EXPLAINING POSITIONAL ADVANTAGE: A RESOURCE BASED VIEW OF INTERNATIONAL NEW VENTURES

by

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DEDICATION

This thesis is especially dedicated to:

My two adorable daughters: Michelle and Chrystelle, who have had to endure the "missing mum" phenomenon, they have provided fun and challenges and, most importantly, I appreciate their constant reminder: "*Mum... when are you going to finish?*"

To Hugo, my husband, for his support to ensure I could accomplish my mission (impossible without his rescue) on time.

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ABSTRACT

International new ventures (INVs) are firms that from inception seek to gain substantial competitive advantage from the use and deployment of resources and the international sale of outputs. While INVs have received considerable theoretical and empirical attention as they are breaking the traditional paradigms of internationalisation, there is widespread concern about their sources of advantage. The main purpose of this study is to apply the resource based view (RBV) to the INVs context with the intent to provide an explanatory framework for the positional advantage of firms which leads to performance.

The conceptual model is developed around the positional advantage construct, its antecedents (resources, capabilities, competitive strategies, entrepreneurial orientation, and ambidextrous innovation strategy) and consequences (performance). Following an extensive literature review and exploratory interviews with managers, measures have been developed and data has been collected from 260 INVs. The conceptual model has been empirically tested in the specific setting of INV firms in Mexico.

This research has employed a scientifically sound research design with a rigorous statistical analysis. Structural equation modelling was used to test measurement veracity and hypothesised relationships between the constructs constrained in the measurement model. The study findings support the conceptual model and structural paths therein, and signify the efficacy of the measurement approaches used to capture the focal constructs. The results strongly support the central role of INVs positional advantage in the process of attaining superior performance.

The study findings are discussed in the light of extant knowledge and a number of conclusions are drawn. Implications for business practitioners and public policy makers are explored, indicating the relevance of this research to INVs practice. Furthermore, an account of the most important limitations of the study is provided, along with suggestions for future research.

Keywords: International New Ventures, Resource-Based View, Positional Advantage, Resources, Capabilities, Entrepreneurial Orientation, Ambidextrous Innovation Strategy.

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The Mesoamerican ballgame had its origin in the cosmic view and religious beliefs of the prehispanic people. The most common interpretation sees the ball and its displacement in the court as the movement of heavenly bodies in the sky. In the Mayan culture this cosmic battle is seen in the creation myth of young twin brothers who fought against the gods of death by playing a ball game in the underworld.

"And when the gods looked about, and saw the twins, they disdained them for they were but youths, and ruddy, and fair of countenance. They did not realized how gifted they were."

The victory of the twins against the forces of darkness was irrevocable and resulted in their ascension into the sky, one becoming the sun and the other the moon.

Popol Vuh, The Mayan Bible

CHAPTER 1
INTRODUCTION TO THESIS

1.1 INTRODUCTION

In recent times there has been a proliferation of "little heroes" in international markets (Chandra et al., 2009). They represent an increasing number of firms worldwide that have not been following the traditional internationalisation process as they cross their national borders from a very young age, questioning the gradualist concept to approach foreign markets. The rapid growth of the international new venture (INV) phenomenon is an indicative of their importance in research and theory development (Oviatt & McDougall, 2005).

As it has been widely held that international marketing inquiry should be characterised by sensitivity, both to significant developments in the environment (Cavusgil, 1998) and opportunities for influence from other disciplines (Jones & Coviello, 2005), this thesis documents the research stages pursued by the author in an attempt to shed light on the issue of positional advantage and performance in INVs. Specifically, it describes the systematic effort to introduce and apply theory developed within the marketing and strategy field with the intent of extending the resource based view (RBV) into INVs. This study draws upon prior research on strategy, international entrepreneurship (IE) and RBV by developing an explanatory framework for a growing phenomenon of technology-intensive start-ups that think and act globally from a very young age breaking the conventional paradigm of internationalisation.

The present chapter commences with a presentation of the research context for the study across INVs research. Then, the chapter explains the motivations for developing this investigation linked with the research problem, which is centred on the possessed resources and their deployment in creating positional advantage leading to performance. Moreover, the possible advantages in obtaining empirical evidence from Mexico are detailed. Further, the gap in INVs research is described underlining the challenges and opportunities in the field sustaining the research objectives and research questions. The methodology, empirical fieldwork, and contributions of the study are briefly explained, as later chapters are focused on them. Finally, this chapter provides a general overview of this research drawing on the content of each of the nine chapters.

1.2 RESEARCH CONTEXT

Why do some social groups, economic institutions, and enterprises advance and prosper? This subject has fascinated and consumed the attention of writers, companies, and governments for as long as there have been social, economic, and political units. In fields as diverse as sociology, economics, political science, and marketing, there have been persistent efforts to understand the forces that explain the questions presented by the progress of some entities and the decline of others (Porter, 1990).

