations and future research.....	164
6.5 Conclusion	167
References	168
Appendix 1: Questionnaire	193

List of Figures

Figure	Page No
Figure 2.1: An integrative perspective of the literature review and the link with the present study	56
Figure 3.1 The relationship between the dual capability of network and international opportunity, and export performance	61
Figure 4.1 The direct and indirect effects	101
Figure 5.1: The empirically tested structural model of network, international opportunity, and export performance	133
Figure 5.2: The relationships between the dual capability of network and export performance	139
Figure 5.3: The relationships between the dual capability of network and international opportunity	140
Figure 5.4: The relationships between the dual capability of international opportunity and export performance	142
Figure 5.5: The moderator in the relationship between the dual capability of network and international opportunity	145
Figure 5.6: The moderator in the relationship between the dual capability of international opportunity and export performance	149
Figure 5.7: The graphical representation of the research findings	150

List of Tables

Table	Page No
Table 2.1 Defining characteristics and research focus of personal and inter-organisational networks in entrepreneurship	18
Table 2.2 Differential definition of network capability and related concepts	24
Table 2.3 Research on network competence and capability: theoretical background	25
Table 2.4 Empirical studies on opportunity exploration and exploitation in the entrepreneurship	36
Table 2.5: Opportunity-based empirical studies in the IE literature	40
Table 2.6: Definitions of ambidexterity	47
Table 2.7: Studies and their focus on exploration and exploitation, and ambidexterity in the alliance/network literature	49
Table 2.8: Studies and their focus on exploration and exploitation, and ambidexterity in the entrepreneurship literature	52
Table 2.9: Studies and their focus on exploration and exploitation, and ambidexterity in IE	54
Table 3.1: Summary of the hypothesised relationships	71
Table 4.1: Concept, conceptual and operational definition and measurement of variables	75
Table 4.2 Characteristics of the sample	88
Table 4.3 Characteristics of the respondents	97
Table 4.4: Reliability of purified scales	99
Table 4.5: Recommendations for model indices: some rules of thumb	108
Table 5.1a: Extracted factors and factor loadings related to “network capability”	115
Table 5.1b: Final factor loadings related to “network exploitation capability”	116
Table 5.1c: Final factor loadings related to “network exploration capability”	116
Table 5.2a: Extracted factors and factor loadings related to “international opportunity exploration and exploitation capabilities”	117
Table 5.2b: Final factor loadings related to “international opportunity exploration capability”	118
Table 5.2c: Final factor loadings related to “international opportunity exploitation capability”	118
Table 5.3: Extracted factor and factor loadings related to “export financial performance”	119
Table 5.4a: Extracted factors and factor loadings related to export strategic and stakeholder performance	119
Table 5.4b: Final extracted factor and factor loadings related to “export strategic performance”	120
Table 5.4c: Final extracted factor and factor loadings related to “export network (stakeholder) performance”	120
Table 5.5 Fit statistics for measurement model and structural model	123
Table 5.6: A summary of the confirmatory factor analysis model estimates, variance extracted and construct reliability	126
Table 5.7: Correlation between constructs, means and standard deviation	128
Table 5.8: Results of structural equation model for hypothesised relationships	130
Table 5.9: Unstandardised direct, indirect and total effects of exogenous variables in the model	131
Table 5.10: Standardised direct, indirect and total effects of exogenous variables in the model	132
Table 5.11: Standardised indirect effects of the dual capability of network on export performance	135
Table 5.12 Results of moderation analysis: firm size and age	137

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Abstract

International entrepreneurship (IE) exists at the interface of two distinct research fields—entrepreneurship and international business (IB). However, IE studies typically fail to integrate research from both fields, leaning much more towards IB. This study uses core concepts from entrepreneurship to explain the export performance of early internationalising firms. It contributes to the network and international opportunity-based view in IE by incorporating the twin concepts of exploration and exploitation into a dynamic capability perspective, showing how these affect export performance.

While early internationalising firms including born globals constitute an important component in IE, empirical interest in this field focuses on high-tech and knowledge-intensive industries from developed countries. In addition, research in the field is mainly of qualitative nature investigating small numbers of firms. Therefore, much is unknown about how early internationalising firms differ in their dynamic network capabilities and opportunity related capabilities. We investigate these aspects using structural equation modelling based on a sample of 647 SMEs and large, young and mature export start-ups operating in the traditional low-tech apparel industry from a South Asian developing country (Bangladesh).

This study shows that both network exploitation and exploration capabilities positively influence international opportunity exploitation and exploration capabilities. In turn, international opportunity exploitation and exploration capabilities influence export performance. This study also demonstrates that the relationship between network capabilities and export performance is both direct and indirect through the mediation of the twin international opportunity capabilities.

The moderation analysis of firm age and size sheds additional light on the liabilities of newness and smallness of early internationalising firms. Interestingly, we find that the liabilities of smallness and newness do not have the same influence in different stages of IE. The role of firm size is more pronounced at the earlier stage of IE. In contrast, firm age accentuates in the later stage of the twin opportunity capabilities-export performance relationship. One possible explanation of this may be that developing and managing networks for the purpose of exploiting and exploring international opportunities is the most effortful and resource demanding stage in the entrepreneurial process. During this stage, owner-managers assess their own organisational resources, explore the possibilities of attracting external network resources and match their own resources with those of network partners. This stage reflects what is called ‘resource orchestration’ in the strategic entrepreneurship literature. In the later stage, when opportunities are already developed and exploited, only minimal resources are then needed to achieve performance advantage. Age becomes a dominant factor because older firms derive greater performance advantage than younger firms due to their accumulated experience and learning throughout the years.

This study indicates that firms may overcome their liability of smallness by connecting with new foreign partners, especially customers, resulting in more export orders. Policy makers can also help them connect with new partners by organising trade fairs, trade missions and sponsoring other promotion programmes. With respect to the liability of newness prevailing in the later stage, owner-managers should work with prominent business partners to help them get good referrals and overcome the lack of legitimacy in establishing new relations. Finally, the managers of early internationalising firms should be empowered to develop relationships with external partners.

Chapter 1 Introduction

1.1 Introduction

The importance of entrepreneurship in any society- be it a developed or a developing one- cannot be ignored. Considering the increased attention to entrepreneurial activity with regard to economic output and labour employment in all nations, new knowledge about entrepreneurship can speed the entrepreneurial outcomes desired by enterprising individuals, firms, and societies (Busenitz et al. 2003). Over the past few years entrepreneurship has been a research interest of many scholars (Ireland, Reutzell, and Webb 2005, Rauch et al. 2009). Meanwhile, a new research field of international entrepreneurship (IE) has emerged at the interface of two unique fields—entrepreneurship and international business (IB) (McDougall and Oviatt 2000). However, IE studies have typically ignored to integrate research from both the entrepreneurship and the IB fields (Dimitratos and Jones 2005). As Keupp and Gassmann (2009, 603) identified: “current IE research tends to favour either the international or the entrepreneurship side”. They further found that studies in IE mostly employ theoretical frameworks from IB to ground their study, with entrepreneurship theory being almost completely absent. To address this imbalance, core concepts used in the entrepreneurship literature need to be embraced in IE, in addition to its current focus on being international. Although network is a dominant perspective in IE covering a range of topics such as the types of network ties and their influence, network as a capability has gained only a little attention (Jones, Coviello, and Tang 2011b). The capability view provides a useful framework for research on networking of early internationalising firms (Mort and Weerawardena 2006) and therefore “research on the nature and impact of a dynamic networking capability is warranted” (Jones, Coviello, and Tang 2011b, 643). Moreover, despite IE’s emergence from the most influential concept of opportunity in the mainstream entrepreneurship literature, as is evident in the definition of the discipline (Oviatt and McDougall 2005), we do not know much about entrepreneurial opportunity recognition and exploitation in international markets. Therefore, this study seeks to contribute to the network and opportunity perspectives by including the dual capability of exploration and exploitation (March 1991) and their link to the international performance of early internationalising firms.

1.2 Background to the research/research gaps

Globalisation has impacted everyone's life and businesses. The pace and magnitude of change in the global economy will continue to accelerate in the 21st century in which entrepreneurs will assume a more powerful and prominent role (Zahra 1999). Since the 1990s a new breed of entrepreneurs, known as 'born global' entrepreneurs (Knight and Cavusgil 2004), has taken the lead in international trade. From inception, these entrepreneurs have developed dynamic capabilities in identifying global opportunities and capitalising on them through global networking and reaching the global marketplace (Mort and Weerawardena 2006).

Early and rapidly internationalising firms such as international new ventures (Oviatt and McDougall 1994) or born globals (Knight and Cavusgil 1996), as a phenomenon of the globalised world economy, have much altered the scale, scope and intensity of competition in international business. These firms can be generalised as "small multinationals" (Ripollés and Blesa 2012) with an entrepreneurial nature and international focus. This breed of entrepreneurial firms that follow an early internationalisation path from inception or soon thereafter (Oviatt and McDougall 1994) constituted a major stream of research in IE during the 1990s. Given their rapid growth and mounting importance in the globalisation era (Oviatt and McDougall 1994), research interest to understand the internationalisation of these firms has continued to grow (Jones, Coviello, and Tang 2011b).

Rasmussen and Madsen (2002) specified three reasons (managerial, societal and academic) why studying born globals and other early internationalising firms appears to be very important for scholars. Firstly, from a managerial aspect, researchers can advise managers of small firms how to address challenges they face while internationalising such as cross-cultural problems, market expansion, and export mode decisions (e.g., Bagchi-Sen 1999, Carrier 1999, Ghauri and Herbern 1994, Graham 1999, Miesenbock 1988, Philp 1998), resource constraints (Gabrielsson and Kirpalani 2004), and gap in information or knowledge about foreign markets (Zhou, Wu, and Luo 2007), that they can solve by networking (Sharma and Blomstermo 2003). Secondly, from the societal aspect of internationalisation, researchers can uncover the particular needs of such firms, of which government promotion agencies are unaware of, and help them design appropriate entrepreneurial promotion programmes. Finally, from an academic perspective, in studying born globals, researchers can develop sound theoretical understanding of such firms' internationalisation in a cross-disciplinary setting. However, Rasmussen and Madsen (2002) did not consider the national and

international contribution of born global firms in the current globalised economy which can be an important impetus to study and research such firms. Hessels and van Stel (2011) showed through a cross-country analysis of 36 developed, transition and developing countries that export-oriented entrepreneurship is more important for achieving high economic growth rates than entrepreneurial activity in general.

SMEs' export entry in general (Ibeh 2003) and born globals' international market entry in particular (Freeman, Edwards, and Schroder 2006) are considered as entrepreneurial acts. Global business success in today's turbulent and dynamic international marketplace is largely contingent upon entrepreneurial strategy making (Hitt et al. 2001). Thus the study of internationalisation of any firm requires an entrepreneurial focus which can shed light on the true process of internationalisation. IB scholars have recently addressed the importance of entrepreneurship and the role of opportunity in firm internationalisation after three decades of oversight since Johanson and Vahlne (1977) advocated the internationalisation process theory. As Johanson and Vahlne (2006, 167) admit: "the opportunity side of the internationalization process is not very well developed in our earlier papers" and later suggest that: "The field of opportunity research has grown significantly. We believe that by combining findings from that research with the business network perspective on markets...we can take a step forward in discussing opportunities in the internationalization process" (Johanson and Vahlne 2009, 1419). They further agree that "internationalization has much in common with entrepreneurship" (p. 1423).

Although IE scholars tend to criticise IB research to be lacking an entrepreneurship focus, they themselves have not investigated the concept of opportunity- both theoretically and empirically- in the context of IE despite the field's emergence from the entrepreneurship literature (Oviatt and McDougall 2005, Shane and Venkataraman 2000) in an attempt to explain early internationalisation of firms. After reviewing two decades of IE research Jones, Coviello, and Tang (2011b, 642) reported that: "the concept of opportunity recognition- is quite new to IE". In addition, Mainela, Puhakka, and Servais (2014, 105-106), from a content analysis of opportunity-based research in IB and IE, found that: "International opportunities...are often depicted in rather abstract and unspecified ways, and the research suffers from narrow theoretical discussion in relation to the concept of opportunity" and "in IE...for all its achievement, research has yet to leverage the full potential of the opportunity focus." Two dominating but contrasting views of opportunity exist in entrepreneurship literature. Schumpeterian (1934) opportunities are created while Kirznerian (1973)

opportunities are discovered. Recently we observed a middle ground approach which postulates that while some elements of an opportunity may be discovered, opportunities are developed within a firm (Ardichvili, Cardozo, and Ray 2003). We conform to this view. Opportunity exploration and exploitation as constructs have not been theorised and operationalised to their full potential, especially in the context of international business. Therefore, in this study, we have responded to the recent call of Jones, Coviello, and Tang (2011b) and Mainela, Puhakka, and Servais (2014) by explicitly focusing on international opportunity exploration and exploitation as two distinct capabilities through conceptualising and operationalising the constructs from a dynamic capability perspective (Teece 2007, Vahlne and Johanson 2013).

Network capability, complemented by entrepreneurial opportunity-seeking behaviour, plays a significant role in rapid and successful internationalisation (Mort and Weerawardena 2006). However, research in entrepreneurship and IE is predominantly focused on the entrepreneur's social networks in recognising opportunities (Bhagavatula et al. 2010, Gordon 2006, Kontinen and Ojala 2011b, Ozgen and Baron 2007, Singh et al. 1999). A search of the literature shows that most research centres around network composition, structure, relations and outcomes (Dhanaraj and Parkhe 2006, Jones, Coviello, and Tang 2011b, Mort and Weerawardena 2006, Stuart and Sorenson 2007). Until recently, network capability characterised by a firm's ability to build an effective network structure has been largely overlooked in the IE literature. From a network perspective, international opportunity exploration and exploitation capabilities can be perceived as network-enabled capabilities (Zaheer and Bell 2005) which accrue from external networks and lead to opportunity exploration and exploitation in international markets. Given the scarcity of research in this particular area, future research investigating the nature and impact of network capability (Jones, Coviello, and Tang 2011b) in relation to opportunity related activities in international markets (Mu 2013) can advance the IE literature (Jones, Coviello, and Tang 2011b).

In this study, we have differentiated between network exploration capability (related to the exploration of new network ties) and network exploitation capability (related to the exploitation of existing network ties) following the twin concepts of exploration and exploitation proposed by March (1991). Although network exploitation capability may help a firm to survive by exploiting existing network relationships, the firm requires an exploration capability related to the development of new network relationships to guarantee its growth. In addition, most research in entrepreneurship and IE focuses on the firm-level entrepreneurial

orientation (EO) which is a strategic orientation or disposition towards entrepreneurship rather than actual entrepreneurial behaviour (Lumpkin and Dess 1996, Wiklund and Shepherd 2003): “EO is not a direct measure of entrepreneurial behavior” (Kollmann and Stöckmann 2012, 2). Therefore, in this study, we have included opportunity related entrepreneurial behaviour represented by the twin concepts of opportunity exploration and exploitation which constitute the unique domain of both entrepreneurship and IE.

While early internationalising firms constitute an important component in IE (McDougall, Oviatt, and Shrader 2003), empirical interest in this field is narrowly focused on the high-tech and knowledge-intensive industries and firms from developed countries (Rialp, Rialp, and Knight 2005). Diversifying IE research into different industrial contexts, especially in non-knowledge intensive sectors (Jones, Coviello, and Tang 2011b) and entrepreneurial firms from emerging economies entering developed economies is warranted (Wright et al. 2005) and should help in better understanding IE. In addition, research in the field is mainly qualitative, based on a small sample of small and new born globals or early internationalising firms (Lee, Lee, and Pennings 2001, Manolova, Manev, and Gyoshev 2010, Vasilchenko and Morrish 2011). Therefore, we lack knowledge of how smaller and larger as well as young and old internationalising firms differ in their dynamic capabilities, i.e., areas where the resource base of the smaller and newer firm presumably has impact (Jones, Coviello, and Tang 2011b). Young and small companies also differ from their old and large counterparts in their opportunity exploration and exploitation behaviour. Historically, small companies and start-ups have been found to be more competent at identifying entrepreneurial opportunities but less effective at developing and sustaining capabilities needed to exploit them over time. By contrast, more established firms have demonstrated relatively greater skills in developing and sustaining capabilities needed to exploit opportunities but have been less effective in recognising entrepreneurial opportunities that can be exploited with their resources and resulting capabilities (Ireland, Hitt, and Sirmon 2003).

By addressing the above gaps in the literature and following the suggestions of scholars to integrate opportunity research with network perspective (e.g., Johanson and Vahlne 2009), this thesis offers five specific contributions to IE. First, we have adopted an entrepreneurship focus in relation to the opportunity perspective which is an under-researched area in IE (Jones, Coviello, and Tang 2011b). Our specific contribution lies in broadening the theoretical interpretation and operationalisation of international opportunity

exploration and exploitation constructs from a dynamic capability perspective. Second, this study also contributes to the emerging strategic entrepreneurship literature by incorporating both opportunity exploration and exploitation because IE is about both opportunity recognition and exploitation in international markets (Oviatt and McDougall 2005) and firms face the dual challenge of exploiting old opportunities and exploring new ones (March 1991). While the ‘recognition’ side of opportunity is developed, the ‘exploitation’ side is underdeveloped in entrepreneurship (Choi and Shepherd 2004, Ciabuschi, Perna, and Snehota 2012). Third, we have contributed to the network perspective in entrepreneurship and IE by differentiating between network exploration and exploitation capabilities. Fourth, this is the first quantitative study in IE that shows the mediating mechanisms of international opportunity exploration and exploitation in the networking-export performance relationship. We used multidimensional export performance measures that would help our understanding of how specific performance measures are related to specific antecedents (Jones, Coviello, and Tang 2011b). Fifth, since this study investigates the early internationalising firms from Bangladesh, a lesser developed country (LDC) in South Asia— an under-represented region in IE research (Peiris, Akoorie, and Sinha 2012), we offer a context contribution. Additionally, this study investigates early internationalising firms in a low-tech industry as opposed to IE’s overarching focus on high-tech and knowledge-intensive sectors. We also investigate both small and medium enterprises (SMEs) and large firms as well as young and old firms from the apparel export industry of Bangladesh, as opposed to IE’s tendency towards smaller and newer born globals. The moderation analysis of firm size and age in the relationship between network and international opportunity as well as between international opportunity and export performance sheds additional light and provide new insights on the liability of newness and smallness of these firms.

Despite wide interest and two decades of research, a coherent definition of a born global or international new venture as well as the empirical operationalisation is still lacking (Madsen 2013). Svensson and Payan (2009), based on a comparative literature review on both types of firms, suggest the term “early internationalising firms” to be more descriptive of the actual phenomena and more beneficial and appropriate than the traditional terminologies such as born globals or international new ventures. Moreover, most studies in the field and their operationalisation of the phenomena unilaterally concentrate on “small, technology-oriented companies that operate in international markets from the earliest days of their establishment” (Knight and Cavusgil 1996, 11). Thus the developed typologies of early

and rapidly internationalising firms may not be fully applicable to the under-investigated area of low technology sectors. Therefore, due to its focus on a low technology export industry, this study adopts the term “early internationalising firms” to represent the firms that start exporting very early in their operation. Moreover, since the firms in the apparel industry of Bangladesh are export-oriented and do not go for any other highly committed entry modes, they can be classified as “export start-ups” (Oviatt and McDougall 1994). Madsen (2013) suggests that research on early internationalising firms should clearly state the actual purpose of the particular study and the empirical definition of the phenomenon. Our main purpose in this study is not to identify the typologies of early internationalising firms, but to investigate the relationships between network capabilities, opportunity related capabilities, and the export performance of early internationalising firms.

1.3 Research problem and research questions

Collectively, the above discussion relating to the research gaps in the literature leads us to the following research problem:

‘What are the effects of network exploration and exploitation capabilities on the export performance of early internationalising firms?’

This research problem will be addressed by the following specific research questions:

1. What effects do network exploration and exploitation capabilities have on the international opportunity exploration and exploitation capabilities of early internationalising firms?
2. What effects do international opportunity exploration and exploitation capabilities have on the export performance of early internationalising firms?
3. What effects do network exploration and exploitation capabilities have on the export performance of early internationalising firms?

1.4 Significance of the research

As stated before, entrepreneurship’s contribution (especially IE) to a national economy is very important in any society. Since new knowledge about IE can accelerate the outcomes desired by enterprising individuals, firms, and societies (Busenitz et al. 2003), this research would contribute significantly to the country studied as well as to other countries in

encouraging more entrepreneurial activities and establishing more early internationalising firms. This would give directions to the managers of such firms as to how they can achieve sustainable entrepreneurial outcomes. Academics in IB and IE would be able to extract several interesting findings from the study in terms of how network capabilities influence international opportunity related capabilities of early internationalising firms and the extent to which the relationship between network capabilities and export performance may be mediated by the dual capability of international opportunity. This study will also help policy makers design appropriate internationalisation promotion policies and programmes.

1.5 Research methodology

Structural equation modelling (SEM) in AMOS 20 (Arbuckle 2011) is been used to test the validity and statistical significance of variables and overall model fit of the theoretical model proposed in this study. A single country, Bangladesh, is the context of this research. Firms in the apparel export industry form the population of the study. A cross sectional single source design is used where the unit of analysis is the firm rather than the venture. A specific export venture deals with a single product or product line exported to a specific overseas market (Katsikeas, Leonidou, and Morgan 2000). Since the theory of this research contains only firm-specific factors (e.g., inter-organisational network exploration and exploitation capabilities, and international opportunity exploration and exploitation capabilities), and does not contain any venture-specific export performance antecedents, the measurement of export success at the venture level would be theoretically inappropriate and misleading. As opposed to other industries in which firms both export and sell in the domestic markets, the sample firms in the apparel industry of Bangladesh are fully export-dependent and therefore the firm-level analysis is more appropriate. Data were collected using a fully structured questionnaire.

1.6 Organisation of the thesis

This thesis is developed in six chapters providing details of the theoretical background of the research, research methodology, data analysis, findings, and conclusions and recommendations. Following the introduction in chapter 1, chapter 2 reviews the contemporary literature related to entrepreneurship and IE. Chapter 3 discusses the research model and hypotheses that have been developed from pertinent literature relevant to this study followed by the research methodology in Chapter 4. Chapter 5 presents the analysis and results of the study in relation to the hypothetical statements formerly stipulated in chapter 3.

Finally chapter 6 discusses the managerial, academic and public policy implications of the results along with the study's limitations and suggestions for future research.

Chapter 2 Literature Review

2.1 Introduction

The emergence of born globals or international new ventures dominated the early development of the IE field. However, recently, there have been suggestions and investigations to extend the domain of IE research to the entrepreneurial activities of other early internationalising firms including young and old, small and large firms (Coviello and Jones 2004, Dimitratos and Jones 2005 , Jones, Coviello, and Tang 2011b, Keupp and Gassmann 2009). Since “internationalization has much in common with entrepreneurship” (Johanson and Vahlne 2009, 1423), it seems appropriate to examine internationalisation of early internationalising firms as well as traditional ones by borrowing the core concepts from entrepreneurship. Initially, most of IE research tended to focus on the entrepreneur and their prior experience (Evers 2011, Rasmussen and Madsen 2002) in the emergence of born globals. As a result, only a few studies in this area utilised variables from the mainstream entrepreneurship literature. Especially, the central concept of opportunity exploration and exploitation in entrepreneurship (Kirzner 1973) needs to be addressed in IE. Moreover, although network has emerged as a central perspective to define and discuss the internationalisation process of firms, network as capability has received only scant attention (Jones, Coviello, and Tang 2011b, Mort and Weerawardena 2006). This chapter starts with defining entrepreneurship and IE and will also look into the central research themes in both fields. Since IE has its origin in the mainstream entrepreneurship literature, it is necessary to first analyse the core concepts and research development in entrepreneurship and then to determine the extent to which IE has adopted them.

2.2 Entrepreneurship defined and the opportunity concept

Entrepreneurship is defined as “the scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited” (Venkataraman 1997). The study of entrepreneurship involves an examination of the sources of opportunities; the processes of discovery, evaluation, and exploitation of opportunities; and the group of individuals who discover, evaluate, and exploit opportunities (Shane and Venkataraman 2000). This however extends to include the outcomes of exploiting these opportunities. Although the discovery of an opportunity is a necessary condition for

entrepreneurship, it is by no means sufficient. Subsequent to the discovery of an opportunity, a potential entrepreneur must decide to exploit the opportunity (Shane and Venkataraman 2000). Although entrepreneurship as an area of scholarly inquiry has been going for over two centuries (Morris 1998), the role of opportunities in the entrepreneurial process remains relatively under-developed (Smith, Matthews, and Schenkel 2009).

Opportunity discovery or recognition is an initial step in the entrepreneurial process which forms the research focus of the classical school of entrepreneurship (Cunningham and Lischeron 1991). Singh (2001) defines entrepreneurial opportunity as a feasible, profit-seeking, potential venture which a) provides an innovative new product or service to the market, b) improves on an existing product/service, or c) imitates a profitable product/service in a less-than-saturated market. Entrepreneurial opportunities are situations in which new goods, services, raw materials, markets, and organising methods can be introduced for profit (Casson 1982, Shane and Venkataraman 2000). According to Venkataraman (1997), an entrepreneurial opportunity consists of a set of ideas, beliefs, and actions that enable the creation of future goods and services in the absence of current markets for them. Sarasvathy et al. (2010) elaborated on the ideas, beliefs and actions that denote opportunity: (1) New idea(s) or invention(s) that may or may not lead to the achievement of one or more economic ends that become possible through those ideas or inventions; (2) Beliefs about things favourable to the achievement of those possible valuable ends; and, (3) Actions that generate and implement those ends through specific (imagined) new economic artefacts (the artefacts may be goods such as products and services, and/or entities such as firms and markets, and/or institutions such as standards and norms). Christensen, Madsen, and Peterson (1989, 3) define opportunity recognition as, “either a) perceiving a possibility to create new businesses, or b) significantly improving the position of an existing business, in both cases resulting in new profit potential.” This definition extends the scope of opportunity exploration to the post-birth period of a firm’s life span, thus cancelling out the conventional start-up perception of an opportunity. The consideration of profit potential in an opportunity has raised much debate because this is not only profit for which entrepreneurs explore and exploit an opportunity. Entrepreneurship cannot be explained by monetary terms alone because entrepreneurs receive substantial non-monetary rewards such as greater autonomy, broader skill utilisation, and the possibility of pursuing one’s own ideas (Benz 2009). Although this is possible to measure non-monetary rewards an entrepreneur receives, the success of a firm can only be determined

by some monetary or financial terms. Because what non-financial rewards an entrepreneur receives (as stated before) might not equally be perceived by the employees and other stakeholders involved in the organisation. Therefore, to determine firm-level outcomes (which can be compared with that of other firms) a consideration of financial and monetary terms is essential.

There is little agreement among scholars on the definition and process of opportunity recognition (DeTienne and Chandler 2007). Different terms have been coined by scholars such as- “identification”, “exploration”, “recognition”, and “discovery” on the one hand, and “creation”, and “development” on the other hand. This results in confusion. “Recognition” refers to the existing opportunities in the environment and entrepreneurs only need to recognise them (Drucker 1998) while “creation” refers to the non-existent opportunities that are created by entrepreneurs (Shackle 2010). Although Eckhardt and Shane (2010) have used the term “discovery” to maintain consistency with prior literature, they posit that individual discovery is a misleading concept, as it implies that sufficient information exists at the moment of initial perception to assess whether an opportunity does in fact exist. Instead, individuals perceive that they have become aware of a profitable opportunity. Drawing upon three streams of economic literature pertinent to entrepreneurial opportunity—i.e., market as an allocative process (Hayek 1945), market as a discovery process (Knight 1921), and market as a creative process (Buchanan and Vanberg 1991), Sarasvathy et al. (2010, 94) model three views of opportunity in the entrepreneurship literature (recognition, discovery, and creation) and posit that: “if we are to deepen our understanding of entrepreneurial opportunity, we need to integrate these three approaches, emphasize contingencies rather than inevitabilities in each.” De Koning and Muzyka (1999) suggest the use of the term “opportunity development” because it covers the evolutionary process while DeTienne and Chandler (2007) prefer “opportunity identification” because this is more inclusive encompassing both pre-existing opportunities (“recognition” view) and those created by entrepreneurs (“creation” view). In this study we have taken “a middle ground position” by citing Short et al. (2010, 54): “some opportunities are discovered whereas others are created” and Ardichvili, Cardozo, and Ray (2003, 106): ‘While elements of opportunities may be “recognized,” opportunities are made, not found’. This developmental/constructivist view has also been put forward by Wood and McKinley (2010). Vaghely and Julien (2010) and Renko, Shrader, and Simon (2012) propose an integrative framework, which connects discovery and creation in entrepreneurial

behaviour. Edelman and Yli-Renko (2010) show empirically that discovery and creation are intertwined in entrepreneurial action. This view is also supported by Venkataraman et al. (2012), who discuss opportunities as being both found and made. Although we conform to the development view of opportunity recognition, we use the term *exploration* to maintain consistency with existing literature and the twin concepts of exploration and exploitation.

Most discussion in entrepreneurship revolves around what opportunities constitute and how they are recognised, leaving another important concept of exploitation. As we have seen in the definition of the discipline, scholars include opportunity exploitation as an integral part of entrepreneurship. A new field of strategic entrepreneurship puts forward these twin concepts. There has been a movement by scholars to combine certain aspects of entrepreneurship and strategic management to develop the new field of strategic entrepreneurship. Strategic entrepreneurship involves simultaneous opportunity-seeking (exploration) and advantage-seeking (exploitation) behaviours (Ireland, Hitt, and Sirmon 2003). Since opportunity-seeking and advantage-seeking behaviours are resource demanding, they create tension. This tension can be minimised by strategic ambidexterity (Han 2007)- an emerging concept in organisation science which can be integrated with opportunity exploration, exploitation, and ambidexterity.

2.3 International entrepreneurship defined and the international opportunity concept

The new field of IE imports the entrepreneurial aspects into the IB literature, so the concept of opportunity has a prominent place. Both entrepreneurship and IE now recognise the concept of opportunity and embrace theoretical underpinnings related to this. This has been acknowledged in the most widely accepted definitions of entrepreneurship and IE:

In contrast to previous research, we define the field of entrepreneurship as the scholarly examination of how, by whom, and with what effects *opportunities* to create future goods and services are discovered, evaluated, and exploited [italics added]. (Shane and Venkataraman 2000, 218)

International entrepreneurship is the discovery, enactment, evaluation, and exploitation of *opportunities*- across national borders- to create future goods and services [italics added]. (Oviatt and McDougall 2005, 540)

IB scholars have recently addressed the importance of entrepreneurship and the role of opportunity in firm internationalisation after three decades of oversight since Johanson and Vahlne (1977) advocated the internationalisation process theory. As they later noted:

[T]he *opportunity* side of the internationalization process is not very well developed in our earlier papers [italics added]. (Johanson and Vahlne 2006, 167)

Internationalization has much in common with *entrepreneurship* [italics added]. (Johanson and Vahlne 2009, 1423)

The field of *opportunity* research has grown significantly. We believe that by combining findings from that research with the *business network perspective* on markets...we can take a step forward in discussing *opportunities* in the internationalization process [italics added]. (Johanson and Vahlne 2009, 1419)

Recently Jones, Coviello, and Tang (2011b, 642-643) also acknowledge that:

[T]he concept of opportunity recognition- is quite new to IE.

IE research focused on opportunity has rich potential. Given that opportunity recognition is itself a process, understanding how it emerges in relation to (e.g.) changes in the entrepreneur's learning, the firm's network or internationalization patterns is of interest.

Finally, a recent content analysis of international opportunity research in IE/IB by Mainela, Puhakka, and Servais (2014, 105) summarised the findings as follows:

The entrepreneurial behaviors focused on international opportunities have been found to be critical in IE. International opportunities, however, are often depicted in rather abstract and unspecified ways, and the research suffers from narrow theoretical discussion in relation to the concept of opportunity.

From the preceding discussion it seems that opportunity is a critical concept which warrants greater scholarly attention. IE as a field of study is still in its infancy (Muzychenko 2008) because of its failure to include this important issue in research (Zahra and George 2002). Without opportunities there is no entrepreneurship and further advancement in both IB and IE depends on the proper theoretical and empirical treatment of the opportunity concept in relation to the early internationalisation of firms. Therefore, in this study, we have adopted an opportunity-based view to define IE and show the relationship between networking and export performance.

2.4 Types of opportunities and the identification process

Much debate revolves around how opportunities are explored and the sources of opportunities (Alvarez and Barney 2008). Researchers have suggested that opportunity exploration may be related to various factors including entrepreneurial alertness (Kirzner 1973), systematic search (Fiet 2002), prior knowledge (Shane 2000), and social networks (Singh 2000). Among these, two contrasting views dominated the entrepreneurship literature and divided the scholars into two schools of thought: Kirzner (1973) and Schumpeter (1934). The two schools significantly differ on the nature of information to identify opportunity. Thus Kirznerian opportunities are the result of the discovery of the existence of profitable discrepancies, gaps and mismatches in knowledge and information that others have not yet perceived, even if perceived, not yet exploited. By contrast, Schumpeter (1934) believed that new information is important in explaining the existence of entrepreneurial opportunities. He argued that changes in technology, political forces, regulation, macro-economic factors and social trends create new information that entrepreneurs can use to figure out how to recombine resources into more valuable forms. Shane (2003) identified several differences between these two types of opportunities. Schumpeterian opportunities are disequilibrating, require new information, very innovative, rare, and involve creation whereas Kirznerian opportunities are equilibrating, hence likely to vanish as we move towards equilibrium. They do not require new information, less innovative, common, and limited to discovery. Identifying Kirznerian opportunities requires only differential access to existing information. Entrepreneurs having high levels of alertness—“the ability to notice, without search, opportunities that have hitherto been overlooked” (Kirzner 1979, 48)—initiate to discover and exploit opportunities and thus bring the economy to equilibrium. On the other hand, Schumpeterian opportunities involve the search for new information and knowledge because such opportunities are major transformations of existing products, services or technologies that often make the prevailing product/service designs and technologies obsolete (Chandy and Tellis 2000). Although scholars were divided into these two contrasting thoughts for some time, we recently observe an inclination among researchers to resolve the conflict between these two lines of thoughts. Some scholars argue that both types of opportunities may be present in an economy at the same time (Shane and Venkataraman 2000). Therefore, to increase the probability and enhance the effectiveness of opportunity exploration, identification and subsequent development, both alertness and systematic search are required

(Tang and Khan 2007). Smith, Matthews, and Schenkel (2009) found that more codified opportunities are likely to be discovered through systematic search, whereas more tacit opportunities are likely to be identified due to prior knowledge and experience. Vaghely and Julien (2010) found that entrepreneurial opportunities can be recognised and constructed simultaneously as well as individually. Chandra, Styles, and Wilkinson (2009) found that international opportunity identification is not a matter of choice between systematic search and discovery; rather it depends on the level of prior international experience and knowledge. Firms with no prior knowledge are more likely to recognise first time international opportunities through discovery rather than deliberate search. By contrast, firms with international knowledge and experience are able to do this through both deliberate search and discovery. Piantoni, Baronchelli, and Cortesi (2012) report similar results. They found that Italian firms with prior knowledge and experience adopt active networking leading to purposeful search for overseas opportunities in both close (EU) markets and psychically distant markets (China). By contrast, firms with very little to no prior knowledge and experience adopt passive networking leading to unexpected discovery of overseas opportunities in close markets.

2.5 Common research themes addressed in entrepreneurship and IE: a comparative analysis

Entrepreneurship involves the nexus of two phenomena: the presence of lucrative opportunities and the presence of enterprising individuals (Venkataraman 1997). The entrepreneurial process is dependent on the exploitation of some lucrative opportunities and the presence of enterprising individuals who recognise and realise these opportunities through resources whether at their disposal or not to establish a new firm (Delmar, 2005). Therefore, three components of entrepreneurship theory have been identified: *the entrepreneur*, *the opportunities*, and *the resources* to exploit them (Elfring and Hulsink 2003). These components have often been analysed from a *network perspective* which assumes that entrepreneurs being embedded in a social network essentially maintain relationships with different stakeholders and receive information, ideas, knowledge and other financial resources from their network, which help them recognise and exploit opportunities. Therefore, network approach has become a prominent as well as a dominant theoretical perspective in entrepreneurship (Hoang and Antoncic 2003, O'Donnell et al. 2001, Aldrich and Zimmer 1986, Slotte-Kock and Coviello 2010). In fact, in addition to entrepreneurship,

network theories have emerged in virtually every traditional area of organisational scholarship, including leadership, power, turnover, job satisfaction, job performance, stakeholder relations, knowledge utilisation, innovation, profit maximisation, vertical integration, and so on (Borgatti and Foster 2003)

Eventually, network has become a useful theoretical lens in IE to define the internationalisation of born globals and other early and rapidly internationalising firms. Coviello (2006) argues that network theory and analysis are fundamental to IE. Therefore, whether in younger internationalising born globals or in established firms, IE should be analysed from network perspectives. Coviello (2006) also proposes that perspectives from the entrepreneurship literature be embraced to deepen our knowledge of early internationalising firms' networks. Thus, it necessitates accommodating entrepreneurship in early and rapid internationalisation literature because it is unlikely to examine the internationalisation of these firms without borrowing some concepts from entrepreneurship (Fletcher 2004), especially the concept of opportunity in the international business context. In the following sections we analyse the core concepts and dominant perspectives in entrepreneurship and then the extent to which they have been addressed in IE. First, we discuss the network approach to entrepreneurship in general and then the capability perspective within it in particular. Then we investigate the network perspective in IE and the capability perspective within it and the related research undertaken. Second, we analyse the opportunity-based view in entrepreneurship and the related concept of exploration, exploitation and ambidexterity and relevant research findings. Then we investigate the opportunity-based view in IE and the concepts of exploration, exploitation and ambidexterity in connection with the internationalisation literature. Finally, we come up with a common research agenda for both entrepreneurship and IE integrating the network and opportunity-based perspectives which opens up avenues for the current research.

2.5.1 Network approach to entrepreneurship

Networks are partnered relationships between individuals, groups, and organisations (Dubini and Aldrich 1991). Studying entrepreneurship through the lens of social networks offers a fruitful perspective on entrepreneurship (Greve 1995). Networking is a powerful tool for the entrepreneur (Dubini and Aldrich 1991) and in the modern business world an entrepreneur gradually becomes a creative network operator and manager (Nijkamp 2003).

Entrepreneurship researchers have frequently used the network construct to acknowledge the importance of the environmental context in which an entrepreneur exists.

Much network research in entrepreneurship has been directed to the network composition, structures, relations and outcomes rather than exploring the capability firms need to manage and leverage networks to their benefit (Dhanaraj and Parkhe 2006, Stuart and Sorenson 2007). While it is widely accepted that network structural relationships and the ability to manage networks are important, we still lack sufficient knowledge regarding what constitutes network relationship management capability (Capaldo 2007, Mitrega et al. 2012). Although inter-organisational relationship research has highlighted the importance of a firm's relational capability (Dyer and Singh 1998), the attempt to link this capability to competitive advantage has often led to the results that are of limited value to researchers and practitioners (Capaldo 2007). A more complete understanding of firms' abilities in accumulating and sustaining skills in network relationship management should enhance our knowledge of the drivers of firms' organisational actions and the key ingredients of their organisational and market performance (Havila and Medlin 2012, Mu 2013).

Table 2.1 Defining characteristics and research focus of personal and inter-organisational networks in entrepreneurship

Type of network	Personal network	Inter-organisational network
Network actor	Individual	Organisation
Type of link between actors	Informal	Formal
Theoretical underpinnings	Sociology Social network theory	Transaction cost economics Industrial marketing
Level of analysis	Egocentric/fan structure	Dyad
Common categorisations	Commercial network Social network Communication network	Vertical network Horizontal network
Frequently researched areas	Joint venture Industrial districts	New venture creation

Source: Adapted and modified from O'Donnell et al. (2001)

In a review of network research in entrepreneurship, O'Donnell et al. (2001) found that research into entrepreneurial networks falls into two principal categories: inter-organisational network and the entrepreneur's personal network. Alternatively, these two network types have been classified as inter-organisational and social networks (Brown and Butler 1993) or formal and informal networks (Johannisson 1986). Dubini and Aldrich

(1991) termed inter-organisational network as extended network. Table 2.1 summarises the defining characteristics of personal and inter-organisational networks and related research focus in entrepreneurship.

The personal or social network construct has its roots in social network theory. A personal or social network consists of all those persons with whom an entrepreneur has direct relations. Typically, these are the persons whom entrepreneurs meet on a face-to-face basis, and from whom they obtain services, advice, and moral support such as partners, suppliers, customers, venture capitalists, bankers, other creditors, distributors, trade associations, and family members (Dubini and Aldrich 1991). Gilmore and Carson (1999, 31) define an entrepreneur's personal network as: "A collection of individuals who may or may not be known to each other and who, in some way contribute something to the entrepreneur, either passively, reactively or proactively whether specifically elicited or not." This definition is specific to entrepreneurship and encompasses a wider ranging description including both direct and indirect links as well as direct and indirect influence within the network (Burt 1992). However, Joyce, Woods, and Black (1995) posit that a person's or firm's linkages with its environment does not constitute evidence of a network unless it is shown that the person or firm was influenced by their involvement in them. Therefore, the mere existence of a network is not sufficient to access network resources; rather, entrepreneurs or firms need to activate the existing network.

Networking is not only an entrepreneur's activity; rather it is also a part of a company's activity and structure (Dubini and Aldrich 1991) and hence inter-organisational network has attracted research attention in entrepreneurship. Inter-organisational network is a mode of regulating interdependence between firms which is based on a cooperative game with partner-specific communication (Grandori and Soda 1995). Two types of inter-organisational networks have frequently been investigated in entrepreneurship research: vertical and horizontal (O'Donnell et al. 2001). Vertical networks are seen as those members of the value-adding system or distribution chain, spanning from suppliers to end-users (Achrol 1997, Elg and Johansson 1996, Piercy and Cravens 1995) who coordinate the flow of complementary resources. Although the concept of vertical network is often used in entrepreneurship research, much of this focuses exclusively on the dyadic buyer-seller relationship (Ford 1990, Håkansson 1982). On the other hand, the common view of a

horizontal network is those organisations in the same industry (Elg and Johansson 1996), more specifically actual or potential competitors (Piercy and Cravens 1995).

Hoang and Antoncic (2003) identified three constructs that have emerged as key elements of network as critical to theoretical and empirical work in entrepreneurship: the *content* of entrepreneurial relationships, *governance* mechanisms in these relationships, and the *network structure* created by the crosscutting relationships between actors. With regard to *network content*, interpersonal and inter-organisational networks are viewed as the media through which actors gain access to a variety of resources held by other actors. Most research in entrepreneurship identified intangible resources as network content to access. For example, researchers reported that networks may be the most important source of knowledge, new ideas and opportunities (Birley 1986, Hoang and Young 2000, Singh et al. 1999, Smeltzer, Van Hook, and Hutt 1991). In addition to intangible resources (information, knowledge, experience) which is the most frequently researched theme in entrepreneurship, some researchers reported that networks provide physical and financial resources (Witt, Schroeter, and Merz 2008).

Network governance is the mechanism that undergirds and coordinates network exchange (Hoang and Antoncic 2003). Trust has often been cited as a critical component of network exchange that in turn enhances the quality of resource flows (Lorenzoni and Lipparini 1999). Other mechanisms such as power and influence (social mechanisms) (Thorelli 1986) and the threat of ostracism and loss of reputation (social custom and peer pressure) (Jones, Hesterly, and Borgatti 1997) also work as network governance mechanisms. These elements of network governance can create cost advantages in comparison to market mechanisms. For example, mutual trust as a governance mechanism renders an obligation of fulfilment in an exchange and communicates an expectation of mutually acceptable actions. These obligations and expectations can reduce transaction costs by reducing the need to monitor and renegotiate the exchange in reaction to environmental changes and evolving demands (Jones, Hesterly, and Borgatti 1997).

Network structure denotes the pattern of direct and indirect ties between actors. A variety of measures, drawn from the network analysis literature, have been utilised to characterise the differential positions of entrepreneurs or the firms in the network. Some of these measures are network size and centrality. Network size and centrality measure the

amount of resources an entrepreneur can access whereas other elements of network structure influence their access to a diversity of resources (Hoang and Antoncic 2003). A related concept popularised by Granovetter (1973) is the notion of weak ties which describes the extent to which actors can gain access to new information and ideas through ties that lie outside of entrepreneurs' immediate cluster of contacts. Complementary to the benefits of weak ties are the theorised benefits of bridging structural holes, defined as the absence of ties between actors (Hoang and Antoncic 2003). Burt's (1992) theory of structural holes suggest that entrepreneurs obtain strategic benefits by forging ties to otherwise unconnected actors. Based on a resource dependence logic (Pfeffer and Salancik 1978), this theory states that mediating exchanges between actors who are not directly connected increases an entrepreneur's timely access to and control over external resources (Burt 2005). Burt (1992) argues that the spanning of structural holes provides the actual mechanism relating weak ties to positive outcomes in Granovetter's (1973) strength of weak ties theory. In contrast to this, another stream of research originated from Coleman's (1988) theory of network closure to emphasise the benefits associated with cohesive networks in which entrepreneurs' network contacts are directly connected and structural holes are absent (Hansen 1995). Grounded in exchange theory this perspective maintains that closed networks generate trust, social support and norms of reciprocity that enable cooperation among network members (Obstfeld 2005). Thus two seemingly conflicting conceptualisations of network exist. On the one hand, the "bridging view" of networks argues that entrepreneurs with large, diverse, and weakly connected personal networks identify more novel opportunities but face difficulties assembling resources to exploit them. On the other hand, the "bonding view" of networks maintains that entrepreneurs with small, cohesive personal networks composed of strong ties can more effectively mobilise resources in exploiting new opportunities but lack access to fresh ideas (Stam, Arzlanian, and Elfring 2014).

Stam, Arzlanian, and Elfring (2014) identified three key issues around which unresolved debates exist concerning the relationship between networks and firm performance: (a) network properties that constitute social capital; (b) temporal contingencies that govern when certain forms of social capital are most beneficial; and (c) contextual contingencies that condition the value of entrepreneurs' social capital. Conflicting perspectives exist regarding the specific network properties that constitute social capital. For example, some have focused on network structure (Stam 2010) while others have considered

the strength of entrepreneurs' network relationships (Zaheer and McEvily 1999) or the resources held by their network contacts (Batjargal 2003). Disagreement therefore persists about the relative value of sparse and dense network structures (Batjargal 2010), weak and strong ties (Patel and Terjesen 2011), and diverse versus homogeneous networks (Renzulli, Aldrich, and Moody 2000). Ambiguity exists about the temporal contingencies that govern when certain forms of social capital are most beneficial for small firm performance. Despite the recognition that entrepreneurs might need to adapt their personal networks to accommodate firms' evolving resource needs (Martinez and Aldrich 2011), researchers disagree about the precise way in which firm age alters the value of different networking strategies. While some have argued that cohesive, strong-tie networks are conducive for new firms (Hite and Hesterly 2001), others have contended that diverse, weak-tie networks are favourable at the early stages of firm development (Elfring and Hulsink 2007).

Despite some generalisability of network effects (Burt 2000), we still do not know what contextual contingencies condition the value of entrepreneurs' social capital (Stam, Arzlanian, and Elfring 2014). So far, most studies focused on small firms in particular industries even though there is reason to believe that industry conditions may amplify network effects on firm performance (Koka and Prescott 2008). Similarly, despite initial evidence that social capital might operate differently in different institutional environments (Batjargal 2010), past research typically focused on small firms in either established or emerging economies. To help reconcile the debate on these key issues Stam, Arzlanian, and Elfring (2014) employed a meta-analytic method to quantitatively evaluate existing empirical evidence. On average, they found that there is an overall positive relationship between social capital and firm performance. In comparing the relative influence of different dimensions of social capital, weak ties, structural holes and network diversity were all positively related to performance. However, there were some unexpected results regarding theoretical moderators of this relationship. For example, they hypothesised that strong ties and diversity of personal networks will be more positively related to small firm performance for new firms than old firms. However, while the results provided support for the latter, the former was rejected and associated in the opposite direction. Additionally, they also hypothesised that weak ties and structural holes in entrepreneurs' personal networks will be more positively related to small firm performance for old firms than new firms. Both of the hypotheses were rejected. Further, they hypothesised that strong ties will be more positively related to firm performance in low-

technology industry than high-technology industry and the opposite for weak ties. Both of these hypotheses were refuted. There was support for the stronger positive relationship between structural holes and performance in high technology industries and the same for network diversity. Finally, they found no support for the stronger relationship between structural holes and performance in established economies and only marginal support for strong ties in emerging economies. However, they found support for the hypotheses regarding network diversity and weak ties in established economies. Therefore, it seems that there is a large disconnect between theoretical prediction and empirical findings. Thus the literature on the network properties and moderators has largely been equivocal and this issue was not solved by the meta-analysis done by Stam, Arzlanian, and Elfring (2014). What Ibarra, Kilduff, and Tsai (2005, 359) observed a few years back is still valid in relation to network research:

Over the past decades we have learned a great deal about what kinds of networks produce desirable outcomes and what situational characteristics shape the possibilities within which people and organizations construct their social networks... Yet today we still have much to learn about how people use, adapt, and change the networks of relationships that form such a critical part of our working lives.

2.5.1.1 Network as capability in entrepreneurship

Network studies in entrepreneurship examined the aspects of entrepreneurial activity in networks that can inhibit or enable growth but no previous study examined what enables or inhibits the ability of the entrepreneurial firm to develop its network capability. Locating this research gap in the cotemporary entrepreneurial network research, McGrath and O'Toole (2013) identified two reasons for this. First, network capability development is a process and few studies examine process issues in the entrepreneurship literature (Coviello 2005, Hoang and Antoncic 2003, Jack 2010, Jack and Anderson 2002, Shaw 2006). Second, research in entrepreneurial networks tends to focus on the entrepreneur and its immediate context, that is, the firm or its ego-centric networks, for example on the strength of ties, rather than taking a more contextual or whole network viewpoint (Edwards, Sengupta, and Tsai 2010, Hite 2005, Johannisson, Ramírez-Pasillas, and Karlsson 2002, Uzzi 1997). Therefore, this is timely to focus on the enablers or inhibitors of network capability (McGrath and O'Toole 2013) and its relationship with different aspects of an entrepreneurial organisation, given the growing

interest surrounding network capability in a wide variety of fields, including alliances (Kale, Dyer, and Singh 2002), innovation (Capaldo 2007), specialisation in industrial districts (Lorenzoni and Lipparini 1999), university spin-outs (Walter, Auer, and Ritter 2006), and international entrepreneurship (Mort and Weerawardena 2006, Jones, Coviello, and Tang 2011b).

Table 2.2 Differential definition of network capability and related concepts

Terms	Definition	Researchers
Networking ability	A firm's ability to improve its overall position in a network (with regard to resources and activities) and its ability to handle individual relationships	Håkansson (1987)
Relational capacity	The capability to find and interact with other companies, a capability that is based on absorption, combination and coordination	Dyer and Singh (1998), Gulati (1999), Lorenzoni and Lipparini (1999)
Marketing capabilities	The ability to create and manage durable customer relationships through predicting changes in customer preferences; it involves a series of activities	Vorhies and Morgan (2005)
Relationship management capacity	Management processes with regard to various stages of relationship development including relationship initiation, development and termination	Edvardsson, Holmlund, and Strandvik (2008), Havila and Medlin (2012), Powers and Reagan (2007), Homburg and Fürst (2005), Reinartz, Krafft, and Hoyer (2004), Ritter and Geersbro (2011), Mitrega et al. (2012)
Cooperative competency	The ability of organisations to adjust each in innovation process based on three interrelated facets: trust, communication, and coordination	Sivadas and Dwyer (2000)
Alliance capability	The origination ability for finding, developing and managing alliances	Kale, Dyer, and Singh (2002), Swaminathan and Moorman (2009), Frels, Shervani, and Srivastava (2003), Kandemir, Yaprak, and Cavusgil (2006)
Network(ing) competence (capability)	The abilities to find network partners, manage and leverage network relationships with various external partners	Ritter and Gemünden (2003), Walter, Auer, and Ritter (2006), Mu and Di Benedetto (2012)

Source: Adapted and modified from Mu (2013)

Network scholars agree that network capability is one of the core competences of firms (e.g., Ritter, Wilkinson, and Johnston 2004, Sivadas and Dwyer 2000, Walter, Auer, and Ritter 2006). There is evidence that firms engage in relations with other actors to access

resources and gain support for production, technology development and marketing activities (Harrison et al. 2001, Narula and Hagedoorn 1999). Most studies on relational capability used the term “capability” or “capabilities”; however there is not much agreement on the exact meaning of the concept. Researchers used the terms “relational capability” (Lorenzoni and Lipparini 1999), “collaboration capability” (Blomqvist and Levy 2006), “interaction capability” (Johnsen and Ford 2006), and “alliance capability” (Kale, Dyer, and Singh 2002, Lambe, Spekman, and Hunt 2002) repeatedly and interchangeably. Table 2.2 shows how network capability and related concepts have been defined by different scholars. Further, Table 2.3 shows the theoretical underpinnings used in the network capability studies.

As we see there is only little agreement among scholars regarding what constitutes a network capability and hence the definition is still evolving. The studies that investigated network capability and related issues are very few. Various authors, therefore, highlight the lack of studies on the underlying elements of such capabilities and the necessary conditions for its development (Kale, Dyer, and Singh 2002, Heimeriks 2004). According to Kale, Dyer, and Singh (2002, 748-749), “detailed studies of what exactly constitutes an alliance capability are virtually non-existent... we still lack knowledge with regard to what is involved in developing an alliance capability.”