In the field of marketing, much of the work from recent years on this subject has been concerned with enterprises, examined under the standard of what is being called strategy, in order to answer questions such as: *How are they born? How do they grow? How do they*

compete? This has encouraged the authors in the field to identify the significance of the internationalisation process of firms, especially of small and medium enterprises (SMEs).

More than ten years ago, Oviatt and McDougall (1994) launched a new field in IE identifying an increasing number of firms worldwide that have not been following the traditional internationalisation process as they cross their national borders from a very young age, questioning the gradualist concept of approaching foreign markets (Coviello & Jones, 2004; Dimitratos & Jones, 2005; Etemad, 2004; Fernhaber et al., 2008; Luostarinen & Gabrielsson, 2004; McDougall & Oviatt, 2000; Zahra et al., 2003; Zahra & George, 2002).

INVs aim at the global market right from inception (Rasmussan et al., 2001) and start their globalization immediately without any preceding domestic operations, or simultaneously with domestic business, or exceptionally, soon after domestic operations (Luostarinen & Gabrielsson, 2001).

There is a general agreement among scholars that the phenomenon of infant firms which operate internationally right from inception is an interesting research theme for theoretical as well as managerial reasons. Theoretically, it challenges the traditional domestic orientation of entrepreneurship research as well as the stage theory of internationalisation (Axinn & Matthyssens, 2002; Knight & Cavusgil, 1996; Oviatt & McDougall, 1994). From a managerial point of view, INVs are fascinating because of their increasing prevalence and importance in international competition (Bloodgood et al., 1996; Knight & Cavusgil, 1996). The phenomenon has largely been reported in high-tech industries (Knight, 2000; Madsen et al., 2000; Oviatt & McDougall, 1994). Therefore, managers and public policymakers have great interest in gaining additional knowledge about the way in which

new firms can overcome the dual hurdles of firm establishment and international market expansion (Aspelund & Moen, 2001; Autio, 2005; Fan & Phan, 2007; Fernhaber et al., 2008; Ganitsky, 1989; Knight & Cavusgil, 1996; Moen, 2002).

Empirical investigations confirm that INVs constitute an increasing segment of the modern economy (Barkema & Vermeulen, 1998; Burgel & Murray, 2000; Rennie, 1993). Data show that INVs account for a growing share of international firms (Aspelund & Moen, 2001; Burgel & Murray, 2000; Jones, 1999b; Knight & Cavusgil, 1996, 2004; Madsen et al., 2000; McAuley, 1999; Moen, 2002; Moen & Servais, 2002; Zahra, 2005) and that they are increasing in numbers (Aspelund & Moen, 2001; Mudambi & Zahra, 2007).

1.3 PURPOSE OF THIS STUDY

Discourse in the field of strategic marketing has drawn heavily on ideas and concepts from strategic management. One of the latest concepts in strategic management that is beginning to be enthusiastically greeted by marketers is the RBV of the firm. The RBV has been growing in popularity in the strategy literature since the mid-1980s. Its influence in recent marketing contributions can be seen in Day's (1994) work on marketing capabilities and in the work of Hunt and Morgan (1995, 1996) on competitive advantage. More recently, it has been explicitly adopted as a framework for analysing performance in international markets (Morgan et al., 2006) and positional advantage (Hult & Ketchen, 2001). Given its focus on the nature of the firm and its appeal as sources of advantage, the likelihood is that "resource-based" perspectives will become increasingly popular in the field of strategic marketing in the years ahead. Resource-based theorists (Barney, 1991; Peteraf, 1993;

Rumelt, 1984; Wernerfelt, 1984) concentrate on how firms can create sustainable competitive advantage in their markets. They conclude that competitive advantage has brought about the possession and deployment of distinct resources that create value for customers and are resistant to imitation by competitors (G. Hooley & Greenley, 2005).

Not all resources hold the potential of leading to competitive advantage for a firm. To create competitive advantages a resource must have four attributes: It must (1) be valuable; (2) rare; (3) difficult to imitate; and (4) have no strategically equivalent substitutes (Barney, 1991).

In this study, an INV is defined as a firm that from inception seeks to gain substantial competitive advantage from the use and deployment of resources and the international sale of outputs (Oviatt & McDougall, 1994, 2005). In this regard, *when does one firm have a competitive advantage over rivals*? Though answers to this question abound, one important line of theory and research within this domain holds that firms in attractive "positions" can consistently earn economic profits. Accordingly, particular combinations of activities defy imitation and create a positional advantage.