Table 2.3 Research on network competence and capability: theoretical background

Authors	Concept	Theoretical background
Möller and Halinen (1999)	Network management capabilities	Industrial marketing and purchasing (IMP), relationship marketing, supply chain management, strategic alliance literature
Ritter (1999); Ritter, Wilkinson, and Johnston (2004); Ritter and Gemünden (2003); Ritter and Gemünden (2004)	Network competence	IMP, relationship marketing
Möller and Svahn (2003); Möller, Rajala, and Svahn (2005)	Net management capabilities	Industrial networks approach, strategic management, dynamic capabilities view
Walter, Auer, and Ritter (2006)	Network capabilities	Dynamic capability perspective
Äyväri and Jyrämä (2007)	Networking capabilities	IMP and entrepreneurial networks literature
Wales et al. (2013)	Network capability	Dynamic capability based on Walter, Auer, and Ritter (2006)

Source: Adapted and modified from Äyväri and Möller (2008)

Recent contributions have attempted to fill this gap. Schreiner and Corsten (2004) propose the concept of “collaborative capability”, highlighting the relevance and complementarity of three distinct dimensions: (1) *the structural dimension*, related to the relationship-specific investments supporting inter-firm exchanges; (2) *the cognitive dimension*, concerning the learning and knowledge transfer processes; and (3) *the affective dimension*, which is shaped by the emotional and social linkages among individuals involved in the exchange. Other authors (e.g., Heimeriks and Duysters 2007, Heimeriks 2004) develop an in-depth analysis of internal organisational mechanisms for the management of external relations: “an alliance capability is posed to consist of the institutionalised managerial mechanisms a firm has in place to manage and optimise its alliance performance” (Heimeriks 2004, 24).

Ritter, Wilkinson, and Johnston (2002, 120) investigated network competence as a two-dimensional construct and defined it as “the degree of network management task execution and the degree of network management qualification possessed by the people handling a company’s relationships”. Walter, Auer, and Ritter (2006, 546) build on this definition and study network capabilities, defined as “abilities to initiate, maintain, and utilize relationships with various external partners.” They suggest that a firm’s network capability is reflected through four dimensions which have been derived from four alliance functions existing in the alliance literature (Kale, Dyer, and Singh 2002): (1) the firm’s *coordination* activities with collaborating firms; (2) the firm’s *relational skills* to facilitate interpersonal exchange; (3) its *partner knowledge*, i.e., possessing organised and structured information about collaborating firms; and (4) the firm’s *internal communication* to assist in the transfer of organisational knowledge between collaborators. Coordination activities are boundary spanning activities connecting the firm to other firms and connecting different individual relationships into a network of mutually supportive interactions (Walter, Auer, and Ritter 2006). Relational skills, also referred to as social competence (Baron and Markman 2003), are also seen as important to the management of relationships because business relationships are very often interpersonal exchange situations. Partner knowledge is the organised and structured information about a firm’s upstream and downstream partners (suppliers and customers), and competitors. This knowledge is a pre-requisite for effective coordination between parties where, at the same time, it develops by coordination and internal communication. Internal communication is an integral part of collaborate competence.

Assimilating and disseminating up-to-date information on partners, their resources and agreements with them to all involved departments help to avoid redundant process and miscommunication as well as improve the detection of synergies between partners (Cohen and Levinthal 1990). Firms need to connect their external relationships internally.

Based on this conceptualisation Walter, Auer, and Ritter (2006) found that firm performance (in terms of growth in sales, sales per employee, profitability, customer relationship quality, realised competitive advantages and long term survival) is influenced by a university spin-off's network capability. This is in line with other studies on alliance competence that showed that firms vary considerably in their capabilities to gain access to external resources and to develop stable relationships (Dyer and Singh 1998). Further, they reported that network capability strengthens the relationship between entrepreneurial orientation and performance although there is no direct relationship between the two. Their findings support the general notion that entrepreneurial ambitions should be based on capabilities that advance opportunity seeking and accelerate the introduction of new products and services (Covin and Slevin 1991).

Parida, Pemartin, and Frishammar (2009) identified that although the above four components of network capability were used in past studies, scholars missed a crucial aspect of building new relationships. Therefore, they proposed a new component of network capability, which is related to a firm's ability to be open towards new relations with new partners. Parida, Pemartin, and Frishammar (2009) found that in small technology-based firms, networking with customers and network capability both have a stronger influence on innovativeness. Small firms usually focus on niche markets, so involving customers in their innovation process help them to have direct access to their customers' needs and expectations, which in turn help them innovate commercially viable products or services. Therefore, they confirmed that it is the network capability, not the network itself, that helps firms achieve competitive advantage. The existence of network alone will not yield additional competitive advantage or benefits if the ability to develop, utilise, and maintain close inter-organisational relationships is missing within the organisation.

Although prior studies provide evidence that capabilities enabling different aspects of initiating, developing, and ending relationships are associated with firm performance, these studies do not fully capture the changeable nature of business relationships. Furthermore,

these studies conceptualise such capabilities only with regard to a specific relationship partner group, such as only customer or supplier (Reinartz, Krafft, and Hoyer 2004). Recent studies focus on specific stage of business relationship management, i.e., relationship termination (Havila and Medlin 2012, Ritter and Geersbro 2011). All these studies do not integrate capabilities that are important for managing different relational stages. Reinartz, Krafft, and Hoyer (2004) is an exception in this stream of research. They include capabilities aimed simultaneously at initiation, development, and termination of business relationships. Their study specifically focuses on customer relationship management, rather than on any other actors in the network, such as suppliers. Against this backdrop, Mitrega et al. (2012) recently proposed a conceptualisation and measurement model of network capability with regard to all main relationship stages and all main types of business partners. They followed the resource-based view of the firm by utilising concepts around capabilities and competences of a firm, specifically dynamic capabilities. As opposed to the current focus on non-behavioural aspects such as company activities, routines, as well as emotions and attitudes of managers towards their exchange partners (Ritter, Wilkinson, and Johnston 2002, Walter, Auer, and Ritter 2006), the study by Mitrega et al. (2012) differentiates itself from other studies by its focus on behaviours. Their network capability construct comprises of a relationship initiation capability, a relationship development capability, and a relationship termination capability. They define *relationship initiation capability* as the set of activities and organisational routines which are implemented at the organisational level of the focal company to initiate business relationships for the benefit of the company. *Relationship development capability* is the set of activities and organisational routines which are implemented at the organisational level of the focal company to develop, manage and strengthen, business relationships for the benefit of the company. Finally, *relationship termination capability* is the set of activities and organisational routines which are implemented at the organisational level of the focal company aimed at terminating undesired business relationships.

Although research focus on network capability is gradually growing, “the debate on relational capabilities is still in its infancy” (Mu 2013, 103). Entrepreneurship researchers, in general, suggest that insufficient network capability of a firm may pose a potential obstacle to its growth and the importance of network capability was emphasised for its importance in network resource mobilisation and deployment. However, the causal logic of network

capability and firm performance has not been fully articulated yet. Detailed studies of what exactly constitutes a network capability and how it relates to firm performance will add to our understanding of how network resources are mobilised and deployed for venture survival and growth from a network capability perspective.

2.5.2 Network approach to IE

IE is a complex process which incorporates heavily contextualised and socially constructed activities that occur through joint cross-border co-ordinations. Such a complex and contextualised process cannot be explained by descriptive categories of entrepreneurial behaviour alone (Fletcher 2004). This clearly indicates the importance of networks in IE, especially in early internationalising firms, which has been emphasised by Andersson and Wictor (2003), Coviello (2006), Coviello and Munro (1995) and Sharma and Blomstermo (2003). The role of networks is of utmost importance to these firms because of their resource constraints (Coviello and Munro 1995). They tend to be vulnerable because they are frequently dependent upon a single product which they commercialise in lead markets first, regardless of where their markets are situated geographically. These firms often seek partners that complement their own competencies in these lead markets (Madsen and Servais 1997, Johanson and Mattsson 1988, Oviatt and McDougall 1994, Coviello and Munro 1995), developing effective networks. Eventually, network analysis has emerged as a powerful framework in IE research (McDougall and Oviatt 1994, Jones, Coviello, and Tang 2011b, Peiris, Akoorie, and Sinha 2012, Peiris, Akoorie, and Sinha 2013). Consistent with entrepreneurship research, researchers in IE also categorise specific networks as either personal or inter-organisational.

Networking is one of the entrepreneurial capabilities of the international venture founder. Sasi and Arenius (2008) maintain that the founders are the sources of social capital for the new venture and they bring in the initial social capital endowments. It is their external relationships that provide access to resources and resource providers, such as customers, suppliers, key employees and advisors. Andersson and Wictor (2003) concluded from the case studies of four born globals that active entrepreneurs, who recognised global opportunities, were crucial for the implementation of born global strategies through personal networks despite the positive effects of globalisation on such strategies. Opportunities come most frequently to people located at advantageous positions within networks (Low and

MacMillan 1988). Therefore, the entrepreneur's social network is of great importance as a source of social capital and opportunities.

In addition to the entrepreneur's personal networks, inter-organisational networks are also inevitably important to facilitate firm international activities. Coviello and Munro (1997) found that the internationalisation processes of smaller firms including the entry mode decisions and choice of markets are driven by the networks they develop. Eberhard and Craig (2012), in a study of 1304 Australian manufacturing SMEs, reported that both inter-personal and inter-organisational networking positively influence SME internationalisation, but this relationship is contingent on a time lag effect.

Networking is an effective way of overcoming the scarcity of resources and simultaneously learning from each other. Gabriellsson and Kirpalani (2004) found that a born global's growth worldwide stems from its ability to build and leverage relationships with its main customer in the network. These findings are quite similar with what Parida, Pemartin, and Frishammar (2009) reported in the entrepreneurship literature that networking with customers are more important than other partners in the network. Madsen and Servais (1997) found that born globals more often rely on supplementary competences sourcing from network partners than traditional exporting firms. Freeman, Edwards, and Schroder (2006) identified that SMEs face three specific constraints while internationalising: poor access to economies of scale, lack of financial resources and market knowledge, and aversion to risk taking. Based on the case studies of smaller born globals they found that these firms are able to overcome these constraints by networking competencies to develop a range of alliances and collaborative partnerships. Managers in these firms developed new relationships from prior ones through referral that helped them to expand rapidly in foreign markets. The risk involved in the adaptation of some of the services for the new large customers was minimised by very large orders from them in return.

In relation to the effect of network tie characteristics, Han (2006) suggests that the effect of network tie characteristics on formulating born global strategies and on subsequent performance depends on the combination of many weak ties and a few strong ties. Presutti, Boari, and Fratocchi (2007) reported that weak ties are more important than strong ties in knowledge acquisition and exploitation in an international new venture. Based on a sample of 155 Czech SMEs covering a broad range of manufacturing industries, Musteen, Francis, and

Datta (2010) found that extensive reliance on strong ties (personal contacts with friends, relatives and other non-industry) hinders the performance of the first international venture. While strong personal ties abroad may increase the confidence of owner-managers in their ability to manage their international ventures, the information accessed via weak ties is more helpful in the identification of opportunities (Floyd and Wooldridge 1999). The lack of relationship between strong ties and the speed of internationalisation is also supported by the arguments of Hite and Hesterly (2001) that while strong ties are more beneficial in the early stages of a firm's lifecycle, weak ties are more valuable in the later stages of firm growth. On the other hand, geographically diverse networks were found to contribute to superior performance, as opposed to the stipulated hypothesis. This is because they may provide a more balanced view of foreign market conditions despite the greater need of information processing time.

Although personal and inter-organisational networks are critical for the survival and growth of entrepreneurial ventures in transition economies, their role in new venture internationalisation has been understudied. Exploring the internationalisation of 623 entrepreneurial ventures in Bulgaria, Manolova, Manev, and Gyoshev (2010) found that founders' domestic personal networks have a positive effect on internationalisation (export intensity). However, domestic inter-organisational networks failed to show such relationship. The moderating effect of firm age for internationalisation is significant for inter-organisational networking rather than the founder's personal network. Firm age negatively moderates the effect of inter-organisational networks: young firms with high inter-organisational networking have a higher degree of internationalisation than old firms with similar level of networking. This suggests that the earlier the new venture engages in inter-organisational collaboration, the higher the degree of its internationalisation. This emphasises the need to develop networks based on firm priorities rather than the founder's social contacts as well as to institutionalise extant personal networks. This finding is consistent with Hung's (2006) theorising that the survival of new ventures depends on how they carry out the transition from relying on the founder's interpersonal network to embeddedness in an inter-organisational network. The non-significant moderating effect of firm age on the role of personal networking, however, can be influenced by the distinct institutional environment in transition economies, where personal connections and networks are still very influential in bridging institutional voids (Khanna and Palepu 1997) and providing much needed access to

resources and legitimacy (Yiu, Lau, and Bruton 2007) and hence their influence may tend not to be affected by firm age. Other research in developed economies also suggest that the existence of a personal network at inception is not as important for early internationalisation and that it is possible to found a new, highly-international firm from the ground with just a good idea and some experience (Rasmussen, Madsen, and Evangelista 2001). Therefore, more research is needed to ascertain the temporal dynamics of personal network effects on internationalisation (Manolova, Manev, and Gyoshev 2010).

2.5.2.1 Network as capability in IE

In a review of empirical literature in IE between 1980 and 2009 Jones, Coviello, and Tang (2011b) identified that 7.1% of the empirical studies investigated network and social capital related issues. In these studies the role of networks was found to be significant in the internationalisation and subsequent performance of firms. However, our knowledge on how external networks actually affect entrepreneurial activities and whether such activities influence early internationalising firm's performance is limited. After reviewing existing literature on network-based born globals, Mort and Weerawardena (2006) identified several research gaps. First, past born global research has failed to specifically examine the role of network capability in international market entry. Second, it has failed to conceptualise network capability as a dynamic capability. Third, it has also failed to examine network capability in a unifying framework incorporating antecedent factors and performance outcomes. Jones, Coviello, and Tang (2011b) also confirmed that most research in IE integrates network analysis with resource based theory, which necessitates IE network research to focus on dynamic capability perspective. Weerawardena et al. (2007) argue that four dynamic capabilities including network capability influence the speed, scope and extent of internationalisation. Such capabilities are found to be more salient than product or market characteristics for rapid internationalisation (Karra, Phillips, and Tracey 2008). Considering the importance of networking Jones, Coviello, and Tang (2011b, 643) suggest that future IE research should focus on network capability: "research on the nature and impact of a dynamic capability is warranted and this may well benefit from leveraging social capital theory".

The first study that considered network as a capability in IE is Mort and Weerawardena (2006). Based on Eisenhardt and Martin (2000) and extending Ritter, Wilkinson, and Johnston (2002), Mort and Weerawardena (2006, 558) in their qualitative

study defined dynamic networking capability as “the capacity of the firm to develop a purposeful set of routines within its networks, resulting in the generation of new resource configurations and the firm’s capacity to integrate, reconfigure, gain and release resource combinations. Drawing on six exemplar case studies from high-tech and low-tech industry sectors in Australia, this research identifies the role and characteristics of the entrepreneurial owner/manager and the development of network capability over time. The findings highlight the critical role played by internationally entrepreneurial founder/owner/managers in the network capability building activity and in turn, in the rapid internationalisation of born global firms. Network capability is instrumental to developing knowledge-intensive products and rapid internationalisation as well as market performance. Their findings also suggest that network capability is built and nurtured by entrepreneurial owner-managers through fundamental (pre-existent) and secondary (developed in the growth process) networks. Network capabilities change over the evolution of the firm’s internationalisation process. Owner/managers begin with a useful set of networks and work to actively reconfigure these, extending them and developing new networks which provide support for the dynamic capability building processes of born globals (Eisenhardt and Martin 2000, Teece 2007). In contrast to previous research, they identified a negative aspect of networks—network rigidity—the lock in situation in networks that may limit strategic options as opportunities ought to be pursued within the boundaries of the existing networks. This phenomenon suggests the need to further reconfigure dynamic capabilities for emerging opportunities in growth markets.

Another recent study by Tolstoy and Agndal (2010) proposed a model of the components of network resource combination capability suggesting that network resource combination brings together complementary resources from network relationships; resources whose value is enhanced by combination, providing the internationalising firm with an advantage over other ventures. The three components inherent in this capability are (a) the ability to efficiently interact in network relationships, (b) the ability to identify resource complementarities, and (c) the ability to proactively coordinate resources in network relationships. By integrating the resource based view and the network perspective, they answer a call for more research on the link between resources and the pursuit of opportunities in foreign markets (Rialp, Rialp, and Knight 2005). Its main contribution lies in the investigation of the association between network resource combinations and the exploitation

of international ventures. Based on the six Swedish biotechnology smaller international new ventures (new product ventures and new market ventures), they found that the complexity of network resource combinations appears to vary depending on the nature of the venture. However, network resource combination capabilities are found to be crucial for all ventures irrespective of their type.

By contrast, Kenny and Fahy (2011a) found no support for the relationship between network resource combinations and international performance. Based on the data from Irish high-tech SMEs in the telecommunications industry, this finding is inconsistent with previous research where, in particular, Stuart, Hoang, and Hybels (1999) found that the technological and commercial prominence of partners affects the IPO performance of start-up firms. Rothaermel (2001) showed that biopharmaceutical firms facilitate new product development by leveraging their partners' assets. Finally, Stuart (2000) found that the technological innovativeness of partners contributes to the sales growth and innovation rates of semiconductor firms. Kenny and Fahy (2011a) explain that the non-significant relationship between network resource combinations and international performance emerged due to the industry they investigated. It would seem that firms operating in this dynamic sector tend not to use their network partners to combine resources (i.e., people and know-how), nor share information, possibly due to the fact that they are dealing with proprietary knowledge. These high-tech firms concerned with exploiting technological or market opportunities internationally are opting to go it alone and leveraging internal as opposed to external resources. Therefore, network resource combination capability is not conclusive and requires further insights from different industry backgrounds.

In another study, Kenny and Fahy (2011b, 237) define the network capability as “the ability of an SME to initiate, coordinate, and learn from the activities of inter-firm collaborative relations to combine network resources in a trust-based relation that effectively cooperates to be successful in international trade.” Based on the dynamic capability perspective they developed their own network capability construct comprising network characteristics (strong and weak ties), network operation (network initiation, network coordination, and network learning), and finally network resources (human capital resources, synergy-sensitive resources, and information sharing). Based on the data from Irish telecommunications industry SMEs, they found that stronger ties are more influential on international performance than weak ties. Similarly, network coordination and human capital

resources have a positive and significant association with international performance. By contrast, strong ties, weak ties, trust, network initiation, synergy-sensitive resources, relational capability, network learning, and information sharing don't have a significant association with international performance.

As we have observed, the debate on the relative importance of strong and weak ties has been inconclusive in the entrepreneurship literature (Stam, Arzlanian, and Elfring 2014). Based on the existing research in IE, Peiris, Akoorie, and Sinha (2012, 290) conclude that: "Though there are differences in these two types (in terms of amount of time, emotional intensity, intimacy and reciprocity), trying to ascertain which one is more important is not going to be a fruitful debate in the future." Rather researchers need to shift their focus from the strength of ties to the process or the capability perspective to define and investigate network which can advance IE. In this study, we have conceptualised and operationalised network from a dynamic capability perspective following Walter, Auer, and Ritter (2006) and Mort and Weerawardena (2006).

2.5.3 Opportunity-based approach to entrepreneurship

The discovery of opportunities is the core issue of entrepreneurship (Kirzner 1973). The classical school of entrepreneurship discusses the properties of opportunity recognition (Cunningham and Lischeron 1991) which is one of the early steps of the entrepreneurial process. Christensen, Madsen, and Peterson (1989, 3) defined opportunity recognition as, "either a) perceiving a possibility to create new businesses, or b) significantly improving the position of an existing business, in both cases resulting in new profit potential." This definition indicates that opportunity recognition is an activity that can take place both prior to firm formation and after formation throughout the life of the firm.

Four approaches to opportunity recognition can be identified in the entrepreneurship literature: search versus accidental approach; innate skill/cognitive process; environmental approach; and network approach. First, the proponents of the systematic search approach believe that opportunity recognition may be the result of systematic search (Vesper 1996) and/or careful strategic planning (Timmons 1994) while those in the accidental approach found that accidentally discovered opportunities are more profitable and hence preferable (Teach, Schwartz, and Tarpley 1989). Second, some theorists consider opportunity

recognition as an innate skill or cognitive process of entrepreneurs in information processing and learning (Gaglio and Taub 1992, Kaish and Gilad 1991). Third, the environmental approach is related to the environmental influences- both social and business- on the opportunity recognition process (Bhave 1994, Long and McMullan 1984). Finally, the network approach recognises the importance of networks in opportunity recognition. The network in which the entrepreneur is embedded in is a potential source of a solid business idea or opportunity which can be identified, assessed, and acted upon (Hills, Lumpkin, and Singh 1997).

Table 2.4 Empirical studies on opportunity exploration and exploitation in the entrepreneurship literature

Antecedents	Operationalisation of opportunity	Performance outcomes
<p>Personality traits <i>Self-efficacy, alertness to opportunities, and other personal qualities</i> Chandler and Jansen (1992); Krueger and Dickson (1994); Ozgen and Baron (2007); Sambasivan, Abdul, and Yusop (2009)</p> <p>Human capital <i>Prior knowledge about markets, how to serve markets and customer problems</i> Shane (2000); Shepherd and DeTienne (2005); Ko and Butler (2006); Sanz-Velasco (2006)</p> <p>Managerial, entrepreneurial, technical, and industry experience Chandler and Hanks (1994); Alsos and Kaikkonen (2002); Ucbasaran et al. (2003); Arenius and Clercq (2005); Corbett (2007); DeTienne and Chandler (2007); Sambasivan, Abdul, and Yusop (2009); Smith, Matthews, and Schenkel (2009); Bhagavatula et al. (2010); Fuentes et al. (2010); Smith, Matthews, and Schenkel (2009); Ucbasaran, Westhead, and Wright (2009)</p> <p>Network <i>Network structure (strength of ties, duration, frequency,</i></p>	<p>Exploration <i>Quality of opportunity</i> <i>Scarceness/richness/tacitness</i> Chandler and Hanks (1994); Smith, Matthews, and Schenkel (2009); <i>Innovativeness, feasibility and desirability</i> Singh et al. (1999); Ko and Butler (2006); Gordon (2006); DeTienne and Chandler (2007); Ozgen and Baron (2007); (Mitchell and Shepherd 2010); Shepherd and DeTienne (2005); Ucbasaran et al. (2003); Ucbasaran, Westhead, and Wright (2009)</p> <p><i>Quantity of opportunity</i> <i>Number of ideas recognised</i> Gordon (2006); Singh et al. (1999) <i>Number of opportunities recognised</i> Arenius and Clercq (2005); Bhagavatula et al. (2010); DeTienne and Chandler (2007); Fuentes et al. (2010); Gordon (2006); Ko and Butler (2006); Ozgen and Baron (2007); Shepherd and DeTienne (2005); Krueger and Dickson (1994); Corbett (2007); Ucbasaran et al. (2003); Ucbasaran, Westhead, and Wright (2009)</p> <p>Exploitation <i>Number of opportunities exploited</i> Fuentes et al. (2010); Hills, Shrader, and Lumpkin (1999); Ucbasaran et al. (2003); Gordon (2006); Mitchell and Shepherd (2010) <i>Change to an opportunity</i> Gordon (2006)</p>	<p>Sales volume, sales growth, profitability, and growth of employee Chandler and Jansen (1992); Chandler and Hanks (1994); Chandler, Dahlqvist, and Davidsson (2002); Puhakka (2007); Sambasivan, Abdul, and Yusop (2009)</p>

<i>intimacy, size)</i> Singh et al. (1999); Arenius and Clercq (2005); Gordon (2006); Bhagavatula et al. (2010); Fuentes et al. (2010)	<i>Innovativeness of exploited opportunities</i> Puhakka (2007); Ucbasaran, Westhead, and Wright (2009) <i>Likelihood of investment</i> Mitchell and Shepherd (2010)	
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In a similar vein, Ardichvili, Cardozo, and Ray (2003) identified five major factors that influence the way opportunities are identified and developed by entrepreneurs: entrepreneurial alertness, information asymmetry and prior knowledge, discovery versus purposeful search, social networks, and personality traits (risk-taking, optimism and self efficacy, and creativity). Ray and Cardozo (1996) argue that any recognition of opportunity is preceded by a state of heightened alertness of the entrepreneur to information. However, people tend to notice information that is related to what they already know (Von Hippel 1994). Therefore, entrepreneurs will discover opportunities because prior knowledge triggers recognition of the value of the new information (Shane 2000). In addition, heightened entrepreneurial alertness may influence accidental discovery while the entrepreneur is in a mode of “passive search”. In that mode, the entrepreneur is receptive, though not engaged in a formal, systematic search process. In a state of “passive search,” entrepreneurs with higher entrepreneurial alertness would be more likely than those with lower entrepreneurial alertness to experience an “accidental” discovery of an opportunity. Therefore, entrepreneurial alertness appears to be a more powerful determinant of discovery — accidental or purposive — than the level of active search (Ardichvili, Cardozo, and Ray 2003). Entrepreneurs’ social network is another source of opportunities. Hills, Lumpkin, and Singh (1997) found that “entrepreneurs who have extended networks identify significantly more opportunities” than solo entrepreneurs. The final set of factors that are related to opportunity identification includes personality traits of entrepreneurs. Although this line of research showing a link between personality traits and opportunity identification was mostly unsuccessful, two traits were shown to be related to successful opportunity recognition. They are self optimism (Krueger and Dickson 1994) and creativity (Hills, Lumpkin, and Singh 1997).

Empirical findings in this stream of research are highlighted in Table 2.4. We see that research has investigated either antecedents or outcomes of opportunity. Antecedents are related to personality traits, human capital (prior knowledge and experience) and network. Outcomes of opportunity exploration and exploitation include sales growth, sales volume,

profitability and growth of employees. Opportunity has been operationalised as the number of ideas/opportunities explored or exploited. Some studies tried to include some other aspects such as innovativeness or the tacitness of opportunity. Taking insights from Shane and Venkataraman (2000), Shane (2003, 4-5) has prudently summarised the varied research focus that overarches different streams of interests among scholars concerning opportunity recognition which we found interesting and relevant here:

[T]he academic field of entrepreneurship incorporates, in its domain, explanations for why, when, and how entrepreneurial opportunities exist; the sources of those opportunities and the forms that they take; the processes of opportunity discovery and evaluation; the acquisition of resources for the exploitation of these opportunities; the act of opportunity exploitation; why, when, and how some individuals and not others discover, evaluate, gather resources for, and exploit opportunities; the strategies used to pursue opportunities; and the organizing efforts to exploit them.

Although opportunity exploration and exploitation constitute critical steps in the entrepreneurial process, empirical evidence in this area is limited (Ucbasaran, Westhead, and Wright 2001), especially in relation to how networking is used to recognise opportunities. Theoretically network-based arguments offer significant potential to enhance our understanding of two critical tasks comprising the entrepreneurial process: the discovery of new business opportunities and the mobilisation of resources (Stuart and Sorenson 2005). However, the network theory has not been utilised in a rigorous manner to explain the entrepreneurial opportunities and the resources mobilised through networking. Furthermore, while the ‘recognition’ side is developed, the ‘exploitation’ side of opportunity has not received much attention and therefore still under-developed (Ciabuschi, Perna, and Snehota 2012).

2.5.4 Opportunity-based approach to IE

IE is about opportunity exploration and exploitation in foreign markets. Consequently, understanding how entrepreneurs think and make decisions to explore and exploit these opportunities is necessary to the development of the field (Shane and Venkataraman 2000). While other perspectives (e.g., strategic choice and networks) have an important place in the literature (Zahra and George 2002, Zahra, Ireland, and Hitt 2000), an opportunity-based view can uncover the true nature of the opportunities, the process involved in the exploration and exploitation of such opportunities and their outcomes. The revised definition of IE by Oviatt and McDougall (2005, 540) also specifies the field as the study of “the discovery, enactment,

evaluation, and exploitation of opportunities – across national borders – to create future goods and services.” The notion of “opportunity” emphasises the entrepreneurship dimension of the field (Mainela, Puhakka, and Servais 2014).

Stevenson and Jarillo’s (1990) opportunity-based definition of entrepreneurship has gained much acceptance (Brown, Davidsson, and Wiklund 2001) which coincides with the Austrian economists’ views of entrepreneurship as opportunity seeking, recognition and exploitation through novel resource recombination (Kirzner 1973, Schumpeter 1975). Building on these views, Shane and Venkataraman (2000, 218) offer that entrepreneurship research addresses three key questions: (1) Why, when, and how do opportunities for the creation of goods and services come into existence? (2) Why, when, and how do some people and not others discover and exploit these opportunities? and (3) Why, when, and how are different modes of action used to exploit entrepreneurial opportunities? Since opportunities also exist in international markets (Zahra and Dess 2001, Zahra and Garvis 2000), IE researchers addressed these questions, giving attention to the discovery, evaluation and exploitation of entrepreneurial opportunities across international borders (Zahra, Korri, and Yu 2005). Unfortunately, most studies in IE have consistently ignored these questions in an international business context. Recently researchers have turned their attention to entrepreneurship and its core concepts realising that it is not possible to understand international entrepreneurship without a thorough understanding of the entrepreneurship element involved in it (Oyson and Whittaker 2010).

Table 2.5 summarises the existing studies in IE that have taken an opportunity perspective to explain internationalisation. As we see, most of the studies have defined opportunity as ‘international market entry’ (Crick and Spence 2005, Mort and Weerawardena 2006, Chandra, Styles, and Wilkinson 2009, Kontinen and Ojala 2011b, a, Vasilchenko and Morrish 2011). Nordman and Melén (2008) and Chandra, Styles, and Wilkinson (2012) followed the definition provided by Eckhardt and Shane (2003): “situations in which new goods , services, raw materials, markets and organizing methods can be introduced through the formation of new means, ends or means-ends” in a specific foreign market. Tolstoy and Agndal (2010) have been more specific by differentiating between product and market opportunities: new market venture and new product venture.

Table 2.5: Opportunity-based empirical studies in the IE literature

Author	Type of study/ sample characteristics	Findings
Crick and Spence (2005)	Case study 12 High performing UK high tech SMEs (mostly INVs)	<p>Opportunity is operationalised as initial and subsequent internationalisation.</p> <ul style="list-style-type: none"> • The use of networks and resource based considerations influenced internationalisation decisions. • Although planned strategies dominated internationalisation decisions, unplanned serendipitous encounters were not uncommon in initial and/or subsequent internationalisation. • Serendipity was not an important factor because opportunities were eventually developed by the managers. • After the initial entry into foreign markets, the importance of existing networks for recognising opportunities decreased. This would suggest that SMEs have to identify and implement new opportunities by forming actively new network ties.
Mort and Weerawardena (2006)	Case study Six small Australian born globals from high and low-tech industries (established between 1992 and 2003)	<p>Opportunity is conceptualised as international market opportunity.</p> <ul style="list-style-type: none"> • Networking capability impacted the identification and rapid exploitation of market opportunities and internationalisation. • Serendipity was not an issue. • Resource constrained small born global firms overcome their lack of market-experiential knowledge by the network partners.
Nordman and Melén (2008)	Case study Eight Biotech Born Globals from Sweden founded between 1995 and 2001 with employees between 7 and 90	<p>Opportunity is conceptualised as ‘those situations in which new goods, services, raw materials, and organising methods can be introduced in a specific foreign market’.</p> <ul style="list-style-type: none"> • Born academics discover foreign market opportunities in accordance with the reactive behaviour (serendipity, as a consequence of ongoing foreign market activities rather than of focused searches). • Born industrials demonstrate a proactive behaviour (active search) in relation to their discovery of foreign market opportunities. Further, born industrials tend to internationalise more rapidly than born academics because born industrials exploit foreign market opportunities more rapidly by committing more resources whereas born academics exploit opportunities in a more incremental manner/pattern. • The rapid internationalisation of born industrials was explained by the founders’ international knowledge and leading position in the industry to attract venture capital.
Mainela and Puhakka (2009)	Longitudinal case study of an international joint venture (IJV) established in Poland by Nordic and Polish partners (chemical water	<p>Opportunity is operationalised as “the evolution of the IJV partnership”.</p> <ul style="list-style-type: none"> • The opportunity recognition and development process is largely influenced by social activities through which IJV owner-managers interact with the emerging social community of the IJV, gaining from the influences, thoughts, work methods, resources and encouragement of others in the community. • Industry knowledge and previous experience of the IJV owner-managers play the central role in discovering and effectuating the IJV opportunity

	treatment)	<ul style="list-style-type: none"> • Active involvement and initiatives of owner-managers to create the best possible solution for problematic situations are the key to the discovery and effectuation of IJV opportunity.
Chandra, Styles, and Wilkinson (2009)	Case study Eight SMEs (less than 200 employees, established between 1980-2003) operating in knowledge-based industries (biotechnology, telecommunication, IT, and electronics industries) in New South Wales, Australia	<p>Opportunity is operationalised as “first international market entry through innovative solutions to customers’ problems”.</p> <ul style="list-style-type: none"> • It is the level of prior international experience and knowledge of the firm rather than systematic search or discovery, that determine first time international opportunity recognition. • Firms with no prior knowledge are more likely to recognise first time international opportunities through discovery rather than deliberate search. • Firms with prior experience and knowledge are able to do this through both deliberate search and discovery. • All firms, except one, relied on their networks (weak ties) as sources of ideas, information, and new knowledge, leading to international opportunity recognition.
Tolstoy and Agndal (2010)	Case study Six Swedish small biotech firms	<p>Opportunity is operationalised as entry into new foreign markets (new market venture) and entry into existing foreign markets with new products (new product venture).</p> <ul style="list-style-type: none"> • New international product ventures exploited a broad range of network resources in line with more multifaceted challenges (redefining the product and redefining the market). • New international market ventures focused on a more narrow set of network resources, mainly concentrated on marketing issues. • To successfully exploit new market and product ventures, firms require network resource combination capabilities consisting of (a) the ability to effectively interact with network partners, (b) the ability to identify complementarities between network resources in the overall network, and (c) the ability to proactively coordinate network resources to a specific end.
Kontinen and Ojala (2011a) Journal of Small Business Management (JSBM)	Case study Eight Finnish manufacturing family SMEs (less than 250 employees)	<p>Opportunity is operationalised as ‘entry to the French market’.</p> <ul style="list-style-type: none"> • Family SMEs recognise international opportunities by using formal ties rather than informal/family ties. • The formation of new network ties is more likely to lead to international opportunity recognition than the presence of existing ties. • International opportunities are likely to be recognised on the basis of alertness rather than activeness. • The flexibility of the governance structure (small size and flexibility of management team) is positively related to a high level of alertness in international opportunity recognition. • Forums with a high network density are the primary context in which firms recognise international opportunities. • There was no direct relationship between the prior knowledge of the firms and their international

		<p>opportunity recognition.</p> <ul style="list-style-type: none"> • Trade exhibitions formed the primary context for the international opportunity recognition of the SMEs in this study.
Kontinen and Ojala (2011b) International Business Review (IBR)	Case study Eight Finnish manufacturing family SMEs operating in French market with different modes of operation (less than 250 employees)	<p>Opportunity is operationalised as ‘entry to the French market’.</p> <ul style="list-style-type: none"> • In family SMEs, intermediary network ties, which are most often mediated by international trade exhibitions, are a more important source of international opportunity recognition. • Weak ties rather than informal and strong ties with family members are most useful in international opportunity recognition. • Significant time resources are dedicated to the rapid development of new weak ties into strong ties. • Foreign market selection is more related to reactiveness and less to proactive opportunity-seeking with a particular foreign market in mind.
Vasilchenko and Morrish (2011)	Case study Born global New Zealand ICT firms (less than 50 employees, two to six years old)	<p>Opportunity is operationalised as internationalisation opportunity exploration and exploitation (international market entry).</p> <ul style="list-style-type: none"> • Established and newly formed social networks can be instrumental in exploring internationalisation opportunities. • These social networks potentially lead to collaborative cooperation and form part of an entrepreneur’s broader business network that facilitates exploitation of internationalisation opportunities culminated by successful entry into foreign markets.
Piantoni, Baronchelli, and Cortesi (2012)	Case study Six Italian Manufacturing SMEs (less than 250 employees)	<p>Opportunity is defined as entry into new foreign markets.</p> <ul style="list-style-type: none"> • Firms with prior knowledge and experience adopt active networking leading to purposeful search for overseas opportunities in both close (EU) markets and psychic distant (China) markets. • Firms with very little to none prior knowledge and experience adopt a passive networking leading to unexpected discovery of overseas opportunities in close markets.
Chandra, Styles, and Wilkinson (2012)	Case study 11 born globals and 4 non-born global firms in high and low tech industries in Australia	<p>Opportunity is defined as “situations in which new goods , services, raw materials, markets and organizing methods can be introduced through the formation of new means, ends or means-ends” (Eckhardt and Shane 2003, 336).</p> <ul style="list-style-type: none"> • Behind the gradual or rapid internationalisation process lies a path-dependent process of opportunity development and cross border venturing activities. • These activities are shaped by the domestic and international networks in which the key actors and organisations have operated in the past and are currently operating. • Both strong and weak ties are important. • It is not the firm’s own characteristics that lead it to become a born global; rather it is the context in which it operates.

One very important finding of Chandra, Styles, and Wilkinson (2009) provides new insight into the debate on systematic search vs. discovery. They found that international opportunity recognition is not a matter of the choice between systematic search and discovery; rather it depends on the level of prior international experience and knowledge. Firms with no prior knowledge will be more likely to recognise international opportunities for the first time through discovery rather than deliberate search. By contrast, firms with international knowledge and experience will be more likely to do so through both deliberate search and discovery. What Smith, Matthews, and Schenkel (2009) and Vaghely and Julien (2010) found in the entrepreneurship literature can be reconciled with the findings of Chandra, Styles, and Wilkinson (2009) in IE. In a similar vein, Piantoni, Baronchelli, and Cortesi (2012) also found that firms with prior knowledge and experience adopt active networking leading to purposeful search for overseas opportunities in both close and distant markets. By contrast, firms with very little to no prior knowledge and experience adopt passive networking leading to unexpected discovery of overseas opportunities in close markets. However, Kontinen and Ojala (2011b) and Kontinen and Ojala (2011a) reported that in family SMEs there is no direct relationship between the prior knowledge of the firms and their international opportunity recognition. Foreign market selection in these firms is related to reactivity and less to proactive opportunity seeking. Trade exhibitions formed the primary context for international opportunity recognition in these firms.

Johanson and Vahlne (2009) have recently proposed a revised ‘business network’ version of their original 1977 model by explicitly including opportunities in the framework. They suggest that combining findings from opportunity research in entrepreneurship with network perspective would also be fruitful in the internationalisation process. Network-based research has been very popular both in entrepreneurship (O’Donnell et al. 2001, Hoang and Antoncic 2003) and IE (Jones, Coviello, and Tang 2011b, Peiris, Akoorie, and Sinha 2012, Mort and Weerawardena 2006, Oviatt and McDougall 2005). Chandra, Styles, and Wilkinson (2009) showed that networks (weak ties) can help discover first time entrepreneurial opportunities in international markets. Further, they found that both strong and weak ties are important. Weak ties bridge gaps between networks that introduce new knowledge and ideas whereas strong ties are the means by which new knowledge and ideas entering a network are passed on to those who are able to make use of it. Crick and Spence (2005) reported that after the initial entry into foreign markets, the importance of existing network ties decreased for international opportunity recognition. By contrast, Kontinen and Ojala (2011b) and Kontinen

and Ojala (2011a) found that in family firms the formation of new network ties is more likely to lead to international opportunity recognition than the presence of existing ties.

A number of researchers have ruled out the dominance of serendipity in international opportunity recognition. Even if opportunities were discovered by serendipitous encounters, they were eventually developed by the owner-managers and actively exploited through resource mobilisation within networks (Crick and Spence 2005, Mainela and Puhakka 2009, Tolstoy and Agndal 2010, Mort and Weerawardena 2006, Vasilchenko and Morrish 2011). It is the networking capability (Mort and Weerawardena 2006) as well as network resource combination capability (Tolstoy and Agndal 2010) that seemed to be instrumental in exploring and exploiting international opportunities.

Case study is the predominant research method in IE. As we see from Table 2.6, all the available opportunity-based studies in IE (11) have investigated the specific phenomena based on a small sample of a few case studies. Considering the opportunity research in IE in the initial stage of development, in-depth case studies can uncover the rich process of international opportunity recognition. However, quantitative empirical investigations with proper conceptualisation and operationalisation of the opportunity concept are also needed. The performance implications of opportunity-related activities (how and whether opportunity recognition and exploitation leads to greater international performance) are also required which is also quite common in the mainstream entrepreneurship literature (Hills, Lumpkin, and Singh 1997). Like other IB and IE studies, opportunity-based IE studies are also partial to developed countries. So there is a knowledge gap in how opportunities are recognised and enacted in emerging country entrepreneurial firms that endeavour to go international or global early. As opposed to IE literature's overarching focus on high-tech firms, opportunity based IE researchers tend to investigate manufacturing firms although there is some skewness towards high-tech firms. In relation to firm age and size, most studies investigated SMEs and new ventures. Therefore, the differences between opportunity-related activities in large firms and SMEs as well as in new and old firms are not identified (Jones, Coviello, and Tang 2011b, Keupp and Gassmann 2009). While some studies are well grounded in opportunity related theory and discussions (e.g., Chandra, Styles, and Wilkinson 2009, Kontinen and Ojala 2011b, a, Piantoni, Baronchelli, and Cortesi 2012), others lack concrete theoretical background (e.g., Crick and Spence 2005, Mort and Weerawardena 2006, Vasilchenko and Morrish 2011).

Opportunity recognition is one of the most important initial steps in the entrepreneurial process without which profitable businesses are not formed. Accordingly, international opportunity recognition also constitutes the initial critical step of internationalisation and hence deserves much attention from academic researchers (Chandra, Styles, and Wilkinson 2009). Since the field of IE emerges at the interface of entrepreneurship and IB, and entrepreneurship is the study of opportunity, it necessitates to fully understand the properties of opportunity, its theoretical background, operationalisation, research areas and outcomes. Although this construct has received much attention in the mainstream entrepreneurship literature, researchers in IE have ignored to include this important issue in their research agenda (Zahra and George 2002). This paradox has been reflected in Muzychenko (2008, 367): “IE as a field of study is still in its infancy and to date there is very little research available on the topic of international opportunity identification” and in Jones, Coviello, and Tang (2011b, 642): “the concept of opportunity recognition- is quite new to IE.” Peiris, Akoorie, and Sinha (2012) also identified that since the first international new venture conceptualisation (Oviatt and McDougall 1994), the role of entrepreneurship in IE research has been identified as a key aspect of the field, but its application has been very limited. Although the contributions of several scholars are prominent in the field as evident in Table 2.6, there is still much potential of opportunity research in IE. For this an opportunity focus rather than focusing on firm alone is essential:

[P]rior research that relies solely on the firm as the unit of analysis may be inadequate. Rather, the opportunity focus can provide a more accurate lens through which to study the international entrepreneurial phenomenon. Indeed, there may be much merit in focusing on the “opportunity-firm” nexus as the unit of analysis. (Chandra, Styles, and Wilkinson 2012, 95)

2.5.5 The concept of exploration, exploitation and the ambidexterity perspective

A central concern of organisational strategy has to do with making choices about how much to invest in different types of activities. Two broad types of qualitatively different learning activities between which firms divide attention and resources—exploration and exploitation—have been proposed in the literature (March 1991). *Exploration* is understood as “the pursuit of knowledge, of things that might come to be known”, and *exploitation* as “the use and development of things already known” (Levinthal and March 1993, 105). More specifically, exploitation tends to promote the firm’s strategic utilisation and addition of value to existing assets. Exploration represents a process that a firm uses to broaden and

deepen its total stock of resources reserved for the long-term organisational success (Levinthal and March 1993).

Exploitation focuses on incremental change to create value through existing competencies, and thus poses less risk to the organisation. Exploitation is an orientation to the short-term whereas exploration has a more future-based, or long-term focus (Bodwell and Chermack 2010, He and Wong 2004). Exploitation activities may be directed toward gaining efficiency while exploration activities promote flexibility in the organisation. Exploration requires significant investments with uncertain payoffs (Bodwell and Chermack 2010, Siggelkow and Levinthal 2003). From the resource perspective, the success of exploration is determined by a firm's capability to seek, acquire and attract "external" resources. In contrast, successful exploitation requires an efficient and effective process to increase and extend the usage of existing assets "internal" to the firm (Hsu, Lien, and Chen 2013). As a result of these distinctions, exploration and exploitation require different organisational structures to facilitate their respective tasks (Ireland and Webb 2007). An entrepreneurial organisational culture can facilitate exploration by valuing innovation, experimentation and tolerating uncertainty and failure. On the other hand, exploitation can be easier in an organisation with a conservative culture as it seeks to defend its existing territory and value explicit, consistent and predictable goals (Hsu, Lien, and Chen 2013). There is a trade-off between exploration and exploitation because exploration of new alternatives reduces the speed with which skills at existing ones are improved. The issue of exploration-exploitation has widely been investigated in the studies of organisational learning since March (1991) discussed the trade-off between them.

Whereas March (1991) initially considered the two types of learning as fundamentally incompatible, subsequent studies often conceptualised exploitation and exploration as orthogonal variables that can be achieved simultaneously (Auh and Menguc 2005, Baum, Calabrese, and Silverman 2000, Katila and Ahuja 2002). The concept of *organisational ambidexterity* has thus become a new paradigm in strategic management and organisational science (Kauppila 2010) given its positive association with favourable organisational outcomes, such as profitability and growth (Gibson and Birkinshaw 2004, He and Wong 2004). Ambidextrous firms are those that are able to efficiently exploit current competencies while flexibly exploring future competencies with an equal level of skills (Raisch and Birkinshaw 2008). Likewise, Lewin and Volberda (1999, 523) note: "These forms need not

be contradictory processes. They can be complementary, and organizations must learn how to carry out both forms.”

Table 2.6: Definitions of ambidexterity

Author(s)	Definition	Theoretical perspective
Achrol (1991)	Simultaneous efficiency, innovation and flexibility	Organisation theory and marketing strategy
Tushman and Reilly (1996)	Able to manage both incremental and revolutionary change (temporal ambidexterity/innovation ambidexterity)	Innovation and technology management
Benner and Tushman (2003)	Exploitative and exploratory innovation	Innovation and technology management
Gibson and Birkinshaw (2004)	‘Contextual ambidexterity’ as adaptability and alignment	Organisation theory and behaviour
O Reilly and Tushman (2004)	‘Structural ambidexterity’, separation between exploratory and exploitative units	Business strategy
Graetz and Smith (2005)	Controllability and responsiveness	Organisational change
Moore (2005)	Complex systems together with volume operations	Business strategy
Ahn, Lee, and Lee (2006)	New product development both in terms of business performance and knowledge performance	Innovation and technology management
Danneels (2006)	Developing and marketing both sustaining and disruptive innovations	Innovation and technology management
Lee, DeLone, and Espinosa (2006)	Balancing flexibility and rigor in global software development	Innovation and technology management
Erickson and Gratton (2007)	Leaders need to be task- and relationship-oriented in the management of large teams	Organisational behaviour
Lin, Yang, and Demirkan (2007)	The simultaneous and balanced presence of both existing and new partners in a firm’s network of alliances	Organisation theory and behaviour
Sarkees and Hulland (2009)	Innovation and efficiency	Marketing management
Schreyögg and Sydow (2010)	Adaptable fluidity and efficient stability	Organisation theory

Source: Adapted from Turner, Swart, and Maylor (2013)

Table 2.6 provides some of the definitions used in diverse areas of studies as summarised by Turner, Swart, and Maylor (2013). They argue that the use of the word “ambidexterity” within the literature does not reflect managerial “activity”, it reflects “capability”. Instead of being something managers “do”, it is a way of looking at what they do. Although initially the concept was used in the organisation learning literature, eventually it has been taken by scholars in multiple areas of research, including strategic management,

innovation and technology management, organisational learning, organisational theory and behaviour and operations management (Simsek 2009, Raisch and Birkinshaw 2008).

2.5.5.1 Exploration, exploitation and ambidexterity in the alliance/network literature

Applying March's (1991) dichotomy of exploration and exploitation to a firm's strategic alliances, an incumbent firm can theoretically enter two types of alliances with new entrants: *exploration* and *exploitation* alliances (Koza and Lewin 1998). Researchers have only recently begun to consider that structures, management systems and other firm-level characteristics may be insufficient to fully explain ambidexterity in all firms. Kang, Morris, and Snell (2007) suggest that the successful use of ambidexterity is possible by utilising networks within and across firm boundaries and thus the harmful conflicts between exploration and exploitation can be avoided. Alliance researchers have also argued that inter-organisational partners play a key role in strengthening and complementing firms' exploration and exploitation skills (Baum, Calabrese, and Silverman 2000, Heimeriks, Duysters, and Vanhaverbeke 2007).

We have summarised in Table 2.7 some of the research findings on exploration, exploitation, and ambidexterity, specifically related to strategic alliance and network, which is of interest to us. Grounded in social network theory (Brass et al. 2004), this emerging line of research suggests that ambidexterity can be achieved by pursuing exploitation and exploration across network or alliance partners (e.g., Rothaermel and Deeds 2004), thus relying on market-based mechanisms (or the "quasi-market") rather than the hierarchy (Williamson 1975).

Rothaermel and Deeds (2004) argued that a firm's decision to enter an alliance "can be distinguished in terms of its motivation to exploit an existing capability or to explore for new opportunities" (Koza and Lewin 1998, 256). They found support for an integrated product development path leading from exploration alliances, via products in development and exploitation alliances, to products on the market. Lavie, Kang, and Rosenkopf (2011) demonstrated that firms do not typically benefit from balancing exploration and exploitation within the same domain (function or structure). Firms that balance exploration and exploitation across these domains by engaging in R&D alliances while *collaborating with their prior partners*, or alternatively, by forming marketing and production alliances while *seeking new partners*, achieve greater profits and market value.

Table 2.7: Studies and their focus on exploration and exploitation, and ambidexterity in the alliance/network literature

Studies	Focus	Findings
Rothaermel and Deeds (2004)	The exploration-exploitation model of organisational learning (March 1991) applied in technology strategic alliance	Exploration alliance leads to product development, which in turn leads to exploitation alliances, which in turn leads to products on the market.
Lin, Yang, and Demirkan (2007)	Contingencies of the ambidexterity hypothesis in alliance formation	Although an ambidextrous formation of alliances benefits large firms, a focused formation of either exploratory or exploitative alliances benefits small firms.
Vanhaverbeke, Gilsing, and Duysters (2007)	Network ties and explorative and exploitative innovation performance in technology based alliance networks	Complementarity between direct and indirect ties in explorative and exploitative innovation performance
Tiwana (2008)	Network ties and alliance ambidexterity in high-tech firm	Complementarity between strong ties and bridging ties in alliance ambidexterity (simultaneous alignment with alliance objectives and adaptiveness to change in the environment)
Lavie, Kang, and Rosenkopf (2011)	The performance implications of exploration and exploitation in alliance	Firms do not typically benefit from balancing exploration and exploitation within the function domain (technology versus marketing and production alliances) and structure domain (new versus prior partners). Firms that balance exploration and exploitation between function and structure domains achieve greater profits and market value.
Hoang and Rothaermel (2010)	Alliance exploration and exploitation experience and R&D project performance	Alliance exploitation experience has positive effects on R&D project performance, while alliance exploration experience has negative effects.
Kauppila (2010)	Inter-organisational partnerships and ambidextrous organisational context that balances exploration and exploitation (technological innovation)	Internal ambidexterity and external collaboration are not substitutes but are complementary; inter-organisational partnering is useful in maximizing both exploration and exploitation.

Tiwana (2008) reported a complementarity between strong ties and bridging ties in alliance ambidexterity (simultaneous alignment with “alliance objectives” and “adaptiveness to change in the environment”) whereas Vanhaverbeke, Gilsing, and Duysters (2007) found a complementarity between direct and indirect ties in explorative and exploitative innovation performance.

Hoang and Rothaermel (2010) posited that any potential learning effects depend on the type of experience. They found that alliance exploitation experience has positive effects on R&D project performance, while alliance exploration experience has negative effects. They further found that an internal exploration competence allows firms to leverage their external exploitation experience more fully. In contrast, when firms combine internal exploitation experience with external exploration experience, the negative effects on R&D project performance become more pronounced. Relating the size of the firm with ambidexterity, Lin, Yang, and Demirkan (2007) showed that although an ambidextrous formation of alliances benefits large firms, a focused formation of either exploratory or exploitative alliances benefits small firms. In an uncertain environment, an ambidextrous formation enhances firm performance but so does a focused formation in a stable environment. Finally, by combining insights from studies on organisational ambidexterity and inter-organisational partnerships, Kauppila (2010) demonstrated that firms' ambidexterity rests on two basic mechanisms: structurally separate external maximisation (attainment of high levels of exploration and exploitation) and an internally balancing organisational context (to equalise the representation of exploration and exploitation and manage the process of exploiting what has been explored).

The increasing interest in ambidexterity, first as a means for achieving innovation and second from a theoretically rich background, has resulted in divergent approaches being applied. Both theory and empirical data have supported the benefits of an ambidextrous approach, yet a coherent understanding of the resources needed to enable ambidexterity, and a clear picture of how this may be achieved in practice, is necessary. What O'Reilly III and Tushman (2011, 8) have commented is relevant here:

[W]hat is missing is a clear articulation of those specific managerial actions that facilitate the simultaneous pursuit of exploitation and exploration... what is needed is greater insight into the specific micro-mechanisms required for a manager to implement and operate an ambidextrous strategy.

Stam, Arzlanian, and Elfring (2014) suggest future research avenues to explore how firms operating in multiple contexts resolve tension emerging from context-specific network requirements. For instance, do entrepreneurs who expand into other markets benefit more from redeploying (exploiting existing network relationships) their accumulated social capital or from building distinctively different networks (exploring new network relationships) in each context? They also suggest that researchers should investigate what factors facilitate or

constrain such '*network ambidexterity*'. In this study we have included both exploitation of existing network relationships and exploration of new relationships to see whether each of them is differently related to entrepreneurial activities and performance in an international business context.

2.5.5.2 Exploration, exploitation and ambidexterity in entrepreneurship

The investigation of exploration, exploitation, and an interplay between them is a recent phenomenon in the mainstream entrepreneurship literature. As we have identified before, most studies in entrepreneurship focused either on exploration or exploitation of entrepreneurial opportunities. A sub-field of strategic entrepreneurship has recently emerged based on a symbiotic relationship between strategic management and entrepreneurship (Ireland 2007) with an emphasis on both exploration and exploitation of the sources of competitive advantage. Strategic entrepreneurship has been described as the activities through which firms "simultaneously exploit today's competitive advantages while exploring for the innovations that will be the foundation for tomorrow's competitive advantages" (Ireland and Webb 2007, 50). Because both the exploitation of existing sources and exploration for future sources of competitive advantage draw upon firms' limited stocks of resources, decision makers face a tension concerning how to balance their firm's current and future needs. Therefore, successfully using strategic entrepreneurship as a path to enhance firm competitiveness is challenging. Research interest is steadily growing in this area of inquiry. Table 2.8 shows the studies, their focus and findings in entrepreneurship in relation to exploration, exploitation, and ambidexterity.

We found only one study (i.e., Kollmann and Stöckmann 2012) in the entrepreneurship literature that explicitly focused on exploration and exploitation which is related to innovation, the core focus of the original construct in an entrepreneurial context. Kollmann and Stöckmann (2012) filled a gap in the relationship between entrepreneurial orientation and performance by introducing the mediating role of exploratory and exploitative innovation. They found that the dimensions of entrepreneurial orientation are related to exploratory and exploitative innovation, which in turn, are related to performance. Innovation acts as a mediator in the relationship between entrepreneurial orientation and performance. This study indicates the existence of an entrepreneurial orientation–entrepreneurial behaviour gap and supports the predicted mediating effects.

Table 2.8: Studies and their focus on exploration and exploitation, and ambidexterity in the entrepreneurship literature

Study	Focus	Findings
Kollmann and Stöckmann (2012)	Mediating role of exploratory and exploitative innovation in entrepreneurial orientation-performance relationship	<ul style="list-style-type: none"> • Dimensions of entrepreneurial orientation are related to exploratory and exploitative innovation, which in turn are related to performance. • Entrepreneurial orientation -performance relationship is mediated by explorative and exploitative innovation.
Sirén, Kohtamäki, and Kuckertz (2012)	The role of strategic learning as a mediating construct between opportunity-seeking (exploration) and advantage-seeking (exploitation) strategies and profit performance	<ul style="list-style-type: none"> • Strategic learning fully mediates the relationship between exploration, exploitation, and profit performance. • The effect from exploration to strategic learning is moderated by the level of exploitation. • Strategic learning effectively allows both types of strategies to improve profit performance.

We found only one study in the entrepreneurship literature (i.e., Sirén, Kohtamäki, and Kuckertz 2012) that explicitly focused on the exploration and exploitation of opportunities. Sirén, Kohtamäki, and Kuckertz (2012) studied the role of strategic learning as a mediating construct between opportunity-seeking (exploration) and advantage-seeking (exploitation) strategies and profit performance. They found that strategic learning fully mediates the relationship between exploration, exploitation, and profit performance. The effect from exploration to strategic learning is moderated by the level of exploitation. This moderation effect suggests that strategic learning is limited, being a path dependent capability that favours exploitation over exploration when stretched. However, strategic learning effectively allows both types of strategies to improve profit performance. Although Sirén, Kohtamäki, and Kuckertz (2012) theorised and investigated a very interesting topic relating to exploration and exploitation of opportunities, they did not include antecedents to opportunity-seeking and advantage-seeking behaviour. The most significant finding in these two studies is that they successfully established an indirect relationship between exploration, exploitation, and performance.

2.5.5.3 Exploration, exploitation and ambidexterity in IE

Ambidexterity in IB or IE is also a relatively new concept. Yet, several scholars have paid attention to this issue in the internationalisation of firms. Table 2.9 shows the studies, their research focus and findings in the IE literature. Han (2007) was the first to define strategic ambidexterity and relate it with internationalisation. This draws from the

ambidexterity literature and builds on the concept of structural ambidexterity and suggests that the optimal approach occurs when firms pursue strategic ambidexterity, which is characterised by simultaneous execution of paradoxical pro-profit and pro-growth strategies. Firms that pursue strategic ambidexterity in internationalising achieve above average internationalisation performance both in the short and long term. Extending Han's (2007) strategic ambidexterity model Han and Celly (2008) linked it with the performance of international new venture. They showed that early internationalising firms that concurrently pursue paradoxical pairs of strategies (few investments-many countries, and standardisation-innovation) can achieve superior performance.

Hughes et al. (2010) found that innovation ambidexterity co-determines both marketing differentiation and cost leadership advantages, and together these link to export venture performance. Cieřlik, Kaciak, and Welsh (2012) reported that exporters that follow a market diversification strategy have higher export volumes than those that follow a concentration strategy. Market concentration is a viable option for exporting SMEs with the possibility of lower growth of export sales. Finally, an extreme ambidexterity strategy of simultaneously pursuing a high market concentration in a key market as well as diversification with a large number of markets served is not a viable option for exporting SMEs. A "balanced ambidexterity" strategy is a viable option for both the concentration and the diversification strategies.

Lisboa, Skarmeas, and Lages (2011) investigated two important domains of exploitative and explorative capabilities: the product development and the overseas market-related capabilities and found that entrepreneurial orientation is positively related to these explorative and exploitative capabilities. In another study, Lisboa, Skarmeas, and Lages (2013) reported that export market exploitation influences export performance positively but exploration negatively. This negative findings reiterated March's (1991) contention that explorative activities need substantial investment and have uncertain returns. Further, they found that export market exploration positively influences export performance in dynamic export markets and a balance between export market exploitation and exploration boosts performance.

Table 2.9: Studies and their focus on exploration and exploitation, and ambidexterity in IE

Study	Focus	Findings
Han (2007)	Simultaneous execution of paradoxical pro-profit and pro-growth strategies	<ul style="list-style-type: none"> • Strategic ambidexterity is the optimal strategy in internationalising to achieve superior internationalisation performance.
Han and Celly (2008)	Two paradoxical pairs of strategic choices (few investments-many countries, and standardisation-innovation) and firm performance	<ul style="list-style-type: none"> • International new ventures that embrace strategic ambidexterity enjoy superior performance than those that do not.
Hughes et al. (2010)	Innovation ambidexterity	<ul style="list-style-type: none"> • Innovation ambidexterity codetermines both marketing differentiation and cost leadership advantages, and together these link to international new venture performance. • Marketing differentiation strategy alone is important in driving innovation ambidexterity.
Lisboa, Skarmas, and Lages (2011)	Exploitative and explorative product development and overseas market related capabilities	<ul style="list-style-type: none"> • Entrepreneurial orientation is positively related to explorative and exploitative product development and market-related capabilities. • Only explorative product development and exploitative export market related capabilities are related to new product differentiation, which in turn is positively related to export market performance.
Cieřlik, Kaciak, and Welsh (2012)	Market concentration and diversification strategy and export performance	<ul style="list-style-type: none"> • Exporters that follow the spreading strategy have higher export volumes than those that follow the concentration strategy. • Concentrating a majority of export sales on a single market is a viable option for exporting SMEs but it may hamper the growth of export sales. • An extreme ambidexterity strategy of simultaneously pursuing a high concentration of export sales within a key market and with a large number of markets served is not a viable option for SMEs involved in exporting. • In the case of SMEs, the “balanced ambidexterity” strategy is a viable option for both the concentration and the spreading strategies
Hsu, Lien, and Chen (2013)	International ambidexterity (explorative and exploitative FDI)	<ul style="list-style-type: none"> • International ambidexterity is related to firm performance. • The depth and breadth of internationalisation deteriorates the performance effect of international ambidexterity. • The speed of internationalisation promotes firm’s performance of international ambidexterity.
Lisboa, Skarmas, and Lages (2013)	Export market exploration, exploitation and performance	<ul style="list-style-type: none"> • Export market exploitation influences export performance positively but exploration negatively. • Export market exploration positively influences export performance in dynamic export markets. • A balance between export market exploitation and exploration boosts export performance.

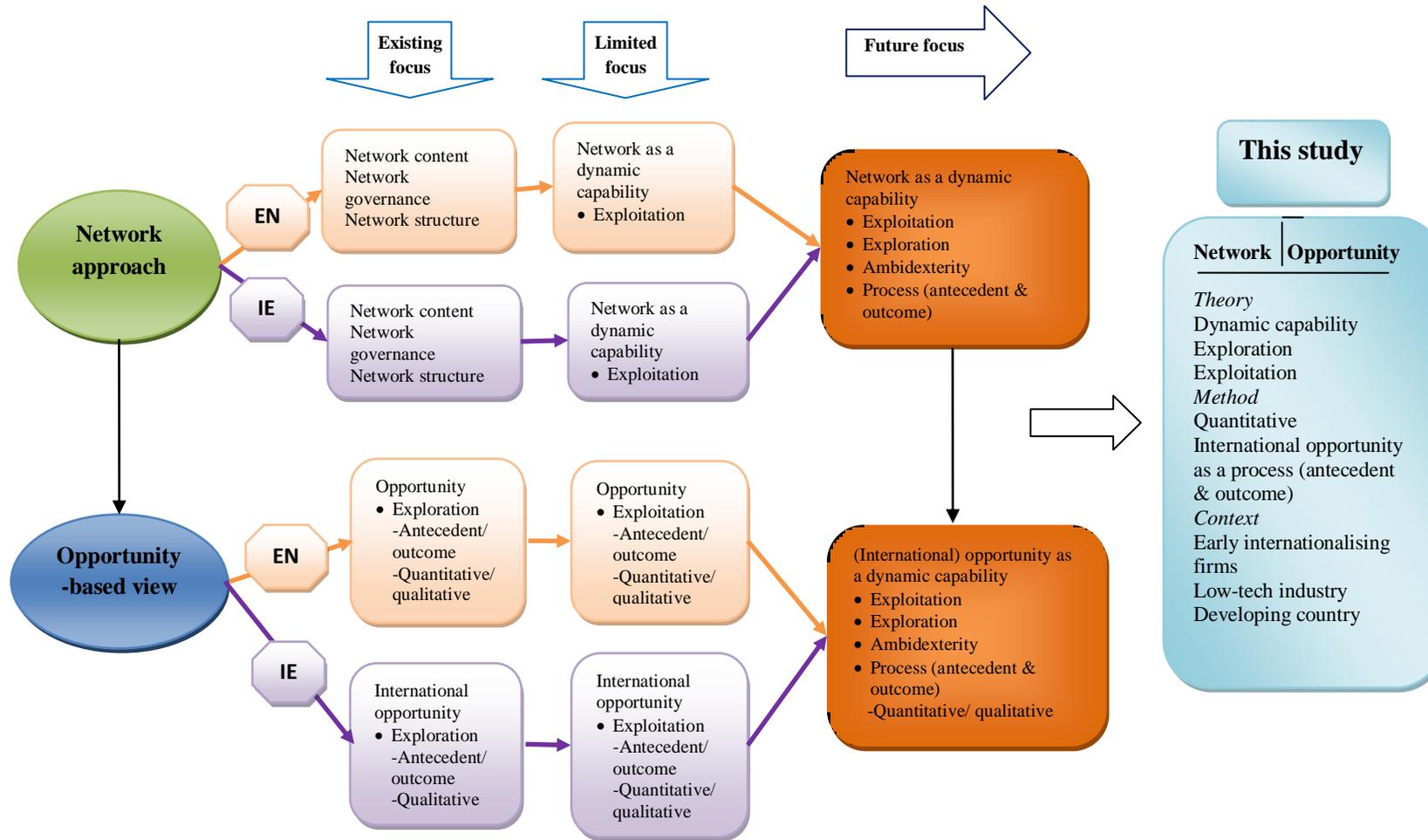
According to Hsu, Lien, and Chen (2013), international ambidexterity refers to the simultaneous and balanced presence of both exploitative and explorative foreign direct investments (FDIs) in a firm's foreign expansion. They showed that international ambidexterity is related to firm performance. However, the depth and breadth of internationalisation moderate this relationship negatively—in other words—deteriorate the performance effect of international ambidexterity. This finding sheds light on the challenges to practise international ambidexterity for firms with high levels of internationalisation, especially operating in highly uncertain and complex environments. By contrast, the speed of internationalisation promotes firm's performance of international ambidexterity. This provides evidence for the learning advantage of newness (Autio, Sapienza, and Almeida 2000, Sapienza et al. 2006) and supports the knowledge-based view of international business (Kogut and Zander 1992).

Figure 2.1 provides an integrative framework of what we have identified throughout this chapter in entrepreneurship and IE in relation to two theoretical perspectives—network and opportunity.

2.6 Conclusion

From Figure 2.1 it is clear that the development of both fields along the path of network and opportunity is quite identical. Existing network research in both fields predominantly focuses on the network content, governance and structure, devoting a considerable amount of discussion on the types of networks and the importance of strong versus weak ties without reaching a definitive decision. Against this backdrop, a recent phenomenon that defines network as a dynamic capability appears to be an alternative because this is the network capability, not the network itself, that initiates, develops and activates network relations and mobilises network resources. Recent research findings in entrepreneurship and IE also support this. However, only a few studies in both fields investigated this and concentrated mostly on the exploitation of existing ties. Therefore, research exploring the dual capability of network (exploration and exploitation) is warranted with a process perspective by combining both antecedents and outcomes of such capabilities (O'Donnell et al. 2001, Hoang and Antoncic 2003, Slotte-Kock and Coviello 2010).

Figure 2.1: An integrative perspective of the literature review and the link with the present study



EN: Entrepreneurship; IE: International Entrepreneurship

With respect to the opportunity-based view, research in both entrepreneurship and IE focuses on one side of opportunity, i.e., exploration. While there are both qualitative and quantitative studies in entrepreneurship, IE experienced only qualitative studies. Most of the studies in this stream investigated either antecedent to opportunity or outcome of it. Therefore, future research in both fields should embrace more both qualitative and quantitative studies with a process perspective to uncover the sources of opportunities and the outcomes of both exploration and exploitation. Opportunity as a dynamic capability incorporating the twin concepts of exploration and exploitation has not yet been investigated in both fields and hence this can be a useful theoretical perspective to investigate new ventures, especially those that intend to go international early and rapidly.

Finally, we identified the emerging concept of organisational ambidexterity (simultaneous exploration and exploitation of capabilities) that emerged from organisational learning literature and generated interest among researchers from a variety of disciplines. We observed that research on ambidexterity was carried out with regard to MNE strategic alliance for innovation, not SME networks or entrepreneurial opportunity. Strategic entrepreneurship- an emerging sub-field of entrepreneurship- also posits that entrepreneurial firms need to simultaneously practice opportunity-seeking (exploration) and advantage-seeking (exploitation) behaviour. In this study, we have taken a dynamic capability perspective to network and international opportunity and included both exploration and exploitation as two distinct capabilities. We have also taken a process perspective to international opportunity but not to network, because our main objective is to investigate the antecedents and outcomes of international opportunity. This is a quantitative study because there is no such study in IE and the conceptualisation and operationalisation of international opportunity capability is lacking. We did not develop ambidexterity hypothesis, rather investigated the individual influence of exploration and exploitation, because the true mechanism of the interplay between exploration and exploitation is still unknown and such an attempt would make the thesis much more complex. Finally, the context of this study is early internationalising firms from a developing country low-tech industry, an under-represented area of investigation in IE.

Chapter 3 Research Model and Hypotheses

3.1 Introduction

It is not yet known how opportunity exploration and exploitation as dynamic capabilities can be used to realise performance outcomes in early internationalising firms. How network exploration and exploitation capabilities may influence opportunity capabilities and international performance is also still unknown. Furthermore, the relationship between network and international performance is stipulated to be direct in the literature. Therefore, a conceptual framework, incorporating and integrating network, opportunity and export performance of early internationalising firms, in which opportunity plays the role of a mediator, has been proposed in this chapter. The aim of this study is to explore how network exploration and exploitation capabilities influence international opportunity exploration and exploitation capabilities and international performance. More specifically, our objective is to investigate the direct and indirect effects of the dual capability of network (through the dual capability of international opportunity) on the export performance outcomes of early internationalising firms in a developing country low-tech industry setting.

3.2 The conceptual framework

Given the importance of the opportunity concept in the mainstream entrepreneurship literature, numerous attempts have been made to define opportunity, to operationalise it and to uncover the processes involved in it. In this study, we have conceptualised opportunity as a set of ideas, beliefs and actions (Venkataraman 1997) to create an innovative new product/service, to improve on an existing product/service, to imitate a profitable product/service in a less than saturated international market (Singh 2001) or to enter a new international market (Schumpeter 1934). In the entrepreneurship literature opportunity recognition or exploration is defined as “the ability to identify a good idea and transform it into a business concept that adds value and generates revenues” (Lumpkin and Lichtenstein 2005, 457). In IE Vahlne and Johanson (2013, 13) have recently defined international opportunity development as a dynamic capability “to identify opportunities and to mobilize relevant resources both within the own firm and within other firms involved in the opportunity.” This indicates that mobilising resources is an important aspect in exploring and developing opportunity because without proper resource orchestration, irrespective of

whether these resources are controlled by the focal firm or by any other firm(s) in its networks, no idea can be developed as an opportunity and can be exploited as well.

In line with Vahlne and Johanson (2013) we define international opportunity exploration as a firm-level dynamic capability through which desirable and feasible international opportunities are identified and developed in harmony with the resource flexibility of a firm to act on these opportunities. Resource flexibility, in other words, strategic flexibility is the dynamic capability of a firm (Schilke 2013) with respect to its resources to respond to various demands from dynamic competitive environments (Sanchez 1995). Resource flexibility endows the firm with the ability to respond quickly to emerging opportunities or to take alternative courses of strategic actions (Sanchez 1997) on which the success of a early internationalising firm is highly dependent. Furthermore, feasibility and desirability are the two central attributes of an entrepreneurial opportunity and therefore they need to be considered when an idea is developed into an opportunity (Mitchell and Shepherd 2010, Haynie, Shepherd, and McMullen 2009). Desirability is an opportunity's perceived valence or attractiveness (e.g., in terms of high profit potential) whereas feasibility is an opportunity's perceived practicability or difficulty (e.g., an opportunity in an international market with a few weak competitors may be more feasible than the one in a highly competitive market) (Tumasjan, Welpel, and Spörrle 2013). The main focus of the international opportunity exploration capability is on the continuous exploration of new feasible and desirable opportunities in international markets ("exploration of new possibilities": March 1991).

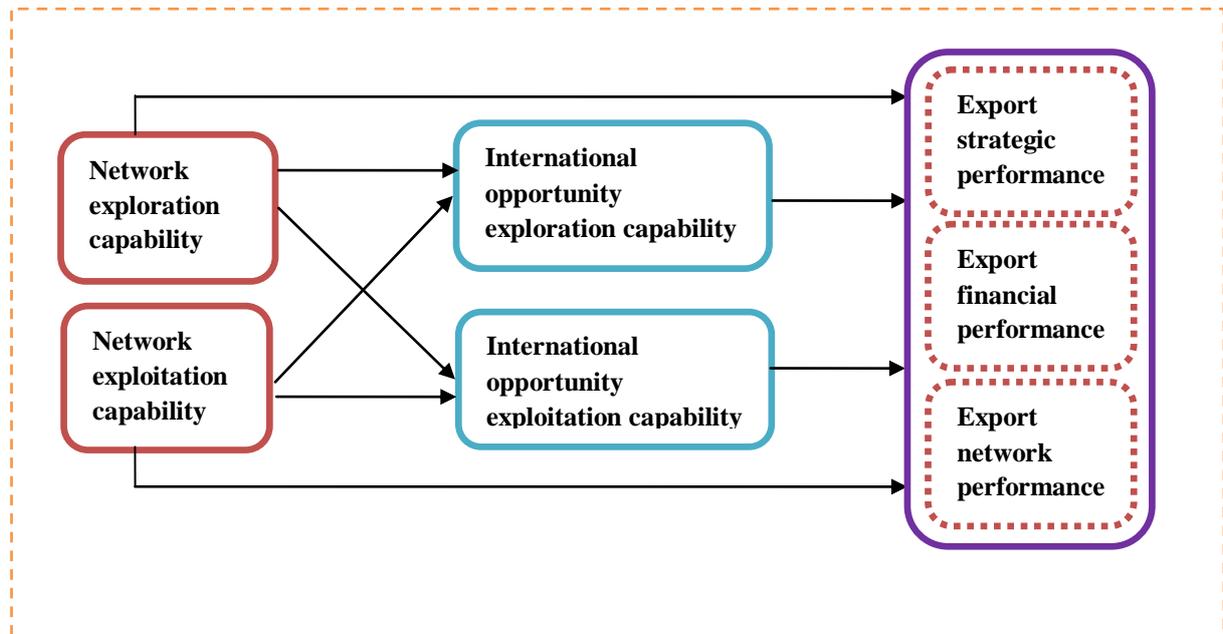
By contrast, we define dynamic international opportunity exploitation capability as the ability to respond and adapt quickly to the emerging external changes to act on opportunities. Timing is critical in exploiting opportunities in today's dynamic and rapidly changing global environment. If an incumbent firm does not take initiatives, other competitors will seize the emerging opportunity quickly thus the opportunity will shift to other aspiring firms. Hence a high level of *responsive* and *adaptive* capabilities — the two most important aspects of a dynamic capability (Rindova and Kotha 2001) — with respect to external environmental changes is required for the timely exploitation of opportunities. The main focus of international opportunity exploitation capability is on the exploitation of existing international opportunities ("exploitation of old certainties": March, 1991).

Opportunities do not rain down from the sky; they are created within and among existing organisations as a product of ongoing network relationships (Low and MacMillan 1988) as well as the new ones. The network perspective to internationalisation posits that internationalisation takes place through networks of relationships (Johanson and Mattsson 1988). Internationalising firm's existing networks as well as their ability to establish new network relationships are the key competitive capabilities for international market development (Coviello and Munro 1995). Following Mu (2013, 104) we define dynamic network capability as the ability of a firm to systematically and competently exploit and explore networks, contacts, and connections with external entities to mobilise and deploy network resources for the creation of value-added product and services as markets emerge, collide, split, evolve and die over time. This definition is consistent with prior studies and captures the dual process of network exploration and exploitation. Both of them are dynamic capabilities because they are the capabilities "that would change the product, the production process, the scale, or the customers (markets) served" (Winter 2003, 992). We did not consider personal or social networks in this study because the strategic importance of social networks is not well documented: "while it is self-evident that inter-organisational networks... are inherently strategic, it is not at all clear that social networks are amenable to strategic activity" (Schulze 2007, 231). Social networks are friendship networks that may have occasional utility (Stuart and Sorenson 2007), but a focus on their efficacy is "a form of social flatulence from which friends will flee" (Burt 1992, 24).

Walter, Auer, and Ritter (2006) developed a dynamic network capability construct measured by four dimensions: (1) the firm's coordination with collaborating firms; (2) the firm's relational skills to facilitate inter-personal exchange; (3) the firm's partner knowledge, i.e., possessing organised and structured information about collaborating firms; and (4) the firm's internal communication, i.e., the firm's ability to be responsive and open to effective organisational learning within partner arrangements. The network capability construct of Walter, Auer, and Ritter (2006) focused exclusively on existing network relationships. Since the main objective of maintaining an existing relationship is to exploit it, we take network capability related to maintaining existing network partners as "*network exploitation capability*" comprising four components proposed by Walter, Auer, and Ritter (2006). In addition to the network exploitation capability, we propose a new construct representing "*network exploration capability*" which focuses on building new network ties and is related to a firm's ability to be open towards new relations with new partners (Parida, Pemartin, and

Frishammar 2009). The network exploration capability comprising three components of coordination skills, relational skills and internal communication implies that firms should have a proactive attitude and that they should initiate contacts with new partners.

Figure 3.1 The relationship between the dual capability of network and international opportunity, and export performance



The conceptual framework of this study is presented in Figure 3.1. To date, the vast majority of the studies assume a direct effect of networks on performance. We posit that the relationship between network exploration capability, network exploitation capability and international performance is mediated by international opportunity exploration and exploitation capabilities because opportunity exploration and exploitation capabilities are the essence of entrepreneurship. Since we aim to investigate low-tech traditional apparel exporting industry firms, opportunity exploration and exploitation capture the best entrepreneurial behaviours and the relationship of network with them reflect the opportunity-network which fits entrepreneurship domain rather than the innovation-network as described in the strategic alliance literature (Kauppila 2010, Vanhaverbeke, Gilsing, and Duysters 2007). The objective of building network capability— whether explorative or exploitative— is to exploit existing opportunities and explore new ones. Finally, international opportunity exploration and exploitation capabilities will influence performance achievement in international markets. Since exploration and exploitation address different objectives, suggesting different associations with performance outcomes (Levinthal and March 1993), it

becomes important to examine the individual links of the two activities (in relation to both network and opportunity) and several organisational performance measures separately (Kollmann and Stöckmann 2012). We have, therefore, included export financial, strategic and network (stakeholder) performance measures in relation to network and opportunity related capabilities.

Elango and Pattnaik (2007) identified four constraints for firms from emerging markets (compared with firms in developed countries) they face while internationalising. First, since they were located in environments that had previously offered institutional protection from foreign competition to local firms, emerging market firms developed products and services independent of international markets, making the transition process very difficult (Eriksson et al. 1997). Second, unlike established multinational firms (MNCs), the competitive advantages of these firms are based on price competition rather than on leading edge technology or product differentiation (Kumar and McLeod 1981, Lall and Chen 1983). Therefore, while these firms possess some resources, they are not of the kind leading to monopolistic advantages in international markets. Third, since these firms' focus was on low-cost products, they operated as suppliers to other manufacturers or depended on third-party distributors to distribute their products, which is the case as we found in the apparel exporting industry. As a result, they lack requisite international experience compared with established firms in developed countries (Vernon-Wortzel and Wortzel 1988, Brouters, O'Donnell, and Hadjimarcou 2005). Finally, these firms are relatively small in size compared with developed country rivals, and are usually handicapped by limited organisational resources. Today, asset ownership is optional whereas asset orchestration is essential. This is true for the MNE and even truer for resource-constrained early internationalising firms (Al-Aali and Teece 2013).

Moreover, despite these handicaps, they also face the costs and perils of international operations due to liabilities of foreignness (Zaheer 1995). There is a liability in being an international player from a developing nation, since the latter are less able to leverage the international performance outcomes of international opportunity exploration and exploitation (Ellis 2007). The need to develop capabilities to attract external resources is much more pronounced in an early internationalising firm, especially from a developing country.

Emerging-market firms often have to embrace a series of aggressive and risk-taking measures for leveraging international expansion in order to compensate for their competitive disadvantages in the global arena (Luo and Tung 2007). Given that most new ventures from emerging markets lack key resources and capabilities, the need to overcome such deficiencies may lie in the act of entrepreneurship (Yiu, Lau, and Bruton 2007). Network-based arguments clearly have significant potential to enhance our understanding of two critical tasks comprising the entrepreneurial process: the discovery of new business opportunities and the mobilisation of resources (Stuart and Sorenson 2005), especially for the early internationalising firms from developing economies. Early internationalising firms are in general resource-constrained as they decide to internationalise early as opposed to traditional internationalisers. Furthermore, if they are from developing economies, they are even at a greater disadvantageous situation compared to the firms from developed countries, which can only be minimized by networking activities to mobilise external network resources to explore and exploit opportunities in international markets (Freeman, Edwards, and Schroder 2006).

3.3 Hypotheses development

3.3.1. Something old, something new: Network exploration and exploitation and international opportunity exploration and exploitation

Network capability encompasses a firm's ability to make use of inter-organisational relationships to gain access to various resources held by other actors. It is not enough simply to have access to a network; it is also vital for a firm to successfully utilise and manage its networks (Kale, Dyer, and Singh 2002). A firm's capability to manage its networks can be critical to resource deployment, opportunity identification and exploitation, and ultimately, overall performance (Dyer and Singh 1998). Network capability may help a firm to strategically manage and properly govern its ties and network resources to ensure successful emergence and growth (Mu 2013). A firm with heightened network capability is able to improve its overall position and develop a superior ability to manage key relationships (Ritter and Gemünden 2003, Ritter and Gemünden 2004).

Network exploitation and international opportunity exploitation and exploration. According to the network view of markets, opportunity development hinges on the interaction between partners who build knowledge of each other and come to trust each other

as they commit themselves further to the relationship. Opportunities are likely to emerge as a consequence of the privileged knowledge that the two partners develop during their interaction: “opportunity identification is a side-effect of an ongoing business relationship” (Johanson and Vahlne 2009, 1419). This knowledge may allow them to recognise opportunities that others do not (Agndal and Chetty 2007). Thus firms can exploit their existing relationships to identify and develop new business opportunities as well as new or extended business exchanges.

The feasibility of exploiting a business opportunity is not necessarily limited by the internal processes of a firm. Exploitation may be enabled by drawing on relationships with other members of the network. Idiosyncratic network relationships may confer a multitude of resource combinations that could never be achieved within a single organisation, and the combination of disparate network resources may generate the type of synergies that are at the very heart of entrepreneurial activities (Dyer and Singh 1998). Network provides access to resources and information needed by firms to adapt to the rapidly changing industry context. Networked firms work together to develop joint problem-solving agreements and joint collaboration results in the sharing of tacit knowledge, which accelerates learning and enables firms to capitalise quickly on emerging market opportunities (Uzzi 1996). Therefore, network exploitation capability not only reinforces opportunity identification and development but also facilitates exploitation of identified opportunities.

Network exploration and opportunity exploitation and exploration. Although existing network relationships may help an internationalising firm explore and exploit international opportunities, they may also restrict strategic options as opportunities can be limited by the boundaries of the existing networks. When an early internationalising firm fails to broaden its network horizon with prospective partners or to identify potential business opportunities beyond the pre-defined network boundary (Adler and Kwon 2002, Gadde, Huemer, and Håkansson 2003, Gulati, Nohria, and Zaheer 2000), it becomes susceptible to network rigidity (Mort and Weerawardena 2006). We argue that an early internationalising firm can overcome network rigidity by broadening its network horizon through its network exploration capabilities which may enable it to explore and exploit new international opportunities (Companys and McMullen 2007) that do not exist within the existing network boundaries.

The dynamic capability view assumes that the degree of uncertainty and competitive intensity in today's highly changing environment makes resource mobilisation and development alone insufficient to achieve sustainable competitive advantage. Rather, constant adaptation to the changes and timely response to the emerging opportunities are required. Rindova and Kotha (2001) found that dynamic capabilities as represented by 'continuous morphing' (the processes by which firms reconfigure their resources and capabilities, product and service offerings, and organisational structures) are essential in developing and exploiting opportunities and achieve superior performance. In this study, we propose that network exploration and exploitation capabilities require an internationalising firm to reconfigure its resource base and capabilities, change or upgrade its product and service offerings and above all adjust and adapt its organisational structures to these changing requirements. Extended or new exchange relationships require new structures and hence flexibility in resources. Network exploration and exploitation capabilities enable an early internationalising firm to develop other dynamic capabilities (e.g., international opportunity exploration and exploitation capabilities)—the capacities to purposefully extend, create, or modify its resource base, enabling the firm to achieve evolutionary fitness through adaptation to and/or shaping of the external environment (Helfat et al. 2007) in the form of extended and new exchange relationships.

For the past two decades, a large number of studies on small firm internationalisation have focused on early internationalising firms such as born globals or international new ventures (Oviatt and McDougall 1994, 2005, Knight and Cavusgil 2004, Jones, Coviello, and Tang 2011b) with an overarching focus on high-tech industries (Yli-Renko, Autio, and Tontti 2002). Tolstoy and Agndal (2010) identified that literature in this stream emphasises two factors that enables early internationalising firms to exploit opportunities in foreign markets (Madsen and Servais 1997, Crick and Jones 2000, Sharma and Blomstermo 2003, Fan and Phan 2007): (1) successful involvement in networking activities and (2) proactive exploration of international opportunities. First, early internationalising firms can be developed in the interplay between the firm and its network partners where competitive advantages are gained through superior leverage of network resources (Rialp, Rialp, and Knight 2005). Consequently, firms source external competences and resources to extend their own resource base and to open up new avenues for entrepreneurial outcomes. For example, international collaboration may generate awareness of particular conditions in foreign markets, thus enabling firms to identify opportunities to respond to customer needs (Spence, Manning, and

Crick 2008). The use of network resources reduces the liabilities of smallness and newness (Stinchcombe 1965), and thereby stimulates innovative behaviour (Baum, Calabrese, and Silverman 2000).

Early internationalising firms proactively build contacts beyond their initial networks so as to enhance the strategic position of their network evolution for creating international growth opportunities. They benefit from their networks, not simply because of the resource advantages *per se*, but rather because of their instrumental value for upgrading competitive capability and information provision during the course of early internationalisation (Zhou, Barnes, and Lu 2010). This suggests that early internationalising firms with superior network capabilities can maximise the likelihood of acquiring the right kind of resources that are likely to provide beneficial outcomes (Makadok 2001) in terms of the exploration and exploitation of international opportunities (Mort and Weerawardena 2006).

As such we hypothesise the following in early internationalising firms:

Hypothesis 1: There is a positive relationship between network exploitation capability and international opportunity exploration capability.

Hypothesis 2: There is a positive relationship between network exploitation capability and international opportunity exploitation capability.

Hypothesis 3: There is a positive relationship between network exploration capability and international opportunity exploration capability.

Hypothesis 4: There is a positive relationship between network exploration capability and international opportunity exploitation capability.

3.3.2 Network exploration, exploitation, and export performance

Network capability has a strong influence on the performance outcomes, which can be interpreted as the network *per se* not granting any additional competitive advantage if the ability to develop, utilise, and maintain close inter-organisational relationships is missing. Firms without appropriate capability would struggle to achieve better financial impacts, sales growth, and customer relationships (Parida, Pemartin, and Frishammar 2009). Network capability facilitates higher quality new entry discoveries by enabling a firm to better manage

interpersonal exchanges critical to effective inter-firm resource and knowledge sharing (Simsek and Heavey 2011).

IE research informs that networks facilitate firm internationalisation and international activities. Specifically, the internationalisation processes of smaller firms are driven by the networks they develop (Coviello and Munro 1995). Furthermore, their decisions on entry mode choice of markets are also influenced by their network partners (Coviello and Munro 1995, Moen, Gavlen, and Endresen 2004). An early internationalising firm's growth worldwide stems from its ability to build and leverage relationships with its main customer in the network (Gabrielsson and Kirpalani 2004). Network capability enables these firms to rapidly expand in foreign markets by identifying different segments of customers' needs (Mort and Weerawardena 2006). Network capability significantly and substantially affects both supplier and buyer performance in the network (Ziggers and Henseler 2009). The growth of an early internationalising firm, especially in the apparel export industry, depends on the firm's domestic and international networks (Kang and Jin 2007). Network partners including suppliers and buyers provide various resources to the firms. Suppliers not only provide critical components but also supply valuable price-sensitive information and the contacts of new customers whereas buyers provide information on market trends in addition to being a secured source of the firm's markets. These economic and non-economic exchange relationships help make exporting a smooth experience and achieve greater export performance for the firms.

Network capability has a key influence on a wide variety of performance measures, e.g., sales growth rate and sales per employee, profit attainment, perceived customer relationship quality, realised competitive advantages, and securing long-term survival (Walter, Auer, and Ritter 2006). In line with this reasoning, we propose that network exploration and exploitation capabilities influence the export financial, strategic, and network performance of early internationalising firm. Hence, we hypothesise that:

Hypothesis 5: There is a positive relationship between network exploitation capability and export performance.

Hypothesis 6: There is a positive relationship between network exploration capability and export performance.

3.3.3 International opportunity exploration, exploitation, and export performance

Entrepreneurial opportunities refer to those situations in which new goods, services, raw materials, and organising methods can be introduced and sold at greater than their cost of production (Casson 1982, 220). This implies that entrepreneurial opportunities may generate profit which signifies the performance implication of opportunity exploration and exploitation.

International opportunity exploitation in terms of product-market may bring greater international performance by creating customer value and satisfaction, strengthening a win-win situation for suppliers and buyers as well as more sales and profit. Rapid internationalisation (international market exploitation) has a performance advantage (Autio, Sapienza, and Almeida 2000). Market exploitation helps internationalising firms achieve export performance (Lisboa, Skarmeas, and Lages 2013, Mort and Weerawardena 2006). However, some marketing and strategy scholars argue that there are considerable strategic risks to an exclusive focus on market exploitation. A firm's over-emphasis on exploitive strategy can lead to an unhealthy, escalating commitment, described by Hamel and Prahalad (1994) as the "tyranny of the served market". They argue that firms are preoccupied with exploiting core capabilities to serve customers profitably. However, this tight alignment with served markets can transform core capabilities into core rigidities which may limit the visibility of the market's periphery, where major opportunities emerge (Leonard-Barton 1992).

We argue that this is the international opportunity exploration capability that helps explore and develop international opportunities to penetrate existing international markets or enter new markets, either with existing, improved or new products. Opportunity exploration capability is crucial for the growth of the firm because without new opportunities to serve new customers or markets, there will be no business or profit potential. Ultimately firms can achieve superior financial and non-financial performance through developing and upgrading opportunity exploration capability.

Unlike an exploitation strategy, an exploratory strategy advocates maintaining loose linkages with current customers and pursuing market adaptability (Judge and Blocker 2008). By maintaining loose linkages, firms can remain flexible and adapt to a dynamic environment, as well as seize opportunities that lie on the market's periphery (Danneels

2003). Greater strategic flexibility to develop and enact international opportunities may bring greater international performance advantage. In particular, the ‘new competitive landscape’ which is developing based on the technological revolution and increasing globalisation necessitates internationalising firms to achieve greater resource flexibility (Hitt, Keats, and DeMarie 1998). Dynamic capability enables an internationalising firm to adjust to its environment- the strategic change (Vahlne and Johanson 2013) which is achieved through “organizational resource reconfiguration and coordination” that underpins dynamic capabilities” (Helfat et al. 2007, 117). Strategic flexibility of resources is an adaptive capability (Liu et al. 2013) through which internationalising firms can recognise profitable opportunities and adapt to the needs of international environment and exploit feasible and desirable international opportunities which can be considered as strategic change. This strategic change, which is initiated by the opportunity exploration and resource reconfiguration capability of an internationalising firm, essentially leads to greater export performance (McDougall and Oviatt 1996, McDougall, Shane, and Oviatt 1994)—be it financial or non-financial. Based on an exploratory study Baldegger and Schueffel (2010) found that opportunity exploration is linked to the degree of internationalisation which in turn influences international performance. Therefore, we hypothesise that:

Hypothesis 7: There is a positive relationship between international opportunity exploration capability and export performance.

Hypothesis 8: There is a positive relationship between international opportunity exploitation capability and export performance.

3.3.4 The mediating role of international opportunity exploration and exploitation capabilities

According to the social capital theory (Nahapiet and Ghoshal 1998), networks both generate resources and are a resource in their own right (Coviello and Cox 2006). Firms develop networks through concerted activities which in turn give access to important resources (Johanson and Mattsson 1987). Therefore, a firm does not necessarily need to own or acquire a resource to gain access to it (Cooper 2002, Stevenson et al. 1994).

Studies on early internationalising firms report that network relationships are beneficial to internationalisation (Chetty and Campbell-Hunt 2003). Networks provide novel

information about foreign markets (Sharma and Blomstermo 2003) and impact foreign market knowledge which in turn facilitate growth of early internationalising firms (Yli-Renko, Autio, and Tontti 2002). However, a link is missing between networks and the performance advantage of networks. Merely possessing networks or the capability to network and having access to resources are not sufficient to achieve international performance since they need to be translated into competitive advantages that enable the firm to achieve superior performance (Lu et al. 2009). Organisational capabilities as complex coordinated patterns of skills and knowledge (Eisenhardt and Martin 2000) serve as internal mechanisms through which firms' resources are deployed in ways that bring competitive advantage (Teece, Pisano, and Shuen 1997). Capabilities act as intermediate variables between international performance and resources (i.e., institutional capital and managerial networks) (Lu et al. 2009). We also posit that the positive influences of personal and inter-organisational networking on early internationalising firm performance are channelled through international opportunity exploration and exploitation capabilities. Network resources and capabilities are translated into performance advantages through the firms' international opportunity exploration and exploitation capabilities. This is also supported by Makadok (2001) who defines capability as a special type of organisational resource which can be used to improve productivity of other resources and capabilities. Dynamic international opportunity exploration and exploitation capabilities are the intermediate elements that can improve the productivity of other firm resources such as networks and network capability (Amit and Schoemaker 1993). Thus the following hypotheses are tested in this study:

Hypothesis 9: In addition to a direct relationship, the network exploitation capability-export performance relationship is partially mediated by (a) international opportunity exploration capability and (b) international opportunity exploitation capability.

Hypothesis 10: In addition to a direct relationship, the network exploration-export performance relationship is partially mediated by (a) international opportunity exploration capability and (b) international opportunity exploitation capability.

3.4 Conclusion

In this chapter, first we proposed a conceptual framework and then developed several hypotheses to be investigated in this study. The research hypotheses developed in the previous section have been summarised in Table 3.1. The main objectives behind the

development of hypotheses are: a) to attempt to seek empirical testing of the structural relationships; and b) to examine the predictions that might have significant theoretical, managerial and/or public policy implications. The following chapter details the operational definitions and measurements of the variables, the survey procedures and the methods used to collect data, and finally the statistical techniques used to analyse the primary data collected by the survey.

Table 3.1: Summary of the hypothesised relationships

Hypothesis No.	Hypothesised Relationship	Expected Sign
Direct relationships		
H1	Network exploitation capability → international opportunity exploration capability of early internationalising firm	+
H2	Network exploitation capability → international opportunity exploitation capability of early internationalising firm	+
H3	Network exploration capability → international opportunity exploration capability of early internationalising firm	+
H4	Network exploration capability → international opportunity exploitation capability of early internationalising firm	+
H5	(a) Network exploitation capability → the export strategic performance of early internationalising firm	+
	(b) Network exploitation capability → the export financial performance of early internationalising firm	+
	(c) Network exploitation capability → the export network performance of early internationalising firm	+
H6	(a) Network exploration capability → the export strategic performance of early internationalising firm	+
	(b) Network exploration capability → the export financial performance of early internationalising firm	+
	(c) Network exploration capability → the export network performance of early internationalising firm	+
H7	(a) International opportunity exploration capability → the export strategic performance of early internationalising firm	+
	(b) International opportunity exploration capability → the export financial performance of early internationalising firm	+
	(c) International opportunity exploration capability → the export network performance of early internationalising firm	+
H8	(a) International opportunity exploitation capability → the export strategic performance of early internationalising firm	+
	(b) International opportunity exploitation capability → the export financial performance of early internationalising firm	+
	(c) International opportunity exploitation capability → the export network performance of early internationalising firm	
Indirect (mediated) relationships		
H9	(a) Network exploitation capability → international opportunity exploration capability → the export performance of early internationalising firm	+
	(b) Network exploitation capability → international opportunity exploitation capability → the export performance of early internationalising firm	+

H10	(a) Network exploration capability → international opportunity exploration capability → the export performance of early internationalising firm	+
	(b) Network exploration capability → international opportunity exploitation capability → the export performance of early internationalising firm	+

Chapter 4 Research Methodology

4.1 Introduction

For any investigation the selection of an appropriate research design is crucial in enabling the researcher to arrive at valid findings, comparisons and conclusions. There are two basic approaches to research, viz., qualitative and quantitative approach. Quantitative researches seek causal determination, prediction, and generalisation of findings, but qualitative research usually takes place through the development of a theory that not only makes sense of the particular person or situations studied, but also shows how the same process, in different situations, can lead to different results (Maxwell 1992). Qualitative approach is concerned with subjective assessment of attitudes, opinions, and behaviour. Research in such a situation is a function of a researcher's insights and impressions and generates results either in non-quantitative form or in the form which are not subjected to rigorous quantitative analysis. On the other hand, quantitative approach to research involves the generation of data in quantitative form which can be subjected to rigorous quantitative analysis in a formal and rigid fashion. This approach can be further sub-classified into inferential, experimental and simulation approaches to research. Experimental approach is characterised by much greater control over the research environment to manipulate some variables to observe their effect on other variables while simulation approach involves the construction of an artificial environment within which relevant information and data can be generated. In contrast, the purpose of inferential approach to research is to form a data base from which to infer characteristics or relationship of population. This usually means survey research where a sample of population is studied (questioned or observed) to determine its characteristics, and it is then inferred that the population has the same characteristics (Kothari 2004). Based on this explanation our study falls into inferential quantitative approach to research. This chapter sets out the execution of the study in terms of the operationalisation and measurement of variables, the research design and statistical methods used for data analysis.

4.2 Unit of analysis

In this study opportunity is a firm-level dynamic capability because firm level dynamic capabilities “can help explain the new nature and the essence” of today's global

business enterprises (Pitelis and Teece 2010, 1257). Even though individuals initially discover or identify opportunities, they are typically developed in firms (Siegel and Renko 2012). Likewise, opportunity exploitation is also a collective process. Therefore, we have conceptualised international opportunity exploration and exploitation capabilities as firm-level dynamic capabilities (Eisenhardt and Martin 2000, Teece 2007, Vahlne and Johanson 2013). In addition, network exploration and exploitation capabilities also reflect firm-level capabilities. Finally, export performance is also a firm-level variable.

Although using firm as the unit of analysis can result in inaccurate measures of strategy and performance variables in studies that target medium and large firms with diversified business portfolios (Cavusgil and Zou 1994), it is not a problem in our case because this study investigates only one industry that constitutes exporters of only one specific product line (apparel). Furthermore, since our study contains firm-specific factors rather than venture-specific (i.e., inter-organisational network capabilities, and international opportunity related capabilities), the measurement of export performance at the venture-level would be theoretically inappropriate and misleading. These variables are not venture-specific; rather they span the whole organisation and all its products and markets.

4.3 Operationalisation of variables

Operationalisation is the development of specific research procedures (operations) such as survey questions, experimental protocol, interview schedules, observation protocol, etc., that result in empirical observation representing those concepts in real world. More specifically, operationalisation is the process of strictly defining variables into measurable factors. The process defines fuzzy concepts and allows them to be measured, empirically and quantitatively. For experimental research, where interval or ratio measurements are used, the scales are usually well defined and strict. Operationalisation also sets down exact definitions of each variable, increasing the quality of the results, and improving the robustness of the design.

Table 4.1: Concept, conceptual and operational definition and measurement of variables

Concept	Conceptual definition	Operational definition and Q. No. in the questionnaire	Measurement
Network exploitation capability	Inter-organisational network capability through which firms maintain existing relationships and exploit the benefits from existing ties	A construct measure of four item statements (on a 7-point scale) reflecting relational skills, partner knowledge, coordination, and internal communication Part III, Q 6,8, 4, 10 respectively	Measurement scale was developed following the process recommended by (Churchill Jr 1979): first Exploratory Factor Analysis (EFA) and Cronbach's alpha were used to assess reliability and validity of the construct measurements; then Confirmatory Factor Analysis (CFA) of the construct measurements was employed and finally Structural Equation Modelling (SEM) was employed for the assessment of the hypothesised relationships between the constructs.
Network exploration capability	Inter-organisational network capability that focuses on searching for and building new relationships with new network ties	A construct measure of three item statements (on a 7-point scale) reflecting aspects of inter-organisational network capability (relational skills, alertness, and internal communication) Part III, Q 5, 7, 9 respectively	
International opportunity exploration capability	The capability which relates to one of the initial steps of the IE process involving international opportunity exploration, identification, and subsequent development	A construct measure of five items (on a 7-point scale) covering number of ideas identified, number of international opportunities identified, extent of modification between initial ideas and final opportunities, feasibility and desirability of identified opportunities, and resource flexibility of the firm to develop new international opportunities Part II: Q 1, 2, 3, 5, 7	
International opportunity exploitation capability	The capability which relates to one of the initial steps of the IE process involving exploitation of international opportunities	A construct measure of three items (on a 7-point scale) covering number of opportunities exploited, novelty or innovativeness in exploited opportunities, responsive and adaptive capability in exploiting international opportunities Part II: Q 4, 6, 8	
Export performance	Objective and subjective measures of export performance	Three constructs (each on a 7-point scale) that cover financial measures (export sales volume, export sales growth and export profitability); non-financial measures (new market entry, introduction of new products/services, and growth in the number of employees); and network performance (the quality of the company's relationship with key overseas customers, key customers' overall satisfaction with the quality of company's products/ services, and the company's overall satisfaction with the quality of key suppliers' critical components) Part IV, Q 1-9	

All the constructs used in this study are latent that cannot be measured explicitly. In the operationalisation phase of the study, multiple scale items to measure latent variables in quantitative terms were developed after a critical review of the literature and a pilot survey. While most of the items used in the operationalisation of the variables have been used in either the entrepreneurship or the IE literature, we have added some items and also developed some new constructs. All the constructs have been tested for scale validity. The operational definitions and the measurements of the constructs used in this study are summarised in Table 4.1 that describes how the constructs were operationalised. In the conceptual framework in section 3.2, we have defined the main constructs and explained the choice of specific elements/items of the constructs. All the constructs are latent with reflective indicators rather than formative indicators and the reason why we have chosen reflective indicators have been outlined in section 4.6.

4.3.1 Network exploitation capability

The network exploitation capability construct was developed using four items reflecting the four dimensions used in the alliance literature and suggested by Walter, Auer, and Ritter (2006). The four dimensions of their dynamic network capability construct include: (1) the firm's coordination with collaborating firms; (2) the firm's relational skills to facilitate inter-personal exchange; (3) the firm's partner knowledge, i.e., possessing organised and structured information about collaborating firms; and (4) the firm's internal communication, i.e., the firm's ability to be responsive and open to effective organisational learning within partner arrangements. Since the main objective of maintaining an existing relationship is to exploit it, we take network capability related to maintaining existing network partners as "*network exploitation capability*" comprising four components proposed by Walter, Auer, and Ritter (2006) and represented by the following items:

- 1) We discuss regularly with our key network partners how we can support each other (coordination),
- 2) We almost always solve problems constructively with our network partners (relational skills),
- 3) We know our network partners' markets, products/services as well as their strengths and weaknesses (partner knowledge), and
- 4) In our firm managers and employees often give feedback to each other (internal communication).

Respondents were asked to indicate the firm's position on the statement using a seven-point rating scale. From the pilot survey we came to know that the most prominent network partners in the apparel export industry include overseas customers, suppliers, and export trading firms known as "buying houses" that work as the bridging ties between local manufacturers and overseas apparel importers. Therefore, in this study, key network partners include key overseas customers, suppliers and buying houses.

4.3.2 Network exploration capability

In addition to the network exploitation capability, we propose a new construct representing "*network exploration capability*" which focuses on building new network ties and is related to a firm's ability to be open towards new relations with new partners (Parida, Pemartin, and Frishammar 2009). The network capability construct of Walter, Auer, and Ritter (2006) focused exclusively on existing network relationships. Therefore, we have developed a new construct "network exploration capability" which was measured by three items but still reflects the two of the four dimensions suggested by Walter, Auer, and Ritter (2006). The network exploration capability comprising three components of relational skills, alertness and internal communication implies that firms should have a proactive attitude and that they should initiate contacts with new partners. The item "alertness" has been adopted from Parida, Pemartin, and Frishammar (2009). The three items of the construct are given below:

- 1) We have the ability to build good personal relationships with new network partners (relational skills),
- 2) We have our eyes open to find new network partners (alertness), and
- 3) In our firm employees have informal contacts among themselves in relation to establishing new network relationships (internal communication).

Good relational skills are essential because without this no firms can build new network relationships. We have included internal communication in this construct because it facilitates the exchange of information and lead to a concerted effort to act on the information collected on the potential network ties. It plays the critical role of utilising external knowledge through well-established communication within firms (Parida, Pemartin, and Frishammar 2009). We did not include two other dimensions of coordination and partner knowledge from Walter, Auer, and Ritter (2006) because external coordination and partner

knowledge are essential in existing relations. The proactive attitude of a firm to explore new relationships is captured by the “alertness” item.

Although Walter, Auer, and Ritter (2006) have developed network capability construct as having four individual dimensions forming a formative construct, our purpose here is not to verify the importance of network capability’s causal indicators to particular dimensions/outcomes. Therefore, we have treated the construct as unidimensional reflective one to see how the capability as a whole, not its subdimensions individually, is related to the dependent variables.

4.3.3 International opportunity exploration capability

One important issue central to the study of opportunity identification is how opportunities are measured and therefore empirically tested (Shepherd and DeTienne 2005). Past empirical research in opportunity recognition has focused on identifying the variety and quantity of opportunities recognised (Hills and Shrader 1998). Hills and Shrader (1998) operationalised opportunity recognition as the number of new, major business opportunities or major new parts of an existing business pursued in the previous five years. Singh et al. (1999) operationalised opportunity identification as both the number of new venture ideas identified and the number of new venture opportunities recognised. Therefore, extant literature on opportunity identification mostly considers number of opportunities identified, not the dynamic capability involved in the process. Furthermore, although a single or a few elements of an opportunity can be identified, opportunities are mainly developed (Ardichvili, Cardozo, and Ray 2003) through creative inputs by the entrepreneurs and others in the firm (Wood and McKinley 2010) and a dynamic capability is involved in the process (Vahlne and Johanson 2013).