A low-cost position enables a firm to use aggressive pricing and to attain a high sales volume, and differentiated product creates brand equity among customers in the target market (Porter, 1980, 1985). Similarly, Hunt and Morgan (1995) posit that an advantage exists when a firm's competencies enable it to produce a market offering that relative to extant offerings by competitors, is perceived to have superior value and/or can be produced at lower costs. Likewise, Conner (1991) notes that distinctiveness of product offerings and/or low costs is tied directly to the distinctiveness of the resources used to produce the products.

Day and Wensley (1988) take Conner's idea one step further and provide a resource-position-performance framework in which they argue that resources and capabilities can be structural drivers of positional advantages such as low cost and differentiation. Although Porter (1985) suggests that a firm must choose between a cost advantage positioning and a differentiation positioning, Hitt, Ireland and Hoskinsson (1997) argue that firms can, and in some circumstances must, implement an integrated strategy that can lead to both cost advantage and differentiation. The simultaneous achievement of cost advantage and differentiation have been empirically supported in the United States (White, 1986) and in developing countries (Aulakh et al., 2000).

Positional advantage in this study is conceptualised as a superior market place position that captures the provision of superior customer value and the achievement of lower relative costs (Day & Wensley, 1988).

Specifically, this study builds on the RBV of the firm (Barney, 1991; Wernerfelt, 1984) and a framework offered by Day and Wensley (1988) to posit that applying the RBV to the INVs context provides an explanatory framework for firms' positional advantage which leads to performance. Based on the results of previous research, the roles of entrepreneurial orientation (EO), ambidextrous innovation strategy and competitive strategy are also examined (Hult & Ketchen, 2001).

1.4 IMPORTANCE OF INVS RESEARCH: AN OVERVIEW

Both the popular business press and academic research carried out independently around the world support the view that the phenomenon of INV firms is important. To provoke a

discussion on explaining the formation of INVs McDougall, Shane and Oviatt (1994) compiled 24 case studies of INVs with emphasis on the location of the venture's headquarters, the venture's date of creation and the industry sector where they belong.

Three points were evident from this investigation. First, INVs were present in at least ten countries, where 70% of them were developed economies, including: New Zealand, the United States, Switzerland, the United Kingdom, Germany, France, and Singapore. The fact the INV firms seem to be an international phenomenon suggests that the process is not unique to a firm or country. Second, many of the firms appear to have been formed in recent years, suggesting it may be a relatively new phenomenon. Third, the ventures are primarily small and medium high-tech business.

Building on the inroads made by these observations, the seminal work of Oviatt and McDougall (1994) in their article, "Toward a Theory of International New Ventures", published in the *Journal of International Business Studies*, threw the spotlight on international entrepreneurs, on INVs, and on their importance in the globalising world economy (Autio, 2005). While researchers have long recognised the valuable contributions of SMEs to international trade (Cannon & Willis, 1981; Douglas et al., 1982), Oviatt and McDougall (1994) highlighted the importance of smaller and younger firms and their distinguishing characteristics that position them to internationalise quickly and create value. Arguing that INVs have existed for years, but that researchers have overlooked them as an important population, the authors proceeded to discuss how these characteristics influence the way INVs compete on the global stage. Arguing that existing theories do not explain the formation of INVs, Oviatt and McDougall's (1994) views challenged and

revised some existing and powerful paradigms about the process of internationalisation, especially the stage theory (Johanson & Vahlne, 1977).

Oviatt and McDougall's (1994) framework and arguments attracted a worldwide audience, resulting in several annual doctoral consortia on IE, special issues in leading scholarly journals, several university-sponsored workshops, the publication of handbooks and edited volumes, a number of doctoral theses, numerous sessions in regular academic meetings, several book chapters, and MBA as well as doctoral seminars (Zahra, 2005). An examination of articles published 10 years after Oviatt and McDougall's (1994) research, showed that issues related to IE have appeared with an increasing frequency (Oviatt & McDougall, 2005c). The recognition of the serious worldwide interest in McDougall and Oviatt's (1994) framework, resulted in naming their study the winning article of the decade by the *Journal of International Business Studies* in 2005 (Oviatt & McDougall, 2005).

As Oviatt and McDougall's (1994) key insights were on drawing attention to the facts that INVs are an international phenomenon of international high-tech SMEs, researchers documented the growing role of INVs reinforcing and enriching these arguments. In Canada, an empirical study of 75 early stage technology-based firms found that 93 percent of the companies had foreign sales shortly after establishment (Preece et al., 1999). In Norway and France, an empirical research of small firms found that more than half of exporting firms established since 1990 could be classified as INVs (Moen, 2002). In Australia, a McKinsey study found that 20 percent of new trade growth is raised from INVs (Rennie, 1993). Later studies examined the INV's network relationships in New Zealand software firms (Coviello, 2006; Coviello & Cox, 2006; Coviello & Munro, 1995).