Consequently, we define dynamic international opportunity exploration as a firm-level dynamic capability through which desirable and feasible international opportunities are identified and developed in harmony with the resource flexibility of a firm to act on these opportunities. Resource flexibility, in other words, strategic flexibility is the dynamic capability of a firm (Schilke 2013) with respect to its resources to respond to various demands from dynamic competitive environments (Sanchez 1995). Resource flexibility endows the firm with the ability to respond quickly to emerging opportunities or to take alternative courses of strategic actions (Sanchez 1997) on which the success of a early

internationalising firm is highly dependent. Furthermore, feasibility and desirability are the two central attributes of an entrepreneurial opportunity and therefore they need to be considered when an idea is developed into an opportunity (Mitchell and Shepherd 2010, Haynie, Shepherd, and McMullen 2009). Desirability is an opportunity's perceived valence or attractiveness (e.g., in terms of high profit potential) whereas feasibility is an opportunity's perceived practicability or difficulty (e.g., an opportunity in an international market with a few weak competitors may be more feasible than the one in a highly competitive market) (Tumasjan, Welpel, and Spörrle 2013). Therefore, we have measured international opportunity exploration capability by the following items:

- 1) How many international business ideas did you identify in the past three years? (from very few to many) (Gordon 2007, Singh et al. 1999),
- 2) How many international business opportunities did you identify in the past three years? (from very few to many) (Arenius and Clercq 2005, DeTienne and Chandler 2007, Ucbasaran, Westhead, and Wright 2009, Gordon 2007, Ko and Butler 2006),
- 3) How much did you modify/develop an international opportunity from idea generation to opportunity objectification? (from no change to major change) (Singh et al. 1999, Gordon 2007),
- 4) How many novel or innovative international business ideas were considered feasible and desirable? (from very few to most) (Ko and Butler 2006), and
- 5) How much are you able to shift organisational resources to capitalise on emerging opportunities in international markets? (from very low to very high) (new item: resource flexibility)

The last item of this construct reflects one of the most important aspects of the dynamic nature of international opportunity exploration capability: the strategic flexibility of resources. Respondents were asked to indicate their level of agreement with each statement on a seven-point scale. Since the first four items of the construct have been adopted from the entrepreneurship literature, they have been modified to include an international opportunity rather than an opportunity in general.

4.3.4 International opportunity exploitation capability

We define dynamic international opportunity exploitation capability as the ability of a firm to respond and adapt quickly to the emerging external changes to act on opportunities. Timing is critical in exploiting opportunities in today's dynamic and rapidly changing global

environment. If an incumbent firm does not take initiatives, other competitors will seize the emerging opportunity quickly thus the opportunity will shift to other aspiring firms. Hence a high level of *responsive* and *adaptive* capabilities — the two most important aspects of a dynamic capability (Rindova and Kotha 2001) — with respect to external environmental changes is required for the timely exploitation of opportunities. In addition to the number of opportunities exploited, we have added their level of innovativeness (Fiet 2002, Gaglio and Katz 2001, Shane 2000). Puhakka (2007) calls this “the newness value of new venture” in terms of providing innovative new products. Shepherd and DeTienne (2005) insist on the inclusion of innovativeness aspect in opportunity research to cover the *value* of an opportunity, in addition to the *variety* and *quantity* of opportunities exploited. Consequently, the following three items have been included in the “international opportunity exploitation capability” construct:

- 1) How many international opportunities have you pursued/exploited in the past three years? (from very few to most) (Singh et al. 1999, Gordon 2007, Fuentes et al. 2010, Hills, Shrader, and Lumpkin 1999, Ucbasaran et al. 2003, Mitchell and Shepherd 2010)
- 2) How many international business opportunities were considered as novel or innovative? (from very few to most) (Ucbasaran, Westhead, and Wright 2009, Puhakka 2007) and
- 3) How quickly can you adapt to external changes in the international market and respond to external international opportunities? (from very slow to very rapid) (new item: responsive and adaptive capability).

The last item of this construct reflects one of the most important aspects of dynamic nature of opportunity exploitation capability: the responsive and adaptive capability. Respondents were asked to indicate their level of agreement with each statement on a seven-point scale. Since the first two items of the construct have been adopted from the entrepreneurship literature, they have been modified to include international opportunity rather than opportunity in general.

4.3.5 Export performance

Due to its complex nature, export performance is one of the least understood areas in international business (Leonidou, Katsikeas, and Piercy 1998). There is a lack of agreement on the conceptualisation and operationalisation of the construct (Cavusgil and Zou 1994, Shoham 1998, Sousa 2004, Sousa, Martínez-López, and Coelho 2008) and until recently,

research into export performance has predominantly focused mainly on its financial outcomes. For example, Zhao and Zou (2002) measure export intensity (i.e., export-to-total production or export-to-total sales ratio); Morgan, Kaleka, and Katsikeas (2004) use export sales volume, export market share, and profitability; Cavusgil and Zou (1994) measure export profitability. In this study export financial performance was measured by the following three items which is in line with other studies in the export performance literature (Leonidou, Katsikeas, and Samiee 2002, Sousa 2004, Katsikeas, Leonidou, and Morgan 2000):

- 1) export sales volume,
- 2) export sales growth, and
- 3) export profit.

The respondents were asked to report their level of satisfaction in last three years (from highly unsatisfactory to highly satisfactory) on a seven point scale. In assessing the financial goal achievement of the exporting firms, the use of subjective indicators was deemed appropriate for a number of reasons (e.g., Katsikeas, Piercy, and Ioannidis 1996, Robertson and Chetty 2000). First, subjective and objective measures are positively associated (Dess and Robinson 1984). In addition, firms are extremely reluctant to provide objective financial data (Francis and Collins-Dodd 2000, Leonidou, Katsikeas, and Samiee 2002). Further, in many cases, objective data are not publicly available, which makes it impossible to check the accuracy of any reported financial figures (Robertson and Chetty 2000). Objective data are also difficult to interpret (Covin and Slevin 1991) and comparisons across industries or countries can be cumbersome because of the differences in accounting and sales-recording procedures (Styles 1998). Moreover, managers base their decisions mostly on their perceptions of performance rather than by objective performance ratings (Madsen 1998).

Although financial goal achievement is a vital outcome of export activities and accomplishing this goal is essential for firms in the long run, export performance is multidimensional and includes other components (Morgan, Kaleka, and Katsikeas 2004, Styles 1998). One such dimension is strategic goal achievement. Exporting firms might have strategic goals such as international expansion (Young et al. 1989), firm growth (Keh, Nguyen, and Ng 2007) and providing new goods/services in international markets (Katsikeas,

Leonidou, and Morgan 2000). Consequently, strategic performance was measured by the following three items:

- 4) new market entry/number of export countries (Katsikeas, Leonidou, and Morgan 2000),
- 5) introduction of new products/services in international markets (Katsikeas, Leonidou, and Morgan 2000), and
- 6) growth in the number of employees (Ireland, Reutzel, and Webb 2005, Keh, Nguyen, and Ng 2007, Puhakka 2007).

In addition to financial and strategic measures, relationships with different stakeholders should be considered when measuring export performance (Durmuşoğlu et al. 2012). For example, shareholders and managers may have different views on export performance, making it difficult to reach a consensus concerning the operational measures to be used (Cameron 1986, Madsen 1998). Further, the relevance and importance of performance dimensions may also vary across other stakeholder groups, such as employees and customers (Walker Jr and Ruekert 1987). Surprisingly, measures such as the quality of relationship with customer and their satisfaction have rarely been used in extant studies (Sousa, 2004). Therefore, we have adopted a new measure developed by Lages et al. (2009): export network performance which relates the network approach to the export performance measurement. Contrary to the traditional export performance measures which consider only exporter as the main actor in the network, the export network performance scale looks to export performance through the network lens and thus considers multiple actors in the chain and includes suppliers (the actor before the exporter in the chain), and the importer (i.e. customer—the actor after the exporter), as well as the exporters themselves. While it is impossible to include all items under each actor construct, we have modified them as three single items under a single construct. The final export network performance scale includes:

- 1) the quality of the company's relationship with key overseas customers,
- 2) key customers' overall satisfaction with the quality of our products/ services, and
- 3) the company's overall satisfaction with the quality of key suppliers' critical components.

For all the items under export performance, respondents were asked to report their level of satisfaction in last three years (from highly unsatisfactory to highly satisfactory) on a seven point scale.

In conclusion, there is no universally accepted criterion for export performance: firms measure and judge export performance on various dimensions. Looking at the same construct from many different angles might be seen as an enriching exercise and dimensions used for operationalising the construct should be consistent with the context of the studies (Durmuşoğlu et al. 2012). The use of multiple measures is warranted for capturing the entire “story” of a firm’s export performance (Solberg and Olsson 2010, Sousa 2004, Sousa, Martínez-López, and Coelho 2008).

4.3.6 Control variables

Sousa, Martínez-López, and Coelho (2008) state that a lack of control variables is a weakness of recent research; therefore in this study we incorporated some control variables: firm size, firm age, export market coverage and export environmental dynamism. These variables have been frequently used as control or moderators in existing literature to produce stronger results. These variables reflect both organisational and foreign market characteristics that are conceptually related to network and entrepreneurial activities (Sapienza et al. 2006) – thus underlying the international growth and survival of firms and offering a more valid examination of the proposed research (Zhou, Barnes, and Lu 2010).

Firm size was operationalised as the number of employees and was log transformed. There are two approaches used to determine the size: sheer organisational size and market share. Although they are conceptually different constructs, empirically, they are correlated (Chen and Hambrick 1995). Further, collecting data on market share is difficult which makes organisational size a viable alternative. Firm age was operationalised as the number of years the firm is operating in the business. Degree of internationalisation was operationalised using the number of overseas markets firms export to. Environmental dynamism was operationalised by three items: vulnerability to the change in trade policies across borders (Zhou, Barnes, and Lu 2010), change in overseas customers’ demand and preferences, competitors’ new product introduction rate, and new selling strategies (Achrol and Stern 1988) and change to technology relating to the main product/industry (Zhou, Barnes, and Lu 2010). All items were measured on a seven point scale ranging from very low to very high.

4.4 Research methods

Research methods are the tools that researchers use to gather data. A detailed description of the research methods are provided in the following sub-sections.

4.4.1 Nature of research

From the perspectives of its objectives a research can be classified into four categories:

- a) Descriptive: A descriptive research attempts to describe systematically a situation, problem, phenomenon, service or programme, or provides information about, say, the living conditions of a community, or describes attitudes towards an issue. The main purpose of such studies is to describe what is prevalent with respect to the issue/problem under study.
- b) Correlational: A correlational research attempts to discover or establish the existence of a relationship/association/interdependence between two or more aspects of a situation.
- c) Explanatory: Explanatory research attempts to clarify why and how there is a relationship between two aspects of a situation or phenomenon.
- d) Exploratory: An exploratory research is undertaken with the objective either to explore an area where little is known or to investigate the possibilities of undertaking a particular research study. When a study is carried out to determine its feasibility it is also called feasibility study or pilot study. Exploratory studies are also conducted to develop, fine and/or test measurement tools and procedures.

Although, theoretically, a research study can be classified in one of the above perspectives, in practice most studies are a combination of the first three categories; that is, they contain elements of descriptive, correlational and explanatory research (Kumar 2005). This study falls in the fourth category because we have developed some measurements which were tested in the study and the interrelations between the constructs.

Since the objective of this study is to test the theoretical model developed in Chapter 3, a quantitative research design is appropriate (Aaker, Kumar, and Day 2004, Burns and Bush 1995, Malhotra 2008, Zikmund 2003). As cross-sectional data enables researchers to

have more representative sampling (Malhotra 2008), a cross-sectional single source design was adopted to investigate the impact of network ties on opportunity recognition and performance of apparel exporters of Bangladesh where the unit of analysis is individual firm.

4.4.2 Research instrument: Questionnaire

A questionnaire, whether it is called a schedule, interview form or measurement instrument, is a formalised set of questions for obtaining information from respondents (Malhotra 2008). The formulation of any questionnaire to be used in a survey must be an integral part of the research design. It is essentially a measurement tool, an instrument for the collection of particular kinds of data. Like all such instruments, the aims and specifications of a questionnaire stem directly from the overall research design. Therefore, a questionnaire has been designed based on the previous research and literature as well as developing some new measures for this study to collect information on network capabilities, international opportunity related capabilities, and export performance.

The Likert scale, that presents respondents with a series of attitude dimensions, for each of which they are asked whether, and how strongly, they agree or disagree, using a number of positions on a five-, seven- or nine-point scale, or sometimes descriptors (e.g., importance, familiarity), was used in this study. The Likert scale offers several advantages: a) it is easy for the researcher to construct and administer this scale and b) it is easy for the respondents to understand. Therefore, it is suitable for mail, telephone, personal, or electronic interviews. The major disadvantage of the Likert scale is that it takes longer to complete than other itemised rating scales. Respondents have to read the entire statement rather than a short phrase. In this study most widely used seven-point scale is used.

4.4.3 Pre-testing research instrument

Pretesting refers to testing the questionnaire on a small sample of respondents, usually 15 to 30, to identify and eliminate potential problems. As a general rule, a questionnaire should not be used in the field study without extensive pretesting. Malhotra (2006) have provided several guidelines for pretesting: a) All aspects of the questionnaire, including question content, wording, sequence, form and layout, question difficulty, and instructions, should be tested; b) Pretesting should be conducted with a subset of the respondent group. The pre-test group should be similar to the respondents in terms of their background

characteristics, familiarity with the topic, and attitudes and behaviours of interest (Diamantopoulos, Reynolds, and Schlegelmilch 1994, Martin and Polivka 1995); c) Pre-tests are best done by personal interviews, even if the actual survey is to be conducted by telephone, mail, or electronically, so that interviewers can observe respondent reactions and attitudes; d) After the necessary changes have been made, another pre-test could be administered using the actual data collection approach.

The questionnaire designed for this study was developed in two stages. First, the preliminary questionnaire was reviewed by three academics as well as some of the author's colleagues who are knowledgeable on the topic and capable of assessing the content and face validity of the constructs. Then, the comments and suggestions from the reviewers have been incorporated in the revised questionnaire. After that the questionnaire was pretested with 15 entrepreneurs, CEOs, general managers and export managers who were diverse in their background characteristics and familiarity with the topic. Pre-tests were done through personal interviews with the respondents and all aspects of the questionnaire, including question content, wording, sequence, form and layout, question difficulty, and instructions, were tested. Having received the questionnaire filled out by the interviewer, we observed minor problems with the scales and the level of difficulty in understanding the questions, so we revised accordingly. After making the necessary moderations, the second phase of pretesting was conducted with five respondents (excluding previous respondents who took part in the first phase). During this phase no further problems were observed. The questionnaire was originally written in English and translated into Bengali. Two academic and two non-academic experts checked the validity of translation. After pretesting we back translated the questionnaire into English and checked for consistency with the original version to establish 'translation equivalence' (Van de Vijver and Leung 1997). Except for some minor differences in wording, no major change in meaning of the items was found. Thus, the two versions of the questionnaires were considered equivalent, and the Bengali version of the questionnaire was finalised after minor word changes were completed. After we developed the questionnaire, approval was sought from the Human and Ethics Committee of the University of Canterbury and it was duly approved.

4.4.4 Final questionnaire

After making the necessary alterations, the final questionnaire was produced and is appended in Appendix 1. The survey instrument was organised into five parts. Part I (questions 1 to 10) is comprised of general information about the company and the industry, such as, year of business and exporting, how many countries they export, and environmental dynamism (including technology dynamics, market uncertainty, and cross-border trade policy). Part II seeks information on international opportunity exploration and exploitation; Part III on networking and Part IV on the performance outcomes of the firm in last three years. Finally, Part V is about the personal information of respondents.

4.4.5 Key informant

A key informant provides information through formal interviews and informal verbal interchanges or conversations. There are three main reasons for using key informants: a) to gather information efficiently, b) to gain access to information otherwise unavailable to the researcher, and c) to gain a particular understanding or interpretation of the phenomenon at hand. In identifying the key informant, Campbell (1955) suggested that the key informant would not be chosen because they possess special qualities. Rather, the key informant should occupy a role that makes him or her knowledgeable regarding the issue under study. From the pre-testing and previous exposure of the researcher in the industry, the entrepreneur, the export manager, the commercial officer known as ‘the merchandiser’, and the production manager are found to be knowledgeable in this industry in relation to the topics of this study.

4.4.6 Research setting: Bangladesh apparel export industry

Our investigation focuses on early internationalising firms in the apparel export industry of a South Asian emerging country Bangladesh. Bangladesh, the world’s 44th largest economy (IMF 2012), is one of the Next 11 (N-11) countries, identified by Goldman Sachs (an American multinational investment banking firm), which, combined with its 150 million population, economic, and political conditions could greatly impact the global economy.

After the independence in 1971, Bangladesh followed an import-substitution industrialization strategy. Like many other developing countries, Bangladesh also failed to achieve the desired outcomes from the import-substituting trade and industrial policies.

Consequently, a large scale liberalisation programme was initiated by the early 1990s and since then the successive governments also continued this trend of liberalisation. While import and exchange rate liberalisation were intended to correct domestic incentive structure in the form of reduced protection for import-substituting sectors, export promotion schemes were undertaken to provide exporters with an environment in which the former bias against export-oriented investment could be reduced significantly. Important export incentive schemes that were made available include, among others, subsidised rates of interest on bank loans, duty free import of machinery and intermediate inputs, cash subsidies and exemption from value-added and excise taxes. If we evaluate the liberalisation programmes and export performance, Bangladesh can be considered to have been successful in energising exports. While in 1980 Bangladesh's total export earnings stood at US \$0.75 billion, by 1990 this figure rose to US \$1.7 billion and by 2010 increased further to US \$14.1 billion. Table 4.2 shows the share of apparel export to total export from Bangladesh for selected years.

Table 4.2: Share of apparel export to total export from Bangladesh

Year	Export of apparel	Total export	% of apparel to total export
1985-86	131.48	819.21	16.05
1990-91	866.82	1717.55	50.47
1995-96	2547.13	3882.42	65.61
2000-01	4859.83	6467.30	75.14
2005-06	7900.80	10526.16	75.06
2010-11	17914.46	22924.38	78.15
2011-12	19089.69	24287.66	78.60
2012-13	21515.73	27018.26	79.63

Source: Export Promotion Bureau (EPB) and Bangladesh Garments Manufacturers and Exporters Association (BGMEA)

Over the past 30 years textiles and apparels have emerged as the major export product of Bangladesh. Almost unknown even in the late 1970s, exports of apparel climbed to its current position of prominence within a short period of time by taking advantage of the reserved export market status provided under the Multifibre Arrangement (MFA) regime, which was abolished at the end of 2004. With an export volume of more than US \$27 billion in 2012-13, which is more than 80 percent of the country's total export earnings, providing direct employment opportunities for about four million people- 80 percent of whom are women, and accounting for 30 percent of manufacturing investment share, the huge significance of the apparel sector in the national economy can hardly be overemphasised (Razzaque and Raihan 2008).

Its success has become a model for other developing countries. Currently Bangladesh is the second largest apparel exporter in the world just after China (Yardley, 2013). The industry has emerged as very critical to the country's economy, accounting for 80 percent of national exports, 13 percent of gross national product and more than four million jobs. It has spawned about 5,000 born exporters in the industry. To be eligible for government export promotion schemes companies are required to be born exporters by law and are not allowed to sell their products in domestic markets. This is because the government has a range of export promotion programs such as duty-free imports of yarn and fabrics, machinery, income tax rebate that are exclusive to export-oriented apparel manufacturers. If they are allowed to sell in domestic markets, the manufacturers who produced exclusively for domestic markets without any duty-free yarn/fabrics would be at a disadvantageous position to compete with export-oriented manufacturers.

Although there is a range of export assistance programmes available for the exporters in this industry, entrepreneurs started business from a zero base in the beginning of the industry's development in the late 1970s, with no or little assistance in a benign environment (Quddus and Rashid 2000). They were quick in learning and taking advantage of new opportunities. When entrepreneurs made remarkable growth in the industry through good practices and knowledge, the government responded by coming up with policy and administrative reforms which facilitated further growth of the industry. Thus, entrepreneurs created an environment at the early stage, proved their importance to others, and showed their dynamism to reform government policy to their advantage (Mahmood 2002). In general, it appears that apparel manufacturers could overcome many of the problems which plagued Bangladesh during the 1980s because of their official connections traceable to their social economic and educational background. A survey of apparel entrepreneurs carried out in 1993 shows that 23 percent of respondents were retired civil or military bureaucrats, 89 percent had at least a bachelor degree and 32 percent had studied abroad (Quddus and Rashid 2000). Thus, a large number of educated, mature and experienced individuals have been managers within the industry. Many of the successful first generation garment manufacturers had started their careers as employees of Desh Garments, the first export-oriented firm established in 1978. The industry as a whole benefited from this knowledge spill-over. True, the opportunity was created by the MFA Quota system, but it is to the credit of the apparel manufacturers that they had the courage and vision to respond positively to this opportunity. What Sobhan (1995, 24-25) commented on the success of the industry makes sense:

The growth originated from the market niche created for low-cost garment exports under the Multi-Fibre Arrangement (MFA). However, the response from the small/medium entrepreneurs has been impressive and demonstrates that private entrepreneurship has great promise in areas where markets are secure, investment finance needs are modest, technology assimilation is easy and a system of back-to-back financing of letters of credit provides a ready supply of working capital free of hassles of import regulation.

Little empirical research has been undertaken on the export sectors of Bangladesh, especially on the apparel export industry, investigating the determinants of its tremendous export success over the years. Recently, Shamsuddoha and Ali (2006) and Faroque and Takahashi (2012) investigated the role of export promotion programmes and their direct and indirect impact on export performance. While the former focused on the overall export sector yet the sample is dominated by the apparel sector, the latter is exclusively focused on the apparel export industry. However, no empirical study has been undertaken to ascertain the entrepreneurial aspects involved in the phenomenal success of the industry. Therefore, it remains as an unexplored field of research where in depth investigation would uncover the main reasons behind the success of the exporters in the industry from an entrepreneurship standpoint.

A majority of research on early internationalising firms rests on small samples and firms in technology and knowledge-intensive industries from developed countries. Early internationalising firms mostly exist in these industries partly because product standards are internationalised and these products are less constrained by national boundaries (Spence, Orser, and Riding 2011). While from research findings it seems that most born globals or international new ventures exist in high-tech industries, this is not a true representation of reality. Many low-tech firms, especially from developing countries, join the global marketplace just after inception or soon thereafter. In fact, there are particular low-tech industries in these countries where most firms are born exporters. The apparel export industry of Bangladesh is such a unique case and may be common among developing nations whose comparative advantage lies on cheap labour.

China as an emerging economy and being the world's largest apparel export industry has received much research interest from scholars (Chi and Sun 2013). In comparison to that, the apparel export industry of Bangladesh has not been given much research attention, especially from an IE perspective. The role of networking in exploring and exploiting

international market opportunities in the dynamic growth of this industry has been overlooked. Thus the industry offers a very lucrative setting of research to investigate these issues. Furthermore, Zahra (2004, 23) identified one serious research gap in the international new venture (INV) literature:

[W]e do not know a great deal about the prevalence of INVs under different combinations of industry, market, firm and entrepreneur-related conditions. Knowing the prevalence of these firms can be useful in predicting which types of INV are created under which conditions and in tracking the changes that occur in INVs over time, which offers a foundation for understanding the differences in their financial performance. This is a gap in the literature in this area, one that requires further research.

An important shortcoming related to the context of international entrepreneurship research in emerging countries is the tendency to focus on a relatively small number of regions and countries. An overreliance on contexts such as China and central and eastern European emerging countries in IE may lead to inaccurate generalizations to other contexts we still know very little about. The few studies set in relatively under researched areas such as Jamaica, Vietnam, Singapore or Latin American have revealed unique facets of IE (e.g., bounded entrepreneurship, born regional approaches) and suggest that a broader geographic focus may reveal new insights that can lead to new theoretical developments (Kiss, Danis, and Cavusgil 2012). The apparel export industry of Bangladesh, being required by the government to be 100% export oriented and having become the most successful case from a least developed country also provides a very unique setting which requires greater attention to understand how such a successful industry emerges.

Each industry has its own characteristics, resource endowment, and distinct network relationships. The apparel export industry of Bangladesh being very unique in its characteristics and value chain activities needs special treatment and explanation and can be better explained from a network perspective in relation to how opportunities are explored and exploited by these instant exporters. Ritter et al. (2004) identified four types of relationships borrowed from Brandenburger and Nalebuff (1997) which are also present in this industry: (a) relationships with buyers, (b) relationships with suppliers, (c) relationships with “complementors,” for example, export trading companies whose role is important in entering new markets, attracting new overseas buyers or in keeping informed about legislative developments, and (d) relationships with competitors which may be developed for various

purposes, beyond the typical collusion to control and subvert competition, for example, subcontracting agreement.

In emerging economies, ties with networks at home and abroad provide important advantages for the firm as it pursues international venturing (Yiu, Lau, and Bruton 2007). Child and Rodrigues (2005, 405) highlighted the importance of these ties in the case of Chinese firms: “A degree of networking between firms and the external bodies which can materially affect the process of their internationalization is undoubtedly present in all societies, but its prominence in China serves to draw particular attention to it.” The same assertion is applied to other emerging countries like Bangladesh and its export-oriented apparel industry. Overseas buyers play an important role by providing necessary information, technical and training assistance occasionally. In addition to buyers abroad, export trading companies, traditionally known as “buying houses,” contribute significantly to the development of the industry. Having strong networks with overseas buyers, these houses receive orders from them and distribute among manufacturing firms. The whole process of production is supervised by them to ensure quality and standards determined by the buyers. Exporters have strong network with their local and foreign suppliers who also provide necessary information on supply and price-related issues. Manufacturers also have vertical subcontracting networks with other firms in the industry, which is an opportunity for small firms in developing countries to participate in international markets (Ghuri et al. 2003). Therefore, this industry provides a very interesting setting of research into the network-enabled opportunity exploration and exploitation in international markets leading to superior export performance.

4.4.7 Population and sampling

The respondents were selected based on a random sampling technique. Since we have decided to conduct questionnaire survey in person, this study covers mainly Dhaka region where more than half of the manufacturing units are located. There are two exporters’ associations in this industry: Bangladesh Garments Manufacturers and Exporters Association (BGMEA) and Bangladesh Knitwear Manufacturers and Exporters Association (BKMEA). BGMEA is registered with woven and knit garments manufacturers and BKMEA exclusively with knit garments manufacturers. There are 4001 members on the list of BGMEA and 1280 members on the BKMEA directory. Although these lists are not very

up-to-date, both of the directories and other industry sources indicate that the total number of garment exporting firms is between 4500 and 5000.

4.4.8 Sample size

A wide range of recommendations regarding sample size in factor analysis has been proposed. These guidelines are typically stated in terms of the minimum necessary sample size, N , or the minimum ratio of N to the number of variables being analysed, p . Many of these guidelines were reviewed and discussed by Arrindell and Van der Ende (1985) and more recently by Velicer and Fava (1998). Gorsuch (1983) recommended that N should be at least 100, and Kline (2011) supported this recommendation. Guilford (1954) argued that N should be at least 200, and Cattell (1978) claimed the minimum desirable N to be 250. Comrey and Lee (1992) offered a rough rating scale for adequate sample sizes in factor analytic studies: 100 = *poor*, 200 = *fair*, 300 = *good*, 500 = *very good*, 1,000 or more = *excellent*. Hair et al. (1998) regard 100 as the practical minimum for ensuring the appropriateness of maximum likelihood estimation while Boomsma (1985) suggests samples of 200 as a general rule across a number of model types for parameter estimates with any degree of confidence. We have separated 2400 exporting firms from the directories that are located in the Dhaka region. Then we randomly selected every third firm in the list which resulted in 800 samples.

4.4.9 Data collection procedure

Mail survey has become one of the most frequently used approach to data collection in export marketing (Sousa, Martínez-López, and Coelho 2008) as well as IE research (Coviello and Jones 2004). Although we explored the possibility of a mail survey, previous studies in this industry showed that the response rate is likely to be very low for mail survey. There is a general tendency among the entrepreneurs and senior executives to not respond unless they are approached personally. Even if approached personally, they would not be inclined to answer the questions for a research unless the researchers use some direct or indirect network ties with them as was found in the Chinese context (*guanxi*). Considering the large scale of the survey, it was necessary to get assistance in data collection. We sought assistance from BBA and MBA students who were familiar with such a research instrument and had previous experience in surveying. Having that in mind, the researcher took a faculty position at Southeast University, Bangladesh which is located in Banani, the prime location

in Dhaka city. The survey period was from January to May 2012 and the overseas study was approved by the University of Canterbury academic committee. In the first week of January research assistants were recruited. An advertisement was posted on the notice board of the university about the topic and the nature of the survey and potential candidates were asked to come to a briefing session with a CV. In the briefing session, candidates were given a preliminary idea about the survey, its nature, duration and the payment structure. They were also given the questionnaire and a detailed guideline on how to do the survey so that they could decide whether to participate or not. A diverse range of applications was received from candidates. Most of them are senior BBA students along with some MBA students in their final stage of study. Some of them were doing internship while others had just finished their study. Some of the students had good direct or indirect network connections in the apparel industry. All the students who showed up in the briefing session were interviewed. Twelve candidates were initially selected based on their stage of study, motivation, need and suitability for the survey. Finally, five students who appeared to be active, motivated, and have knowledge of the industry, were given an initial target of 50 questionnaires each. They were invited to a briefing session where the questionnaires along with the guideline for the survey were handed over. They were asked to study the questionnaire. If they had any question they were asked to call the researcher directly and discuss. We held meeting on the progress of the survey every Friday, the usual weekend in the country. The assistants were asked to call the researcher anytime during the survey if there were problems or questions from respondents. It was only during the first week of the survey that they raised questions with the researcher directly and their questions were answered or further clarification provided on the specified questions. When the research assistants came back with filled out questionnaire during the first weekend, some missing data were found and they were asked to go back to the respondents and fill it out with appropriate information. From the following week the researcher started to keep track of the assistants and personally visited some of the companies along with the assistants. This is a special kind of technique that the researcher observed during his undergraduate internship in a marketing research firm. The field supervisors physically visit the specific area where the field surveyors collect information and confirm that they are in the field and collect data with integrity. The researcher also called some of the respondents randomly every week (about 5% of the total) to confirm that the research assistants visited them and collected information from the persons specified. We promised to keep them and their company names undisclosed and they willingly provided

their business cards with the questionnaire which made it easy to call them and confirm about the survey done by the specific research assistants. By the end of February the research assistants completed their target of 50 questionnaires, making 250 in total. They were keen to continue the survey and were given another 50 questionnaires each. By mid April, the survey was nearly complete as 500 questionnaires had been received. The students requested to extend the survey and offered a lower rate per questionnaire. By the end of May, 718 questionnaires were received. It is not surprising that about 140 questionnaires per research assistant were received. We found that there are some formal and informal clusters of apparel companies, especially in the areas of Gazipur, Savar, and Narayanganj. It is not unusual to complete 10 questionnaires per assistant per day since there could be up to five apparel factories in the same building in some places. Some of the research assistants employed stayed in the specific areas for one week or two in a hotel and collected their target number of questionnaires. We also checked if there were any significant differences between the data collected by different assistants. For this we followed the same procedure used to identify differences between early and late respondents (Armstrong and Overton 1977). For this purpose, the respondents were divided into two groups: first half as the early respondents and the second half as the late respondents. All the survey items were selected and t-tests were performed. The overall pattern of the responses between the two groups was quite similar with no statistically significant differences among the survey items.

Non-response bias is not an issue in this study because the response rate is very high (90%). Non-response is a predominantly random process and when the response rate is increased to >70%, most non-response biases seem to disappear (Barclay et al. 2002).

Given the fact that data were collected from a single informant in each firm, this study may suffer from common method bias. Initially we took several steps to minimise common method bias: ensuring the protection of the identity of respondent and firm; reducing item ambiguity by pre-testing the survey instrument on owner-managers; and using filtering questions to psychologically separate the dependent and independent variables on the questionnaire (Jap 2001, Podsakoff et al. 2003). Additionally, we conducted two statistical tests to measure the possible common method variance in the data suggested by Podsakoff et al. (2003) and followed by other researchers in the field (Lages and Montgomery 2005, Sousa and Bradley 2009): Harman's one-factor test by principal component analysis (PCA) and single factor CFA. In PCA the results produced seven factors and the items loaded cleanly on

their respective construct. The poorly fitting single factor CFA model also suggests that there is no general factor that would have emerged due to common method variance.

4.4.10 Data editing and entry

All responses were checked thoroughly for completeness. Cases with missing data were discarded as suggested by Anderson and Gerbing (1982). Initially all data collected was coded and entered into SPSS 18 for Windows. Strict controls were enforced to ensure the integrity of the data. The inserted data was double checked by the author. The data set was screened through examination of basic descriptive statistics (means, standard deviations, ranges) and frequency distributions, because, values that are out of range or improperly coded can often be detected with such simple checks (Kline 2011).

4.4.11 Check for outliers

All variables were checked for extreme skewness and kurtosis. Any skewness higher than 3.00 and kurtosis higher than 21.00 are unacceptable (Byrne 2001). Several cases of extreme skewness or kurtosis were found. The univariate and multivariate outliers were detected through different statistical techniques such as frequencies so as to reduce their influence on the results of SEM. Scatter plots using SPSS identified several cases as univariate outliers with standardised scores in excess of ± 3.00 (Tabachnick and Fidell 2013). After deleting observations with extreme skewness and kurtosis as well as the outlying observations from the original data set ($N = 718$), there remained 647 cases. Mahalanobis distance with a $p < .001$ criterion was also used to detect multivariate outliers (Tabachnick and Fidell 2013) and no further cases were observed. Therefore, the remaining 647 cases were used for final analyses of this research.

4.4.12 Descriptive statistics

Table 4.2 shows the distribution of responding firms by the number of employees. About twenty seven percent of the respondents have less than or equal to 500 employees. Forty percent has more than 500 but less than or equal to 1000 employees. About eighteen percent has between 1000 to 2000 employees whereas only 15 percent has more than 2000 employees. 35 percent of the companies are exporting up to 6 countries, 20 percent up to 7 and the remaining 20 percent to ten and more export destinations. About a quarter of the

companies are very young (1-5 years old), 35 percent are relatively young (6-10), and about 32 percent are 11-20 years old. Only 8 percent of the companies are more than 20 years old representing the early established firms when the industry inaugurated in the 1980s.

Table 4.2 Characteristics of the sample

Characteristics	Number of Enterprises	Percentage (%)	Cumulative
<i>Number of employees</i>			
≤ 100	107	16.7	16.7
101-250	77	11.9	28.6
251-500	148	22.9	51.5
501-1000	106	16.4	67.9
>1000	209	32.1	100
<i>Number of export markets</i>			
1-3	160	24.7	24.7
4-6	225	34.8	59.5
7-9	130	20.1	79.6
10 and over	132	20.4	100
<i>Age</i>			
1-5	160	24.7	24.7
6-10	228	35.3	60
11-20	205	31.7	91.7
20+	54	8.3	100

Table 4.3 shows the characteristics of the respondents. About 60 percent of the respondents belong to the “upper-echelon” holding the positions of founder, CEO, managing director, or the general manager.

Table 4.3 Characteristics of the respondents

Designations	Number	Percentage	Work experience in industry (years)	Number	Percentage
Founder	85	13.1	≤5	136	21
CEO	64	9.9	6-10	219	34
Managing director	123	19.0	>10	292	45
General manager	108	16.7	<i>Work experience in the firm (years)</i>		
Export/marketing managers	11	1.7	≤5	75	59.8
Export/marketing executive	43	6.6	6-10	188	29.1
Commercial officer/merchandiser	157	24.3	>10	384	11.1
Production manager	49	7.6	<i>Education</i>		
Others	7	1.1	Post graduate	313	48.4
			Graduate	229	35.4
		80	School/Diploma/Trade certificate	105	16.2

About 33 percent of the respondents hold the position of either marketing manager or commercial officer who mainly dealt with export related activities and possessed sufficient knowledge over the topics as we identified in the pilot survey. Only seven percent of the respondents were production managers who also possessed sufficient knowledge on the export-related activities and very close relationship with “upper echelon” executives and the mid level managers. 80 percent of the respondents have more than 6 years of industry experience whereas 40 of them have more than 6 years of work experience in the incumbent firm. Most of the respondents are educated having diploma, graduate or postgraduate qualification.

4.4.13 Validity and reliability of the research instrument

Based on Churchill’s (1979) guidelines, a widely used procedure for developing measurement scales in the marketing discipline, this study involves the following key steps:

- a) Specify the domain of the construct through a literature search,
- b) Generate a list of items from the literature and/or qualitative research that relate to this construct,
- c) Collect data (sometimes pilot data),
- d) Purify these measures using exploratory factor analysis and coefficient alpha, and
- e) Collect new data and assess reliability and validity.

The assessment instruments and methods used in all forms of research should meet certain minimum psychometric requirements. There is a wide variety of measurement strategies and techniques that are common in research design. As with considerations in research design, the research question and the constructs under study usually drive the choice of measurement technique or strategy. Regardless of the approach used, measurement approaches and instruments should meet certain minimum psychometric requirements that help ensure the accuracy and relevance of the measurement strategies used in a study. Reliability and validity are the most common and important psychometric concepts related to assessment-instrument selection and other measurement strategies.

Internal consistency estimates reliability by grouping questions in a questionnaire that measure the same concept. A method of assessing internal consistency reliability is

Cronbach's alpha. The internal consistency of the items for each variable in the research instrument is considered to be satisfactory according to the minimum standards suggested by Nunnally (1978) because all of them exceeded or very close to the cut off value of .70 as shown in Table 4.4.

Table 4.4: Reliability of purified scales

Variables	No. of items	Reliability (alpha)
Network exploitation capability	4	.784
Network exploration capability	3	.723
International opportunity exploration capability	4	.821
International opportunity exploitation capability	4	.815
Export performance: financial	3	.724
Export performance: strategic	3	.720
Export performance: network	3	.760

Content validity refers to the relevance of the instrument or measurement strategy to the construct being measured (Fitzpatrick 1983). In other words, content validity is an evaluation of the extent to which the measurement scale captures the theoretical basis of the construct (Churchill Jr 1979). As some of the scales used in this study have been drawn from the entrepreneurship and export performance literature and the others have been developed based on strong theoretical underpinnings, pre-tested by pilot survey, content validity of the measurement instrument can be assumed. As there is no agreed upon criterion for determining the extent to which a measure has attained content validity, a further rigorous evaluation of the validity of each measure will be carried out in the next chapter.

4.4.13 Data analysis procedures

A two-stage process was employed for data analysis in this study: *first*, exploratory factor analysis (EFA) was employed for latent variables to identify the number of factors that underlie the observed variables and to conduct a test of the dimensionality of the constructs along with Cronbach's alpha for preliminary assessment of reliability and validity of the primary construct measurements. *Second*, structural equation model (SEM) was employed for the dual purpose of confirmatory factor analysis (CFA) of the construct measurement and for assessing the hypothesised relationships developed in the conceptual model.

A confirmatory factor analysis is particularly useful in the validation for the measurement of specific constructs (Steenkamp and Van Trijp 1991). While factor analysis is concerned with exploring the patterns of relationships among a number of variables, structural equation modelling allows for a statistical test of the goodness-of-fit for the proposed confirmatory factor solution, which is not possible with principal components/factor analysis. AMOS 20 (Arbuckle 2011) was used for estimation of the measurement model and the construct correlations while SPSS 20 was employed for EFA.

4.4.14 Structural equation modelling (SEM)

SEM is a collection of statistical techniques that enables a researcher to effectively assess relationships among both manifest (i.e., observed) and latent (i.e., underlying theoretical construct) variables for the purposes of testing complex theoretical models or confirming the factor structure of an instrument (Tomarken and Waller 2005). In SEM, a construct can be treated as both a predictor construct and a criterion construct. SEM also supports the use of a collection of measured variables that can represent latent theoretical constructs more realistically than a single variable. Since constructs are not assumed to be measured without error, SEM procedures can be used to compute the reliability of both measurement instruments and estimated latent constructs. Further, SEM enables evaluation of the general compatibility (i.e. the goodness of fit) of the model as well as the strength of relationships among constructs. SEM can be used to compare competing theoretical models and reject alternative models based on the fit of these models with the pattern of empirical relationships reproduced in data (Quintana and Maxwell 1999). For these reasons, SEM has become increasingly popular in social science research (Chan et al. 2007).

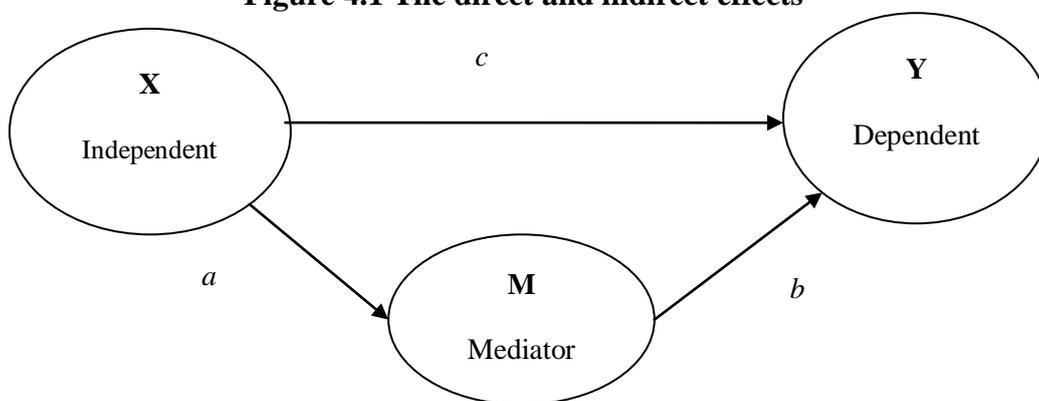
The structural equation modelling approach involves developing measurement models to define latent variables and then establishing relationships or structural equations among the latent variables. So the SEM consists of two parts, the measurement model and the structural model:

- a) The measurement model specifies how latent variables or hypothetical constructs depend upon or are indicated by the observed variables. It describes the measurement properties (reliabilities and validities) of the observed variables.
- b) The structural model specifies the causal relationships among the latent variables, describes the causal effects, and assigns the explained and unexplained variance.

The structural component of the model examines relationships among a set of independent variables and the dependent variables they are hypothesised to influence based on theoretical reasoning. This method differs from traditional regression analysis, as it performs multiple regression analyses concurrently, and allows the direct and indirect effects of variables to be simultaneously calculated (Schumacker and Lomax 1996). Direct effects are measured by a structure coefficient, specifically a path coefficient, represented as c in Figure 4.1 (X-Y). Path coefficients are computed on the hypothesised relationships between the independent variables and the dependent variable. Presented in standardised form, as they appear in the analysis chapter, these β (beta) values represent a standardised partial regression coefficient. The value of this standardised parameter indicates the resultant change in a dependent variable as a result of a one unit change in an independent variable attributable to this direct relationship.

A dependent variable may also be indirectly influenced by an independent variable through another mediating variable. Indirect effects exist when the dependent variable may be reached from the independent variable via the paths connecting each to one or more other variables (see for example X-M-Y in Figure 4.1). An indirect effect implies a causal relation in which an independent variable generates a mediating variable, which in turn generates a dependent variable (Sobel 1990). The indirect effects are measured as a product of the structure coefficients involved, represented as a and b in Figure 4.1. This value represents the resultant change in the dependent variable as a result of a one-unit increase in an independent variable, attributable to this indirect relationship. To calculate the total change in a dependent variable as a result of a one-unit increase in an independent variable, the indirect and direct effects are summed together (Schumacker and Lomax 1996).

Figure 4.1 The direct and indirect effects



Direct effect = c

Indirect effect = $a * b$

Total effects = $(a * b) + c$

To establish that an independent variable X affects a distal dependent variable Y through a mediating variable M , as shown in Figure 4.1, Baron and Kenny (1986, 1176) recommend three tests:

“A variable functions as a mediator when it meets the following conditions: (a) variations in levels of the independent variable significantly account for variations in the presumed mediator (i.e., Path a), (b) variations in the mediator significantly account for variations in the dependent variable (i.e., Path b), and (c) when Paths a and b are controlled, a previously significant relation between the independent and dependent variables is no longer significant, with the strongest demonstration of mediation occurring when Path c is zero.”

Therefore, Baron and Kenny (1986, 1177) require a significance test for the direct Path c . They further state that:

To test mediation, one should estimate the three following regression equations: first, regressing the mediator on the variable; second, regressing the dependent variable on the independent variable; and third, regressing the dependent variable on both the independent variable and on the mediator. . . To establish mediation, the following conditions must hold: First, the independent variable must affect the mediator in the first equation; second, the independent variable must be shown to affect the dependent variable in the second equation; and third, the mediator must affect the dependent variable in the third equation.

In a recent paper, Zhao, Lynch, and Chen (2010) disagree with Baron and Kenny (1986) on the following grounds. *First*, Baron and Kenny (1986) claim that mediation is strongest when there is an indirect effect but no direct effect. But the strength of mediation should be measured by the size of the indirect effect, not by the lack of the direct effect; the presence of the direct effect can inform theorising about other mediators. *Second*, there need not be a significant “effect to be mediated”. There should be only one requirement to establish mediation, that the indirect effect $a \times b$ be significant. Other Baron and Kenny tests are useful primarily in classifying the type of the mediation. *Third*, the Sobel test is low in power compared to a bootstrap test popularised by Preacher and Hayes (2004). Moreover, a

researcher expecting a positive indirect effect $a \times b$ may overlook that it can be significant and negative despite positive correlations between X and Y , X and M , and Y and M .

4.4.14.1 Types of mediation and non-mediation

Zhao, Lynch, and Chen (2010) think that Baron and Kenny's classification of full, partial, and no mediation is somewhat coarse and misleading due to a one-dimensional conception of mediation better seen as two-dimensional. In a non-recursive three-variable causal model, they identify three patterns consistent with mediation and two with non-mediation:

1. *Complementary mediation*: Mediated effect ($a \times b$) and direct effect (c) both exist and point at the same direction.
2. *Competitive mediation*: Mediated effect ($a \times b$) and direct effect (c) both exist and point in opposite directions.
3. *Indirect-only mediation*: Mediated effect ($a \times b$) exists, but no direct effect.
4. *Direct-only non-mediation*: Direct effect (c) exists, but no indirect effect.

4.4.15 Advantages and disadvantages of structural equation modelling (SEM)

Since the development of a general framework for specifying structural equation models with latent variables - referred to as the Joreskog-Keesling-Wiley model by Bentler (1980)- and the implementation of the statistical approach in the computer programme, latent variable modelling has become a popular research tool in the social and behavioural sciences. Structural equation modelling has become an established component of the methodological repertoire of marketing and consumer behaviour researchers. There are at least two features that make SEM an attractive candidate for purposes of data analysis. *First*, SEM allows the researcher to take into account explicitly the inherent fallibility of behavioural science data and to assess and correct for measure unreliability provided multiple indicators of each construct are available. *Second*, SEM makes it possible to investigate in a straightforward fashion comprehensive theoretical frameworks in which the effects of constructs are propagated across multiple layers of variables via direct, indirect, or bi-directional paths of influence. These advantages, coupled with the development of ever more sophisticated, yet surprisingly user-friendly computer programmes to estimate and test such models, make it

rather likely that SEM will enjoy widespread use in future research (Baumgartner and Homburg 1996).

Despite several advantages, SEM is not without its limitations. The method is complex and difficult to use. One of the most controversial issues is its capacity to serve an exploratory as well as a confirmatory function. Although several of the data analysis software packages provide the option for model modification and retesting, many scholars (e.g., Maruyama and McGarvey 1980) posit that repeated analysis of a data set with varying models in order to having a best fit is an exploratory misapplication of what is essentially a confirmatory procedure. Another problem associated with the use of SEM is the difficulty of assessment of fit in the context of a reserved research hypothesis. In SEM, if the null hypothesis is rejected, the research hypothesis is also rejected. Therefore, it becomes imperative to examine not only the chi-square (which is easily affected by the large sample size) but all of the other information related to fit. The analysis should be guided by substantive theory, otherwise there is no basis for acceptance or rejection of competing empirical models (Fassinger 1987).

4.4.17 Steps in structural equation modelling (SEM)

Hoyle (1995, 1) defines structural equation modelling as “a comprehensive statistical approach to testing hypotheses about relations among observed and latent variables”. The SEM approach to testing structural models includes five steps (Bollen and Long 1993, Hoyle 1995, Schumacker and Lomax 1996): a) Model specification, b) Identification, c) Estimation, d) Evaluation of model fit, and e) Model modification (re-specification).

4.4.17.1 Model specification

This is the initial model the researcher formulates, including the variables and the relationships involved. It is a theoretical model that the researcher formulates on the basis of a review of the literature in a substantive area or postulating on the basis of theory.

4.4.17.2 Identification

Model identification addresses whether the information provided by the data is sufficient to allow a unique solution to be found for the system of equations concerning the model parameters as proposed in the theoretical model (Schumacker and Lomax 1996). To

calculate this, each potential parameter in a model is specified as fixed, free, or constrained. A free parameter is unknown and calculated in the analysis. A fixed parameter is set to a specified value, typically 0 or 1. A constrained parameter is unknown but fixed to equal to another unknown parameter.

Structural models may be just-identified, over-identified, or under-identified. A just identified model is one in which there is a one-to-one correspondence between the data and structural parameters. In this case, the number of data variances and covariances equals the number of parameters to be estimated. However, a just identified model is not scientifically interesting because it has no degrees of freedom and therefore can never be rejected. An over-identified model is one in which the number of estimable parameters is less than the number of data points (i.e. variances, covariances of the observed variables). This results in positive degrees of freedom that allow for rejection of the model, thereby rendering it of scientific use. The aim in SEM is then to specify a model that meets the criterion of over-specification. Finally, an underspecified model is one in which the number of parameters to be estimated exceeds the number of variances and covariances (i.e. data point). Therefore, the model contains insufficient information (from the input data) for the purpose of attaining a determinate solution of parameter estimation, i.e. an infinite number of solutions are possible. Thus a restriction on model specification is that for any model to be estimated it must be either just-identified or over-identified.

4.4.17.3 Estimation

The general objective in estimating the factor model is to find estimates of the parameters that reproduce the sample matrix of variance and covariances of the observed variables as closely as possible in some well-defined sense. The estimation of the model parameters can be achieved by three statistical methods: a) initial estimates (IE), b) maximum likelihood estimates (ML), and c) the unweighted least squares estimates (ULS). All three methods give a consistent estimate, i.e. they are very close to the true parameter values in large samples, under the assumption that the model is correct. However, the three estimates differ in several ways. The IE are based on an ad hoc procedure, which is non-iterative and therefore very fast. The ML and the ULS estimates are obtained by an iterative procedure designed to minimise a definite fitting function by successively improving the parameter estimates starting with the IE.

The ML method is applicable only to rather large samples. The ULS method can be used even for small samples. The ML method, in addition to providing the parameter estimates, also gives the standard errors for the estimates. These are measures of the precision of such an estimate. Standard errors are not available in the programme for the ULS method. Besides, a growing body of research indicates that ML performs reasonably well under a variety of less-than-optimal analytical conditions such as small sample size and excessive kurtosis (Hoyle 1995). ML is widely available and is the most widely researched estimator among those otherwise available (the ULS, OLS). Therefore, this study adopted ML method as the sample recommended by Arrindell and Van der Ende (1985), Velicer and Fava (1998), Kline (2011), Guilford (1954), Comrey and Lee (1992), Hair et al. (2010), and Boomsma (1985) permitted to do so.

4.4.17.4 Evaluation of model fit

In structural equation modelling, evaluation of model fit is not as straightforward as it is in statistical approaches based on variables measured without error. Because there is no single statistical significance test that identifies a correct model given the sample data, it is necessary to take multiple criteria into consideration and to evaluate model fit on the basis of various measures simultaneously. For each estimation procedure, a large number of goodness-of-fit indices are provided to judge whether the model is consistent with the empirical data. The choice of the estimation procedure depends on the type of data included in the model (Schermelleh-Engel, Moosbrugger, and Müller 2003).

Although there are no well established guidelines for what minimal conditions constitute an adequate fit, a general approach is to establish that a) the model is identified, b) the iterative estimation procedure converges, c) all parameter estimates are within the range of permissible values, d) the standard errors of the parameter estimates have reasonable size (Marsh and Grayson 1995) and e) the standardised residuals should be checked for patterns in the residual matrix as a sign of ill fit. As Hayduk (1996, 198) states, it is the difference between the empirical and the model-implied covariance matrix “that drives all tests of overall fit, and systematic differences here, even if small, warrant caution.”

Applied researchers often have difficulty determining the adequacy of structural equation models because various measures of model fit point to conflicting conclusions about the extent to which the model actually matches the observed data. Software programmes such

as LISREL (Jöreskog and Sörbom 1996), EQS (Bentler 1995), Mplus (Muthen and Muthén 1998), AMOS (Arbuckle and Wothke 1999), SEPATH (Steiger 1995), or RAMONA (Browne and Mels 1992), among others, provide a variety of fit indices for model evaluation. As there does not exist a consensus about what constitutes a “good fit” (Tanaka 1993), the fit indices should be considered simultaneously (Schermelleh-Engel, Moosbrugger, and Müller 2003).

Generally, the fit criteria of a structural equation model indicate to what extent the specified model fits the empirical data. Only one goodness-of-fit measure, i.e., the χ^2 test statistic, has an associated significance test, while all other measures are descriptive. Thus, following successful parameter estimation, model evaluation can be assessed inferentially by the χ^2 test or descriptively by applying other criteria. For inferential statistical evaluation, only the χ^2 test is available, whereas for descriptive evaluation, three main classes of criteria exist, i.e., measures of overall model fit, measures based on model comparisons, and measures of model parsimony (cf. Schumacker and Lomax 1996, 119). Most of the descriptive fit criteria are based on the χ^2 statistic given by the product of the sample size ($N - 1$) and the optimised fitting function.

The model fit can be evaluated by examining the chi-square statistic relative to the degree of freedom, the goodness of fit (GFI) index, the adjusted goodness of fit (AGFI) index, and the root mean square error of approximation (RMSEA). These criteria are calculated by comparing the observed covariance matrix with the model-implied covariance matrix (Schumacker and Lomax 1996). A non-significant chi-square value, GFI close to one, and a RMSEA less than .05 indicates that the observed and implied covariance matrices are not statistically different and therefore the data can be assumed to fit the model. However, the chi-square measure is sensitive to sample size and very sensitive to departures from multivariate normality of the observed variables.

Jöreskog (1969) proposed that the chi-square be adjusted by the degree of freedom to assess model fit. CMIN/DF (chi-square/degree of freedom) measure can identify two kinds of inappropriate models: (a) a model that is over-identified and capitalised on chance or (b) models that do not fit the observed data and need improvement. Carmines and McIver (1981) indicate that chi-square to degrees of freedom ratios in the range of 2 to 1 or 3 to 1 are indicative of an acceptable fit between the hypothetical model and the sample data.

Examining the Tucker-Lewis index (TLI), the normed fit index (NFI), and comparative fit index (CFI) can evaluate the *model comparison*. These criteria typically compare the proposed model with a null model; a value close to one indicates a perfect fit. The *model parsimony* is most commonly evaluated by examining the Akaike information criterion (AIC). An over-identified model is compared with a restrictive model to ensure that an efficient number of estimated coefficients have been used to achieve a specific level of fit (Arbuckle and Wothke 1999, Schumacker and Lomax 1996). Table 4.5 provides the different model fit indices for SEM.

Table 4.5: Recommendations for model indices: some rules of thumb

Fit Measure	Good Fit	Acceptable Fit
χ^2	$0 \leq \chi^2 \leq 2df$	$2df < \chi^2 \leq 3df$
p value	$.05 < p \leq 1.00$	$.01 \leq p \leq .05$
χ^2/df	$0 \leq \chi^2/df \leq 2$	$2 < \chi^2/df \leq 3$
RMSEA(Root mean square error of approximation)	$0 \leq RMSEA \leq .05$	$.05 < RMSEA \leq .08$
p value for test of close fit (RMSEA < .05)	$.10 < p \leq 1.00$	$.05 \leq p \leq .10$
Confidence interval (CI)	Close to RMSEA, left boundary of CI = .00	Close to RMSEA
SRMR (Standardised root mean square residual)	$0 \leq SRMR \leq .05$	$.05 < SRMR \leq .10$
TLI (Tucker-Lewis index)	$.95 \leq TLI \leq 1.00$	$.90 \leq TLI < .95$
NFI (Normed fit index)	$.95 \leq NFI \leq 1.00$	$.90 \leq NFI < .95$
NNFI (Non-normed fit index)	$.97 \leq NNFI \leq 1.00$	$.95 \leq NNFI < .97$
CFI (Comparative fit index)	$.97 \leq CFI \leq 1.00$	$.95 \leq CFI < .97$
GFI (Goodness of fit index)	$.95 \leq GFI \leq 1.00$	$.90 \leq GFI < .95$
AGFI (Adjusted GFI)	$.90 \leq AGFI \leq 1.00$, close to GFI	$.85 \leq AGFI < .90$, close to GFI
AIC (Akaike information criterion)	Smaller than AIC for comparison model	
CAIC (Consistent AIC)	Smaller than CAIC for comparison model	
ECVI (Expected cross validation index)	Smaller than ECVI for comparison model	

Source: Schermelleh-Engel, Moosbrugger, and Müller (2003)

4.4.17.5 Model modification (re-specification)

This involves decisions regarding parameter modification, by adding or deleting correlation paths and error variances. The *modification indices* provide information on the resulting model fit.

4.5 Exploratory factor analysis: a precursor to confirmatory factor analysis

In general, proponents of CFA believe that researchers need to have a strong theory underlying their measurement model before analysing data. CFA is often used in data analysis to examine the expected causal connections between variables. Supporters of EFA believe that CFA is over-applied and used in inappropriate situations. Despite the rhetoric to the contrary, some researchers believe that CFA is still being used with little theoretical foundation, and that reviewers may be requiring CFA where a simpler alternative would be as or more appropriate (Brannick 1995). EFA is often considered to be more appropriate than CFA in the early stages of scale development because CFA does not show how well your items load on the non-hypothesised factors (Kelloway 1995).

Others believe each method is appropriate in different situations. EFA may be appropriate for scale development while CFA would be preferred where measurement models have a well-developed underlying theory for hypothesised patterns of loadings. A line of research would start out with studies utilising EFA while later work would show what can be confirmed. Anderson and Gerbing (1988, 411-412) noted that:

Although it is convenient to distinguish between exploratory and confirmatory research, in practice this distinction is not as clear-cut. As Jöreskog (1974) noted, “Many investigations are to some extent both exploratory and confirmatory, since they involve some variables of known and other variables of unknown composition” (p. 2). Rather than as a strict dichotomy, then, the distinction in practice between exploratory and confirmatory analysis can be thought of as that of an ordered progression. ...Because initially specified measurement models almost invariably fail to provide acceptable fit, the necessary respecification and reestimation using the same data mean that the analysis is not exclusively confirmatory.

A recent study by Gerbing and Hamilton (1996) using Monte Carlo methods found that EFA can contribute to model specification when used prior to cross-validation using CFA. The underlying theme of Gerbing and Hamilton (1996) is to not abandon EFA for the more recently developed confirmatory methods, but to develop a heuristic strategy that builds on the comparative strengths of the two techniques. They analyse the viability of a middle ground that incorporates methodology intermediate to pure exploratory and pure confirmatory methods. The goal is to develop a comprehensive strategy for model construction, evaluation, and revision that explicitly recognises that models are developed from an interplay of theory and data.

Because of the continued interest in the topic, Hurley et al. (1997) assembled a panel of five experts at the 1996 Society for Industrial and Organisational Psychology (SIOP) annual meeting in San Diego California to discuss the underlying issues and provide guidance for researchers interested in utilising factor analytic procedures. The discussion underscored the need for clarification in the use of EFA and CFA in organisational research. The paper was published in Journal of Organizational Behavior. The format of the paper follows the panel discussion. Questions were posed by the session facilitators and the panellists responded. In addition, the authors were asked to comment on guidelines for scale development and goodness-of-fit indices (GFIs). In this paper, the authors provided a general overview of the valuable discussion that took place during the session on exploratory-confirmatory procedures and finally some guidelines for practice. We have summarised below some of the major discussions from the paper which suggest an informed combined use of both EFA and CFA.

- Both EFA and CFA are useful along with their serious requirements if someone wants to use them properly. EFA is theoretically less demanding but CFA requires *a priori* hypotheses or a clear ‘theory’. Therefore, it is always possible to subject a data set to an EFA but not a CFA. CFA helps a researcher to ensure that the relationships between data and theory have been considered and that it is not only the data which were just collected and ground through exploratory procedures.
- The techniques are complementary. The issue underlying a discussion of CFA and EFA is not one of differing goals or outcomes if the purpose of factor analysis is considered.
- The complementary perspective is based on the two important questions that researchers face: (a) the underlying dimensionality of data, and (b) the adequacy of individual items. For these two questions, the contributions of EFA cannot be ignored. Traditionally used eigenvalues in investigating dimensionality can provide a more direct picture of dimensionality than goodness-of-fit measures used with CFA. Furthermore, the second question of the adequacy of individual items is addressed only indirectly in CFA. Therefore, in these two instances, EFA provides important diagnostics which should be considered along with CFA in judging a scale and its items.
- When researchers develop new measures, they might need to use EFA because it is a first test with data on that particular measurement instrument and they can see the

actual magnitudes of the cross loadings which they cannot see in CFA. They might also be able to use CFA since they have got these *a priori* hypothesised patterns. Therefore, EFA and CFA give researchers different pieces of information.

The overall discussion suggests that ‘Most uses of “confirmatory” factor analyses are, in actuality, partly exploratory and partly confirmatory in that the resultant model is derived in part from theory and in part from a re-specification based on the analysis of model fit’ (Gerbing and Hamilton 1996, 71) and an “informed combined use of these two techniques should be our objective” (Hurley et al. 1997, 681). Therefore, in this study, we have done EFA as a precursor to CFA.

4.6 Formative versus reflective measurement models

In this study all the latent variables are comprised of reflective indicators. There are two types of indicators used for latent variables in the contemporary research: effect and cause indicators. The most common auxiliary measurement theory underlying measurement in the social sciences has its basis in classical test theory and the factor analytic perspective, wherein observable indicators are reflective effects of latent constructs (Bollen 2002). Formative measurement models employ explanatory combinations of indicators as the basis for creating (for measurement purposes) the latent construct (Fornell and Bookstein 1982). In other words, in formative measurement modelling the latent construct is modelled as being produced by its measures. By contrast, reflective measurement models assume that underlying factors give rise to something that is observed (Fornell and Bookstein 1982). In other words, in reflective measurement modelling the latent construct is modelled as producing its measures. As observed by Bagozzi (1994), under a reflective measurement model specification the construct produces the measures; under a formative measurement model specification the measures produce the construct. Recent examples of latent constructs measured using reflective models include Lumpkin, Cogliser, and Schneider’s (2009) measure of autonomy and Anderson, Covin, and Slevin’s (2009) measure of strategic learning capability. Recent examples of latent constructs measured using formative models include Salomo, Brinckmann, and Talke’s (2008) measure of functional management competence and Marakas, Johnson, and Clay’s (2007) measure of computer self-efficacy.

The debate on the appropriability of the use of formative vs. reflective models goes on. For example, Coltman et al. (2008, 1261) from an empirical study posit that: “both

theoretical and empirical considerations suggest that formative models are more plausible than reflective ones.” By contrast, Wilcox, Howell, and Breivik (2008, 1227) suggest: “in the context of theory testing, formative measurement (at this stage of development, at least) should not be considered an equally good alternative to the reflective measurement model which has served the social sciences well for many decades.”

One might assume that a particular construct inherently favours either formative or reflective measurement. However, constructs themselves are neither inherently formative nor reflective in nature. According to Wilcox, Howell, and Breivik (2008, 1220), “A given research situation or research tradition may favor either formative or reflective measurement, but constructs themselves, posited under a realist philosophy of science as existing apart from their measurement, are neither formative nor reflective.” Covin and Wales (2012), in an essay on the different approaches to the measurement of entrepreneurial orientation, argued that as a latent construct, entrepreneurial orientation exists apart from its measures and that researchers are free to choose whichever measurement approach best serves their research purposes. Thus, it would be erroneous to claim that entrepreneurial orientation is inherently either a formative or reflective construct. Put differently, there are no formative constructs or reflective constructs. There are only formative and reflective measurement models, and the construct of entrepreneurial orientation can be measured through either approach. They also argued that reflective measurement models are often most appropriate for assessing entrepreneurial orientation, with formative measurement approaches best reserved for instances where verifying the importance of entrepreneurial orientation’s causal indicators to particular outcomes is of principal concern. Same argument can be applied to our ‘unidimensional’ network capability construct. Although Walter, Auer, and Ritter (2006) have developed network capability construct as having four individual dimensions forming a formative construct, our purpose here is not to verify the importance of network capability’s causal indicators to particular dimensions/outcomes. Therefore, we have treated the construct as unidimensional reflective one to see how the capability as a whole, not its subdimensions individually, is related to the dependent variables.

Chapter 5 Analysis and Results

5.1 Introduction

This chapter analyses the data collected from survey and tests the hypotheses set forth in Chapter 3. This was done by Structural Equation Modelling (SEM) techniques. First, exploratory factor analysis (EFA) was carried out to identify dimensionality of the data in order to produce a set of items that reflect a single underlying factor or construct. Cronbach's alpha was used to measure the reliability of the scales to examine how well these items explain the construct. Second, confirmatory factor analysis (CFA) was carried out using SEM in AMOS 20 (Arbuckle 2011) to achieve a more rigorous estimation of reliability and to test the unidimensionality of the scales. Third, SEM was finally used to test the *a priori* model that has been developed in Chapter 3.

5.2 Exploratory factor analysis (EFA)

Exploratory factor analysis (EFA) has been said to be the most frequently used multivariate analysis technique in statistics. Factor analysis attempts to bring inter-correlated variables together under more general, underlying variables. More specifically, the goal of factor analysis is to reduce “the dimensionality of the original space and to give an interpretation to the new space, spanned by a reduced number of new dimensions which are supposed to underlie the old ones” (Rietveld and Van Hout 1993, 254), or to explain the variance in the observed variables in terms of underlying latent factors. Thus, factor analysis offers not only the possibility of gaining a clear view of the data, but also the possibility of using the output in subsequent analyses (Field 2013, Rietveld and Van Hout 1993) combining the original set of variables into a smaller set of constructs or underlying dimensions (Tabachnick and Fidell 2013). Exploratory factor analysis is also used to assess the convergent and discriminant validity of the construct measures (Churchill Jr 1979).

All the variables (except the control variables) in the conceptual model are latent variables, therefore are subject to exploratory and confirmatory factor analysis in this study. Results of the EFA are presented in Tables 5.1 through 5.4 including factor loadings of the items and the percentages of variance accounted for by individual factors. The rules and criteria for scale construction and revision using factor analysis are described below:

- a) Factor analysis was performed using Principal Component Analysis (PCA), with eigenvalues set to unity (Zwick and Velicer 1986) in SPSS 20;
- b) Factors are interpreted by examining their correlations, called factor loadings. Factor loadings are especially useful in determining the ‘substantive importance of a particular variable to a factor’ (Field 2013, 425). *Convergent validity* is indicated by significant loadings of items within a construct to a common factor. *Discriminant validity* is evidenced by substantially lower loadings on factors other than one to which an item belongs. For this study the acceptable cutoff value for factor loading was $\geq .60$ although factor loadings of $.30$ are often considered a cutoff for significance (Kim and Mueller 1978, Nunnally 1978);
- c) Items with cross loadings (i.e., loading on two or more factors) with a difference of $\geq .15$ were assigned to the factor with the highest loading. If the difference was $< .15$, the item was deleted from all factors (Carmines and Zeller 1979);
- d) Varimax rotation, a commonly used method of rotation has been used to simplify the factors by maximizing the variance of the loadings within factors, across variables (Tabachnick and Fidell 2013);
- e) The Bartlett Test of Sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy were performed. If the Bartlett Test of Sphericity was significant and the Kaiser-Meyer-Olkin (KMO) measure met the minimum guideline of $.50$ for factoring, factor analysis was deemed appropriate for these variables/items (Kaiser and Rice 1974); Reliability was assessed using the scale reliability procedure in SPSS 20. The overall reliability of the scale is assessed by Cronbach’s alpha, the most commonly used means of estimating reliability. George and Mallery (2003, 231) provide the following rules of thumb for the value of Cronbach’s alpha: “ $\geq .9$ –Excellent, $\geq .8$ –Good, $\geq .7$ –Acceptable, $\geq .6$ –Questionable, $\geq .5$ – Poor, and $\leq .5$ –Unacceptable”. For exploratory research Cronbach’s alpha of $\geq .60$ is also considered as acceptable (Hair et al. 2010). While increasing the value of alpha is partially dependent upon the number of items in the scale, it should be noted that this has diminishing returns. While a high value for Cronbach’s alpha indicates good internal consistency of the items in the scale, it does not mean that the scale is unidimensional. Factor analysis is therefore needed to determine the dimensionality of a scale. In this study if Cronbach’s alpha was $\geq .70$, the scale is retained and items were combined in that

scale.

5.2.1 Network exploitation and exploration capabilities

Since network capability includes some new measurement items, we operationalise them together by seven items to see how they behave. Factor analysis produced two-factor solution (Table 5.1a). Factor 1 is related to ‘network exploitation capability’. Factor 2 is related to ‘network exploration capability’. Factor 1 ‘network exploitation capability’ achieved expected reliability (.784) and factor loadings. Factor 2 ‘network exploration capability’ also met the reliability criterion (.789) and factor loadings were also high. Final factor loadings for factor 1 and 2 are provided in Table 5.1b and 5.2c.

Table 5.1a: Extracted factors and factor loadings related to “network capability”

Items loaded in each factor	Factor 1	Factor 2
1. We almost always solve problems constructively with our network partners. (busnet6)	.819	.098
2. We know our network partners’ markets, products/services as well as their strengths and weaknesses. (busnet8)	.789	.037
3. We discuss regularly with our key network partners how we can support each other. (busnet4)	.747	.253
4. In our firm managers and employees often give feedback to each other. (busnet10)	.736	.107
5. We have our eyes open to find new network partners. (busnet7)	.146	.834
6. We have the ability to build good personal relationships with new network partners. (busnet5)	.137	.800
7. In our firm employees have informal contacts among themselves in relation to establishing new network relationships. (busnet9)	.072	.740
Eigenvalue	2.906	1.501
% of variance	41.521	21.447
Cumulative	41.521	62.968
Cronbach’s alpha	.749	.789
KMO	.771	
Bartlett’s test of sphericity	<.001	

Table 5.1b: Final factor loadings related to “network exploitation capability”

Items	Network exploitation capability
1. We almost always solve problems constructively with our network partners. (relational skills) (busnet6)	.824
2. We know our network partners’ markets, products/services as well as their strengths and weaknesses. (partner knowledge) (busnet8)	.778
3. We discuss regularly with our key network partners how we can support each other. (coordination) (busnet4)	.787
4. In our firm, managers and employees often give feedback to each other. (internal communication) (busnet10)	.741
Eigenvalue	2.454
% of variance	61.348
Cronbach’s alpha	.789
KMO	.776
Bartlett’s test of sphericity	<.001

Table 5.1c: Final factor loadings related to “network exploration capability”

Items	Factor loadings
1. We have our eyes open to find new network partners. (alertness) (busnet7)	.850
2. We have the ability to build good personal relationships with new network partners. (relational skills) (busnet5)	.810
3. In our firm, employees have informal contacts among themselves in relation to establishing new network relationships (internal communication) (busnet9)	.745
Eigenvalue	1.934
% of variance	64.458
Cronbach’s alpha	.749
KMO	.655
Bartlett’s test of sphericity	<.001

5.2.2 International opportunity exploration and exploitation capabilities

“International opportunity exploration” and “international opportunity exploitation” constructs were measured by eight items in total, the former by five items and the latter by three. In addition to the most used items in existing literature, some new items were generated to capture the dynamic nature of opportunity development and exploitation capability. Since there are some new items and the construct as a whole reflects the dynamic capability perspective, we loaded all the items together and the factor analysis produced a

two-component solution (Table 5.2a). Items loaded in Factor 1 (opportunity exploration development) indicate that they all represent the change/development aspect in opportunities identified, the feasibility and desirability of the identified opportunities and finally the resource shifting capability (strategic flexibility) in capitalising opportunities.

Table 5.2a: Extracted factors and factor loadings related to “international opportunity exploration and exploitation capabilities”

Items loaded in each factor	Opportunity exploration	Opportunity exploitation
1. How much did you modify/develop the international opportunity from idea generation to opportunity recognition? (intlOR3)	.828	-.043
2. How many novel or innovative ideas were considered feasible and desirable? (intlOR5)	.799	.145
3. How many international business ideas did you identify in the past three years? (intlOR1)	.779	.192
4. How much are you able to shift organisational resources to capitalise on emerging opportunities in international markets? (intlOR7)	.771	.180
5. How many international opportunities have you pursued/exploited in the past three years? (intlOR6)	.088	.854
6. How many international business opportunities were considered as novel or innovative? (intlOR4)	.085	.828
7. How quickly can you adapt to external changes in the international market and respond to external international opportunities? (intlOR8)	.068	.802
8. How many international business opportunities did you identify in the past three years? (intlOR2)	.443	.642
Eigenvalue	3.510	1.796
% of variance	43.872	22.448
Cumulative	43.872	66.320
Cronbach's alpha	.821	.815
KMO	.787	
Bartlett's test of sphericity	<.001	

Factor loadings of all the items were high (all greater than .770) and the reliability was also far higher than the cut off value of .70 (.821). Items of Factor 2 (opportunity exploitation) represent the innovativeness in opportunities and the responsive and adaptive capability in exploiting them. The factor loadings of items are high for this factor (all greater than .640) and it also showed a high level of reliability (.815). However, one item (intlOR2)

initially assigned to ‘opportunity exploration’ was loaded on ‘opportunity exploitation’ (.642) and has a high cross-loading on the former (.443). Therefore, we have deleted this item. Moreover, this item is not theoretically justifiable to be loaded on ‘opportunity exploitation’. After exclusion of this item the percentage of total variance explained increased (from 64.47 to 71.83), individual item-to-factor loadings increased and the reliability maintained. The final factor loadings for these two factors are provided in Table 5.2b and 5.2c.

Table 5.2b: Final factor loadings related to “international opportunity exploration capability”

Items	Factor loadings
1. How many novel or innovative international business ideas were considered feasible and desirable? (intlOR5)	.832
2. How much did you modify/develop the international opportunity from idea generation to opportunity objectification? (intlOR 3)	.810
3. How much are you able to shift organisational resources to capitalise on emerging opportunities in international markets? (intlOR7)	.810
4. How many international business ideas did you identify in the past three years? (intlOR1)	.775
Eigenvalue	2.606
% of variance	65.155
Cronbach’s alpha	.821
KMO	.785
Bartlett’s test of sphericity	<.001

Table 5.2c: Final factor loadings related to “international opportunity exploitation capability”

Items	Factor loadings
1. How many international opportunities have you pursued/exploited in the past three years? (intlOR6)	.871
2. How many international business opportunities were considered as novel or innovative? (intlOR4)	.837
3. How quickly can you adapt to external changes in the international market and respond to external international opportunities? (intlOR8)	.834
Eigenvalue	2.579
% of variance	71.83
Cronbach’s alpha	.804
KMO	.706
Bartlett’s test of sphericity	<.001

5.2.3 Export performance

Export performance construct was measured by three dimensions: export financial (sales and profit), export non-financial (strategic) and export network (stakeholder)

performance. Export financial performance was measured by three items: export sales growth, export sales volume, and export profitability. The construct emerged as unidimensional with high factor loadings of each item (all greater than .725) and high construct reliability (.724) as reported in Table 5.3.

Table 5.3: Extracted factor and factor loadings related to “export financial performance”

Items loaded in factor	Export financial performance
1. Export sales growth (outcome2)	.847
2. Export sales volume (outcome1)	.832
3. Export profit (outcome3)	.726
Eigenvalue	1.938
% of variance	64.596
Cronbach’s alpha	.724
KMO	.651
Bartlett’s test of sphericity	<.001

Initially we used three items for each to measure export non-financial (strategic) and export network (stakeholder) performance. When they were loaded individually, they did not produce sufficient reliability. Hence we ran factor analysis with all non-financial and network performance measures together and factor analysis produced a two-factor solution with higher factor loadings and sufficient reliability (Table 5.4a).

Table 5.4a: Extracted factors and factor loadings related to export strategic and stakeholder performance

Items loaded in each factor	Factor 1	Factor 2
1. Quality of our company’s relationship with key overseas customers (outcome7)	.858	.060
2. Our overall satisfaction with the quality of key suppliers’ critical components (outcome9)	.822	.105
3. Introduction of new products/services in international markets (outcome5)	.746	.262
4. Growth in the number of employees (outcome6)	.084	.857
5. Our key customers’ overall satisfaction with the quality of our products/ services (outcome8)	.148	.787
6. New market entry/number of export countries (outcome4)	.153	.722
Eigenvalue	2.622	1.357
% of variance	43.707	22.622
Cumulative	43.707	66.329
Cronbach’s alpha	.760	.720
KMO	.715	
Bartlett’s test of sphericity	<.001	

Although the initial network export performance measures included firm’s key customers’ overall satisfaction with the quality of products/ services, factor analysis grouped

this item with the other factor and one item (introduction of new products/services in international markets) from the other factor was then loaded in the network export performance factor. This is reasonable to argue that this item “introduction of new products/services in international markets” is directly related to both overseas customers and suppliers. Introducing new products in international markets requires overseas customers to buy and for producing new products export firms need new critical components from suppliers. Thus introduction of new products involve these two most important network partners (stakeholders). Therefore, we kept these three items together and named “export network (stakeholder) performance”. The other factor included strategic variables (such as growth in the number of employees, key overseas customers’ overall satisfaction with the quality of the firm’s products/ services, new export market entry/number of export countries) and named “export strategic performance”. Final factor loadings and reliability for “export strategic performance” and “export network (stakeholder) performance” are reported in Tables 5.4b and 5.4c respectively.

Table 5.4b: Final extracted factor and factor loadings related to “export strategic performance”

Items loaded in each factor	Factor loadings
1. Growth in the number of employees (outcome6)	.855
2. Our key customers’ overall satisfaction with the quality of our products/ services (outcome8)	.812
3. New market entry/number of export countries (outcome4)	.735
Eigenvalue	1.929
% of variance	64.316
Cronbach’s alpha	.720
KMO	.647
Bartlett’s test of sphericity	<.001

Table 5.4c: Final extracted factor and factor loadings related to “export network (stakeholder) performance”

Items loaded in each factor	Factor loadings
1. Quality of our company’s relationship with key overseas customers (outcome7)	.849
2. Our overall satisfaction with the quality of key suppliers’ critical components (outcome9)	.823
3. Introduction of new products/services in international markets (outcome5)	.795
Eigenvalue	2.029
% of variance	67.649
Cronbach’s alpha	.760
KMO	.687
Bartlett’s test of sphericity	<.001

The reliability of these two non-financial export performance factors is evident by the Cronbach's alpha greater than .70. Convergent validity is confirmed as the set of items supposed to measure the construct loaded heavily on the same factor (all greater than .730). Therefore, these two factors can be considered as two dimensions of export performance supported by the literature (Lages et al. 2009, Leonidou, Katsikeas, and Samiee 2002).

5.2.4 Control variables

We controlled for several variables considering their potential influence on export performance. Scholars suggest that firm size, firm age and degree of internationalisation may exert positive influence on firm internationalisation and performance (Andersson, Gabriellsson, and Wictor 2004, Zhou, Barnes, and Lu 2010). Firm size was operationalised as the number of employees and was log transformed. Firm age was operationalised as the number of years the firm in the business. Export market coverage was operationalised by the number of overseas markets firms had exported to.

We also included international environmental dynamism as control variable because research has identified that opportunity-related activities are influenced by environmental dynamism characterised by rapid change and uncertainty and proactiveness is required to explore and exploit opportunities in such environments (Lumpkin and Dess 2001). Degree of environmental dynamism is also related to international activities of SMEs. It was measured by vulnerability to the change in trade policies across borders (Zhou and Li 2010), change in overseas customers' demand and preferences, competitors' new product introduction rate, and new selling strategies (Achrol and Stern 1988) and change to technology relating to the main product/industry (Zhou and Li 2010). All items were measured on a seven point scale ranging from very low to very high.

5.2.5 Summary of EFA results

The results presented in Tables 5.1 through 5.4 indicate convergent validity as the sets of items used to measure the constructs loaded heavily on the same factor and discriminant validity is evidenced by substantially lower loadings on factors other than one to which an item belongs. The results also show a satisfactory level of reliability as all the factors have Cronbach's alpha greater than .70. All these latent factors along with observed variables are

subjected to further analysis through application of CFA in the measurement model of SEM for the purpose of testing the *a priori* model.

5.3 Structural equation model (SEM)

For analytical purpose we use structural equation modelling (SEM). This technique is deemed appropriate when a series of regressions are performed and the dependent variable for one regression analysis is also the independent variable for another (Hair et al. 2010). SEM also enables to measure indirect effects between the constructs. SEM constitutes two components: (a) the measurement model, which reduces observed variable to a smaller number of latent factors, and (b) the structural model, which defines causal relationships among latent variables. A number of software programmes such as LISREL, AMOS, and EQS are available for such analysis. We used AMOS 20 in this study.

5.3.1 Measurement model

Discriminant and convergent validities are the two types of construct validity commonly evaluated by CFA. Evidence for discriminant validity includes correlations between factors that are not high when the factors should measure distinct constructs. If high inter-correlations are not found between the factors, then there is evidence of *discriminant validity*. By contrast, relatively high factor loadings on variables the factor is purported to measure confirm the evidence of convergent validity. If the inter-correlations between indicators that load on the same construct are at least moderate in magnitude, there is evidence of *convergent validity* (Kline 2011).

To determine the adequacy of the measurement model, multiple criteria such as internal structure of the model and multiple adjunct fit indices (model fit, model comparison, and model parsimony) (Arbuckle and Wothke 1999, Bagozzi and Yi 1988, Byrne 2001, Hair et al. 2010, Hoyle 1995, Tanaka 1993) are used. The internal structure is established by examining parameter estimates and the reliability of construct measures (Bagozzi and Yi 1988). Parameter estimates should be significant and in the hypothesised direction. The principal approach used in assessing the measurement model is the composite reliability (CR) and average variance extracted (AVE) measures for each construct (Hair et al. 2010). When the CR of a construct is greater than .70 and the AVE is greater than .50, the measures are

acceptable (Bagozzi and Yi 1988, Hair et al. 2010). These statistics also provide evidence of the reliability and convergent validity of the constructs in the CFA.

The overall fit of the model to the data was primarily assessed by the Chi-square statistic, the goodness of fit index (GFI), comparative fit index (CFI), incremental fit index (IFI), Tucker-Lewis index (TLI), and the root mean square of approximation (RMSEA).

5.3.1.1 Summary of the measurement model

The fit statistics for the measurement model and the structural model are summarised in Table 5.5. The chi-square statistic of the measurement model is found to be statistically significant ($\chi^2=761.389$, $df=298$, $p < .000$, $CMIN/DF=2.555$), given the large sample size. A significant chi-square is acceptable when the sample size is large (Carmines and McIver 1981) as in the present research. Although chi-square is significant, the relative chi-square $CMIN/DF=2.555$ is within the range of 3 indicating an acceptable fit between the hypothesised model and the sample data (Krause, Scannell, and Calantone 2000). Other fit indices also showed acceptable model fit such as GFI $>.90$ (.919), CFI $>.90$ (.924), RMSEA $<.08$ (.049), TLI $>.90$ (.904), IFI $>.90$ (.925).

Table 5.5 Fit statistics for measurement model and structural model

Statistic	Measurement model	Structural model
χ^2	761.389	899.874
df	298	318
χ^2/df	2.555	2.830
Root mean square error of approximation (RMSEA)	0.049	0.053
Goodness-of-fit index (GFI)	0.919	0.905
Comparative fit index (CFI)	0.924	0.904
Incremental fit index (IFI)	0.925	0.905

A correlation matrix was produced in Table 5.7 to check the nomological validity of the constructs, i.e., the extent to which the scales correlated in theoretically predicted ways with measures of different but related constructs (Malhotra 2008). Correlations also should be scanned to ensure that variables are not overly correlated (i.e., multi-collinear) with other variables. Correlations of .90 or higher indicate clear multicollinearity (Hair et al. 1998), although correlations as high as .70 may be suggestive of a potential problem (Tabachnick and Fidell 2013). The correlation matrix in Table 5.7 provided evidence for the nomological validity of the constructs. Most of the correlations were between 3.0 to 5.0 ($<.60$); therefore

they don't pose any problem as multicollinearity. Only the correlation between financial and strategic performance is above .50 (0.538) which is reasonable and acceptable in the sense that this is very likely to have a higher correlation between different performance measures.

Table 5.6 summarises the measurement model estimates (standardised loadings), average variance extracted (AVE) and construct reliability. To determine the internal consistency of the constructs, the composite reliability (CR) of each construct was first assessed. The CR values for all constructs were above the suggested threshold of 0.70, with a minimum of .73. In addition, the standardised factor loadings for all items were above the suggested cut-off of 0.50 (Hatcher 2007) with a minimum of .538, and all the critical ratios (c.r.) were highly significant (c.r. > 1.96) at $p < .05$ with strong evidence of convergent validity. The AVE of network exploration capability, international opportunity exploration capability, international opportunity exploitation capability, and export network (stakeholder) performance in the model are .52, .58, .58, and .53 respectively, which meets the criterion that a construct's AVE should be at least 50 per cent (to guarantee that more valid variance is explained than error) (Fornell and Larcker 1981). We have only one latent control variable which is environmental dynamism with an AVE of .58. However, network exploitation capability, export financial and export strategic performance have the AVE of .49, .49, and .48 respectively. Hatcher (2007) suggests that reliabilities can be acceptable even if AVE estimates are less than .50. Wilden et al. (2013) reported an AVE value of .40 for their newly developed dynamic capabilities construct. Walter, Auer, and Ritter (2006) reported an AVE value of .49 for a well established and largely used construct of entrepreneurial orientation in their study. Weerawardena, O'Cass, and Julian (2006) also reported an AVE value of less than .50 for individual dimension of Porter's five forces, i.e., bargaining power of suppliers (.48), and threats of new entrants (.49). The composite measure in their study including supplier power, new entrants, substitutes and buyer power also showed a lower AVE (.42). Kenny and Fahy (2011a) reported AVE values of .47, .48 and .47 for network resource combinations, information sharing and international performance constructs. Thus a slightly lower value of .50 for AVE does not necessarily rule out the reliability of a research instrument.

The constructs were also assessed for discriminant validity. According to Fornell and Larcker (1981) construct discriminant validity can be assessed by (1) calculating the square roots of the AVE values which measure the average variance shared between a construct and

its measures and (2) calculating the correlations between different constructs. Then, a matrix is constructed with the square root of the AVE values in the diagonal and the correlations between the constructs in the off diagonal (Table 5.7). For a sufficient level of construct discriminant validity, the values in the diagonal have to be greater than the values in the off-diagonal for the corresponding rows and columns. This condition was satisfied in this study which demonstrated that the constructs are both conceptually and empirically distinct from each other. Finally, the R^2 for the endogenous variables (i.e., international opportunity exploration capability, international opportunity exploitation capability, export strategic, export network, and export financial performance) were .307, .309, .459, .420, and .533 respectively– which indicated a strong predictive power for the structural equation model.

Table 5.6: A summary of the confirmatory factor analysis model estimates, variance extracted and construct reliability

Items/constructs	Std. loadings (critical ratio)	α	CR	AVE
Network exploitation capability		.789	.791	.49
1. We almost always solve problems constructively with our network partners. (busnet6)	.747 (16.446)			
2. We know our network partners' markets, products/services as well as their strengths and weaknesses. (busnet8)	.666 (14.967)			
3. We discuss regularly with our key network partners how we can support each other. (busnet4)	.739			
4. In our firm, managers and employees often give feedback to each other. (busnet10)	.633 (14.293)			
Network exploration capability		.749	.766	.52
1. We have our eyes open to find new network partners. (busnet7)	.799 (14.422)			
2. We have the ability to build good personal relationships with new network partners. (busnet5)	.682			
3. In our firm employees have informal contacts among themselves in relation to establishing new network relationships. (busnet9)	.683 (12.213)			
International opportunity exploration capability		.821	.84	.58
1. How many of novel or innovative ideas were considered feasible and desirable? (intlOR5)	.773 (16.418)			
2. How much did you modify/develop the international opportunity from idea generation to opportunity recognition? (intlOR3)	.725 (15.604)			
3. How much are you able to shift organisational resources to capitalise on emerging opportunities in international markets? (intlOR7)	.748 (16.001)			
4. How many international business ideas did you identify in past three years? (intlOR1)	.787			
International opportunity exploitation capability		.804	.81	.58
1. How many identified international opportunities have you pursued/exploited in the past three years? (intlOR6)	.776 (16.606)			
2. How many international business opportunities were considered as novel or innovative (intlOR4)	.738			
3. How quickly can you adapt to external changes in the international market and respond to external international opportunities? (intlOR8)	.775 (16.597)			
Export financial performance		.724	.74	.49
1. Export sales growth (outcome2)	.772			
2. Export sales volume (outcome1)	.768 (15.882)			
3. Export profit (outcome3)	.538 (12.106)			
Export strategic performance		.72	.73	.48
1. Growth in the number of employees (outcome6)	.746 (12.119)			

2. Our key customers' overall satisfaction with the quality of our products/ services (outcome8)	.753 (12.122)			
3. New market entry/number of export countries (outcome4)	.564			
Export network performance		.760	.77	.53
1. Quality of our company's relationship with key overseas customers (outcome7)	.784 (14.495)			
2. Our overall satisfaction with the quality of key suppliers' critical components (outcome9)	.718 (13.956)			
3. Introduction of new products/services in international markets (outcome5)	.672			
Environmental dynamism		.725	.732	.58
1. Vulnerability to the change in trade policies across borders	.682			
2. Market uncertainty (change in overseas customers' demand and preferences, competitors' new product introduction rate and new selling strategies)	.834 (9.840)			
3. Technology dynamics (change to technology relating to your main product/industry)*				

*Items deleted during scale purification stage

Table 5.7: Correlation between constructs, means and standard deviation

Variables in the model	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Network exploitation capability	.70						
(2) Network exploration capability	.399**	.72					
(3) International opportunity exploration capability	.445**	.421**	.76				
(4) International opportunity exploitation capability	.446**	.362**	.313**	.76			
(5) Export strategic performance	.449**	.350**	.431**	.417**	.69		
(6) Export financial performance	.469**	.477**	.356**	.416**	.538**	.70	
(7) Export network performance	.453**	.474**	.356**	.427**	.401**	.453**	.73
Mean Score	5.13	5.562	5.241	4.643	4.957	5.429	5.419
Standard Deviation	1.15	.969	1.043	1.145	1.148	.95	.955

Note: Diagonal is the square root of the average variance extracted

*Correlations greater than 0.13 are significant at the 0.05 level (two-tailed)

**Correlations greater than 0.17 are significant at the 0.01 level (two-tailed)

5.3.2 Results of structural equation model (SEM)

Measurement models include only latent variables (as was described in the previous section) while structural model describes the hypothesised relationships linking the model constructs. The variables used in this study have been categorised into eight sets: network exploitation capability, network exploration capability, international opportunity exploration capability, international opportunity exploitation capability, export strategic performance, export network (stakeholder) performance, and export financial performance. All of the variables have multiple indicators. Having satisfied with the requirements of the measurement model, the structural equation model was run with the eight constructs in the hypothesised relationships by adopting the maximum likelihood (ML) approach. Correlation between the factors was allowed in the structural model. Table 7.11 shows the fit statistics of the model.

The structural equation model resulted in a significant chi-square ($\chi^2=1044.332$, d.f.=403, $p < .000$). However, the relative chi-square (the ratio of chi-square to degrees of freedom) is within acceptable range of 3 to 1 (2.591) indicates that the model adequately fits the data (Krause, Scannell, and Calantone 2000). Other fit indices also provide evidence of acceptable model fit such as GFI $> .90$ (.908), CFI $> .90$ (.914), RMSEA $< .08$ (.05), IFI $> .90$ (.916). Thus the indices provide sufficient proof that the model fits the data fairly. Table 5.5 provides the model fit statistics. Table 5.8 provides the results of the structural equation model. As is shown in Table 5.8, most of the hypothesised relationships were significant with a few exceptions.

Table 5.8: Results of structural equation model for hypothesised relationships

Path	Std. Estimate	Unstd. estimate	Critical ratio	Conclusion
Network exploitation capability → International opportunity exploration capability	.329*	.363	6.280	H1: supported
Network exploitation capability → International opportunity exploitation capability	.381*	.379	6.914	H2: supported
Network exploration capability → International opportunity exploration capability	.324*	.378	5.985	H3: supported
Network exploration capability → International opportunity exploitation capability	.233*	.245	4.310	H4: supported
Network exploitation capability → Export strategic performance	.347*	.253	5.249	H5a: supported
Network exploitation capability → Export financial performance	.170*	.165	3.021	H5b: supported
Network exploitation capability → Export network performance	.264*	.214	4.320	H5c: supported
Network exploration capability → Export strategic performance	.104 n.s.	.080	1.671	H6a: not supported
Network exploration capability → Export financial performance	.250*	.256	4.468	H6b: supported
Network exploration capability → Export network performance	.291*	.250	4.806	H6c: supported
International opportunity exploration capability → Export strategic performance	.169*	.112	3.044	H7a: supported
International opportunity exploration capability → Export financial performance	.353*	.310	6.462	H7b: supported
International opportunity exploration capability → Export network performance	.055 n.s.	.041	1.004	H7c: not supported
International opportunity exploitation capability → Export strategic performance	.125*	.092	2.312	H8a: supported
International opportunity exploitation capability → Export financial performance	.144*	.140	2.779	H8b: supported
International opportunity exploitation capability → Export network performance	.174*	.142	3.148	H8c: supported

Notes: Critical ratio greater than 1.96 is significant at * $p < .05$ level
n.s.: not significant

Table 5.9: Unstandardised direct, indirect and total effects of exogenous variables in the model

	Type of effects	Endogenous variables									
		International opportunity exploration capability		International opportunity exploitation capability		Export strategic performance		Export financial performance		Export network performance	
		Beta	c.r.	Beta	c.r.	Beta	c.r.	Beta	c.r.	Beta	c.r.
Network exploitation capability	Direct	.363*	6.280	.379*	6.914	.253*	5.249	.165*	3.021	.214*	4.320
	Indirect	-	-	-	-	.075*	3.121	.166*	4.385	.069*	2.800
	Total	.363*	6.280	.379*	6.914	.328*	7.258	.331*	5.500	.283*	5.800
Network exploration capability	Direct	.378*	5.985	.245*	4.310	.080n.s.	1.671	.256*	4.468	.250*	4.806
	Indirect	-	-	-	-	.065*	3.000	.151*	4.625	.050*	2.320
	Total	.378*	5.985	.245*	4.310	.145*	2.848	.407*	6.524	.300*	5.816
International opportunity exploration capability	Direct					.112*	3.044	.310*	6.462	.041n.s	1.004
	Indirect					-	-	-	-	-	-
	Total					.112*	3.044	.310*	6.462	.041n.s	1.004
International opportunity exploitation capability	Direct					.092*	2.312	.140*	2.779	.142*	3.148
	Indirect					-	-	-	-	-	-
	Total					.092*	2.312	.140*	2.779	.142*	3.148

Notes: Critical ratio greater than 1.96 is significant at * $p < .05$ level

n.s.: not significant

c.r.: critical ratio

Table 5.10: Standardised direct, indirect and total effects of exogenous variables in the model

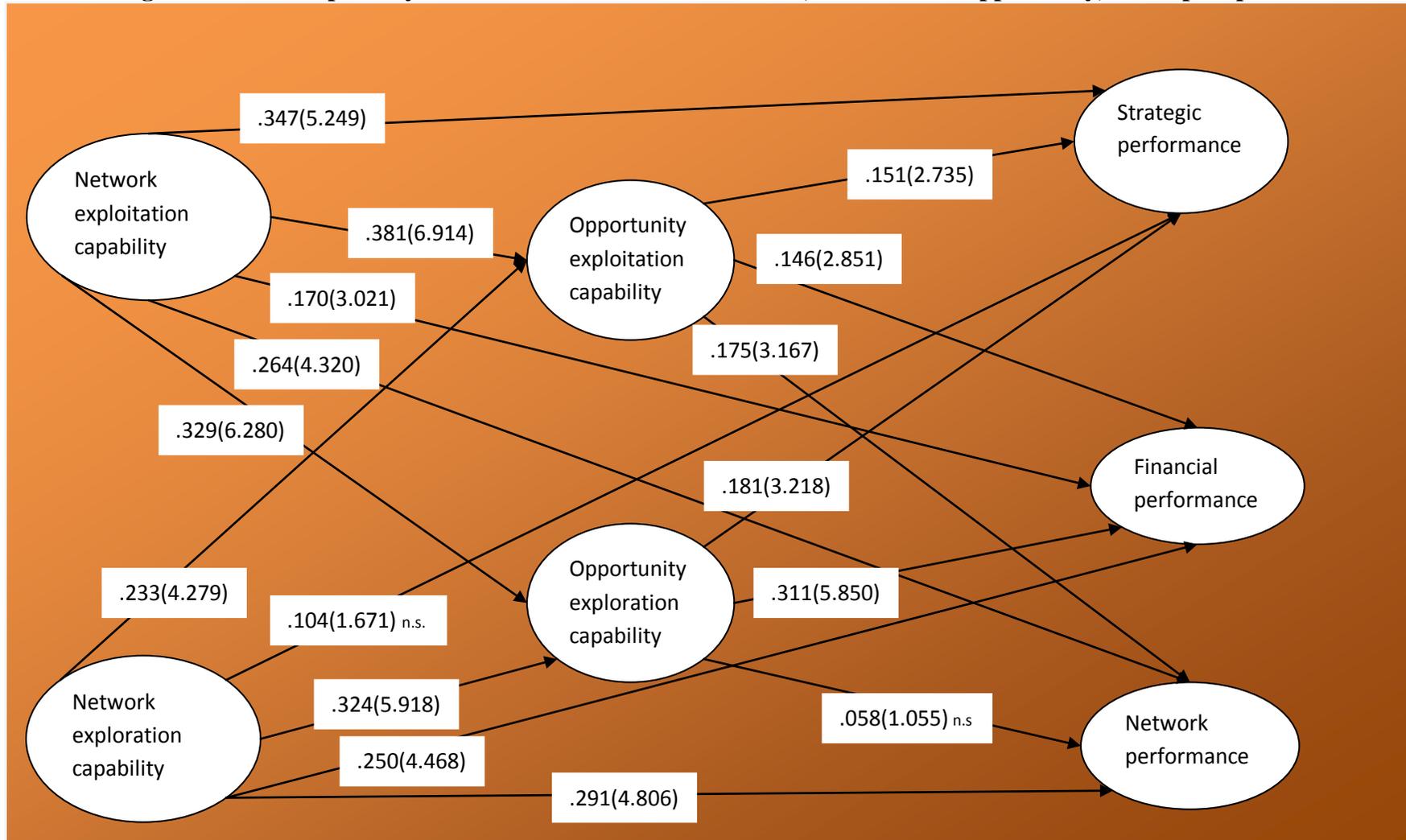
	Type of Effects	Endogenous Variables									
		International opportunity exploration capability		International opportunity exploitation capability		Export strategic performance		Export financial performance		Export network performance	
		Beta	c.r.	Beta	c.r.	Beta	c.r.	Beta	c.r.	Beta	c.r.
Network exploitation capability	Direct	.329*	6.280	.381*	6.914	.347*	5.249	.170*	3.021	.264*	4.320
	Indirect	-	-	-	-	.103*	3.121	.171*	4.385	.084*	2.800
	Total	.329*	6.280	.381*	6.914	.450*	7.258	.341*	5.500	.348*	5.800
Network exploration capability	Direct	.324*	5.918	.233*	4.279	.104NS	1.671	.250*	4.468	.291*	4.806
	Indirect	-	-	-	-	.084*	3.000	.148*	4.625	.058*	2.320
	Total	.324*	5.918	.233*	4.279	.188*	2.848	.398*	6.524	.349*	5.816
International opportunity exploration capability	Direct					.181*	3.044	.311*	6.462	.058NS	1.004
	Indirect					-	-	-	-	-	-
	Total					.181*	3.044	.311*	6.462	.058NS	1.004
International opportunity exploitation capability	Direct					.151*	2.312	.146*	2.779	.175*	3.148
	Indirect					-	-	-	-	-	-
	Total					.151*	2.312	.146*	2.779	.175*	3.148

Notes: Critical ratio greater than 1.96 is significant at * $p < .05$ level

n.s.: not significant

c.r.: critical ratio

Figure 5.1: The empirically tested structural model of network, international opportunity, and export performance



n.s.: not significant

5.3.3 The effects of multiple mediators and effects decomposition

There are several advantages of specifying and testing a single multiple mediation model instead of separate simple mediation models (Preacher and Hayes 2008). In a multiple mediation model, it is possible to determine to what extent specific mediator (M variable) mediates the $X \rightarrow Y$ path, conditional on the presence of other mediators in the model. Moreover, when multiple mediators are included in a model, as opposed to several simple mediation models to test single mediation hypothesis, the likelihood of parameter bias due to omitted variables is reduced (Judd and Kenny 1981). Finally, the inclusion of multiple mediators in a single model allows researchers to determine the relative magnitudes of the specific indirect effects associated with all mediators (Preacher and Hayes 2008). However, *AMOS software only implements the percentile bootstrap method for total indirect effects in simple and multiple mediator models and so we could not estimate the single individual effect of the two mediators (international opportunity exploration and exploitation capabilities) used in this study.*

The standardised direct, indirect and total effects of the exogenous variables on the relevant endogenous variables in the model including critical ratios (c.r.) and their significance levels are provided in Table 5.10. These were estimated using bootstrapping (at 95% confidence interval, bias corrected, 1000 bootstrap resamples)¹. Researchers suggest that 1000 is the minimum resample (Preacher and Hayes 2008) but some researchers suggest 5000 bootstrap re-samples (Hayes 2009).

We have hypothesised that international opportunity exploitation and exploration capabilities mediate the relationship between network exploitation capability, network exploration capability, and three dimensions of export performance. All mediated relationships have been supported. In Table 5.10 we see that there is no direct relationship between network exploration capability and export strategic performance. This suggests that their relationship is only indirect through the mediating effects of opportunity-related capabilities. All other relationships are both direct and indirect. The indirect relationships

¹AMOS software calculates direct, indirect and total effect of each parameter including significance level at the specified confidence level (95% confidence level was set for this analysis). The critical ratio represents the parameter estimate divided by its standard error, and based on the level of .05, c.r. value greater than or equal to 1.96 is considered significant at the level of .05.

have been summarised in Table 5.11. All the direct relationships are graphically represented in Figure 5.1.

Table 5.11: Standardised indirect effects of the dual capability of network on export performance

	Type of effects	Export strategic performance	Export network performance	Export financial performance
Network exploitation capability	Indirect	.103* (3.121)	.084* (2.8)	.171* (4.385)
Network exploration capability	Indirect	.084* (3.0)	.058* (2.320)	.148* (4.625)

Notes: Critical ratio greater than 1.96 is significant at * $p < .05$ level

5.3.4 Boundary conditions of the baseline model

We used several control variables relating to investigate the boundary conditions of the tested baseline model. These include firm size, firm age, export market coverage, and export environmental dynamism. We found that firm age, size and export market coverage are not significantly associated with export financial performance. However, environmental dynamism is significantly and positively related to export financial performance ($\beta = .195$, $p < .01$).

We then conducted additional tests to investigate whether the non-significant variables (specifically, firm age and size) exert any moderating influence on the different relationships stipulated in this study. There is general assertion that small companies and start-ups have been relatively successful in identifying entrepreneurial opportunities but less effective at developing capabilities needed to exploit those opportunities. By contrast, more established firms possess relatively greater skills in developing and sustaining capabilities needed to exploit opportunities but have been less effective in recognising entrepreneurial opportunities that can be exploited with their resources and resulting capabilities (Ireland, Hitt, and Sirmon 2003). This indicates that firm age and size positively moderate the relationship between capabilities (e.g., networking) and opportunity exploitation and negatively moderates the relationship between capabilities (e.g., networking) and opportunity exploration. In addition, there is also research in IE that confirms that there is a negative relationship between inter-organisational networking and early internationalisation of firms which means that the role of inter-organisational network decreases over time (Manolova, Manev, and Gyoshev 2010).

To measure moderating effects we estimated two models for each of the above relationships: first, a model with all paths constrained to be equal across two groups; second, a model with all paths constrained to be equal across two groups except for the path deemed to be effected by the moderator. The effect of a moderator is considered significant if the decrease in chi-square from the first model to the second model is significant (De Wulf, Odekerken-Schröder, and Iacobucci 2001, Leonidou, Palihawadana, and Theodosiou 2011). The results from moderation analysis are presented in Table 5.12.

The results show that firm size positively moderates all the relationships between the twin capabilities of network and international opportunity. Path coefficients are positive, large, and significant among mature firms and this is also supported by chi-square difference test. On the other hand, firm age moderates only the relationship between network exploitation capability and international opportunity exploration capability.

Concerning the international opportunity exploitation-export performance relationship, firm age doesn't exert any moderating influence on the relationship. Age moderates only the relationship between international opportunity exploitation and export network performance. By contrast, only international opportunity exploration capability and export financial performance is moderated by firm size and international opportunity exploration capability and strategic performance is moderated by firm age.

Table 5.12 Results of moderation analysis: firm size and age

Main effect	Smaller firms	Larger firms	$\Delta \chi^2$ ($\Delta d.f.=1$)	Younger firms	Mature firms	$\Delta \chi^2$ ($\Delta d.f.=1$)
Network exploitation → international opportunity exploration	$\beta = 0.195$ $t = 2.955$	$\beta = 0.593$ $t = 7.466$	11.453 ($p < 0.01$)	$\beta = 0.222$ $t = 3.341$	$\beta = 0.513$ $t = 7.146$	7.464 ($p < 0.01$)
Network exploitation → international opportunity exploitation	$\beta = 0.281$ $t = 4.157$	$\beta = 0.556$ $t = 6.850$	4.961 ($p < 0.05$)	$\beta = 0.362$ $t = 5.292$	$\beta = 0.426$ $t = 5.674$	0.005 n.s.
Network exploration → international opportunity exploration	$\beta = 0.225$ $t = 3.460$	$\beta = 0.544$ $t = 5.717$	8.266 ($p < 0.01$)	$\beta = 0.286$ $t = 4.389$	$\beta = 0.295$ $t = 3.806$	0.018 n.s.
Network exploration → international opportunity exploitation	$\beta = 0.176$ $t = 2.665$	$\beta = 0.461$ $t = 5.032$	7.141 ($p < 0.01$)	$\beta = 0.166$ $t = 2.469$	$\beta = 0.301$ $t = 3.893$	2.222 n.s.
International opportunity exploitation → export financial performance	$\beta = 0.149$ $t = 2.250$	$\beta = 0.116$ $t = 1.602$	0 n.s.	$\beta = 0.129$ $t = 1.974$	$\beta = 0.161$ $t = 2.314$	0.283 n.s.
International opportunity exploitation → export strategic performance	$\beta = 0.144$ $t = 1.804$	$\beta = 0.058$ $t = 0.744$	0.385 n.s.	$\beta = 0.108$ $t = 1.699$	$\beta = 0.111$ $t = 1.503$	0 n.s.
International opportunity exploitation → export network performance	$\beta = 0.076$ $t = 1.140$	$\beta = 0.220$ $t = 2.887$	2.771 n.s.	$\beta = 0.091$ $t = 1.354$	$\beta = 0.307$ $t = 4.186$	6.595 ($p < 0.01$)
International opportunity exploration → export financial performance	$\beta = 0.325$ $t = 4.553$	$\beta = 0.404$ $t = 5.224$	6.616 ($p < 0.05$)	$\beta = 0.349$ $t = 5.394$	$\beta = 0.253$ $t = 3.370$	0.619 n.s.
International opportunity exploration → export strategic performance	$\beta = 0.139$ $t = 2.150$	$\beta = 0.204$ $t = 2.416$	0.821 n.s.	$\beta = 0.101$ $t = 1.550$	$\beta = 0.257$ $t = 3.335$	3.777 ($p < 0.05$)
International opportunity exploration → export network performance	$\beta = 0.013$ $t = -0.191$	$\beta = 0.138$ $t = 1.691$	2.793 n.s.	$\beta = 0.065$ $t = 1.016$	$\beta = 0.057$ $t = 0.733$	0.008 n.s.

n.s.: not significant

5.4 Discussion of the results

We set forth to examine the inter-relationship between the dual capability of network, the dual capability of international opportunity, and export performance. We also examined the mediating role of the dual capability of international opportunity in the relationship between the dual capability of network and export performance.

5.4.1 The dual capability of network and export performance

Our results show that both network exploitation and exploration capabilities exert significant positive effects on the export performance of early internationalising firms. This is in line with the findings of similar studies which reported that inter-organisational networks positively influence firms' international performance (Eberhard and Craig 2012, Manolova, Manev, and Gyoshev 2010). The findings are also in line with Walter, Auer, and Ritter (2006) who reported a significant positive relationship between network capability and different dimensions of a university spin-off's performance. The results confirm prior studies on alliance competence showing that firms vary considerably in their capabilities to gain access to external resources and to develop stable relationships (Dyer and Singh 1998). These variations lead to differences in the export performance of early internationalising firms.

Mort and Weerawardena (2006) also reported that network capability enhances international market performance of born globals operating in both low-tech and high-tech industries by helping to expand into foreign markets rapidly. More specifically, in this study we found that network exploitation capability is positively associated with all three dimensions of export performance whereas network exploration capability is with export financial and network performance. This suggests that early internationalising firms in the apparel industry are exploiting their existing network ties to achieve export financial, strategic and network performance. Furthermore, they have also achieved export financial as well as export network performance by exploring new network ties and mobilising resources from new network partners. The relationships between the dual capability of network and export performance are summarised in Figure 5.2.

Figure 5.2: The relationships between the dual capability of network and export performance

		Export performance		
		Network	Strategic	Financial
Network capability	Exploitation	✓	✓	✓
	Exploration	✓	X	✓

The non-significant relationship between network exploration and export strategic performance (firm growth, market expansion, and buyer satisfaction with products) suggests that compared to returns from exploitation, returns from exploration are less certain, more remote in time, and organisationally more distant from the locus of action and adaptation (March 1991). Network exploration capability is future-oriented from which the achievement of specific performance outcomes is only possible in the future (Kenny and Fahy 2011b). Möller and Svahn (2006) provided a typology of business networks based on their value creation characteristics. One of the types they refer to is the “emerging new business net”.

This typology is of relevance here in the context of the apparel export industry firms under investigation which is related to network exploration capability. Möller and Svahn (2006) argued that firms aim at creating networks and nets through which new technologies, products or business concepts can be commercialised. This action is future-oriented in the sense that the value potential of these nets is generally fully realised only in the future. If the action is future-oriented, so too are the outcomes of these collaborative actions in terms of business performance, or specific international performance (Kenny and Fahy 2011b).

The indirect and fully mediated relationship between network exploration capability and export strategic performance by the mediating mechanism of opportunity exploration and exploitation (which will be elaborated later on) also supports this view that to achieve strategic outcomes early internationalising firms need to explore and establish new network ties to explore and exploit new international opportunities which will in turn bring greater strategic performance. This is also supported by the study of Macpherson, Jones, and Zhang (2004) who introduced a novel approach linking outcomes of dynamic capabilities to firm growth through the mediating factors of opportunity recognition and opportunity exploitation and thus connecting dynamic capability indirectly to performance. There is a debate on

whether the impact of dynamic capabilities is direct or indirect. Most researchers established a direct link whereas recently some researchers are stressing an indirect association (Eriksson 2014, Collis 2006, Eisenhardt and Martin 2000). Dynamic capability has also been found to mediate the relationship between network resources and performance (Yiu and Lau 2008). Our findings indicate that whether the impact of a dynamic capability is direct or indirect depends on the type of performance indicators a study adopts as well as the type of the dynamic capability. While network exploitation mostly suggests a direct link, network exploration rather suggests an indirect relationship.

5.4.2 The dual capability of network and international opportunity

Figure 5.3: The relationships between the dual capability of network and international opportunity

		International opportunity capability	
		Exploitation	Exploration
Network capability	Exploitation	✓	✓
	Exploration	✓	✓

The relationships between the dual capability of network and international opportunity (exploitation and exploration) are summarised in Figure 5.3. We found a positive relationship between the network exploitation capability and the dual capability of international opportunity. Furthermore, we found that network exploration capability is also positively associated with the dual capability of international opportunity. The results suggest that export start-ups in the apparel industry have been able to utilise both network exploitation and exploration capabilities to explore and exploit international opportunities. Our results corroborate the findings of other studies that showed a positive association between inter-organisational networking and strategic adaptive capability (Ma, Yao, and Xi 2009) as well as between adaptive capability and firm performance (Oktemgil and Greenley 1997).

Our results are supported by the network-based approach on opportunity recognition (Arenius and Clercq 2005). This is in line with the opinion of Ellis (2000) and findings of Kontinen and Ojala (2011b) that foreign market opportunities are commonly acquired

through existing networks. However, Crick and Spence (2005) found that after the initial entry into foreign markets, the importance of existing networks for recognising opportunities decreased. This would suggest that SMEs have to identify and exploit new opportunities by actively forming new network ties. Sharma and Blomstermo (2003) also posit that the internationalisation process of born globals is characterised by the strategy of exploration (March 1991). They further explain that because born globals lack previous successes and fixed routines in entering foreign markets, they are innovative in combining their own resources with the resources of others through partnerships which may potentially compensate for the resource disadvantage of born globals.

Mort and Weerawardena (2006) suggest that networking activity must take the form of a competitive capability complemented by entrepreneurial opportunity-seeking behaviour. They found network capability was not only central to the growth of firms in the hi-tech sector but also played a similarly important role for firms in the low-tech sector.

5.4.3 The dual capability of international opportunity and export performance

Figure 5.4 summarises the relationships between the dual capability of international opportunity and the export performance of early internationalising firms. Our results showed that international opportunity exploration capability is positively associated with the export performance of early internationalising firms, more specifically, with the two dimensions of export performance: financial and strategic. This suggests that when new feasible and desirable opportunities are explored and developed through resource reconfigurations, they may bring significant financial and strategic performance outcomes. New opportunities can help achieve strategic performance in terms of firm growth, market expansion and customer satisfaction.

New opportunities also have financial implications in terms of export sales volume, growth and profitability. The results also suggest that greater resource flexibility in developing new opportunities results in greater export performance. Resource flexibility is the dynamic capability that enables an early internationalising firm to adjust to its environment to capture new emerging opportunities, which may be considered as a strategic change (Vahlne and Johanson 2013). This strategic change can only be realised through “organizational resource reconfiguration and coordination” that underpins dynamic capabilities (Helfat et al. 2007, 117).

Figure 5.4: The relationships between the dual capability of international opportunity and export performance

		Export performance		
		Network	Strategic	Financial
International opportunity capability	Exploitation	✓	✓	✓
	Exploration	X	✓	✓

There is no direct relationship between opportunity exploration and export network performance again because opportunity exploration is future-oriented and some of the performance outcomes can only be achieved in future. However, opportunity exploitation has direct link with all three dimensions of performance because exploitation brings performance benefits instantly. After selling new products financial performance is achieved. After selling a new product or after the successful delivery of an order the network performance is improved because throughout the process network partners collaborated to an end and when this end is achieved all parties involved are satisfied in a network arrangement. Strategic performance objectives are also achieved by exploiting an opportunity because exploiting an opportunity involves new labour and employment; new customers served, new markets entered and customer satisfaction is also improved.

5.4.4 The mediating role of the dual capability of international opportunity

We found that international opportunity exploitation and exploration capabilities partially mediate the relationship between network exploitation capability and all three dimensions of export performance. Our findings are supported by recent research showing that adaptive capability (specific to customers' demands and other requirements) plays a partially mediating role and acts as an intermediate variable between networking and international performance (Lu et al. 2009). Our findings suggest that international opportunity exploration and exploitation capabilities need to be developed through network exploitation capability in order to achieve export performance. This finding also reiterates the importance of entrepreneurship in achieving international performance by early internationalising firms. This also indicates that it is the network capability-enabled entrepreneurship that creates value for born globals and other early internationalising firms (Weerawardena et al. 2007). Further, the findings suggest that this is the entrepreneurial

capabilities that mediate the relationship between network capabilities and export performance—be that explorative or exploitative network.

Scholars underscore the need to understand the factors that transform market-oriented behaviour into superior performance (Han, Kim, and Srivastava 1998, Noble, Sinha, and Kumar 2002). Past inconsistent results of the direct linkage between market orientation and performance suggests a possible role for certain mediating variables, such as marketing strategy (Han, Kim, and Srivastava 1998, Narver, Slater, and Tietje 1998). Consistent with this view, our study provides evidence to support the role of entrepreneurship, more specifically international opportunity exploitation and exploration capabilities, in the implementation of network capability. International opportunity exploitation and exploration capabilities provide the primary tools through which the firm interacts with buyers, suppliers, and other parties as well as with the general external environment of business (i.e., apply network capability). Network capability is transformed into early internationalising firm's export performance through international opportunity capabilities. These results are especially salient to the international success of early internationalising firms.

5.4.5 The moderating effect of firm size and age

We investigated the moderating effects of firm's size and age since these are the two most debated and inconclusive contextual variables in the IE literature. Because early internationalising firms internationalise at an earlier stage, they suffer from the liability of newness and smallness (Zhou, Wu, and Luo 2007, Fan and Phan 2007, Knight and Cavusgil 2004, Oviatt and McDougall 1994, Andersson, Gabrielsson, and Wictor 2004). IE researches stressed that firm age and size are not important in the emergence of a firm as born global or international new venture (Knight, Madsen, and Servais 2004, Jones, Coviello, and Tang 2011b). We acknowledge that size or age may not matter much in the early internationalisation of a firm; however, subsequent international opportunity exploration, development and exploitation and performance achievement largely depend on these two factors because these are more related to the specific capabilities of a firm which only grow with age and size. We used median split by 500 employees to divide SMEs and larger firms. Although the number of 250 employees is used most frequently by OECD countries (stats.oecd.org) as the upper limit designating an SME, the United States considers SMEs to include firms with fewer than 500 employees. Since apparel is a labour-intensive industry and the competitiveness in this industry, particularly in the developing countries like Bangladesh,

is largely dependent on the price related factors (McKinsey and Co. 2011), the maximum limit of 500 is a reasonable criterion to differentiate SMEs from large firms considering the availability of cheap labour in the country. Further, for firm age we used median split by 9 years which is in line with the entrepreneurship and IE literature to differentiate between new and mature firms. In the IE literature several cut off years have been used to define a born global or international new venture, for example 6 years (Coviello and Jones 2004, Manolova, Manev, and Gyoshev 2010) or firms established after 1990 (Zhou, Barnes, and Lu 2010). Since all the firms in the apparel export industry of Bangladesh are born exporters or export start-ups, we can categorise firms up to 9 years old as young early internationalising firms or young export start-ups and firms beyond this as mature export start-ups. Since all the firms are born exporters and have zero dependence on the domestic markets from inception, it is not necessary to follow the threshold of six years or less that has been used to define an international new venture or born global in IE.

The moderating relationships between the dual capability of network and international opportunity are summarised in Figure 5.5. The moderating relationships between the dual capability of international opportunity and export performance are summarised in Figure 5.6. Both figures are drawn from the results reported in Table 5.12.

5.4.5.1 The moderating role of firm size in the relationship between the dual capability of network and international opportunity

We found that size moderates all the relationships between the dual capability of network (exploitation and exploration) and international opportunity (exploitation and exploration). This suggests that larger early internationalising firms are at an advantageous position than smaller firms in utilising network exploration and exploitation capabilities to explore and exploit international opportunities. The role of network capabilities (exploration and exploitation) in exploring and exploiting international opportunities increases with the size of the firm. This highlights the importance of speed in achieving firm growth.

Networking with existing ties brings more new opportunities as well as endows with more capacity to exploit existing opportunities for larger early internationalising firms because with an increase in size, these firms become more systematic and formal in their network activities, day-to-day operations as well as in searching for new opportunities. As Aldrich and Auster (1986, 169) noted: “as organizations age, pressures increase toward

internal consistency as a basis for coordination and control. These pressures tend to be more pronounced as size increases.”

Figure 5.5: The moderator in the relationship between the dual capability of network and international opportunity

		International opportunity capability		
		Exploitation	Exploration	
Network capability	Exploitation	Size	Size	Age
	Exploration	Size	Size	

Networking with new ties also becomes significant for exploring and exploiting opportunities for early internationalising firms with their size because larger export start-ups have a greater number of capable managers and employees who have their own pre-existing and existing network ties from which they receive information from time to time about new opportunities, search new viable opportunities and subsequently exploit them. The size of early internationalising firms matters in opportunity exploration and exploitation because this is not only about the number of opportunities a firm explores or recognises (which most studies in entrepreneurship traditionally investigates), this is about the development of an opportunity through organisational capability to adapt to the requirements of the new opportunity for which a greater flexibility of organisational resources is required and mobilising external resources through networking is also a must. Again, for exploiting opportunities, firms require greater capability to respond to an emerging opportunity as well as greater capability to adapt to external changes in international markets. Larger internationalising firms have more slack resources (Sharfman et al. 1988) which they can shift to explore and exploit new international opportunities. Larger firms also have more networking capabilities through their repeated interaction and network management capability. More innovative opportunities require more resources to develop and exploit which could be afforded by slack resources that large firms possess and by mobilising external network resources (Ettlie and Rubenstein 1987, Rogers 2004). Furthermore, larger firms don't usually face the problems of legitimacy (Aldrich and Auster 1986), which smaller firms severely encounter (Aldrich and Auster 1986, Meyer and Zucker 1989).

Therefore, in exploring new ties and establishing new relationships, larger internationalising firms don't face any significant problem of legitimacy and thus explore and exploit new opportunities through establishing relationship with new ties. By contrast, smaller early internationalising firms due to their liability of smallness and lack of legitimacy often fail to get network referral through which they would be able to connect to a third party (business buyer or venture capitalist) and mobilise resources to develop and act upon new opportunities (Batjargal 2007). The quality of their referral network determines their chances of receiving venture capital (Stuart, Hoang, and Hybels 1999) and other external financial and non-financial resources. As Baum and Silverman (2004) note, a start-up's alliances provide signals for both access to valuable resources and knowledge critical to early performance as well as serving as external endorsements by suggesting that the start-up has earned positive evaluations from other knowledgeable actors.

These findings are contrary to the theoretical arguments and findings in the strategic management literature that size may breed complacency and inertia (Halberstam 1986), insularity (March 1981), and resistance to adaptation (Aldrich and Auster 1986). With respect to speed of adaptation and enactment of opportunity and its relationship with networking, the findings are in contrast to flexibility and rapidity commonly ascribed to small firms in implementation of competitive actions (Fiegenbaum and Karnani 1991, MacMillan 1980) and with the liability, large firms suffer as a result of their structural complexity, bureaucracy (Mintzberg 1979), and heavy information-processing systems (Galbraith 1977). In our study, we observe that despite their size, larger firms in the apparel export industry of Bangladesh have retained their flexibility in organisational structures, information processing and decision making most likely because the management and decision making control is centralised in the hands of the sole owner or a team of owners. This suggests that these organisations have dual structure of formalisation and specialisation as well as flexibility which makes them stable. Further research in the same industry setting should most likely confirm this.

5.4.5.2 The moderating role of firm age in the relationship between the dual capability of network and international opportunity

In relation to age as a moderator in the network-international opportunity relationship, the analysis showed very interesting results which can shed additional light on the existing results in IE. Firm age moderates only the relationship between network exploitation and

international opportunity exploration capability (exploitation-exploration). This suggests that age is not a limiting factor for early internationalising firms in exploiting existing opportunities by exploiting existing networks. Furthermore, age does not pose any limit on the early internationalising firms in utilising new networks to both explore and exploit opportunities in international markets. However, age becomes important when these firms exploit existing networks to explore new opportunities. This is because early internationalising firms face the liability of newness and lack legitimacy and trust in the relationship with network partners in the early stages of operation. Building relationship and trust requires time and the newness of early internationalising firms constrains them from network referrals. In this relationship (network exploitation—international opportunity exploration), both firm age and size are the moderators which reflect that “the liability of newness might be a liability of smallness” (Freeman, Carroll, and Hannan 1983, 692) because the internal and external constraints result from a combination of the effects of age and size (Aldrich and Auster 1986).

This is in contrast to the general assertion that small start-ups are more successful in identifying entrepreneurial opportunities than mature and larger firms as well as less effective at developing capabilities to exploit those opportunities than mature and larger counterparts (Ireland, Hitt, and Sirmon 2003). Our results show that early internationalising firm’s size positively moderates the relationship between the twin capabilities of network and international opportunity. This suggests that larger export start-ups are more skilled in both opportunity exploration and exploitation by utilising their network exploration and exploitation capabilities than their SME counterparts. In addition, export start-up’s age positively moderates the relationship between network exploitation capability and international opportunity exploration capability. This suggests that early internationalising firms become more adept at exploring international opportunity by utilising existing network ties with the passage of time and as they grow.

This is a very significant finding in relation to IE. As we see in Figure 5.5, the results confirm that size appears to be a significant moderator in all the relationships between the dual capability of network and international opportunity (exploitation-exploitation, exploitation-exploration, exploration-exploitation, and exploration-exploration). This suggests that the liability of smallness prevails in early internationalising firms with respect to the relationship between network and international opportunity. However, the liability of

newness of these firms decreases with size as they grow and become larger. Researchers in IE reported no significant level of liability of smallness in their studies of high-tech firms. High-tech firms are mainly knowledge-based and can be operated with only a few highly skilled knowledgeable employees (e.g., software firms). By contrast, low-tech apparel manufacturing involves labour-intensive production processes where size (in terms of the number of employees) matters and the liability of smallness cannot easily be overcome. Further, younger early internationalising firms in this study have been able to overcome their liability of newness in all the relationships between network and opportunity except the one between network exploitation and international opportunity exploration.

There is possibly another explanation behind the moderating influence of age in the relationship between network exploitation and opportunity exploration capability. The findings reported by scholars, e.g., Chetty and Campbell-Hunt (2004) and Freeman, Edwards, and Schroder (2006) are observed in the high-tech knowledge intensive industries where network partners work very closely to develop new products and share proprietary knowledge. By contrast, in a low-tech industry like apparel, network partners stay at arm's length and coordinate and cooperate when necessary which gives only limited exposure and scope of information and knowledge sharing among network partners as opposed to co-development of a technological product. Therefore, age related liability cannot be overcome by such an arm's length relationship. It requires time for export start-ups to develop a mutual and trustworthy long-term relationship.

Batjargal (2007) introduced the concept of transitivity which is a tendency of two actors who are connected to a third party to form mutual relationships over time. He found that network transitivity is contingent upon tie strength and trust and the effects of dyadic ties and interpersonal trust on referral and investment decisions seem to be universal rather than country- or context-specific because industry factors have dominant effects on these outcome variables. The Western apparel retailers mostly import from 3rd world country manufacturers due to the price related competitiveness these firms possess. These firms suffer from a lack of legitimacy and trust in the networks because of their failure to meet delivery schedule often due to the political turmoil in the country as in Bangladesh as well as the failure to conform to standard working environment and safety measures which has been a significant issue for the industry for a long time. Only larger and older firms develop formalised organisational structures and invest in workplace safety measures and strive to conform to the standards of

the industry and thus gain legitimacy and trust in their relationship. This also indicates an internal liability of newness that younger export start-ups face in the early years of operations. Therefore, mature and larger export start-ups do not face either liability of newness or of smallness while using their existing network ties to develop new relationships and opportunities therein. When early internationalising firms use network exploration capability to identify new network partners on their own without referral from existing network ties, they use their own strategies to attract new partners; newness is not a limiting factor even in this case. It becomes prevalent when exporters initiate to explore new international opportunities by exploiting existing networks.

5.4.5.3 The moderating role of firm age and size in the relationship between international opportunity capabilities and export performance

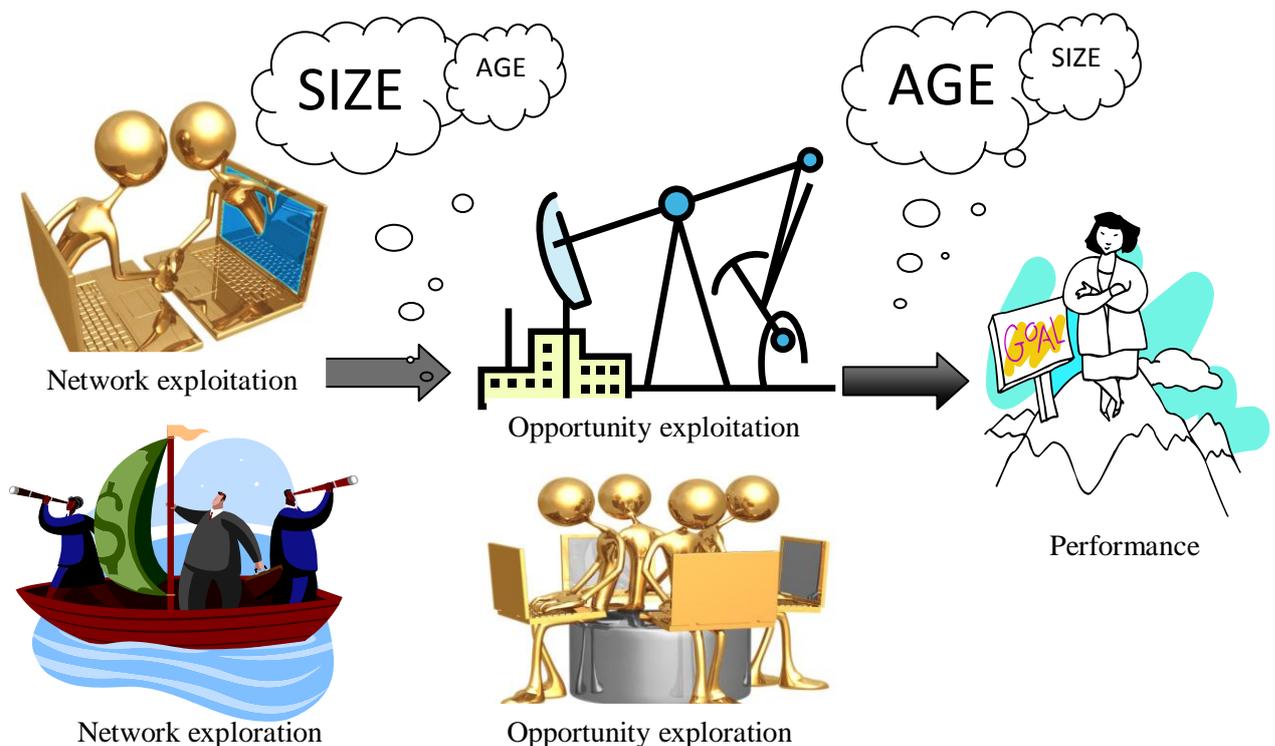
Corresponding to the moderators in the international opportunity-export performance relationship, as we see in Figure 5.6, neither firm age nor size is a significant moderator in the relationship between international opportunity exploitation capability and two performance measures: financial and strategic. This suggests that liabilities of newness and smallness can be overcome in achieving financial and strategic performance advantage of international opportunity exploitation. Early internationalising firms in this industry have overcome both of these liabilities in exploiting international opportunity to achieve financial and strategic performance. However, firm age appears to be a significant moderator in the international opportunity exploitation-network performance relationship. This suggests that mature and established early internationalising firms are more capable of exploiting opportunities and improving network performance in terms of serving buyers with new products, their own satisfaction with the quality of suppliers’ critical components as well as the quality of relationship with key overseas customers.

Figure 5.6: The moderator in the relationship between the dual capability of international opportunity and export performance

		Export performance		
		Network	Strategic	Financial
International opportunity capability	Exploitation	Age	X	X
	Exploration	X	Age	Size

As a whole, this result suggests that while early internationalising firms in this industry have overcome the liabilities of newness and smallness in relation to exploiting opportunity for achieving export strategic and financial performance, younger firms have been less successful to overcome their liability of newness in achieving network outcomes by exploiting existing opportunities. This indicates that network management capability is low in younger firms and this has been reiterated by our previous findings that younger firms have been less successful in exploiting existing networks to explore new international opportunities. This suggests that the information, learning and knowledge acquired from existing network partners are not sufficient in exploring and developing new international opportunities. Since older and mature firms possess a broad base of networks and have earned significant experience and efficiency in managing networks, they can extract better network performance advantage from exploiting existing opportunities. By contrast, the lack of legitimacy and trust in the relationship constrains younger firms' ability to achieve better network performance by exploiting existing opportunities. This again reiterates the fact that younger firms in the apparel export industry most often fail to conform to the industry practices, safety and quality issues which is directly related to their liability of newness. They could not invest enough to conform to these standards.

Figure 5.7: The graphical representation of the research findings



With respect to the international opportunity exploration-export performance relationship, we observe differential influence of firm age and size. While firm age moderates the link between international opportunity exploration and strategic performance, size moderates the association between international opportunity exploration and financial performance. This suggests that by exploring new opportunities, mature firms achieve better strategic performance than younger export start-ups. By contrast, new international opportunities bring greater financial performance for larger firms than SMEs. The overall findings of this study are depicted in Figure 5.7.

Chapter 6 Implications, Contributions and Limitations

6.1 Introduction

This thesis has investigated the direct and indirect effects of network capabilities on the export performance of early internationalising firms. In doing so a theoretical model was developed and tested using primary data obtained from a sample survey of export start-ups drawn from the apparel industry of Bangladesh. Structural equation modelling techniques were used to test the validity of the overall model and the relationships between the constructs hypothesised in the model. This chapter presents the implications and contributions of this study along with its limitations.

6.2 Academic, managerial and policy implications

This study has implications for future research, managerial practice, and public policy. We find strong support for the role of the dual capability of network (exploitation and exploration) in early internationalising firms' international performance. Further, we have also found that the dual capability of network are significantly associated with the dual capability of international opportunity (exploitation and exploration), which in turn are associated with the export performance of early internationalising firms. This complements the network perspective on internationalisation from international business and the theory of early internationalising firms such as born globals and international new ventures. This also complements the opportunity-based view in IE.

6.2.1 Academic implications

Differential impacts of two different dynamic capabilities suggest that the nature of the relationship between dynamic capability and organisational performance is not universal and direct. Both capabilities (exploration and exploitation, in relation to network and opportunity) are dynamic; however, one is present-focused (exploitation) and the other future-oriented (exploration). Network resource combinations that fail to show any significant impact on international performance suggest that not all network resources produce significant performance outcomes (Kenny and Fahy 2011a). It is also likely that international opportunity exploration and exploitation having different objectives and underlying processes will have differential performance outcomes. Because there exist different forms of dynamic capabilities, it is more practical to use a set of relevant business

processes in which these capabilities exist, rather than measuring a necessarily vague, generic dynamic capability (Schilke 2013). As we have used two specific processes, i.e. exploration and exploitation in network and opportunity, we found differential results (in terms of direct and indirect relationship). Empirical research on the specific types of dynamic capabilities ‘sheds light not only on these specific processes, but also on the generalised nature of dynamic capabilities’ (Eisenhardt and Martin 2000, 1108). Therefore, future research should choose performance indicators carefully to match with specific dynamic capabilities, namely exploration and exploitation.

6.2.2 Managerial implications

The results of this study have several important implications for entrepreneurs and managers in the apparel export industry and in particular that of Bangladesh and other similar countries. Relationship experience through pre-existing networks is seen as a precursor to market knowledge development, as the relational interactions between network partners, over time, lead to knowledge exchange and new knowledge development. Many smaller born-global firms, with limited competencies, entered foreign markets by forming strategic partnerships and taking advantage of the marketing capabilities and local knowledge of their network partners (Chetty and Campbell-Hunt 2004, Freeman, Edwards, and Schroder 2006). It is the current network ties that supply early internationalising firms knowledge on markets and clients abroad (Sharma and Blomstermo 2003). In the early phases of internationalisation, early internationalising firms focus on exploiting the existing ties instead of adding new ties (Sasi and Arenius 2008). When they move on to building new ties, they exploit their existing ties to find new partners and take advantage of existing network relationships to increase their attractiveness. Network exploitation is a less costly, less time consuming and less resource-demanding strategy. Therefore, younger export start-ups in the apparel export industry should use network exploitation strategy to exploit existing opportunities and gain experience and learning in networks which may strengthen the relationship between network exploitation and international opportunity exploration in future.

Our results imply that owner-managers need to focus on network exploitation capability alone if their target is to exploit existing opportunities due to limitations pertaining to resource constraints that may hinder growth; however, if they want to identify and develop new opportunities in international markets, they should focus on both network exploitation and exploration capabilities. While network exploitation capability will help exploit as well

as explore new opportunities, network exploration capability will help to achieve the same through network extension or broadening by developing new network relationships.

Younger start-ups need to be aware of the liabilities of newness and smallness that exist due to internal and external contingencies. Our moderating analysis implies that younger firms should focus more on developing network management capability comprising of several components suggested in the literature (Walter, Auer, and Ritter 2006). Younger internationalising firms with a few network partners and limited experience in managing networks lack the knowledge of partners and are less capable of managing network relationships. They should develop more partner knowledge and relational skills, increase coordination and internal communication among employees, which may help them build relational trust, strengthen their network relationships, and help manage these relationships more effectively and efficiently. They should develop absorptive capacity within network arrangements: “the ability to recognize the value of new information, assimilate it, and apply it to commercial ends” (Cohen and Levinthal 1990).

Owner-managers of early internationalising firms should carefully evaluate the value of the opportunities before exploiting them because building and using dynamic capability is costly (Schilke 2013) given that significant costs arise from acquiring new resources, reconfiguring existing ones, and combining both. Developing dynamic capabilities and resource commitments should therefore be economically sound since having a dynamic international opportunity exploration capability without any reason will cause a cost burden (in terms of employing managerial and other resources). Conversely, in an effort to exercise dynamic capability, an aggressive search for such circumstances may also be a mistake (Winter 2003), considering that attempting too much change can impose additional costs unnecessarily.

Frequent disruption on ongoing resource commitments to existing opportunities outweighs the competitive values of new international opportunities (Winter 2003). This implies that when opportunities are not feasible and desirable, entrepreneurs and managers should refrain from pursuing them. However, when emerging opportunities appear to be feasible and desirable, early internationalising firms should carefully reconfigure resources to act upon those opportunities because wrong reconfigurations can cause serious costs and impede further flexibility of resources. Since dynamic capabilities involve long-term commitment to specialised resources, it is not always necessarily advantageous for a firm to

invest in them. As a viable alternative, firms can use 'ad hoc problem solving' which is non-routine, not highly patterned and not repetitious (Winter 2003). 'Ad hoc problem solving' can be used as a response to novel challenges from the environment or other relatively unpredictable events and the costs of such problem solving will disappear when there is no problem to solve.

Identifying and developing new opportunity is important for firm growth and strategic performance, but any non-feasible investment which may fail to bring any significant return in future should not be attempted. Network exploitation capability influences international opportunity exploitation and exploration capabilities. Overall, our results support the network view of internationalisation: "opportunity identification is a side-effect of an ongoing business relationship" (Johanson and Vahlne 2009, 1419) and "an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it relationship" (Gounaris 2005, 23). However, owner-managers of early internationalising firms need to be strategic in employing organisational resources in building and developing network exploitation and exploration capability due to the existing redundancies between their effects on the dual capability of international opportunity (exploitation and exploration). Owner-managers of these firms are likewise required to be strategic in employing and shifting resources because merely owning resources and gaining access to them do not necessarily guarantee competitive advantage. This highlights a need to build and leverage these different capabilities in creative ways to develop and exploit new opportunities (Newey and Zahra 2009) because to gain sustainable competitive advantage and create value, early internationalising firms need to deploy resources strategically (Hitt et al. 2001). They need to prioritise their goals and objectives and employ resources in line with those priorities. If they do not need or cannot accommodate new network partners (more particularly, new overseas customers), they should focus on maintaining existing relationships rather than extending it. Furthermore, they need to invest deliberately in network learning through network partners which may facilitate the creation and modification of dynamic capabilities (Winter 2003, Zollo and Winter 2002) since the internationalisation process of early internationalising firms is a matter of learning through networks (Sharma and Blomstermo 2003). However, further research is required to confirm this.

Although the performance outcomes of international opportunity exploration and exploitation are similar (except with network performance which is not induced by

opportunity exploration), this does not necessarily mean that there is an either/or dichotomy. Rather, it depends on the objectives or goals as well as the network capabilities of each organisation. Since exploring new opportunities requires greater adjustment to internal and external environments and is costlier than exploitation, early internationalising firms, especially the younger ones, need to evaluate their own capabilities related to opportunity exploration and how these capabilities can be enriched and enhanced by network exploration and exploitation capabilities to mobilise resources from external sources and combine with internal ones. The same is applicable to international opportunity exploitation. Since both network exploitation and exploration capabilities seem to influence both international opportunity exploration and exploitation, these firms again need to choose or balance between network exploration and exploitation capabilities. If they are capable, network ambidexterity can be the best option to exploit and explore opportunities. However, further research is also needed to ascertain this.

The moderation analysis of this study has also several implications for policy makers, practitioners and academics. In fact, the findings of the moderation analysis shed light on the liabilities of newness and smallness of early internationalising firms. The results can help younger firms to make themselves aware of their age and size related constraints. There is no difference between young and mature firms in their network exploration capability to explore and exploit international opportunity as well as in their network exploitation capability to exploit opportunities. Only firm size matters in these relationships. However, in addition to size, age also matters in the relationship between network exploitation and opportunity exploration.

This unique result implies that younger firms in the apparel export industry of Bangladesh need to be cognizant of the relationship between network exploitation and international opportunity exploration which is contingent upon firm age and size. Younger export start-ups need to be aware of their liabilities of both newness and smallness to explore new opportunities by utilising existing network relationships. They need to strengthen existing network ties with prominent partners and build trust in the relationship which in turn will result in network referral in identifying and exploiting new opportunities. These differential results also highlight the fact that newness or smallness is not always a liability; rather there is a learning advantage of newness that may be present in these early internationalising firms (Oviatt and McDougall 2005, Zhou, Barnes, and Lu 2010).

Furthermore, smallness has also different advantages and disadvantages and can be a mixed blessing for early internationalising firms (Smith and Fleck 1987, Gassmann and Keupp 2007).

We suggest that early internationalising firms develop their network capability and their networks as a means to improve international performance. One possibility is to work with experienced and well known business people (Walter, Auer, and Ritter 2006) or prominent business partners (Batjargal 2007) which will help them overcome their need for legitimacy and get good referral. Some governmental agencies and venture capitalists run mentor programmes that aim to develop networks. Another issue is to make resources for networking available and to empower and encourage managers to develop relationships with external partners. Without the whole-hearted commitment of a person carrying out relationship management responsibilities (Clarysse and Moray 2004), a stable network of crucial venture partners is unlikely to occur. Early internationalising firms that want to enhance their export performance should also think of ways to support networking activities for their managers since networks are of catalytic importance in the creation of these firms (Sharma and Blomstermo 2003).

6.2.3 Public policy implications

Since the relationship between network exploration and international opportunity exploration is moderated only by size, there is no liability of newness involved in this relationship. Policy makers should make sufficient efforts to help younger firms in the industry to overcome their liability of smallness by establishing new contacts with new overseas partners which will result in more orders and growth.

The liability of newness may arise from both internal and external processes (Singh, Tucker, and House 1986). If the liability of newness arises mainly due to the lack of external legitimisation, its endorsement by other powerful institutional actors, will alleviate selection pressures on the organisation and lower the liability. On the other hand, the liability of newness for an organisation may arise from internal processes such as the coordination of new roles for participants and the development of trust among strangers. In this situation, the re-organisations or organisational changes that are fundamental enough to bring about the reshuffling of work groups, the hiring of new employees and bringing them into contact with existing employees, revamping of established patterns and routines of work, or revision of

lines of communication will reduce the reliability of performance of the organisation to that of a young organisation. More realistically, the two processes may not be independent, and internal re-organisation processes may be systematically related to external processes of legitimisation (Singh, Tucker, and House 1986). Public sectors can set up local organisations and institutions to teach skills that are required and unique to small and young early internationalising firms, not the very generalisable skills and competences so that managers learn how to overcome the liabilities of newness and smallness.

6.3 Contributions

This study makes the following key empirical, theoretical, and methodological contributions.

6.3.1 Empirical contributions

This is a cross-sectional study using a sample of SMEs and large as well as young and old export start-ups drawn from the traditional low-tech apparel export industry in Bangladesh. During the survey, the study obtained a useable response rate of 90% (718) although after going through the normality test we retained 647 questionnaires, comprising 332 SMEs and 315 large firms. The data also show that among 647 responses, 338 young firms (up to nine years old) and 309 mature firms (more than nine years old). This study analyses 10 hypotheses. Overall, the study supports eight hypotheses and only two hypotheses are not supported.

The study supports the hypothesis that network exploitation and exploration are positively and significantly related to the export performance of early internationalising firms. More specifically, network exploitation capability is related to all three dimensions of export performance, namely, export financial, strategic and network performance. On the contrary, network exploration capability is related to two dimensions of export performance: financial and network.

This is the first empirical study in IE that shows the indirect relationship between the dual capability of network and export performance through the mediating mechanisms of the dual capability of international opportunity. This study also investigated the moderating role of firm age and size in the relationship between the twin network capabilities and twin

international opportunity capabilities as well as between the twin international opportunity capabilities and export performance. This is a unique approach in entrepreneurship as well as in IE because existing research in entrepreneurship regarding network capability and performance asserts only a direct relationship (Walter, Auer, and Ritter 2006). Quantitative empirical research in IE also established a direct relationship between the two (Kenny and Fahy 2011b, a) although Mort and Weerawardena (2006) in their qualitative study suggest that there is also an indirect relationship between dynamic network capability and international performance of born globals. The investigation of the role of moderators (age and size) also shows different patterns of relationship involved in this study and may help overcome some of inconsistencies involved in the findings in IE. Smaller and newer born globals are found to be locked in and subject to inertia in existing networks to explore new opportunities due to their liability of newness and smallness. Larger firms can often be better established within the network and can overcome the liability of smallness in both utilising existing ties and exploring and establishing new network ties to explore and exploit international opportunities.

This is among the few empirical studies in IE that shed light on the liability of newness and smallness. Since we have collected a unique set of both SME and large as well as young and established firms, we have been able to compare these two types of export start-ups. Other studies in IE identified the same group of born globals or international new ventures as young and old having only 6 years old firms in the sample (e.g., Manolova, Manev, and Gyoshev 2010). Specifically, we found that liabilities of smallness and newness do not have the same or similar influence on the relationship; rather the influence is sometimes opposite to each other. For example, in the relationship between the dual capability of network and international opportunity, the role of firm size is more prominent whereas firm age is more influential in the relationship between the dual capability of international opportunity and export performance. This differential influence in different stages of entrepreneurial activities is apparent in Figure 5.6. This is because network management and opportunity development and exploitation is the most resource demanding and consuming stage in the entrepreneurial process. During this stage, entrepreneurs and managers of early internationalising firms assess the availability of their own organisational resources, explore the possibilities of external network resources and their complementarities and match their own resources with network partners. This stage merely reflects what is emphasised in the strategic entrepreneurship literature: strategic resource orchestration

(Ireland, Hitt, and Sirmon 2003). In the later stage when opportunities are developed and exploited, the need for resources is only minimal to achieve performance advantage. During this stage, age thus becomes a predominant factor because experienced and older firms derived more performance advantages than younger firms.

This is also the first study on the networking, entrepreneurial aspects, and performance drawn from an apparel industry that has emerged as the second largest exporter in the world. Thus this study makes a contribution to the growing IE literature on emerging economies.

6.3.2 Theoretical contribution

This research makes a number of theoretical contributions to the literature on networks, dynamic capabilities, entrepreneurship, strategic entrepreneurship and IE.

We contribute to the network-based approach on opportunity recognition (Arenius and Clercq 2005), especially in IE. Considering the increasing globalisation taking place and most specifically the new breed of “small multinationals” as opposed to their large MNE counterparts lacking necessary resources, the network-based view provides a more practical perspective in studying opportunity exploration and exploitation issues in the international marketplace.

Moreover, opportunity exploitation is a necessary step in creating a successful business in the entrepreneurial process, yet there has been little conceptual and empirical development of this issue in the literature (Choi and Shepherd 2004). We contribute to this end by explicitly including opportunity exploitation and developing the construct from a dynamic capability perspective.

The results of this study support the recent arguments of entrepreneurship scholars relating to the importance of networks in organisational success (Hoang and Antoncic 2003, Slotte-Kock and Coviello 2010) as well as that of the IE literature (Mort and Weerawardena 2006, Jones, Coviello, and Tang 2011b). As we have analysed the ability of networking and not only the existence of a network, we contribute with an insight motivated from the capability-based view of the firm, highlighting that early internationalising firms perform

better as their network capability increases (Mort and Weerawardena 2006, Jones, Coviello, and Tang 2011b, Walter, Auer, and Ritter 2006).

We contribute to the opportunity-based view in entrepreneurship and IE. Although many other fields including entrepreneurship, marketing, and international business all acknowledge that the opportunity concept helps define the core field in today's turbulent environment (Johanson and Vahlne 2009, Morris, Schindehutte, and LaForge 2002, Oviatt and McDougall 2005, Shane and Venkataraman 2000, Vahlne and Johanson 2013), yet research investigating the antecedents and outcomes of opportunity exploration and exploitation in these fields are limited, especially in the emerging fields of entrepreneurial marketing (Webb et al. 2011), strategic entrepreneurship (Hitt et al. 2001) or IE (Jones, Coviello, and Tang 2011b).

We contribute to the capability-based view of entrepreneurship, more specifically, the dynamic capability. Macpherson, Jones, and Zhang (2004) note that dynamic entrepreneurial capabilities can be defined as those patterns of collective activity associated with opportunity recognition and exploitation (Zollo and Winter 2002, Lichtenstein and Brush 2001). Our development of the opportunity construct from a dynamic capability perspective will help scholars develop a unified conceptual framework as Companys and McMullen (2007, 301) note: "the development of the opportunity construct is critical to the study of strategy and entrepreneurship and has enormous potential to coalesce these fields into a unified conceptual framework." We have defined and operationalised international opportunity exploration as a firm-level dynamic capability (Eisenhardt and Martin 2000, Teece 2007, Vahlne and Johanson 2013) through which desirable and feasible innovative international opportunities are explored, identified and developed in harmony with the resource flexibility of a firm to act on those opportunities. Our conceptualisation is in line with the definition of dynamic capability proposed by Teece (2007).

In addition, international opportunity exploitation has been conceptualised and operationalised as a dynamic capability to exploit a larger number of opportunities in relation to the responsive and adaptive capability of the firm (Rindova and Kotha 2001). In addition to the number of opportunities exploited, we have added their level of innovativeness (Fiet 2002, Gaglio and Katz 2001, Shane 2000) and incorporated the capability to adapt to external changes in international markets and respond to an emerging— the two most important aspects of a dynamic capability (Rindova and Kotha 2001).

The proposed framework of this study will also advance “our understanding of the sources, processes, and outcomes of opportunity recognition and exploitation for achieving superior performance” (Companys and McMullen 2007, 317) in an international business context, especially for early internationalising firms. Our findings are unique in light of the IE literature because no empirical research in IE postulated and investigated the mediating role of international opportunity exploration and exploitation. Thus this study has uncovered a mechanism through which network capability is transformed into opportunity related capabilities to achieve international performance.

Finally, the moderation analysis also provides additional insight which can be interpreted from a different context, a developing country’s low tech industry and its SMEs and large firms as well as young and mature firms. Contextualisation can answer to the unresolved questions existing in entrepreneurship and IE revolving the sources of opportunities and how they are developed in different contexts. As Zahra, Wright, and Abdelgawad (2014) assert:

[C]ontextualization can enrich the various theoretical perspectives that have guided thinking about entrepreneurship by providing opportunities for their possible integration, and even advancing new theoretical frameworks. Simply controlling for contextual variables in analyses of entrepreneurial phenomena grossly overlooks their micro foundations (Aldrich and Martinez 2001). A prominent example is the ongoing discussion on the origin of opportunities and whether they are discovered or created (Alvarez and Barney 2013). Without contextualization the different effects of individual, situation and serendipity are unclear. The same could be said about the opportunity recognition process in established companies, where a multitude of variables are likely to influence the outcomes. How and why certain opportunities are recognized and selected for exploitation in an existing company remains a topic for considerable debate (Foss, Lyngsie, and Zahra 2013).

The findings of this study will help to broaden our theoretical understanding of the performance advantage of early internationalising firms, especially in low-tech industries. Although international entrepreneurship is concerned with dynamic pursuit for resources and using networks for international development irrespective of sector (Evers 2011), a sector-specific or comparative studies on different sectors can shed further insights into the complex process of international entrepreneurship. While IE scholars posit that “the variables of firm size and age may not be particularly relevant in IE” (Jones, Coviello, and Tang 2011a, 642), our moderation analysis of firm age and size provides rather a different scenario. We found that both firm age and size play important roles in the entrepreneurial process although their role is differential in the different stages of international entrepreneurship. The role of firm

size is more pronounced in the earlier stage whereas firm age is a dominant factor in the later stage.

This is in contrast with the existing findings in IE mainly because IE research is dominated by high-tech early internationalising firms that are essentially small. In high-tech or knowledge-intensive firms, the size of the firm is not an important concern because most of the activities can be performed by only a few employees. By contrast, low-tech labour-intensive firms from traditional industries such as apparel rely on manual production processes and due to the availability of cheap labour in Bangladesh most of such activities are performed by human hands where possible. This indicates that IE theory requires some adjustments considering the important role of firm age and size in the low-tech industries.

Important too is diversifying IE research into fresh and different industrial contexts. Viewing (established) ventures as entrepreneurial provides a new form of organization to study. At the same time... for IE research, we believe there is a need to investigate other types of non-knowledge intensive firms... in a mature market, one might expect these characteristics to have an influence on entrepreneurial behavior. (Jones, Coviello, and Tang 2011a, 647)

6.3.3 Methodological contribution

While early internationalising firms including born globals and international new ventures constitute an important component in the IE literature (McDougall, Oviatt, and Shrader 2003), empirical interest is thus far narrowly focused on high-tech firms which are essentially from developed countries.

Opportunity exploration and exploitation as a construct has not been operationalised to its full potential, especially in the context of international business (Mainela, Puhakka, and Servais 2014). Therefore, we explored how network capabilities influence opportunity related capabilities and performance outcomes in IE. More specifically, we investigated the direct as well as indirect effects of network capabilities (through international opportunity-related capabilities) on the export performance outcomes of early internationalising firms in a developing country low-tech industry setting. The response rate of the study is also very high (90%).

We have also several methodological contributions. Our research design accommodates the diversity of internationalisation behaviour of early internationalising firms and the appropriate means of analysis (SEM) made it possible to take full advantage of the

richness of data generated. We have examined the themes of network capabilities, opportunity-related capabilities and international performance under a quantitative study and derived generalisable conclusions based on statistical analysis and hypotheses testing.

We have suggested and developed two separate constructs of network capability, namely network exploitation and exploration capability based on previous literature, pilot survey, and our own discussion and validate in the context of international business. We have also developed two separate measurements of international opportunity exploitation and exploration capabilities reflecting dynamic capability in these constructs. As a direct consequence of these findings, scholars now have the measurement scales for network exploitation and exploration capabilities as well as opportunity exploitation and exploration capabilities.

6.4 Limitations and future research

This study has several limitations which in turn offer opportunities for future researchers. One possible limitation of this study is the generalisability of the findings because this study is focused on a single country's single industry. Therefore, the results of this study should be interpreted with a caveat. However, the proposed model can be replicated in other countries, especially in other LDCs and emerging economies like India, Sri Lanka, Laos, Myanmar, Thailand and Vietnam. These countries have developed capabilities that helped them to go international early and rapidly and also been successful in attracting apparel importers from around the world. Future research undertaken in these countries can confirm this. We acknowledge that Bangladeshi apparel industry is not a typical case, rather an exceptionally successful case as a whole which raises the issue of "sampling on the dependent variable". However, we argue that the study on successful cases is meaningful as an additional contribution to the literature and the stimuli to advocate further comparative studies internationally. Particularly in apparel industry, relocation of production from country to country is a typical phenomenon. From the perspective of both domestic entrepreneurs and foreign entrepreneurs/buyers in apparel industries, Bangladesh is one of the main destinations for production. In that sense, it is worthwhile to identify what the antecedents are like, or what happens in this particular industry. We believe that the issue of "sampling on the dependent variable" has been minimised by the selection of research firms based on a random sampling and a large sample of 647 export start-ups. The overall findings of this study may be generalisable to other industries; however, the moderating effects of firm

age and firm size are likely to be different in high-tech and low-tech industry setting. A comparative study incorporating both high-tech and low-tech early internationalising firms may shed further insights on the existing theories of IE.

The measures for international opportunity exploration capability could benefit from further refinement and replication. Future research should incorporate adaptive, absorptive and innovative capabilities—all three essential components of a dynamic capability (Wang and Ahmed 2007) in this construct. The resource flexibility item of the construct could also be further developed. Different human and non-human resources possess different levels of flexibility (Bhattacharya, Gibson, and Doty 2005, Sanchez 1995) that could be investigated separately in future opportunity capability studies. Moreover, future research could investigate whether there is any correlation between the innovativeness of opportunities and the level of resource reconfiguration required. It can be argued that a new and higher level of innovative opportunity will require greater change in resource configurations and a good deal of effort and time should be devoted to develop and enact that opportunity. Finally, international market dynamism which is one of the most influential factors for international opportunity capability development and evolution (Eisenhardt and Martin 2000) could be integrated in the construct. Collectively, it seems that opportunity exploration and exploitation as a dynamic capability holds much promise for the entrepreneurship and IE researchers. While we have contributed to this, much room is left for future researchers to further understand the dynamics of this phenomenon.

In addition, we have adopted the four elements of the network capability construct of Walter et al. (2006) to operationalise “network exploitation capability” as unidimensional, future research can take a multidimensional view of both network exploitation and exploration capabilities and investigate the differential impacts on and relationships of each dimensions with opportunity-related capabilities and performance. Furthermore, we have considered both constructs as first-order; future researchers can develop a higher-order construct. Again, there are some other views of network capability and the theoretical and empirical studies are increasing around it. Future researchers can also develop a more holistic construct incorporating other dimensions of a network capability.

We have explored how network capabilities are related to international opportunity capabilities. However, we did not investigate the antecedents to network capability. What promotes network exploitation and exploration capabilities is a potential future agenda of

research. It can be assumed that early internationalising firms benefit from their entrepreneurs' pre-existing network ties and capabilities developed even before the founding of the firm. Future research could investigate this. Furthermore, one can anticipate that there may be some positive association between network exploitation and exploration capability because learning and experience earned in existing relationships can be utilised in initiating, developing and sustaining new relationships. This can be a future research agenda to see how the dual capability of network influence each other and how they interact and influence international opportunity capability and performance together (network ambidexterity).

Considering the importance of networking in the apparel export industry of Bangladesh and the findings from other studies in IE, we have included network capability as the most important antecedent to international opportunity exploration and exploitation. Other important antecedents could be included in future studies, for example, the role of government and other institutional contexts in the industry. Other antecedents or theoretical underpinnings may include the role of entrepreneur and strategic orientations such as export entrepreneurial orientation, export market orientation, etc.

This study employed a cross-sectional research design, an approach that cannot fully capture the dynamic aspects of the constructs in the model. Future work should consider adopting a longitudinal research design to shed light on the changes of these relationships over time.

There may have some tautological expressions involved in the constructs used. For example, network exploration and exploitation capabilities were used as antecedents to export network (stakeholder) performance. Theoretically, these are different constructs. Network exploration and exploitation are the capabilities that help a firm to explore new relationships and exploit existing ones. By contrast, export network (stakeholder) performance includes the level of satisfaction in performance in terms of the quality of the company's relationship with key overseas customers, the quality of key suppliers' critical components and the introduction of new products/services in international markets. Additionally, international opportunity exploration and exploitation capabilities include the number of international business ideas/opportunities explored/exploited whereas the export performance measures also have some product-market performance indicators. This may have influenced the results towards highly positive relationships. However, we found that there is even no significant relation between international opportunity exploration capability and export network (stakeholder)

performance which explicitly includes new product opportunity. This indicates that the apparently conceivable tautological expression has not escalated the research findings because although there is the number of ideas/opportunities in the constructs of international opportunity exploration and exploitation capabilities, they are not merely about numbers; rather, they are the capabilities to explore and exploit international opportunities. The correlation analysis in Table 5.7 also shows that the constructs are not overly correlated and so multicollinearity is not an issue. The Harman's one factor test by principal component analysis as well as exploratory factor analysis done in the data analysis section also satisfactorily show that all the constructs used in this study are distinct. Yet, we suggest future research avoid such tautological expressions.

6.5 Conclusion

Andrews (1997, 57) suggests that “opportunism without competence is a path to fairyland”. This study sheds light on these competences that are required to explore and exploit opportunities in international markets and achieve performance outcomes. Firms from emerging economies are increasingly being integrated with global markets successfully and the foundation to their success lies in the dynamic capabilities they have developed (Liu et al. 2013). Specifically, we found that dynamic network capabilities and international opportunity capabilities (network-enabled capabilities) helped early internationalising apparel firms from Bangladesh to become successful in international markets. Our contribution largely lies in the understanding of early internationalising firm's internationalisation from a dynamic capability perspective and with an opportunity-based entrepreneurship focus. We investigated twin concepts of network capability and opportunity capability (exploration and exploitation). In sum, our results support the view that: “international entrepreneurship can occur in large and small organizations as well as in new or established companies” (Hitt et al. 2001, 485). For early internationalising firms from emerging economies, such entrepreneurial processes, involving the development of appropriate relationship networks, may represent an efficient and effective way to sustain international growth from the outset (Zhou 2007). However, the differential influence of firm age and size on the different stages of entrepreneurial process needs to be considered. Our results indicate that the existing theoretical discussion in IE which is based on high-tech early internationalising firms is not sufficient to explain the emergence and development of such firms from different industrial contexts, especially from non-knowledge intensive sectors.

References

- Aaker, D. A., V. Kumar, and George S Day. 2004. *Marketing Research*. New York, USA: John Wiley & Sons, Inc.
- Achrol, Ravi S. 1991. "Evolution of the marketing organization: new forms for turbulent environments." *Journal of Marketing* 55 (4):77-93.
- Achrol, Ravi S. 1997. "Changes in the theory of interorganizational relations in marketing: toward a network paradigm." *Journal of the Academy of Marketing Science* 25 (1):56-71.
- Achrol, Ravi S, and L.W. Stern. 1988. "Environmental determinants of decision-making uncertainty in marketing channels." *Journal of Marketing Research* 25 (1):36-50.
- Adler, Paul S, and Seok-Woo Kwon. 2002. "Social capital: Prospects for a new concept." *Academy of Management Review* 27 (1):17-40.
- Agndal, Henrik, and Sylvie Chetty. 2007. "The impact of relationships on changes in internationalisation strategies of SMEs." *European Journal of Marketing* 41 (11/12):1449-1474.
- Ahn, Jae-Hyeon, Dong-Joo Lee, and Sang-Youn Lee. 2006. "Balancing business performance and knowledge performance of new product development: Lessons from ITS industry." *Long Range Planning* 39 (5):525-542.
- Al-Aali, Abdulrahman, and D. J. Teece. 2013. "International Entrepreneurship and the Theory of the (Long-Lived) International Firm: A Capabilities Perspective." *Entrepreneurship Theory and Practice*. doi: 10.1111/etap.12077.
- Aldrich, Howard E, and Ellen R Auster. 1986. "Even Dwarfs Started Small: Liabilities of Age and Size and Their Strategic Implications." *Research in Organizational Behavior* 8 (1986):165-186.
- Aldrich, Howard E, and Martha Argelia Martinez. 2001. "Many are called, but few are chosen: An evolutionary perspective for the study of entrepreneurship." *Entrepreneurship Theory and Practice* 25 (4):41-56.
- Aldrich, Howard E, and C. Zimmer. 1986. "Entrepreneurship through social networks." In *The art and science of entrepreneurship*, edited by D. L. Sexton and R. Smilor, 3-23. Cambridge, MA: Ballinger.
- Alsos, Gry Agnete, and Virpi Kaikkonen. 2002. "Opportunities and prior knowledge: A study of experienced entrepreneurs." Babson College, Babson Kauffman Entrepreneurship Research Conference (BKERC).
- Alvarez, Sharon A, and Jay B Barney. 2008. "Opportunities, organizations, and entrepreneurship." *Strategic Entrepreneurship Journal* 2 (4):265-267.
- Alvarez, Sharon A, and Jay B Barney. 2013. "Epistemology, opportunities, and entrepreneurship: Comments on Venkataraman et al.(2012) and Shane (2012)." *Academy of Management Review* 38 (1):154-157.
- Amit, R., and P.J.H. Schoemaker. 1993. "Strategic assets and organizational rent." *Strategic Management Journal* 14 (1):33-46.
- Anderson, Brian S, Jeffrey G Covin, and Dennis P Slevin. 2009. "Understanding the relationship between entrepreneurial orientation and strategic learning capability: an empirical investigation." *Strategic Entrepreneurship Journal* 3 (3):218-240.
- Anderson, J.C., and D.W. Gerbing. 1982. "Some methods for respecifying measurement models to obtain unidimensional construct measurement." *Journal of Marketing Research* 19 (4):453-460.
- Anderson, J.C., and D.W. Gerbing. 1988. "Structural equation modeling in practice: A review and recommended two-step approach." *Psychological Bulletin* 103 (3):411.
- Andersson, Svante, Jonas Gabrielsson, and Ingemar Wictor. 2004. "International activities in small firms: examining factors influencing the internationalization and export growth of small firms." *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration* 21 (1):22-34.
- Andersson, Svante, and I. Wictor. 2003. "Innovative internationalisation in new firms: born globals—the Swedish case." *Journal of International Entrepreneurship* 1 (3):249-275.

- Andrews, Kenneth R. 1997. "The Concept of Corporate Strategy." In *Resources, Firms, and Strategies: A Reader in the Resource-based Perspective*, edited by Nicolai J. Foss, 51-59. Oxford University Press.
- Arbuckle, J. 2011. "IBM SPSS Amos 20 user's guide." *Armonk, NY: IBM*.
- Arbuckle, J., and Werner Wothke. 1999. "AMOS 4 user's reference guide." *Chicago: Smallwaters Corporation*.
- Ardichvili, Alexander, Richard Cardozo, and Sourav Ray. 2003. "A theory of entrepreneurial opportunity identification and development." *Journal of Business Venturing* 18 (1):105-123.
- Arenius, P., and D.D. Clercq. 2005. "A network-based approach on opportunity recognition." *Small Business Economics* 24 (3):249-265.
- Armstrong, J., and Terry Overton. 1977. "Estimating nonresponse bias in mail surveys." *Journal of Marketing Research* 14 (3):396-402.
- Arrindell, Willem A, and Jan Van der Ende. 1985. "An empirical test of the utility of the observations-to-variables ratio in factor and components analysis." *Applied Psychological Measurement* 9 (2):165-178.
- Auh, Seigyoung, and Bulent Menguc. 2005. "Balancing exploration and exploitation: The moderating role of competitive intensity." *Journal of Business Research* 58 (12):1652-1661.
- Autio, Erkko, Harry J Sapienza, and James G Almeida. 2000. "Effects of age at entry, knowledge intensity, and imitability on international growth." *Academy of Management Journal* 43 (5):909-924.
- Äyväri, Anne, and Annukka Jyrämä. 2007. "The networking abilities of craft entrepreneurs." 23rd IMP Conference. Exploiting the b2b Knowledge Network: New Perspectives and Core Concepts. Manchester Business School.
- Äyväri, Anne, and Kristian Möller. 2008. "Understanding relational and network capabilities—a critical review." 24th IMP conference in Uppsala, Sweden.
- Bagchi-Sen, Sharmistha. 1999. "The small and medium sized exporters' problems: an empirical analysis of Canadian manufacturers." *Regional Studies* 33 (3):231-245.
- Bagozzi, Richard P. 1994. "Structural equation models in marketing research: basic principles." In *Principles of Marketing Research*, edited by Richard P Bagozzi, 317-385. Oxford: Blackwell.
- Bagozzi, Richard P, and Youjae Yi. 1988. "On the evaluation of structural equation models." *Journal of the Academy of Marketing Science* 16 (1):74-94.
- Baldegger, R.J. , and P.E. Schueffel. 2010. "An entrepreneurial perspective on SME internationalization." United States Association for Small Business and Entrepreneurship, Nashville, Tennessee, January 14-17.
- Barclay, Stephen, Chris Todd, Ilora Finlay, Gunn Grande, and Penny Wyatt. 2002. "Not another questionnaire! Maximizing the response rate, predicting non-response and assessing non-response bias in postal questionnaire studies of GPs." *Family Practice* 19 (1):105-111.
- Baron, Reuben M, and David A Kenny. 1986. "The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations." *Journal of Personality and Social Psychology* 51 (6):1173.
- Baron, Robert A, and Gideon D Markman. 2003. "Beyond social capital: The role of entrepreneurs' social competence in their financial success." *Journal of Business Venturing* 18 (1):41-60.
- Batjargal, Bat. 2003. "Social capital and entrepreneurial performance in Russia: A longitudinal study." *Organization Studies* 24 (4):535-556.
- Batjargal, Bat. 2007. "Network triads: transitivity, referral and venture capital decisions in China and Russia." *Journal of International Business Studies* 38 (6):998-1012.
- Batjargal, Bat. 2010. "The effects of network's structural holes: polycentric institutions, product portfolio, and new venture growth in China and Russia." *Strategic Entrepreneurship Journal* 4 (2):146-163.
- Baum, Joel AC, Tony Calabrese, and Brian S Silverman. 2000. "Don't go it alone: Alliance network composition and startups' performance in Canadian biotechnology." *Strategic Management Journal* 21 (3):267-294.
- Baum, Joel AC, and Brian S Silverman. 2004. "Picking winners or building them? Alliance, intellectual, and human capital as selection criteria in venture financing and performance of biotechnology startups." *Journal of Business Venturing* 19 (3):411-436.

- Baumgartner, Hans, and Christian Homburg. 1996. "Applications of structural equation modeling in marketing and consumer research: a review." *International Journal of Research in Marketing* 13 (2):139-161.
- Benner, Mary J, and Michael L Tushman. 2003. "Exploitation, exploration, and process management: The productivity dilemma revisited." *Academy of Management Review* 28 (2):238-256.
- Bentler, Peter M. 1980. "Multivariate analysis with latent variables: Causal modeling." *Annual Review of Psychology* 31 (1):419-456.
- Bentler, Peter M. 1995. *EQS structural equations program manual*: Multivariate Software.
- Benz, Matthias. 2009. "Entrepreneurship as a non-profit-seeking activity." *International Entrepreneurship and Management Journal* 5 (1):23-44.
- Bhagavatula, Suresh, Tom Elfring, Aad van Tilburg, and Gerhard G van de Bunt. 2010. "How social and human capital influence opportunity recognition and resource mobilization in India's handloom industry." *Journal of Business Venturing* 25 (3):245-260.
- Bhattacharya, Mousumi, Donald E Gibson, and D Harold Doty. 2005. "The effects of flexibility in employee skills, employee behaviors, and human resource practices on firm performance." *Journal of Management* 31 (4):622-640.
- Bhave, Mahesh P. 1994. "A process model of entrepreneurial venture creation." *Journal of Business Venturing* 9 (3):223-242.
- Birley, Sue. 1986. "The role of networks in the entrepreneurial process." *Journal of Business Venturing* 1 (1):107-117.
- Blomqvist, Kirsimarja, and Juha Levy. 2006. "Collaboration capability—a focal concept in knowledge creation and collaborative innovation in networks." *International Journal of Management Concepts and Philosophy* 2 (1):31-48.
- Bodwell, Wendy, and Thomas J Chermack. 2010. "Organizational ambidexterity: Integrating deliberate and emergent strategy with scenario planning." *Technological Forecasting and Social Change* 77 (2):193-202.
- Bollen, Kenneth A. 2002. "Latent variables in psychology and the social sciences." *Annual review of psychology* 53 (1):605-634.
- Bollen, Kenneth A, and J Scott Long. 1993. *Testing Structural Equation Models*. Vol. 154: Sage.
- Boomsma, Anne. 1985. "Nonconvergence, improper solutions, and starting values in LISREL maximum likelihood estimation." *Psychometrika* 50 (2):229-242.
- Borgatti, Stephen P, and Pacey C Foster. 2003. "The network paradigm in organizational research: A review and typology." *Journal of Management* 29 (6):991-1013.
- Brannick, Michael T. 1995. "Critical comments on applying covariance structure modeling." *Journal of Organizational Behavior* 16 (3):201-213.
- Brass, Daniel J, Joseph Galaskiewicz, Henrich R Greve, and Wenpin Tsai. 2004. "Taking stock of networks and organizations: A multilevel perspective." *Academy of Management Journal* 47 (6):795-817.
- Brouthers, Lance Eliot, Edward O'Donnell, and John Hadjimarcou. 2005. "Generic product strategies for emerging market exports into triad nation markets: A mimetic isomorphism approach." *Journal of Management Studies* 42 (1):225-245.
- Brown, Brad, and John E Butler. 1993. "Networks and entrepreneurial development: the shadow of borders." *Entrepreneurship & Regional Development* 5 (2):101-116.
- Brown, Terrence E, Per Davidsson, and Johan Wiklund. 2001. "An operationalization of Stevenson's conceptualization of entrepreneurship as opportunity-based firm behavior." *Strategic Management Journal* 22 (10):953-968.
- Browne, Michael W, and Gerhard Mels. 1992. RAMONA user's guide. The Ohio State University, Columbus, OH.
- Buchanan, James M, and Viktor J Vanberg. 1991. "The market as a creative process." *Economics and philosophy* 7 (02):167-186.
- Burns, AC, and Ronald F Bush. 1995. *Marketing Research*. Englewood Cliffs, NJ: Prentice Hall.
- Burt, Ronald S. 1992. *Structural holes*. Cambridge, MA: Harvard University Press.
- Burt, Ronald S. 2000. "The network structure of social capital." *Research in Organizational Behavior* 22:345-423.
- Burt, Ronald S. 2005. *Brokerage and Closure*. New York: Oxford University Press.

- Busenitz, Lowell W, G Page West, Dean Shepherd, Teresa Nelson, Gaylen N Chandler, and Andrew Zacharakis. 2003. "Entrepreneurship research in emergence: Past trends and future directions." *Journal of Management* 29 (3):285-308.
- Byrne, Barbara M. 2001. "Structural equation modeling with AMOS, EQS, and LISREL: Comparative approaches to testing for the factorial validity of a measuring instrument." *International Journal of Testing* 1 (1):55-86.
- Cameron, Kim S. 1986. "Effectiveness as paradox: Consensus and conflict in conceptions of organizational effectiveness." *Management Science* 32 (5):539-553.
- Campbell, Donald T. 1955. "The informant in quantitative research." *American Journal of Sociology* 60 (4):339-342.
- Capaldo, Antonio. 2007. "Network structure and innovation: The leveraging of a dual network as a distinctive relational capability." *Strategic Management Journal* 28 (6):585-608.
- Carmines, Edward G, and John P McIver. 1981. "Analyzing models with unobserved variables: Analysis of covariance structures." In *Social Measurement: Current Issues*, edited by George W Bohrnstedt and Edgar F Borgatta, 65-115. Beverly Hills: Sage Publications, Inc.
- Carmines, Edward G, and Richard A Zeller. 1979. *Reliability and validity assessment*. Vol. 17: Sage.
- Carrier, C. 1999. "The training and development needs of owner-managers of small businesses with export potential." *Journal of Small Business Management* 37 (4):30-41.
- Casson, M. 1982. *The Entrepreneur: An economic Theory*. Oxford: Martin Robertson.
- Cattell, Raymond Bernard. 1978. *The Scientific Use of Factor Analysis in Behavioral and Life Sciences*. New York, US: Plenum Press.
- Cavusgil, S Tamer, and Shaoming Zou. 1994. "Marketing strategy-performance relationship: an investigation of the empirical link in export market ventures." *Journal of Marketing* 58 (1):1-21.
- Chan, Fong, Gloria K Lee, Eun-Jeong Lee, Coleen Kubota, and Chase A Allen. 2007. "Structural equation modeling in rehabilitation counseling research." *Rehabilitation Counseling Bulletin* 51 (1):44-57.
- Chandler, Gaylen N, Jonas Dahlgvist, and Per Davidsson. 2002. "Opportunity recognition processes: A taxonomy and outcome implications." *Frontiers of entrepreneurship research 2002: Proceedings of the twenty-second annual Entrepreneurship Research Conference*.
- Chandler, Gaylen N, and Steven H Hanks. 1994. "Founder competence, the environment and venture performance." *Entrepreneurship Theory and Practice* 18 (3):77-89.
- Chandler, Gaylen N, and Erik Jansen. 1992. "The founder's self-assessed competence and venture performance." *Journal of Business Venturing* 7 (3):223-236.
- Chandra, Yanto, C. Styles, and I. Wilkinson. 2009. "The recognition of first time international entrepreneurial opportunities: Evidence from firms in knowledge-based industries." *International Marketing Review* 26 (1):30-61.
- Chandra, Yanto, Chris Styles, and Ian F Wilkinson. 2012. "An opportunity-based view of rapid internationalization." *Journal of International Marketing* 20 (1):74-102.
- Chandy, Rajesh K, and Gerard J Tellis. 2000. "The incumbent's curse? Incumbency, size, and radical product innovation." *The Journal of Marketing*:1-17.
- Chen, Ming-Jer, and Donald C Hambrick. 1995. "Speed, stealth, and selective attack: How small firms differ from large firms in competitive behavior." *Academy of Management Journal* 38 (2):453-482.
- Chetty, Sylvie, and Colin Campbell-Hunt. 2003. "Explosive international growth and problems of success amongst small to medium-sized firms." *International Small Business Journal* 21 (1):5-27.
- Chetty, Sylvie, and Colin Campbell-Hunt. 2004. "A strategic approach to internationalization: a traditional versus a "born-global" approach." *Journal of International Marketing* 12 (1):57-81.
- Chi, Ting, and Yao Sun. 2013. "Development of firm export market oriented behavior: Evidence from an emerging economy." *International Business Review* 22 (1):339-350.
- Child, John, and Suzana B Rodrigues. 2005. "The Internationalization of Chinese Firms: A Case for Theoretical Extension?" *Management and Organization Review* 1 (3):381-410.

- Choi, Young Rok, and Dean A Shepherd. 2004. "Entrepreneurs' decisions to exploit opportunities." *Journal of Management* 30 (3):377-395.
- Christensen, P.S., O.O. Madsen, and R. Peterson. 1989. Denmark.
- Churchill Jr, Gilbert A. 1979. "A paradigm for developing better measures of marketing constructs." *Journal of Marketing Research* 16 (1):64-73.
- Ciabuschi, Francesco, Andrea Perna, and Ivan Snehota. 2012. "Assembling resources when forming a new business." *Journal of Business Research* 65 (2):220-229.
- Cieślak, Jerzy, Eugene Kaciak, and Dianne HB Welsh. 2012. "The impact of geographic diversification on export performance of small and medium-sized enterprises (SMEs)." *Journal of International Entrepreneurship* 10 (1):70-93.
- Clarysse, Bart, and Nathalie Moray. 2004. "A process study of entrepreneurial team formation: the case of a research-based spin-off." *Journal of Business Venturing* 19 (1):55-79.
- Cohen, Wesley M, and Daniel A Levinthal. 1990. "Absorptive capacity: a new perspective on learning and innovation." *Administrative Science Quarterly* 35 (1):128-152.
- Coleman, James S. 1988. "Social capital in the creation of human capital." *American Journal of Sociology* 94:95-120.
- Collis, D.J. 2006. "Research note: how valuable are organizational capabilities?" *Strategic Management Journal* 15 (S1):143-152.
- Coltman, Tim, Timothy M Devinney, David F Midgley, and Sunil Venaik. 2008. "Formative versus reflective measurement models: Two applications of formative measurement." *Journal of Business Research* 61 (12):1250-1262.
- Companys, Yosem E, and Jeffery S McMullen. 2007. "Strategic entrepreneurs at work: the nature, discovery, and exploitation of entrepreneurial opportunities." *Small Business Economics* 28 (4):301-322.
- Comrey, Andrew Laurence, and Howard Bing Lee. 1992. *A First Course in Factor Analysis*. 2nd ed. Hillsdale, NJ: Erlbaum.
- Cooper, Arnold C. 2002. *Networks, alliances and entrepreneurship*: Oxford: Blackwell.
- Corbett, Andrew C. 2007. "Learning asymmetries and the discovery of entrepreneurial opportunities." *Journal of Business Venturing* 22 (1):97-118.
- Coviello, N.E. 2005. "Integrating qualitative and quantitative techniques in network analysis." *Qualitative Market Research: An International Journal* 8 (1):39-60.
- Coviello, N.E. 2006. "The network dynamics of international new ventures." *Journal of International Business Studies* 37 (5):713-731.
- Coviello, N.E., and M.P. Cox. 2006. "The resource dynamics of international new venture networks." *Journal of International Entrepreneurship* 4 (2-3):113-132.
- Coviello, N.E., and Marian V Jones. 2004. "Methodological issues in international entrepreneurship research." *Journal of Business Venturing* 19 (4):485-508.
- Coviello, N.E., and H.J. Munro. 1995. "Growing the entrepreneurial firm: Networking for international market development." *European Journal of Marketing* 29 (7):49-61.
- Coviello, N.E., and H.J. Munro. 1997. "Network relationships and the internationalisation process of small software firms." *International Business Review* 6 (4):361-386.
- Covin, Jeffrey G, and Dennis P Slevin. 1991. "A conceptual model of entrepreneurship as firm behavior." *Entrepreneurship Theory and Practice* 16 (1):7-25.
- Covin, Jeffrey G, and William J Wales. 2012. "The measurement of entrepreneurial orientation." *Entrepreneurship Theory and Practice* 36 (4):677-702.
- Crick, Dave, and Marian V Jones. 2000. "Small high-technology firms and international high-technology markets." *Journal of International Marketing* 8 (2):63-85.
- Crick, Dave, and Martine M Spence. 2005. "The internationalisation of 'high performing' UK high-tech SMEs: a study of planned and unplanned strategies." *International Business Review* 14 (2):167-185.
- Cunningham, J Barton, and Joe Lischeron. 1991. "Defining entrepreneurship." *Journal of Small Business Management* 29 (1):45-61.
- Danneels, Erwin. 2003. "Tight-loose coupling with customers: the enactment of customer orientation." *Strategic Management Journal* 24 (6):559-576.

- Danneels, Erwin. 2006. "Dialogue on the effects of disruptive technology on firms and industries." *Journal of Product Innovation Management* 23 (1):2-4.
- De Koning, Alice, and Daniel Muzyka. 1999. "Conceptualizing opportunity recognition as a socio-cognitive process." *Centre for Advanced Studies in Leadership, Stockholm*.
- De Wulf, Kristof, Gaby Odekerken-Schröder, and Dawn Iacobucci. 2001. "Investments in consumer relationships: a cross-country and cross-industry exploration." *Journal of Marketing* 65 (4):33-50.
- Dess, Gregory G, and Richard B Robinson. 1984. "Measuring organizational performance in the absence of objective measures: the case of the privately-held firm and conglomerate business unit." *Strategic Management Journal* 5 (3):265-273.
- DeTienne, Dawn R, and Gaylen N Chandler. 2007. "The role of gender in opportunity identification." *Entrepreneurship Theory and Practice* 31 (3):365-386.
- Dhanaraj, Charles, and Arvind Parkhe. 2006. "Orchestrating innovation networks." *Academy of Management Review* 31 (3):659-669.
- Diamantopoulos, Adamantios, Nina Reynolds, and Bodo B Schlegelmilch. 1994. "Pretesting in questionnaire design: The impact of respondent characteristics on error detection." *Journal of the Market Research Society* 36 (4):295-313.
- Dimitratos, P., and Marian V Jones. 2005 "Future Directions for International Entrepreneurship Research." *International Business Review* 14 (2):119-128.
- Drucker, Peter F. 1998. "The discipline of innovation." *Harvard Business Review* 76 (6):149-157.
- Dubini, P., and Howard E Aldrich. 1991. "Personal and extended networks are central to the entrepreneurial process." *Journal of Business Venturing* 6 (5):305-313.
- Durmuşoğlu, Serdar S., Gerhard Apfelthaler, Dilek Zamantili Nayir, Roberto Alvarez, and Terry Mughan. 2012. "The effect of government-designed export promotion service use on small and medium-sized enterprise goal achievement: A multidimensional view of export performance." *Industrial Marketing Management* 41 (4):680-691. doi: <http://dx.doi.org/10.1016/j.indmarman.2011.09.016>.
- Dyer, Jeffrey H, and Harbir Singh. 1998. "The relational view: Cooperative strategy and sources of interorganizational competitive advantage." *Academy of Management Review* 23 (4):660-679.
- Eberhard, Manuel, and Justin Craig. 2012. "The evolving role of organisational and personal networks in international market venturing." *Journal of World Business* 48 (3):385-397.
- Eckhardt, Jonathan T, and Scott Shane. 2010. "An update to the individual-opportunity nexus." In *Handbook of Entrepreneurship Research*, 47-76. Springer.
- Eckhardt, Jonathan T, and Scott A Shane. 2003. "Opportunities and entrepreneurship." *Journal of Management* 29 (3):333-349.
- Edelman, Linda, and Helena Yli-Renko. 2010. "The Impact of Environment and Entrepreneurial Perceptions on Venture-Creation Efforts: Bridging the Discovery and Creation Views of Entrepreneurship." *Entrepreneurship Theory and Practice* 34 (5):833-856.
- Edvardsson, Bo, Maria Holmlund, and Tore Strandvik. 2008. "Initiation of business relationships in service-dominant settings." *Industrial Marketing Management* 37 (3):339-350.
- Edwards, Paul, Sukanya Sengupta, and Chin-Ju Tsai. 2010. "The context-dependent nature of small firms' relations with support agencies: A three-sector study in the UK." *International Small Business Journal* 28 (6):543-565.
- Eisenhardt, Kathleen M, and Jeffrey A Martin. 2000. "Dynamic capabilities: what are they?" *Strategic Management Journal* 21 (10-11):1105-1121.
- Elango, B, and Chinmay Pattnaik. 2007. "Building capabilities for international operations through networks: a study of Indian firms." *Journal of International Business Studies* 38 (4):541-555.
- Elfring, Tom, and W. Hulsink. 2003. "Networks in entrepreneurship: The case of high-technology firms." *Small Business Economics* 21 (4):409-422.
- Elfring, Tom, and Willem Hulsink. 2007. "Networking by Entrepreneurs: Patterns of Tie—Formation in Emerging Organizations." *Organization Studies* 28 (12):1849-1872.
- Elg, Ulf, and Ulf Johansson. 1996. "Networking when national boundaries dissolve." *European Journal of Marketing* 30 (2):61-74.

- Ellis, Paul. 2000. "Social ties and foreign market entry." *Journal of International Business Studies* 31 (3):443-469.
- Ellis, Paul. 2007. "Distance, dependence and diversity of markets: effects on market orientation." *Journal of International Business Studies* 38 (3):374-386.
- Erickson, Tamara J, and L Gratton. 2007. "Eight ways to build collaborative teams." *Harvard Business Review* 11:1-11.
- Eriksson, Kent, Jan Johanson, Anders Majkgard, and D. Deo Sharma. 1997. "Experiential Knowledge and Costs in the Internationalization Process." *Journal of International Business Studies* 28 (2):337-360.
- Eriksson, Taina. 2014. "Processes, antecedents and outcomes of dynamic capabilities." *Scandinavian Journal of Management* 30 (1):65-82.
- Ettlie, John E, and Albert H Rubenstein. 1987. "Firm size and product innovation." *Journal of Product Innovation Management* 4 (2):89-108.
- Evers, Natasha. 2011. "International new ventures in "low tech" sectors: a dynamic capabilities perspective." *Journal of Small Business and Enterprise Development* 18 (3):502-528.
- Fan, Terence, and Phillip Phan. 2007. "International new ventures: revisiting the influences behind the 'born-global' firm." *Journal of International Business Studies* 38 (7):1113-1131.
- Faroque, A. R., and Y. Takahashi. 2012. "Export Assistance: The Way Back and Forward." In *Export Assistance: The Way Back and Forward*, 1-23. New York: Springer.
- Fassinger, Ruth E. 1987. "Use of structural equation modeling in counseling psychology research." *Journal of Counseling Psychology* 34 (4):425.
- Fiengenbaum, Avi, and Aneel Karnani. 1991. "Output flexibility—a competitive advantage for small firms." *Strategic Management Journal* 12 (2):101-114.
- Field, A. 2013. *Discovering Statistics Using IBM SPSS Statistics*: SAGE Publications.
- Fiet, James O. 2002. *The systematic search for entrepreneurial discoveries*: ABC-CLIO.
- Fitzpatrick, Anne R. 1983. "The meaning of content validity." *Applied Psychological Measurement* 7 (1):3-13.
- Fletcher, Denise. 2004. "International entrepreneurship and the small business." *Entrepreneurship & Regional Development* 16 (4):289-305.
- Floyd, Steven W, and Bill Wooldridge. 1999. "Knowledge creation and social networks in corporate entrepreneurship: The renewal of organizational capability." *Entrepreneurship Theory and Practice* 23 (3):123-144.
- Ford, David. 1990. *Understanding business markets: Interaction, relationships and networks*. London: Academic Press
- Fornell, Claes, and Fred L Bookstein. 1982. "Two structural equation models: LISREL and PLS applied to consumer exit-voice theory." *Journal of Marketing Research (JMR)* 19 (4):440-452.
- Fornell, Claes, and D.F. Larcker. 1981. "Evaluating structural equation models with unobservable variables and measurement error." *Journal of Marketing Research* 18 (1):39-50.
- Foss, Nicolai J, Jacob Lyngsie, and Shaker A Zahra. 2013. "The role of external knowledge sources and organizational design in the process of opportunity exploitation." *Strategic Management Journal* 34 (12):1453-1471.
- Francis, June, and Colleen Collins-Dodd. 2000. "The impact of firms' export orientation on the export performance of high-tech small and medium-sized enterprises." *Journal of International Marketing* 8 (3):84-103.
- Freeman, John, Glenn R Carroll, and Michael T Hannan. 1983. "The liability of newness: Age dependence in organizational death rates." *American Sociological Review* 48 (5):692-710.
- Freeman, Susan, R. Edwards, and B Schroder. 2006. "How Smaller Born-Global Firms Use Networks and Alliances to Overcome Constraints to Rapid Internationalization." *Journal of International Marketing* 14 (3):33-63.
- Frels, Judy K, Tasadduq Shervani, and Rajendra K Srivastava. 2003. "The integrated networks model: Explaining resource allocations in network markets." *Journal of marketing*:29-45.
- Fuentes, M.M.F., M.R. Arroyo, A.M. Bojica, and V.F. Pérez. 2010. "Prior knowledge and social networks in the exploitation of entrepreneurial opportunities." *International Entrepreneurship and Management Journal* 6 (4):481-501.

- Gabrielsson, M., and V.H. Kirpalani. 2004. "Born globals: how to reach new business space rapidly." *International Business Review* 13 (5):555-571.
- Gadde, Lars-Erik, Lars Huemer, and Håkan Håkansson. 2003. "Strategizing in industrial networks." *Industrial marketing management* 32 (5):357-364.
- Gaglio, Connie Marie, and Jerome A Katz. 2001. "The psychological basis of opportunity identification: Entrepreneurial alertness." *Small Business Economics* 16 (2):95-111.
- Gaglio, Connie Marie, and Richard P Taub. 1992. "Entrepreneurs and opportunity recognition." *Frontiers of Entrepreneurship Research* 12:136-147.
- Galbraith, J.R. 1977. *Organization design*. Reading, MA: Addison-Wesley.
- Gassmann, O., and M.M. Keupp. 2007. "The competitive advantage of early and rapidly internationalising SMEs in the biotechnology industry: A knowledge-based view." *Journal of World Business* 42 (3):350-366.
- George, D, and M Mallery. 2003. *Using SPSS for Windows step by step: a simple guide and reference*. Boston, MA: Allyn & Bacon.
- Gerbing, D.W., and J.G. Hamilton. 1996. "Viability of exploratory factor analysis as a precursor to confirmatory factor analysis." *Structural Equation Modeling: A Multidisciplinary Journal* 3 (1):62-72.
- Ghuri, Pervez N, and Stig M Herbern. 1994. "Export Behaviour of Smaller Norwegian Firms: Measuring the Effects of State Subsidies." *Journal of Euromarketing* 3 (2):91-110.
- Gibson, Cristina B, and Julian Birkinshaw. 2004. "The antecedents, consequences, and mediating role of organizational ambidexterity." *Academy of Management Journal* 47 (2):209-226.
- Gilmore, Audrey, and David Carson. 1999. "Entrepreneurial marketing by networking." *New England Journal of Entrepreneurship* 2 (2):31-38.
- Gordon, S.R. 2006. "The role of interpersonal trust and vigilance in the process of entrepreneurial opportunity recognition using social networks." *Regional Frontiers of Entrepreneurship Research* 2006:42-61.
- Gordon, S.R. 2007. "Interpersonal trust, vigilance and social networks roles in the process of entrepreneurial opportunity recognition." *International Journal of Entrepreneurship and Small Business* 4 (5):564-585.
- Gorsuch, R.L. . 1983. *Factor Analysis*. 2nd ed. Hillsdale, NJ: Erlbaum.
- Gounaris, Spiros P. 2005. "Trust and commitment influences on customer retention: insights from business-to-business services." *Journal of Business Research* 58 (2):126-140.
- Graetz, Fiona, and Aaron Smith. 2005. "Organizing forms in change management: the role of structures, processes and boundaries in a longitudinal case analysis." *Journal of Change Management* 5 (3):311-328.
- Graham, Peter G. 1999. "Small business participation in the global economy." *European journal of marketing* 33 (1/2):88-102.
- Grandori, A., and G. Soda. 1995. "Inter-firm networks: antecedents, mechanisms and forms." *Organization studies* 16 (2):183-214.
- Granovetter, Mark S. 1973. "The strength of weak ties." *American Journal of Sociology* 78 (6):1360-1380.
- Greve, Arent. 1995. "Networks and entrepreneurship—An analysis of social relations, occupational background, and use of contacts during the establishment process." *Scandinavian Journal of Management* 11 (1):1-24.
- Guilford, Joy Paul. 1954. *Psychometric Methods*. 2nd ed. New York, US: McGraw-Hill.
- Gulati, Ranjay. 1999. "Network location and learning: The influence of network resources and firm capabilities on alliance formation." *Strategic Management Journal* 20 (5):397-420.
- Gulati, Ranjay, Nitin Nohria, and Akbar Zaheer. 2000. "Guest editors' introduction to the special issue: strategic networks." *Strategic Management Journal* 21 (3):199-201.
- Hair, J.F. , R. Anderson, R. Tatham, and W. Black. 1998. *Multivariate Data Analysis (5th Ed)*. Upper Saddle River: NJ.: Prentice Hall.
- Hair, J.F., W.C. Black, B.J. Babin, and R.E. Anderson. 2010. *Multivariate data analysis: A global perspective*. Upper Saddle River, N.J.: Prentice Hall.
- Håkansson, Håkan. 1982. *International marketing and purchasing of industrial goods: An interaction approach*. Chichester: John Wiley and Sons Ltd. .

- Håkansson, Håkan. 1987. *Industrial technological development: A network approach*: Croom Helm London.
- Halberstam, D. 1986. "The reckoning." *New York: Avon*.
- Hamel, Gary, and Coimbatore Krishnarao Prahalad. 1994. "Competing for the future." *Harvard Business School Press, Boston, MA*.
- Han, Jin K, Namwoon Kim, and Rajendra K Srivastava. 1998. "Market orientation and organizational performance: is innovation a missing link?" *Journal of Marketing* 62 (4):30-45.
- Han, Mary. 2006. "Developing social capital to achieve superior internationalization: A conceptual model." *Journal of International Entrepreneurship* 4 (2):99-112.
- Han, Mary. 2007. "Achieving superior internationalization through strategic ambidexterity." *Journal of Enterprising Culture* 15 (01):43-77.
- Han, Mary, and Nikhil Celly. 2008. "Strategic ambidexterity and performance in international new ventures." *Canadian Journal of Administrative Sciences* 25 (4):335-349.
- Hansen, Eric L. 1995. "Entrepreneurial networks and new organization growth." *Entrepreneurship Theory and Practice* 19:7-20.
- Harrison, Jeffrey S, Michael A Hitt, Robert E Hoskisson, and R Duane Ireland. 2001. "Resource complementarity in business combinations: Extending the logic to organizational alliances." *Journal of Management* 27 (6):679-690.
- Hatcher, L. 2007. *A Step-by-step Approach to Using the SAS System for Factor Analysis and Structural Equation Modeling*. Cary: SAS Institute.
- Havila, Virpi, and Christopher J Medlin. 2012. "Ending-competence in business closure." *Industrial marketing management* 41 (3):413-420.
- Hayduk, Leslie A. 1996. *LISREL Issues, Debates and Strategies*. London: Johns Hopkins University Press.
- Hayek, Friedrich August. 1945. "The use of knowledge in society." *American Economic Review* 35 (4):519-530.
- Hayes, Andrew F. 2009. "Beyond Baron and Kenny: Statistical mediation analysis in the new millennium." *Communication Monographs* 76 (4):408-420.
- Haynie, J Michael, Dean A Shepherd, and Jeffery S McMullen. 2009. "An opportunity for me? The role of resources in opportunity evaluation decisions." *Journal of management studies* 46 (3):337-361.
- He, Zi-Lin, and Poh-Kam Wong. 2004. "Exploration vs. exploitation: An empirical test of the ambidexterity hypothesis." *Organization science* 15 (4):481-494.
- Heimeriks, Koen H. 2004. *Developing alliance capabilities*. Eindhoven: Eindhoven University Press.
- Heimeriks, Koen H, and Geert Duysters. 2007. "Alliance Capability as a Mediator Between Experience and Alliance Performance: An Empirical Investigation into the Alliance Capability Development Process." *Journal of Management Studies* 44 (1):25-49.
- Heimeriks, Koen H, Geert Duysters, and Wim Vanhaverbeke. 2007. "Learning mechanisms and differential performance in alliance portfolios." *Strategic organization* 5 (4):373-408.
- Helfat, C.E., Sydney Finkelstein, Will Mitchell, Margaret Peteraf, Harbir Singh, David J. Teece, and Sidney G Winter. 2007. *Dynamic Capabilities: Understanding Strategic Change in Organizations*. London: Wiley-Blackwell.
- Hessels, Jolanda, and André van Stel. 2011. "Entrepreneurship, export orientation, and economic growth." *Small Business Economics* 37 (2):255-268.
- Hills, Gerald E, G Thomas Lumpkin, and R.P. Singh. 1997. "Opportunity recognition: Perceptions and behaviors of entrepreneurs." *Frontiers of Entrepreneurship Research* 17:168-182.
- Hills, Gerald E, and Rodney C Shrader. 1998. "Successful entrepreneurs' insights into opportunity recognition." *Frontiers of Entrepreneurship Research* 18:30-43.
- Hills, Gerald E, Rodney C Shrader, and G Thomas Lumpkin. 1999. "Opportunity recognition as a creative process." *Frontiers of Entrepreneurship Research* 19:216-227.
- Hite, Julie M. 2005. "Evolutionary processes and paths of relationally embedded network ties in emerging entrepreneurial firms." *Entrepreneurship theory and practice* 29 (1):113-144.
- Hite, Julie M, and William S Hesterly. 2001. "The evolution of firm networks: From emergence to early growth of the firm." *Strategic Management Journal* 22 (3):275-286.

- Hitt, Michael A, R Duane Ireland, S Michael Camp, and Donald L Sexton. 2001. "Strategic entrepreneurship: Entrepreneurial strategies for wealth creation." *Strategic Management Journal* 22 (6-7):479-491.
- Hitt, Michael A, Barbara W Keats, and Samuel M DeMarie. 1998. "Navigating in the new competitive landscape: Building strategic flexibility and competitive advantage in the 21st century." *The Academy of Management Executive* 12 (4):22-42.
- Hoang, H., and B. Antoncic. 2003. "Network-based research in entrepreneurship: A critical review." *Journal of Business Venturing* 18 (2):165-187.
- Hoang, H., and Frank T Rothaermel. 2010. "Leveraging internal and external experience: exploration, exploitation, and R&D project performance." *Strategic Management Journal* 31 (7):734-758.
- Hoang, H., and N. Young. 2000. "Social embeddedness and entrepreneurial opportunity recognition (More) evidence of embeddedness." *Frontiers of Entrepreneurship Research, Babson College, Wellesley, MA.*
- Homburg, Christian, and Andreas Fürst. 2005. "How organizational complaint handling drives customer loyalty: an analysis of the mechanistic and the organic approach." *Journal of Marketing*:95-114.
- Hoyle, Rick H. 1995. *Structural equation modeling: Concepts, issues, and applications*. Thousand Oaks, CA: Sage.
- Hsu, Chia-Wen, Yung-Chih Lien, and Homin Chen. 2013. "International ambidexterity and firm performance in small emerging economies." *Journal of World Business* 48 (1):58-67.
- Hughes, Mathew, Silvia L Martin, Robert E Morgan, and Matthew J Robson. 2010. "Realizing product-market advantage in high-technology international new ventures: The mediating role of ambidextrous innovation." *Journal of International Marketing* 18 (4):1-21.
- Hung, Humphry. 2006. "Formation and Survival of New Ventures A Path from Interpersonal to Interorganizational Networks." *International Small Business Journal* 24 (4):359-378.
- Hurley, Amy E, Terri A Scandura, Chester A Schriesheim, Michael T Brannick, Anson Seers, Robert J Vandenberg, and Larry J Williams. 1997. "Exploratory and confirmatory factor analysis: Guidelines, issues, and alternatives." *Journal of Organizational Behavior* 18 (6):667-683.
- Ibarra, Herminia, Martin Kilduff, and Wenpin Tsai. 2005. "Zooming in and out: Connecting individuals and collectivities at the frontiers of organizational network research." *Organization science* 16 (4):359-371.
- Ibeh, K.I.N. 2003. "Toward a Contingency Framework of Export Entrepreneurship: Conceptualizations and Empirical Evidence." *Small Business Economics* 20 (1):49-68.
- IMF. 2012. World Economic Outlook Database.
- Ireland, R Duane. 2007. "Strategy vs. entrepreneurship." *Strategic Entrepreneurship Journal* 1 (1-2):7-10.
- Ireland, R Duane, Michael A Hitt, and David G Sirmon. 2003. "A model of strategic entrepreneurship: The construct and its dimensions." *Journal of Management* 29 (6):963-989.
- Ireland, R Duane, C.R. Reutzell, and J.W. Webb. 2005. "Entrepreneurship Research in the AMJ: What Has Been Published, and What Might the Future Hold?" *Academy of Management Journal* 48 (4).
- Ireland, R Duane, and Justin W Webb. 2007. "Strategic entrepreneurship: Creating competitive advantage through streams of innovation." *Business Horizons* 50 (1):49-59.
- Jack, Sarah L. 2010. "Approaches to studying networks: Implications and outcomes." *Journal of Business Venturing* 25 (1):120-137.
- Jack, Sarah L, and Alistair R Anderson. 2002. "The effects of embeddedness on the entrepreneurial process." *Journal of Business Venturing* 17 (5):467-487.
- Jap, Sandy D. 2001. "'Pie sharing" in complex collaboration contexts." *Journal of Marketing Research* 38 (1):86-99.
- Johannisson, Bengt. 1986. "Network strategies: management technology for entrepreneurship and change." *International Small Business Journal* 5 (1):19-30.
- Johannisson, Bengt, Marcela Ramírez-Pasillas, and Gösta Karlsson. 2002. "The institutional embeddedness of local inter-firm networks: a leverage for business creation." *Entrepreneurship & Regional Development* 14 (4):297-315.

- Johanson, Jan, and Lars-Gunnar Mattsson. 1987. "Interorganizational relations in industrial systems: A network approach compared with the transaction-cost approach." *International Studies of Management & Organization* 17 (1):34-48.
- Johanson, Jan, and Lars-Gunnar Mattsson. 1988. "Internationalization in industrial systems- a network approach." In *Strategies in global competition*, edited by N. Hood and J.E. Vahlne, 287-314. New York: Croom Helm.
- Johanson, Jan, and Jan-Erik Vahlne. 1977. "The internationalization process of the firm-a model of knowledge development and increasing foreign market commitments." *Journal of International Business Studies* 8 (1):23-32.
- Johanson, Jan, and Jan-Erik Vahlne. 2006. "Commitment and opportunity development in the internationalization process: A note on the Uppsala internationalization process model." *Management International Review* 46 (2):165-178.
- Johanson, Jan, and Jan-Erik Vahlne. 2009. "The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsidership." *Journal of International Business Studies* 40 (9):1411-1431.
- Johnsen, Rhona E, and David Ford. 2006. "Interaction capability development of smaller suppliers in relationships with larger customers." *Industrial marketing management* 35 (8):1002-1015.
- Jones, Candace, William S Hesterly, and Stephen P Borgatti. 1997. "A general theory of network governance: Exchange conditions and social mechanisms." *Academy of Management Review* 22 (4):911-945.
- Jones, M.V., N. Coviello, and Y.K. Tang. 2011a. "International Entrepreneurship research (1989–2009): A domain ontology and thematic analysis." *Journal of Business Venturing* 26 (6):632-659.
- Jones, Marian V, N.E. Coviello, and Y.K. Tang. 2011b. "International Entrepreneurship research (1989–2009): A domain ontology and thematic analysis." *Journal of Business Venturing* 26 (6):632-659.
- Jöreskog, Karl G. 1969. "A general approach to confirmatory maximum likelihood factor analysis." *Psychometrika* 34 (2):183-202.
- Jöreskog, Karl G. 1974. "Analyzing psychological data by structural analysis of covariance matrices." In *Contemporary developments in mathematical psychology*, edited by D. H. Krantz, R. C. Atkinson, R. D. Luce and P. Suppes, 1-56. San Francisco: Freeman.
- Jöreskog, Karl G, and Dag Sörbom. 1996. *LISREL 8: User's reference guide*: Scientific Software International.
- Joyce, Paul, Adrian Woods, and Sharon Black. 1995. "Networks and partnerships: managing change and competition." *Journal of Small Business and Enterprise Development* 2 (1):11-18.
- Judd, Charles M, and David A Kenny. 1981. "Process analysis estimating mediation in treatment evaluations." *Evaluation Review* 5 (5):602-619.
- Judge, William Q, and Christopher P Blocker. 2008. "Organizational capacity for change and strategic ambidexterity: Flying the plane while rewiring it." *European Journal of Marketing* 42 (9/10):915-926.
- Kaiser, Henry F, and John Rice. 1974. "Little Jiffy, Mark IV." *Educational and Psychological Measurement* 34 (1):111-117.
- Kaish, Stanley, and Benjamin Gilad. 1991. "Characteristics of opportunities search of entrepreneurs versus executives: Sources, interests, general alertness." *Journal of Business Venturing* 6 (1):45-61.
- Kale, Prashant, Jeffrey H Dyer, and Harbir Singh. 2002. "Alliance capability, stock market response, and long-term alliance success: the role of the alliance function." *Strategic Management Journal* 23 (8):747-767.
- Kandemir, Destan, Attila Yaprak, and S Tamer Cavusgil. 2006. "Alliance orientation: conceptualization, measurement, and impact on market performance." *Journal of the Academy of Marketing Science* 34 (3):324-340.
- Kang, JH, and B. Jin. 2007. "Determinants of born global firm growth in the apparel industry: A Korean case." *Journal of the Textile Institute* 98 (2):137-146.

- Kang, Sung-Choon, Shad S Morris, and Scott A Snell. 2007. "Relational archetypes, organizational learning, and value creation: Extending the human resource architecture." *Academy of Management Review* 32 (1):236-256.
- Karra, N., N. Phillips, and P. Tracey. 2008. "Building the born global firm: developing entrepreneurial capabilities for international new venture success." *Long Range Planning* 41 (4):440-458.
- Katila, Riitta, and Gautam Ahuja. 2002. "Something old, something new: A longitudinal study of search behavior and new product introduction." *Academy of Management Journal* 45 (6):1183-1194.
- Katsikeas, C.S., L.C. Leonidou, and N.A. Morgan. 2000. "Firm-level export performance assessment: review, evaluation, and development." *Journal of the Academy of Marketing Science* 28 (4):493-511.
- Katsikeas, C.S., Nigel F Piercy, and Chris Ioannidis. 1996. "Determinants of export performance in a European context." *European Journal of Marketing* 30 (6):6-35.
- Kauppila, Olli-Pekka. 2010. "Creating ambidexterity by integrating and balancing structurally separate interorganizational partnerships." *Strategic Organization* 8 (4):283-312.
- Keh, H.T., T.T.M. Nguyen, and H.P. Ng. 2007. "The effects of entrepreneurial orientation and marketing information on the performance of SMEs." *Journal of Business Venturing* 22 (4):592-611.
- Kelloway, E Kevin. 1995. "Structural equation modelling in perspective." *Journal of Organizational Behavior* 16 (3):215-224.
- Kenny, Breda, and John Fahy. 2011a. "Network resources and international performance of high tech SMEs." *Journal of Small Business and Enterprise Development* 18 (3):529-555.
- Kenny, Breda, and John Fahy. 2011b. "SMEs' Networking Capability and International Performance." *Advances in Business Marketing and Purchasing* 17:199-376.
- Keupp, M.M., and O. Gassmann. 2009. "The past and the future of international entrepreneurship: A review and suggestions for developing the field." *Journal of Management* 35 (3):600-633.
- Khanna, Tarun, and Krishna Palepu. 1997. "Why focused strategies may be wrong for emerging markets." *Harvard Business Review* 75 (4):41-48.
- Kim, Jae-On, and Charles W Mueller. 1978. *Factor analysis: Statistical methods and practical issues*. Vol. 14: Sage.
- Kirzner, Israel M. 1973. *Competition and Entrepreneurship*. Chicago: University of Chicago Press.
- Kirzner, Israel M. 1979. *Perception, opportunity, and profit: Studies in the theory of entrepreneurship*: University of Chicago Press Chicago.
- Kiss, A.N., W.M. Danis, and S.T. Cavusgil. 2012. "International entrepreneurship research in emerging economies: A critical review and research agenda." *Journal of Business Venturing* 27 (2):266-290.
- Kline, Rex B. 2011. *Principles and Practice of Structural Equation Modeling*. 3rd ed. New York: Guilford press.
- Knight, Frank Hyneman. 1921. *Risk, uncertainty and profit*. 1933 ed. New York: Houghton Mifflin.
- Knight, Gary A , and S.T. Cavusgil. 1996. "The Born Global Firm: A Challenge to Traditional Internationalization Theory." *Advances in International Marketing* 8:11-26.
- Knight, Gary A, and S.T. Cavusgil. 2004. "Innovation, organizational capabilities, and the born-global firm." *Journal of International Business Studies* 35 (2):124-141.
- Knight, Gary A, Tage Koed Madsen, and Per Servais. 2004. "An inquiry into born-global firms in Europe and the USA." *International Marketing Review* 21 (6):645-665.
- Ko, S., and J.E. Butler. 2006. "Prior knowledge, bisociative mode of thinking and entrepreneurial opportunity identification." *International Journal of Entrepreneurship and Small Business* 3 (1):3-16.
- Kogut, Bruce, and Udo Zander. 1992. "Knowledge of the firm, combinative capabilities, and the replication of technology." *Organization Science* 3 (3):383-397.
- Koka, Balaji R, and John E Prescott. 2008. "Designing alliance networks: the influence of network position, environmental change, and strategy on firm performance." *Strategic Management Journal* 29 (6):639-661.

- Kollmann, Tobias, and Christoph Stöckmann. 2012. "Filling the Entrepreneurial Orientation–Performance Gap: The Mediating Effects of Exploratory and Exploitative Innovations." *Entrepreneurship Theory and Practice*:no-no. doi: 10.1111/j.1540-6520.2012.00530.x.
- Kontinen, Tanja, and Arto Ojala. 2011a. "International Opportunity Recognition among Small and Medium-Sized Family Firms." *Journal of Small Business Management* 49 (3):490-514.
- Kontinen, Tanja, and Arto Ojala. 2011b. "Network ties in the international opportunity recognition of family SMEs." *International Business Review* 20 (4):440-453.
- Kothari, CR. 2004. *Research methodology: methods and techniques*. Second ed. New Delhi: New Age International.
- Koza, Mitchell P, and Arie Y Lewin. 1998. "The co-evolution of strategic alliances." *Organization science* 9 (3):255-264.
- Krause, Daniel R, Thomas V Scannell, and Roger J Calantone. 2000. "A structural analysis of the effectiveness of buying firms' strategies to improve supplier performance." *Decision Sciences* 31 (1):33-55.
- Krueger, Norris, and Peter R Dickson. 1994. "How Believing in Ourselves Increases Risk Taking: Perceived Self-Efficacy and Opportunity Recognition." *Decision Sciences* 25 (3):385-400.
- Kumar, Krishna, and Maxwell G McLeod. 1981. *Multinationals from developing countries*: Free Press.
- Kumar, R. 2005. *Research Methodology: A Step-by-step Guide for Beginners*. London: SAGE.
- Lages, Luis Filipe, and David B Montgomery. 2005. "The relationship between export assistance and performance improvement in Portuguese export ventures: an empirical test of the mediating role of pricing strategy adaptation." *European Journal of Marketing* 39 (7/8):755-784.
- Lages, Luis Filipe, G. Silva, C. Styles, and Z.L. Pereira. 2009. "The NEP Scale: A measure of network export performance." *International Business Review* 18 (4):344-356.
- Lall, Sanjaya, and Edward Chen. 1983. *The new multinationals: The spread of third world enterprises*: Wiley Chichester.
- Lambe, C Jay, Robert E Spekman, and Shelby D Hunt. 2002. "Alliance competence, resources, and alliance success: conceptualization, measurement, and initial test." *Journal of the Academy of Marketing Science* 30 (2):141-158.
- Lavie, Dovev, Jingoo Kang, and Lori Rosenkopf. 2011. "Balance within and across domains: The performance implications of exploration and exploitation in alliances." *Organization Science* 22 (6):1517-1538.
- Lee, C., K. Lee, and J.M. Pennings. 2001. "Internal capabilities, external networks, and performance: A study on technology-based ventures." *Strategic Management Journal* 22 (6-7):615-640.
- Lee, Gwanhoo, William DeLone, and J Alberto Espinosa. 2006. "Ambidextrous coping strategies in globally distributed software development projects." *Communications of the ACM* 49 (10):35-40.
- Leonard-Barton, Dorothy. 1992. "Core capabilities and core rigidities: A paradox in managing new product development." *Strategic Management Journal* 13 (S1):111-125.
- Leonidou, Leonidas C, Constantine S Katsikeas, and Nigel F Piercy. 1998. "Identifying managerial influences on exporting: past research and future directions." *Journal of International Marketing*:74-102.
- Leonidou, Leonidas C, Constantine S Katsikeas, and Saeed Samiee. 2002. "Marketing strategy determinants of export performance: a meta-analysis." *Journal of Business Research* 55 (1):51-67.
- Leonidou, Leonidas C, Dayananda Palihawadana, and Marios Theodosiou. 2011. "National export-promotion programs as drivers of organizational resources and capabilities: effects on strategy, competitive advantage, and performance." *Journal of International Marketing* 19 (2):1-29.
- Levinthal, Daniel A, and James G March. 1993. "The myopia of learning." *Strategic Management Journal* 14 (S2):95-112.
- Lewin, Arie Y, and Henk W Volberda. 1999. "Prolegomena on coevolution: A framework for research on strategy and new organizational forms." *Organization Science* 10 (5):519-534.

- Lichtenstein, B.B, and Candida G Brush. 2001. "How do" resource bundles" develop and change in new ventures? A dynamic model and longitudinal exploration." *Entrepreneurship Theory and Practice* 25 (3):37-59.
- Lin, Zhiang John, Haibin Yang, and Irem Demirkan. 2007. "The performance consequences of ambidexterity in strategic alliance formations: Empirical investigation and computational theorizing." *Management Science* 53 (10):1645-1658.
- Lisboa, Ana Catarina Cadima, Dionysis Skarmeas, and Carmen Lages. 2011. "Entrepreneurial orientation, exploitative and explorative capabilities, and performance outcomes in export markets: A resource-based approach." *Industrial marketing management* 40 (8):1274-1284.
- Lisboa, Ana Catarina Cadima, Dionysis Skarmeas, and Carmen Lages. 2013. "Export Market Exploitation and Exploration and Performance: Linear, Moderated, Complementary and Non-Linear Effects." *International Marketing Review* 30 (3):211-230.
- Liu, Heng, Xu Jiang, Jianqi Zhang, and Xinglu Zhao. 2013. "Strategic Flexibility and International Venturing by Emerging Market Firms: The Moderating Effects of Institutional and Relational Factors." *Journal of International Marketing* 21 (2):79-98.
- Long, Wayne A, and W Ed McMullan. 1984. *Mapping the new venture opportunity identification process, Frontiers of Entrepreneurship Research*. Babson Park, MA: Babson College.
- Lorenzoni, Gianni, and Andrea Lipparini. 1999. "The leveraging of interfirm relationships as a distinctive organizational capability: a longitudinal study." *Strategic Management Journal* 20 (4):317-338.
- Low, M.B., and I.C. MacMillan. 1988. "Entrepreneurship: Past research and future challenges." *Journal of Management* 14 (2):139-161.
- Lu, Yuan, Lianxi Zhou, Garry Bruton, and Weiwen Li. 2009. "Capabilities as a mediator linking resources and the international performance of entrepreneurial firms in an emerging economy." *Journal of International Business Studies* 41 (3):419-436.
- Lumpkin, G Thomas, Claudia C Coglisier, and Dawn R Schneider. 2009. "Understanding and measuring autonomy: An entrepreneurial orientation perspective." *Entrepreneurship Theory and Practice* 33 (1):47-69.
- Lumpkin, G Thomas, and G.G. Dess. 1996. "Clarifying the entrepreneurial orientation construct and linking it to performance." *Academy of Management Review* 21 (1):135-172.
- Lumpkin, G Thomas, and G.G. Dess. 2001. "Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment and industry life cycle." *Journal of Business Venturing* 16 (5):429-451.
- Lumpkin, G Thomas, and B.B Lichtenstein. 2005. "The Role of Organizational Learning in the Opportunity-Recognition Process." *Entrepreneurship theory and practice* 29 (4):451-472.
- Luo, Y., and R.L. Tung. 2007. "International expansion of emerging market enterprises: A springboard perspective." *Journal of International Business Studies* 38 (4):481-498.
- Ma, Xufei, Xiaotao Yao, and Youmin Xi. 2009. "How do interorganizational and interpersonal networks affect a firm's strategic adaptive capability in a transition economy?" *Journal of Business Research* 62 (11):1087-1095.
- MacMillan, Ian C. 1980. "How business strategists can use guerrilla warfare tactics." *Journal of Business Strategy* 1 (3):63-65.
- Macpherson, Allan, Oswald Jones, and Michael Zhang. 2004. "Evolution or revolution? Dynamic capabilities in a knowledge-dependent firm." *R&D Management* 34 (2):161-177.
- Madsen, Tage Koed. 1998. "Managerial judgment of export performance." *Journal of International Marketing* 6 (3):82-93.
- Madsen, Tage Koed. 2013. "Early and rapidly internationalizing ventures: Similarities and differences between classifications based on the original international new venture and born global literatures." *Journal of International Entrepreneurship* 11 (1):65-79.
- Madsen, Tage Koed, and Per Servais. 1997. "The internationalization of born globals: an evolutionary process?" *International Business Review* 6 (6):561-583.
- Mahmood, Syed A. 2002. "How the Bangladesh Garments Industry Took off in the Early Eighties: The Role of Policy Reforms and Diffusion of Good Practices." *Alochona Magazine* (8).

- Mainela, Tuija, and Vesa Puhakka. 2009. "Organising new business in a turbulent context: Opportunity discovery and effectuation for IJV development in transition markets." *Journal of International Entrepreneurship* 7 (2):111-134.
- Mainela, Tuija, Vesa Puhakka, and Per Servais. 2014. "The concept of international opportunity in international entrepreneurship: a review and a research agenda." *International Journal of Management Reviews* 16 (1):105-129.
- Makadok, Richard. 2001. "Toward a Synthesis of the Resource-Based and Dynamic-Capability Views of Rent Creation." *Strategic Management Journal* 22 (5):387-401.
- Malhotra, Naresh K. 2006. "Questionnaire design and scale development." In *The Handbook of Marketing Research: Uses, Misuses, and Future Advances*, edited by R Grover and M Vriens, 83-94. SAGE.
- Malhotra, Naresh K. 2008. *Marketing Research: An Applied Orientation*. 5th ed: Pearson Education India.
- Manolova, Tatiana S, Ivan M Manev, and Bojidar S Gyoshev. 2010. "In good company: The role of personal and inter-firm networks for new-venture internationalization in a transition economy." *Journal of World Business* 45 (3):257-265.
- Marakas, George M, Richard D Johnson, and Paul F Clay. 2007. "The Evolving Nature of the Computer Self-Efficacy Construct: An Empirical Investigation of Measurement Construction, Validity, Reliability and Stability Over Time." *Journal of the Association for Information Systems* 8 (1):15-46.
- March, James G. 1981. "Decisions in organizations and theories of choice." In *Perspectives on organization design and behavior*, edited by A. H. Van de Ven and W. Joyce, 205-244. New York: Wiley.
- March, James G. 1991. "Exploration and exploitation in organizational learning." *Organization Science* 2 (1):71-87.
- Marsh, Herbert W, and David Grayson. 1995. "Latent variable models of multitrait-multimethod data." In *Structural equation modeling: Concepts, issues, and applications.*, edited by Rick H. Hoyle. CA, US: Sage Publications, Inc.
- Martin, Elizabeth, and Anne E Polivka. 1995. "Diagnostics for Redesigning Survey Questionnaires Measuring Work in the Current Population Survey." *Public Opinion Quarterly* 59 (4):547-567.
- Martinez, Martha A, and Howard E Aldrich. 2011. "Networking strategies for entrepreneurs: balancing cohesion and diversity." *International Journal of Entrepreneurial Behaviour & Research* 17 (1):7-38.
- Maruyama, Geoffrey, and Bill McGarvey. 1980. "Evaluating causal models: An application of maximum-likelihood analysis of structural equations." *Psychological Bulletin* 87 (3):502-512.
- Maxwell, Joseph A. 1992. "Understanding and validity in qualitative research." *Harvard Educational Review* 62 (3):279-301.
- McDougall, P.P., and B.M. Oviatt. 1994. "Toward a theory of international new ventures." *Journal of International Business Studies* 25 (1):45-64.
- McDougall, P.P., and B.M. Oviatt. 1996. "New venture internationalization, strategic change, and performance: A follow-up study." *Journal of Business Venturing* 11 (1):23-40.
- McDougall, P.P., and B.M. Oviatt. 2000. "International entrepreneurship: the intersection of two research paths." *Academy of Management Journal* 43 (5):902-906.
- McDougall, P.P., B.M. Oviatt, and R.C. Shrader. 2003. "A comparison of international and domestic new ventures." *Journal of International Entrepreneurship* 1 (1):59-82.
- McDougall, P.P., Scott Shane, and B.M. Oviatt. 1994. "Explaining the formation of international new ventures: The limits of theories from international business research." *Journal of Business Venturing* 9 (6):469-487.
- McGrath, Helen, and Thomas O'Toole. 2013. "Enablers and inhibitors of the development of network capability in entrepreneurial firms: A study of the Irish micro-brewing network." *Industrial Marketing Management* 42 (7):1141-1153.
- McKinsey, and Co. 2011. *Bangladesh's Ready-Made Garments Landscape: The Challenge of Growth*.
- Meyer, Marshall W, and Lynne G Zucker. 1989. *Permanently failing organizations*. Beverly Hills, CA: Sage.

- Miesenbock, Kurt J. 1988. "Small businesses and exporting: a literature review." *International Small Business Journal* 6 (2):42-61.
- Mintzberg, Henry. 1979. *The structuring of organizations*. Englewood Cliffs, NJ: Prentice-Hall.
- Mitchell, J Robert, and Dean A Shepherd. 2010. "To thine own self be true: Images of self, images of opportunity, and entrepreneurial action." *Journal of Business Venturing* 25 (1):138-154.
- Mitrega, Maciej, Sebastian Forkmann, Carla Ramos, and Stephan C Henneberg. 2012. "Networking capability in business relationships—Concept and scale development." *Industrial Marketing Management* 41 (5):739-751.
- Moen, Ø., M. Gavlen, and I. Endresen. 2004. "Internationalization of small, computer software firms: Entry forms and market selection." *European Journal of Marketing* 38 (9/10):1236-1251.
- Möller, Kristian, and Aino Halinen. 1999. "Business Relationships and Networks:: Managerial Challenge of Network Era." *Industrial Marketing Management* 28 (5):413-427.
- Möller, Kristian, Arto Rajala, and Senja Svahn. 2005. "Strategic business nets—their type and management." *Journal of Business Research* 58 (9):1274-1284.
- Möller, Kristian, and Senja Svahn. 2003. "Managing strategic nets a capability perspective." *Marketing Theory* 3 (2):209-234.
- Möller, Kristian, and Senja Svahn. 2006. "Role of Knowledge in Value Creation in Business Nets." *Journal of Management Studies* 43 (5):985-1007.
- Moore, Geoffrey A. 2005. "Strategy and your stronger hand." *Harvard Business Review* 83 (12):62-72.
- Morgan, Neil A, Anna Kaleka, and C.S. Katsikeas. 2004. "Antecedents of export venture performance: a theoretical model and empirical assessment." *Journal of Marketing* 68 (1):90-108.
- Morris, M.H. 1998. *Entrepreneurial intensity: Sustainable advantages for individuals, organizations, and societies*: Greenwood Publishing Group.
- Morris, M.H., M. Schindehutte, and R.W. LaForge. 2002. "Entrepreneurial marketing: a construct for integrating emerging entrepreneurship and marketing perspectives." *Journal of Marketing Theory and Practice* 10 (4):1-19.
- Mort, G.S., and J. Weerawardena. 2006. "Networking capability and international entrepreneurship: How networks function in Australian born global firms." *International Marketing Review* 23 (5):549-572.
- Mu, Jifeng. 2013. "Networking capability, new venture performance and entrepreneurial rent." *Journal of Research in Marketing and Entrepreneurship* 15 (2):101-123.
- Mu, Jifeng, and Anthony Di Benedetto. 2012. "Networking Capability and New Product Development." *IEEE Transactions on Engineering Management* 59 (1):4-19.
- Musteen, Martina, John Francis, and Deepak K Datta. 2010. "The influence of international networks on internationalization speed and performance: A study of Czech SMEs." *Journal of World Business* 45 (3):197-205.
- Muthen, Linda K, and L Muthén. 1998. "Mplus [computer software]." *Los Angeles, CA: Muthén & Muthén*.
- Muzychenko, O. 2008. "Cross-cultural entrepreneurial competence in identifying international business opportunities." *European Management Journal* 26 (6):366-377.
- Nahapiet, Janine, and Sumantra Ghoshal. 1998. "Social capital, intellectual capital, and the organizational advantage." *Academy of Management Review* 23 (2):242-266.
- Narula, Rajneesh, and John Hagedoorn. 1999. "Innovating through strategic alliances: moving towards international partnerships and contractual agreements." *Technovation* 19 (5):283-294.
- Narver, John C, Stanley F Slater, and Brian Tietje. 1998. "Creating a market orientation." *Journal of Market-Focused Management* 2 (3):241-255.
- Newey, Lance R, and Shaker A Zahra. 2009. "The evolving firm: how dynamic and operating capabilities interact to enable entrepreneurship." *British Journal of Management* 20 (s1):S81-S100.
- Nijkamp, Peter. 2003. "Entrepreneurship in a modern network economy." *Regional Studies* 37 (4):395-405.

- Noble, Charles H, Rajiv K Sinha, and Ajith Kumar. 2002. "Market orientation and alternative strategic orientations: a longitudinal assessment of performance implications." *Journal of Marketing* 66 (4):25-39.
- Nordman, Emilia Rovira, and Sara Melén. 2008. "The impact of different kinds of knowledge for the internationalization process of born globals in the biotech business." *Journal of World Business* 43 (2):171-185.
- Nunnally, Jum. 1978. *Psychometric Theory*. New York: McGraw-Hill.
- O'Reilly III, Charles A, and Michael L Tushman. 2011. "Organizational ambidexterity in action: how managers explore and exploit." *California Management Review* 53 (4):5-22.
- O Reilly, Charles A, and Michael L Tushman. 2004. "The ambidextrous organization." *Harvard Business Review* 82 (4):74-83.
- O'Donnell, Aodheen, Audrey Gilmore, Darryl Cummins, and David Carson. 2001. "The network construct in entrepreneurship research: a review and critique." *Management Decision* 39 (9):749-760.
- Obstfeld, David. 2005. "Social networks, the tertius iungens orientation, and involvement in innovation." *Administrative Science Quarterly* 50 (1):100-130.
- Oktemgil, Mehmet, and Gordon Greenley. 1997. "Consequences of high and low adaptive capability in UK companies." *European Journal of Marketing* 31 (7):445-466.
- Oviatt, B.M., and P.P. McDougall. 1994. "Toward a theory of international new ventures." *Journal of International Business Studies* 25 (1):45-64.
- Oviatt, B.M., and P.P. McDougall. 2005. "Defining international entrepreneurship and modeling the speed of internationalization." *Entrepreneurship Theory and Practice* 29 (5):537-554.
- Oyson, Manjo, and D Hugh Whittaker. 2010. "An opportunity-based approach to international entrepreneurship: pursuing opportunities internationally through prospection." 18th Annual High Technology Small Firms Conference Enschede, The Netherlands.
- Ozgen, Eren, and Robert A Baron. 2007. "Social sources of information in opportunity recognition: Effects of mentors, industry networks, and professional forums." *Journal of Business Venturing* 22 (2):174-192.
- Parida, V., M. Pemartin, and J. Frishammar. 2009. "The impact of networking practices on small firm innovativeness and performance: a multivariate approach." *International Journal of Technoentrepreneurship* 2 (2):115-133.
- Patel, Pankaj C, and Siri Terjesen. 2011. "Complementary effects of network range and tie strength in enhancing transnational venture performance." *Strategic Entrepreneurship Journal* 5 (1):58-80.
- Peiris, Indujeeva K, Michèle EM Akoorie, and Paresha Sinha. 2012. "International entrepreneurship: A critical analysis of studies in the past two decades and future directions for research." *Journal of International Entrepreneurship* 10 (4):279-324.
- Peiris, Indujeeva K, Michele Akoorie, and Paresha Sinha. 2013. "Conceptualizing the Process of Opportunity Identification in International Entrepreneurship Research." *South Asian Journal of Management* 20 (3):7-38.
- Pfeffer, Jeffrey, and Gerald R Salancik. 1978. *The external control of organizations: A resource dependence approach*, . New York: Harper and Row.
- Philp, Norman E. 1998. "The export propensity of the very small enterprise (VSE)." *International Small Business Journal* 16 (4):79-93.
- Piantoni, Mariella, Gianpaolo Baronchelli, and Elena Cortesi. 2012. "The recognition of international opportunities among Italian SMEs: differences between European and Chinese markets." *International Journal of Entrepreneurship and Small Business* 17 (2):199-219.
- Piercy, Nigel F, and David W Cravens. 1995. "The network paradigm and the marketing organization: developing a new management agenda." *European Journal of Marketing* 29 (3):7-34.
- Pitelis, Christos N, and David J. Teece. 2010. "Cross-border market co-creation, dynamic capabilities and the entrepreneurial theory of the multinational enterprise." *Industrial and Corporate Change* 19 (4):1247-1270.
- Podsakoff, P.M., S.B. MacKenzie, J.Y. Lee, and N.P. Podsakoff. 2003. "Common method biases in behavioral research: a critical review of the literature and recommended remedies." *Journal of Applied Psychology* 88 (5):879.

- Powers, Thomas L, and William R Reagan. 2007. "Factors influencing successful buyer–seller relationships." *Journal of Business Research* 60 (12):1234-1242.
- Preacher, Kristopher J, and Andrew F Hayes. 2004. "SPSS and SAS procedures for estimating indirect effects in simple mediation models." *Behavior Research Methods, Instruments, & Computers* 36 (4):717-731.
- Preacher, Kristopher J, and Andrew F Hayes. 2008. "Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models." *Behavior Research Methods* 40 (3):879-891.
- Presutti, M., C. Boari, and L. Fratocchi. 2007. "Knowledge acquisition and the foreign development of high-tech start-ups: A social capital approach." *International Business Review* 16 (1):23-46.
- Puhakka, Vesa. 2007. "Effects of opportunity discovery strategies of entrepreneurs on performance of new ventures." *Journal of Entrepreneurship* 16 (1):19-51.
- Quddus, M., and S. Rashid. 2000. *Entrepreneurs and economic development: The remarkable story of garment exports from Bangladesh*. Dhaka: University Press.
- Quintana, Stephen M, and Scott E Maxwell. 1999. "Implications of recent developments in structural equation modeling for counseling psychology." *The Counseling Psychologist* 27 (4):485-527.
- Raisch, Sebastian, and Julian Birkinshaw. 2008. "Organizational ambidexterity: Antecedents, outcomes, and moderators." *Journal of Management* 34 (3):375-409.
- Rasmussen, Erik S, Tage Koed Madsen, and Felicitas Evangelista. 2001. "The founding of the born global company in Denmark and Australia: sensemaking and networking." *Asia Pacific Journal of Marketing and Logistics* 13 (3):75-107.
- Rasmussen, Erik S, and Tage Koed Madsen. 2002. "The born global concept." Paper for the EIBA conference.
- Rauch, A., J. Wiklund, G Thomas Lumpkin, and M. Frese. 2009. "Entrepreneurial orientation and business performance: An assessment of past research and suggestions for the future." *Entrepreneurship Theory and Practice* 33 (3):761-787.
- Ray, S, and R Cardozo. 1996. "Sensitivity and creativity in entrepreneurial opportunity recognition: a framework for empirical investigation." Sixth Global Entrepreneurship Research Conference, Imperial College, London.
- Razzaque, A. , and S. Raihan. 2008. *Bangladesh's apparel exports in a quota-free world: an overview*. Dhaka: Pathak Shamabesh.
- Reinartz, Werner, Manfred Krafft, and Wayne D Hoyer. 2004. "The customer relationship management process: its measurement and impact on performance." *Journal of Marketing Research* 41 (3):293-305.
- Renko, Maija, Rodney C Shrader, and Mark Simon. 2012. "Perception of entrepreneurial opportunity: a general framework." *Management Decision* 50 (7):1233-1251.
- Renzulli, Linda A, Howard E Aldrich, and James Moody. 2000. "Family matters: Gender, networks, and entrepreneurial outcomes." *Social Forces* 79 (2):523-546.
- Rialp, Alex, Josep Rialp, and Gary A Knight. 2005. "The phenomenon of early internationalizing firms: what do we know after a decade (1993–2003) of scientific inquiry?" *International Business Review* 14 (2):147-166.
- Rietveld, Toni, and Roeland Van Hout. 1993. *Statistical techniques for the study of language behaviour*. Berlin, Germany: Berlijn: Mouton de Gruyter.
- Rindova, V.P., and S. Kotha. 2001. "Continuous" morphing": Competing through dynamic capabilities, form, and function." *Academy of Management Journal*:1263-1280.
- Ripollés, Maria, and Andreu Blesa. 2012. "International new ventures as “small multinationals”: The importance of marketing capabilities." *Journal of World Business* 47 (2):277-287.
- Ritter, Thomas. 1999. "The networking company: antecedents for coping with relationships and networks effectively." *Industrial marketing management* 28 (5):467-479.
- Ritter, Thomas, and Jens Geersbro. 2011. "Organizational relationship termination competence: A conceptualization and an empirical test." *Industrial Marketing Management* 40 (6):988-993.
- Ritter, Thomas, and H.G. Gemünden. 2003. "Network competence: Its impact on innovation success and its antecedents." *Journal of Business Research* 56 (9):745-755.

- Ritter, Thomas, and Hans Georg Gemünden. 2004. "The impact of a company's business strategy on its technological competence, network competence and innovation success." *Journal of Business Research* 57 (5):548-556.
- Ritter, Thomas, Ian F Wilkinson, and Wesley J Johnston. 2002. "Measuring network competence: some international evidence." *Journal of Business & Industrial Marketing* 17 (2/3):119-138.
- Ritter, Thomas, Ian F Wilkinson, and Wesley J Johnston. 2004. "Managing in complex business networks." *Industrial marketing management* 33 (3):175-183.
- Robertson, C., and S.K. Chetty. 2000. "A contingency-based approach to understanding export performance." *International Business Review* 9 (2):211-235.
- Rogers, Mark. 2004. "Networks, Firm Size and Innovation." *Small Business Economics* 22 (2):141-153.
- Rothaermel, Frank T. 2001. "Incumbent's advantage through exploiting complementary assets via interfirm cooperation." *Strategic Management Journal* 22 (6-7):687-699.
- Rothaermel, Frank T, and David L Deeds. 2004. "Exploration and exploitation alliances in biotechnology: A system of new product development." *Strategic Management Journal* 25 (3):201-221.
- Salomo, Sören, Jan Brinckmann, and Katrin Talke. 2008. "Functional Management Competence and Growth of Young Technology-Based Firms." *Creativity and Innovation Management* 17 (3):186-203.
- Sambasivan, Murali, Mohani Abdul, and Yuzliani Yusop. 2009. "Impact of personal qualities and management skills of entrepreneurs on venture performance in Malaysia: Opportunity recognition skills as a mediating factor." *Technovation* 29 (11):798-805.
- Sanchez, Ron. 1995. "Strategic flexibility in product competition." *Strategic Management Journal* 16 (S1):135-159.
- Sanchez, Ron. 1997. "Preparing for an uncertain future: Managing organizations for strategic flexibility." *International Studies of Management & Organization* 27 (2):71-94.
- Sanz-Velasco, Stefan A. 2006. "Opportunity development as a learning process for entrepreneurs." *International Journal of Entrepreneurial Behaviour & Research* 12 (5):251-271.
- Sapienza, Harry J, Erko Autio, Gerard George, and Shaker A Zahra. 2006. "A capabilities perspective on the effects of early internationalization on firm survival and growth." *Academy of Management Review* 31 (4):914-933.
- Sarasvathy, Saras D, Nicholas Dew, S Ramakrishna Velamuri, and Sankaran Venkataraman. 2010. "Three views of entrepreneurial opportunity." In *Handbook of entrepreneurship research*, 77-96. Springer.
- Sarkees, Matthew, and John Hulland. 2009. "Innovation and efficiency: It is possible to have it all." *Business Horizons* 52 (1):45-55.
- Sasi, V., and P. Arenius. 2008. "International new ventures and social networks: Advantage or liability?" *European Management Journal* 26 (6):400-411.
- Schermelleh-Engel, Karin, Helfried Moosbrugger, and Hans Müller. 2003. "Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures." *Methods of Psychological Research Online* 8 (2):23-74.
- Schilke, Oliver. 2013. "On the contingent value of dynamic capabilities for competitive advantage: The nonlinear moderating effect of environmental dynamism." *Strategic Management Journal*. doi: 10.1002/smj.2099.
- Schreiner, Melanie, and Daniel Corsten. 2004. "Integrating perspectives: A multidimensional construct of collaborative capability." *Advances in Interdisciplinary Studies of Work Teams* 10:125-159.
- Schreyögg, Georg, and Jörg Sydow. 2010. "Organizing for Fluidity? Dilemmas of New Organizational Forms." *Organization Science* 21 (6):1251-1262.
- Schulze, William. 2007. "Networks and strategic entrepreneurship: comments on Comparing alliance network structure across industries: observations and explanations and Strategic networks and entrepreneurial ventures." *Strategic Entrepreneurship Journal* 1 (3-4):229-231.
- Schumacker, RE, and RG Lomax. 1996. *A Beginner's Guide to Structural Equation Modeling*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Schumpeter, Joseph A. 1934. *The Theory of Economic Development*: Harvard University Press.

- Schumpeter, Joseph A. 1975. *Capitalism, socialism, and democracy*. New York: Harper.
- Shackle, George Lennox Sharman. 2010. *Decision order and time in human affairs*: Cambridge University Press.
- Shamsuddoha, AK, and M Yunus Ali. 2006. "Mediated effects of export promotion programs on firm export performance." *Asia Pacific Journal of Marketing and Logistics* 18 (2):93-110.
- Shane, Scott. 2000. "Prior knowledge and the discovery of entrepreneurial opportunities." *Organization science* 11 (4):448-469.
- Shane, Scott. 2003. *A general theory of entrepreneurship: The individual-opportunity nexus*: Edward Elgar Publishing.
- Shane, Scott, and Sankaran Venkataraman. 2000. "The promise of entrepreneurship as a field of research." *Academy of Management Review* 25 (1):217-226.
- Sharfman, Mark P, Gerrit Wolf, Richard B Chase, and David A Tansik. 1988. "Antecedents of organizational slack." *Academy of Management Review* 13 (4):601-614.
- Sharma, D.D., and A. Blomstermo. 2003. "The internationalization process of born globals: a network view." *International Business Review* 12 (6):739-753.
- Shaw, Eleanor. 2006. "Small Firm Networking An Insight into Contents and Motivating Factors." *International Small Business Journal* 24 (1):5-29.
- Shepherd, Dean A, and Dawn R DeTienne. 2005. "Prior knowledge, potential financial reward, and opportunity identification." *Entrepreneurship Theory and Practice* 29 (1):91-112.
- Shoham, Aviv. 1998. "Export performance: a conceptualization and empirical assessment." *Journal of international marketing* 6 (3):59-81.
- Short, Jeremy C, David J Ketchen Jr, Christopher L Shook, and R Duane Ireland. 2010. "The concept of "opportunity" in entrepreneurship research: Past accomplishments and future challenges." *Journal of Management* 36 (1):40-65.
- Siegel, Donald S, and Maija Renko. 2012. "The role of market and technological knowledge in recognizing entrepreneurial opportunities." *Management Decision* 50 (5):797-816.
- Siggelkow, Nicolaj, and Daniel A Levinthal. 2003. "Temporarily divide to conquer: Centralized, decentralized, and reintegrated organizational approaches to exploration and adaptation." *Organization Science* 14 (6):650-669.
- Simsek, Zeki. 2009. "Organizational ambidexterity: Towards a multilevel understanding." *Journal of Management Studies* 46 (4):597-624.
- Simsek, Zeki, and Ciaran Heavey. 2011. "The mediating role of knowledge-based capital for corporate entrepreneurship effects on performance: A study of small-to medium-sized firms." *Strategic Entrepreneurship Journal* 5 (1):81-100.
- Singh, Jitendra V, David J Tucker, and Robert J House. 1986. "Organizational legitimacy and the liability of newness." *Administrative Science Quarterly* 31 (2):171-193.
- Singh, Robert P. 2000. *Entrepreneurial opportunity recognition through social networks*: Garland New York.
- Singh, Robert P. 2001. "A comment on developing the field of entrepreneurship through the study of opportunity recognition and exploitation." *Academy of Management Review* 26 (1):10-12.
- Singh, Robert P, Gerald E Hills, R.C. Hybels, and G Thomas Lumpkin. 1999. "Opportunity recognition through social network characteristics of entrepreneurs." *Frontiers of Entrepreneurship Research*:228-241.
- Sirén, Charlotta A, Marko Kohtamäki, and Andreas Kuckertz. 2012. "Exploration and exploitation strategies, profit performance, and the mediating role of strategic learning: Escaping the exploitation trap." *Strategic Entrepreneurship Journal* 6 (1):18-41.
- Sivadas, Eugene, and F Robert Dwyer. 2000. "An examination of organizational factors influencing new product success in internal and alliance-based processes." *Journal of Marketing*:31-49.
- Slotte-Kock, S., and N.E. Coviello. 2010. "Entrepreneurship research on network processes: a review and ways forward." *Entrepreneurship Theory and Practice* 34 (1):31-57.
- Smeltzer, L.R., B.L. Van Hook, and R.W. Hutt. 1991. "Analysis of the use of advisors as information sources in venture startups." *Journal of Small Business Management* 29 (3):10-20.
- Smith, Brett R, Charles H Matthews, and Mark T Schenkel. 2009. "Differences in Entrepreneurial Opportunities: The Role of Tacitness and Codification in Opportunity Identification." *Journal of Small Business Management* 47 (1):38-57.

- Smith, John Grieve, and Vivien Fleck. 1987. "Business strategies in small high-technology companies." *Long Range Planning* 20 (2):61-68.
- Sobel, Michael E. 1990. "Effect analysis and causation in linear structural equation models." *Psychometrika* 55 (3):495-515.
- Sobhan, R. 1995. "From Theology to Empiricism: Reapprising Bangladesh's Experience with economic Reform." *Bangladesh Journal of Political Economy* 13 (1):1-30.
- Solberg, Carl Arthur, and Ulf H Olsson. 2010. "Management orientation and export performance: the case of Norwegian ICT companies." *Baltic Journal of Management* 5 (1):28-50.
- Sousa, C.M.P. 2004. "Export performance measurement: an evaluation of the empirical research in the literature." *Academy of Marketing Science Review* 9 (12):1-23.
- Sousa, C.M.P., and F. Bradley. 2009. "Effects of Export Assistance and Distributor Support on the Performance of SMEs The Case of Portuguese Export Ventures." *International Small Business Journal* 27 (6):681-701.
- Sousa, C.M.P., F.J. Martínez-López, and F. Coelho. 2008. "The determinants of export performance: A review of the research in the literature between 1998 and 2005." *International Journal of Management Reviews* 10 (4):343-374.
- Spence, M., B. Orser, and A. Riding. 2011. "A comparative study of international and domestic new ventures." *Management International Review* 51 (1):3-21.
- Spence, Martine M, Linda M Manning, and Dave Crick. 2008. "An investigation into the use of collaborative ventures in the internationalization of high performing Canadian SMEs." *European Management Journal* 26 (6):412-428.
- Stam, Wouter. 2010. "Industry event participation and network brokerage among entrepreneurial ventures." *Journal of Management Studies* 47 (4):625-653.
- Stam, Wouter, Souren Arzlanian, and Tom Elfring. 2014. "Social capital of entrepreneurs and small firm performance: A meta-analysis of contextual and methodological moderators." *Journal of Business Venturing* 29 (1):152-173.
- Steenkamp, Jan-Benedict EM, and Hans Van Trijp. 1991. "The use of LISREL in validating marketing constructs." *International Journal of Research in Marketing* 8 (4):283-299.
- Steiger, JH. 1995. "Structural equation modeling (SEPATH)." *Statistica/W* 5.
- Stevenson, Howard H, and J Carlos Jarillo. 1990. "A paradigm of entrepreneurship: entrepreneurial management." *Strategic Management Journal* 11 (5):17-27.
- Stevenson, Howard H, Michael J Roberts, H Irving Grousbeck, and Amar V Bhide. 1994. *New business ventures and the entrepreneur*. Sydney: Irwin.
- Stinchcombe, A. 1965. "Social structure and organizations." In *The Handbook of Organizations* edited by J. March, 142–193. Chicago, IL: Rand McNally.
- Stuart, Toby E. 2000. "Interorganizational alliances and the performance of firms: A study of growth and innovation rates in a high-technology industry." *Strategic Management Journal* 21 (8):791-811.
- Stuart, Toby E, Ha Hoang, and Ralph C Hybels. 1999. "Interorganizational endorsements and the performance of entrepreneurial ventures." *Administrative Science Quarterly* 44 (2):315-349.
- Stuart, Toby E, and Olav Sorenson. 2005. "Social networks and entrepreneurship." In *Handbook of entrepreneurship research*, 233-252. Springer.
- Stuart, Toby E, and Olav Sorenson. 2007. "Strategic networks and entrepreneurial ventures." *Strategic Entrepreneurship Journal* 1 (3-4):211-227.
- Styles, Chris. 1998. "Export performance measures in Australia and the United Kingdom." *Journal of International Marketing* 6 (3):12-36.
- Svensson, Göran, and Janice M Payan. 2009. "Organizations that are international from inception: Terminology and research constellations—"academic protectionism" or "academic myopia"?" *Journal of Small Business and Enterprise Development* 16 (3):406-417.
- Swaminathan, Vanitha, and Christine Moorman. 2009. "Marketing alliances, firm networks, and firm value creation." *Journal of Marketing* 73 (5):52-69.
- Tabachnick, Barbara G, and LS Fidell. 2013. *Using Multivariate Statistics*. 6th ed. Upper Saddle River, NJ: Pearson.
- Tanaka, Jeffrey S. 1993. "Multifaceted conceptions of fit in structural equation models." *Sage Focus Editions* 154:10-10.

- Tang, Jintong, and Shaji A Khan. 2007. "Dynamic interactions between alertness and systematic search A yin and yang perspective on opportunity recognition and innovation." *The International Journal of Entrepreneurship and Innovation* 8 (3):175-187.
- Teach, Richard D, Robert G Schwartz, and Fred A Tarpley. 1989. "The recognition and exploitation of opportunity in the software industry: a study of surviving firms." *Frontiers of entrepreneurship research* 3:383-97.
- Teece, D. J., Gary Pisano, and Amy Shuen. 1997. "Dynamic capabilities and strategic management." *Strategic Management Journal* 18 (7):509–533.
- Teece, David J. 2007. "Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance." *Strategic Management Journal* 28 (13):1319-1350.
- Thorelli, Hans B. 1986. "Networks: between markets and hierarchies." *Strategic Management Journal* 7 (1):37-51.
- Timmons, J.A. 1994. *New venture creation: entrepreneurship for the 21st century*: Irwin.
- Tiwana, Amrit. 2008. "Do bridging ties complement strong ties? An empirical examination of alliance ambidexterity." *Strategic Management Journal* 29 (3):251-272.
- Tolstoy, Daniel, and Henrik Agndal. 2010. "Network resource combinations in the international venturing of small biotech firms." *Technovation* 30 (1):24-36.
- Tomarken, Andrew J, and Niels G Waller. 2005. "Structural equation modeling: Strengths, limitations, and misconceptions." *Annual Reviews of Clinical Psychology* 1:31-65.
- Tumasjan, Andranik, Isabell Welpe, and Matthias Spörrle. 2013. "Easy now, desirable later: The moderating role of temporal distance in opportunity evaluation and exploitation." *Entrepreneurship Theory and Practice* 37 (4):859-888.
- Turner, Neil, Juani Swart, and Harvey Maylor. 2013. "Mechanisms for Managing Ambidexterity: A Review and Research Agenda." *International Journal of Management Reviews* 15 (3):317-332. doi: 10.1111/j.1468-2370.2012.00343.x.
- Tushman, Michael L, and Charles Reilly. 1996. "Ambidexterous organizations: managing evolutionary and revolutionary change." *California Management Review* 38 (4):8-30.
- Ucbasaran, Deniz, Paul Westhead, and Mike Wright. 2001. "The focus of entrepreneurial research: contextual and process issues." *Entrepreneurship Theory and Practice* 25 (4):57-80.
- Ucbasaran, Deniz, Paul Westhead, and Mike Wright. 2009. "The extent and nature of opportunity identification by experienced entrepreneurs." *Journal of Business Venturing* 24 (2):99-115.
- Ucbasaran, Deniz, Paul Westhead, Mike Wright, and Martin Binks. 2003. "Does entrepreneurial experience influence opportunity identification?" *The Journal of Private Equity* 7 (1):7-14.
- Uzzi, B. 1996. "The sources and consequences of embeddedness for the economic performance of organizations: The network effect." *American Sociological Review* 61 (4):674-698.
- Uzzi, B. 1997. "Social structure and competition in interfirm networks: The paradox of embeddedness." *Administrative science quarterly* 42 (1):35-67.
- Vaghely, Ivan P, and Pierre-André Julien. 2010. "Are opportunities recognized or constructed?: An information perspective on entrepreneurial opportunity identification." *Journal of Business Venturing* 25 (1):73-86.
- Vahlne, Jan-Erik, and Jan Johanson. 2013. "The Uppsala model on evolution of the multinational business enterprise—from internalization to coordination of networks." *International Marketing Review* 30 (3):189-210.
- Van de Vijver, F., and K. Leung. 1997. "Methods and data analysis of comparative research." In *Handbook of Cross-Cultural Psychology*, edited by J.W. Berry, Poortinga, Y.H., and Pandey, J. Boston, MA: Allyn & Bacon.
- Vanhaverbeke, Wim, Victor Gilsing, and Geert Duysters. 2007. "Exploration and exploitation in technology-based alliance networks." *Academy of Management*.
- Vasilchenko, E., and S. Morrish. 2011. "The role of entrepreneurial networks in the exploration and exploitation of internationalization opportunities by information and communication technology firms." *Journal of International Marketing* 19 (4):88-105.
- Velicer, Wayne F, and Joseph L Fava. 1998. "Affects of variable and subject sampling on factor pattern recovery." *Psychological methods* 3 (2):231.
- Venkataraman, S. 1997. "The distinctive domain of entrepreneurship research: An editor's perspective." In. Greenwich, CT: JAI Press.

- Venkataraman, S., Saras D Sarasvathy, Nicholas Dew, and William R Forster. 2012. "Reflections on the 2010 AMR Decade Award: Whither the promise? Moving forward with entrepreneurship as a science of the artificial." *Academy of Management Review* 37 (1):21-33.
- Vernon-Wortzel, H., and L.H. Wortzel. 1988. "Globalizing strategies for multinationals from developing countries." *Columbia Journal of World Business* 23 (1):27-35.
- Vesper, K. H. 1996. *New Venture Experience*. Seattle, WA: Vector Books.
- Von Hippel, Eric. 1994. "'Sticky information" and the locus of problem solving: implications for innovation." *Management Science* 40 (4):429-439.
- Vorhies, Douglas W, and Neil A Morgan. 2005. "Benchmarking marketing capabilities for sustainable competitive advantage." *Journal of Marketing* 69 (1):80-94.
- Wales, William J, Pankaj C Patel, Vinit Parida, and Patrick M Kreiser. 2013. "Nonlinear Effects of Entrepreneurial Orientation on Small Firm Performance: The Moderating Role of Resource Orchestration Capabilities." *Strategic Entrepreneurship Journal* 7 (2):93-121.
- Walker Jr, Orville C, and Robert W Ruekert. 1987. "Marketing's role in the implementation of business strategies: a critical review and conceptual framework." *Journal of Marketing* 51 (3):15-33.
- Walter, A., M. Auer, and Thomas Ritter. 2006. "The impact of network capabilities and entrepreneurial orientation on university spin-off performance." *Journal of Business Venturing* 21 (4):541-567.
- Wang, C.L., and P.K. Ahmed. 2007. "Dynamic capabilities: A review and research agenda." *International Journal of Management Reviews* 9 (1):31-51.
- Webb, Justin W, R Duane Ireland, Michael A Hitt, Geoffrey M Kistruck, and Laszlo Tihanyi. 2011. "Where is the opportunity without the customer? An integration of marketing activities, the entrepreneurship process, and institutional theory." *Journal of the Academy of Marketing Science* 39 (4):537-554.
- Weerawardena, Jay, Gillian Sullivan Mort, Peter W Liesch, and Gary A Knight. 2007. "Conceptualizing accelerated internationalization in the born global firm: A dynamic capabilities perspective." *Journal of World Business* 42 (3):294-306.
- Weerawardena, Jay, Aron O'Cass, and Craig Julian. 2006. "Does industry matter? Examining the role of industry structure and organizational learning in innovation and brand performance." *Journal of Business Research* 59 (1):37-45.
- Wiklund, J., and D. Shepherd. 2003. "Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses." *Strategic Management Journal* 24 (13):1307-1314.
- Wilcox, James B, Roy D Howell, and Einar Breivik. 2008. "Questions about formative measurement." *Journal of Business Research* 61 (12):1219-1228.
- Wilden, Ralf, Siegfried P Gudergan, Bo Bernhard Nielsen, and Ian Lings. 2013. "Dynamic capabilities and performance: strategy, structure and environment." *Long Range Planning*.
- Williamson, Oliver E. 1975. *Markets and hierarchies*. New York: Free Press-Macmillan.
- Winter, Sidney G. 2003. "Understanding dynamic capabilities." *Strategic Management Journal* 24 (10):991-995.
- Witt, Peter, Andreas Schroeter, and Christin Merz. 2008. "Entrepreneurial resource acquisition via personal networks: an empirical study of German start-ups." *The Service Industries Journal* 28 (7):953-971.
- Wood, Matthew S, and William McKinley. 2010. "The production of entrepreneurial opportunity: a constructivist perspective." *Strategic Entrepreneurship Journal* 4 (1):66-84.
- Wright, Mike, Igor Filatotchev, Robert E Hoskisson, and Mike W Peng. 2005. "Strategy Research in Emerging Economies: Challenging the Conventional Wisdom." *Journal of Management Studies* 42 (1):1-33.
- Yiu, Daphne W, and Chung-Ming Lau. 2008. "Corporate entrepreneurship as resource capital configuration in emerging market firms." *Entrepreneurship theory and practice* 32 (1):37-57.
- Yiu, Daphne W, ChungMing Lau, and Garry D Bruton. 2007. "International venturing by emerging economy firms: the effects of firm capabilities, home country networks, and corporate entrepreneurship." *Journal of International Business Studies* 38 (4):519-540.

- Yli-Renko, Helena, Erkkö Autio, and Vesa Tontti. 2002. "Social capital, knowledge, and the international growth of technology-based new firms." *International Business Review* 11 (3):279-304.
- Young, Stephen, James Hamill, Colin Wheeler, and J Richard Davies. 1989. *International market entry and development: strategies and management*. NJ: Prentice Hall.
- Zaheer, Akbar, and Geoffrey G Bell. 2005. "Benefiting from network position: firm capabilities, structural holes, and performance." *Strategic Management Journal* 26 (9):809-825.
- Zaheer, Akbar, and B. McEvily. 1999. "Bridging ties: A source of firm heterogeneity in competitive capabilities." *Strategic Management Journal* 20 (12):1133.
- Zaheer, Srilata. 1995. "Overcoming the liability of foreignness." *Academy of Management journal* 38 (2):341-363.
- Zahra, Shaker A. 1999. "The changing rules of global competitiveness in the 21st century." *The Academy of Management Executive* 13 (1):36-42.
- Zahra, Shaker A. 2004. "A theory of international new ventures: a decade of research." *Journal of International Business Studies* 36 (1):20-28.
- Zahra, Shaker A, and G Dess. 2001. "Defining entrepreneurship as a scholarly field." *Academy of Management Review* 26 (1):8-10.
- Zahra, Shaker A, and D.M. Garvis. 2000. "International corporate entrepreneurship and firm performance: The moderating effect of international environmental hostility." *Journal of Business Venturing* 15 (5):469-492.
- Zahra, Shaker A, and G. George. 2002. "International Entrepreneurship: The Current Status of the Field and Future Research Agenda." In *Strategic entrepreneurship: Creating a new mindset*, edited by M. A. Hitt, Ireland, R. D., Camp, S. M. and Sexton, D. L., , 255-288. Oxford, UK: Blackwell.
- Zahra, Shaker A, R Duane Ireland, and Michael A Hitt. 2000. "International expansion by new venture firms: International diversity, mode of market entry, technological learning, and performance." *Academy of Management Journal* 43 (5):925-950.
- Zahra, Shaker A, J.S. Korri, and J.F. Yu. 2005. "Cognition and international entrepreneurship: implications for research on international opportunity recognition and exploitation." *International Business Review* 14 (2):129-146.
- Zahra, Shaker A, Mike Wright, and Sondos G Abdelgawad. 2014. "Contextualization and the advancement of entrepreneurship research." *International Small Business Journal* 32 (5):479-500.
- Zhao, H., and S. Zou. 2002. "The impact of industry concentration and firm location on export propensity and intensity: an empirical analysis of Chinese manufacturing firms." *Journal of International Marketing* 10 (1):52-71.
- Zhao, Xinshu, John G Lynch, and Qimei Chen. 2010. "Reconsidering Baron and Kenny: Myths and truths about mediation analysis." *Journal of Consumer Research* 37 (2):197-206.
- Zhou, Kevin Zheng, and Caroline Bingxin Li. 2010. "How strategic orientations influence the building of dynamic capability in emerging economies." *Journal of Business Research* 63 (3):224-231.
- Zhou, L. 2007. "The effects of entrepreneurial proclivity and foreign market knowledge on early internationalization." *Journal of World Business* 42 (3):281-293.
- Zhou, L., B.R. Barnes, and Y. Lu. 2010. "Entrepreneurial proclivity, capability upgrading and performance advantage of newness among international new ventures." *Journal of International Business Studies* 41 (5):882-905.
- Zhou, L., W. Wu, and X. Luo. 2007. "Internationalization and the performance of born-global SMEs: The mediating role of social networks." *Journal of International Business Studies* 38 (4):673-690.
- Ziggers, Gerrit Willem, and J. Henseler. 2009. "Inter-firm network capability: how it affects buyer-supplier performance." *British Food Journal* 111 (8):794-810.
- Zikmund, W.G. . 2003. *Exploring Marketing Research*. New York: Dryden Press.
- Zollo, Maurizio, and Sidney G Winter. 2002. "Deliberate learning and the evolution of dynamic capabilities." *Organization Science* 13 (3):339-351.

Zwick, William R, and Wayne F Velicer. 1986. "Comparison of five rules for determining the number of components to retain." *Psychological Bulletin* 99 (3):432.

Appendix 1: Questionnaire

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October 3, 2011

QUESTIONNAIRE

“Networks and international entrepreneurship (IE): The effects of networks on the international performance of international new ventures (INVs)”

You are invited to participate in our survey on “Networks and international entrepreneurship (IE): The effects of networks on the international performance of international new ventures (INVs)”. In this survey, we want to know about the entrepreneurs’ and firm capabilities in relation to some aspects. We don’t need any confidential information of the firm; we only need your viewpoint for different aspects of entrepreneurship and international business. It will take approximately 30-40 minutes to complete the questionnaire.

This research is being conducted as part of PhD dissertation at the University of Canterbury New Zealand by Anisur Rahman Faroque under the supervision of Sussie Morrish, who can be contacted at sussie.morrish@canterbury.ac.nz. She will be pleased to discuss any concerns you may have about participation in the project.

There are no foreseeable risks associated with this project. Neither your name nor that of your firm will be recorded or published. Data from this research will be reported only in the aggregate and used for academic purposes. Information gained from these questionnaires will be stored for five years at a secure location within the University of Canterbury before being destroyed. This project has been reviewed and approved by the Department of Management and the University of Canterbury Human Ethics Committee (UCHEC) Low Risk Approval process.

Please read the following note before completing the questionnaire.

Your participation in this project is completely voluntary. You may withdraw your participation, including withdrawal of any information you have provided, until your questionnaire has been added to the others collected. Because it is anonymous, it cannot be retrieved after that.

By completing the questionnaire it will be understood that you have consented to participate in the project, and that you consent to publication of the results of the project with the understanding that anonymity will be preserved.

Yours sincerely

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QUESTIONNAIRE

(Instructions: The questionnaire is mainly based on 7-point Likert scale. The lower the number, the more strongly it shows your disagreement with the statement; the higher the number, the more it reflects your agreement with the statement.)

PART I: GENERAL INFORMATION

1. Age of the firm: _____ year(s)
2. Firm age at internationalisation: _____
3. Number of employees Full time: _____ Part-time _____
4. Ownership: a. Sole proprietorship b. Partnership c. Private Ltd d. Public Ltd e. Joint Venture
5. Total number of exporting countries a. 1-3 b. 4-6 c. 7-9 d. 10 and over
6. Number of founder(s): _____ (gender of the main founder: a. male b. female)
7. Price competitiveness (competitive advantage of your product price in relation to major competitors in the international markets): not at all competitive 1 2 3 4 5 6 7 very competitive
8. International market uncertainty (vulnerability to the change in trade policies across borders):
very low 1 2 3 4 5 6 7 very high
9. Technology dynamics (change to technology relating to your main product/industry):
very slow 1 2 3 4 5 6 7 very rapid
10. Environmental dynamism (change in overseas customers' demand and preferences, competitors' new product introduction rate and new selling strategies): very low 1 2 3 4 5 6 7 very high

PART II: INTERNATIONAL OPPORTUNITY EXPLORATION/EXPLOITATION

Circle the response that best represents your firm's position.	
1. How many international business ideas did you identify in the past three years?	Very few Many 1 2 3 4 5 6 7
2. How many international business opportunities did you identify in the past three years?	Very few Many 1 2 3 4 5 6 7
3. How much did you modify/develop an international opportunity from idea generation to opportunity objectification?	No change Major change 1 2 3 4 5 6 7
4. How many exploited international business opportunities were considered as novel or innovative?	Very few Most 1 2 3 4 5 6 7
5. How many novel or innovative ideas were considered feasible and desirable?	Very few Most 1 2 3 4 5 6 7
6. How many international opportunities have you pursued/exploited in the past three years?	Very few Most 1 2 3 4 5 6 7
7. How much are you able to shift organisational resources to capitalise on emerging opportunities in international markets?	Very low Very high 1 2 3 4 5 6 7
8. How quickly can you adapt to external changes in the international market and respond to external international opportunities?	Very slow Very rapid 1 2 3 4 5 6 7

PART III: NETWORK

Business/inter-organisational network	
Quality of relationship with key customers, key suppliers, and export trading firms	
1. In our relationship both sides avoid making demands that can seriously damage the interests of the other.	Strongly disagree Strongly agree 1 2 3 4 5 6 7
2. In our relationship neither side takes advantage of the other if the opportunity arises.	1 2 3 4 5 6 7
3. In our relationship the other party always keeps its promises to us.	1 2 3 4 5 6 7
Network capability	
4. We discuss regularly with our key network partners how we can support each other.	Strongly disagree Strongly agree 1 2 3 4 5 6 7
5. We have the ability to build good personal relationships with our network partners.	Strongly disagree Strongly agree 1 2 3 4 5 6 7
6. We almost always solve problems constructively with our network partners.	Strongly disagree Strongly agree 1 2 3 4 5 6 7
7. We have our eyes open to find new network partners.	Strongly disagree Strongly agree 1 2 3 4 5 6 7
8. We know our network partners' markets, products/services as well as their strengths and weaknesses.	Strongly disagree Strongly agree 1 2 3 4 5 6 7
9. In our firm employees have informal contacts among themselves in relation	Strongly disagree Strongly agree 1 2 3 4 5 6 7

to establishing new network relationships.	
10. In our firm managers and employees often give feedback to each other.	Strongly disagree Strongly agree 1 2 3 4 5 6 7
Strength of relationship	
11. Our relationship with key customers, key suppliers, and export trading firms	Distant Very close 1 2 3 4 5 6 7
12. Frequency of communication with key customers, key suppliers, and export trading firms	Rare Very frequently 1 2 3 4 5 6 7
13. Duration of relationship with key customers, key suppliers, and export trading firms	Few years Many years 1 2 3 4 5 6 7
Social/personal network of the entrepreneur (founder)	
1. The entrepreneur's (founder) relationship with other apparel entrepreneurs, managers, association of entrepreneurs (BGMEA/BKMEA)	Distant Very close 1 2 3 4 5 6 7
2. The entrepreneur's (founder) frequency of communication with other apparel entrepreneurs, managers, association of entrepreneurs (BGMEA/BKMEA)	Rare Very frequently 1 2 3 4 5 6 7
3. The entrepreneur's (founder) duration of relationship with other apparel entrepreneurs, managers, association of entrepreneurs (BGMEA/BKMEA)	Few years Many years 1 2 3 4 5 6 7
4. The entrepreneur's (founder) frequency of participation in local and international trade fairs	Rare Very frequently 1 2 3 4 5 6 7
5. The entrepreneur's (founder) personal relationship with key customers, key suppliers, and export trading firms	Distant Very close 1 2 3 4 5 6 7

PART IV: OUTCOMES

How would you rate the performance of your firm over the **past three years** in terms of the following indicators?

Circle the response that best represents your firm's position.	Highly unsatisfactory--- Highly satisfactory	Growth (%)
Financial		
1. Export sales volume	1 2 3 4 5 6 7	
2. Export sales growth	1 2 3 4 5 6 7	
3. Export profitability	1 2 3 4 5 6 7	
Non-financial		
4. New market entry/number of export countries	1 2 3 4 5 6 7	
5. Introduction of new products/services in international markets	1 2 3 4 5 6 7	
6. Growth in the number of employees	1 2 3 4 5 6 7	
Network export performance		
7. Quality of our company's relationship with key overseas customers	1 2 3 4 5 6 7	
8. Our key customers' overall satisfaction with the quality of our products/ services	1 2 3 4 5 6 7	
9. Our overall satisfaction with the quality of key suppliers' critical components	1 2 3 4 5 6 7	

PART V: RESPONDENT INFORMATION

- Please indicate your designation in the organisation: a) Founder/ entrepreneur b) CEO c) Managing director d) General manager e) Export/ marketing manager f) Export/marketing executive g) Commercial officer/merchandiser h) Other (please specify): _____
- Please indicate the highest level of formal education you have: a) High school b) Diploma/trade certificate c) University degree
- How many years of experience do you have in this industry? _____ year(s)
- How many years of experience do you have in this firm? _____ year(s)