In Finland, Ireland and Norway, Bell (1995) analysed the internationalisation process of high-tech small firms in the computer and software sectors.

From a sample of 62 US new venture manufacturers in the computer and communications equipment industries, McDougall and Oviatt (1996) examined the link between new venture performance and the internationalisation of new ventures. Additionally, Knight (2000, 2001) investigated the interrelationships of EO, marketing strategies, tactics and firm performance among US SMEs affected by globalisation, later identifying the taxonomy of born global firms (Knight & Cavusgil, 2005). Also, from a UK survey of 246 technology-based start-ups with international activities, Burgel and Murray (1998, 2000) analysed the determinants of international market entry choices. Moreover, Autio and Sapienza (2000) studied the born global perspectives in the international growth of technology-based new firms from a sample of 230 British firms. Also, there is evidence that a substantial number of newly established Norwegian exporters are born global firms (Aspelund et al., 2006; Aspelund & Moen, 2001; Moen, 2002). Then, Johnson (2004) utilised UK and US evidence to identify the factors influencing the early internationalisation of high-technology start-ups. Furthermore, samples of Spanish and Belgian INVs are found in published studies of international entrepreneurship (Acedo & Florin, 2006; Blesa et al., 2008).

It can therefore be seen that the impact of technological, social and economic changes propels firms into international markets soon after the firms' inception (Morgan & Hughes 2006). In this regard, it is significant to consider that INV firms are primarily in the technology-intensive business (Hughes & Morgan, 2007; Jones & Crick, 2001; Styles & Genua, 2008)

The importance of new technology-based firms is evident as can be seen through the cases of Finland. During the economic recession of the early 1990s, new technology-based firms in Finland increased in number faster than firms in low-technology industrial sectors. New technology based firms also had a role in technology transfer between the research sphere and industry, between and within different industry clusters, and in adapting advance technology to the needs of traditional firms (Autio & Yli-Renko, 1998).

The increasing occurrence and importance of INVs in global markets indicates a need for a greater understanding of the phenomenon (Aspelund et al., 2006; Autio, 2005; Blesa et al., 2008; Fan & Phan, 2007; McDougall et al., 1994; Oviatt & McDougall, 1997; Servais & Rasmussan, 2000). Many INVs have been successfully competing against larger established players, and manage profitable, fast growing business systems in a way that was impossible twenty years ago (Rennie, 1993).

It is expected that the phenomenon of INVs will become more widespread in the future (Madsen & Servais, 1997). As INVs are increasing in number, their importance in terms of innovation, employment and economic growth is also ascending. This combined with the challenges facing INVs managers and the limitations of existing theory, makes the INV field an interesting area of research (Autio & Sapienza, 2000; Blesa et al., 2008; Moen, 2002; Mudambi & Zahra, 2007; Styles & Seymour, 2006).

1.5 MOTIVATIONS FOR THE PRESENT STUDY AND THE FORMULATION OF THE RESEARCH PROBLEM

Research issues in the strategic management field continuously *emerge and fade* in response to environmental challenges and cumulative knowledge development (Day, 1992; Grant, 1995). For more than two decades, the fundamental question has been how firms achieve and sustain an advantage to compete (Freeman et al., 2006; Rumelt et al., 1994; Teece et al., 1997). Consequently, more than a decade has passed since a resurgence of interest in sources of advantage (Day, 1992). As global trading has become increasingly important, the central roles of SMEs taking advantage of international trading opportunities can have an impact beyond performance. Positional advantage, as an antecedent of performance, is viewed as the outcome of relative superiority against direct competitors in skills and resources that the firm possess and/or is in any way capable of deploying (Barney, 1997; Dhanaraj & Beamish, 2003; Furrer et al., 2008; Hughes & Morgan, 2007; Morgan et al., 2006; Wiklund & Shepherd, 2003).

With reference to INVs, the usual focus is on SMEs operating in a context characterised increasingly by globalization. In this environment, to the extent that SMEs can be engines of growth for product-market innovations and the broader economic development of nations, the rise of the international SME is an important trend. However, in light of their smaller size, many of the traditional problems facing SMEs are inherited by INVs. These lack the capabilities and market power compared with large, and rich resourced multinational enterprises, which increments the operating complexities under globalization (Knight, 2000). SMEs are particularly vulnerable to impediments related to resource limitations. To minimize the effect of such impediments, firms must have the ability to

adapt to the demands of the market. Firms can overcome these impediments by using accessible resources (Zou & Stan, 1998) and adapting to changes in demand and supply through increased organisational learning (Lages et al., 2008). Researchers argue that even though a firm cannot have capabilities without resources, it is eventually how resources are used, i.e. capabilities that give a firm an advantage.

In this regard, it is important to note that INVs face three challenges. First they present constrained resources due to their young age and usually their small size; second, their markets are among the most volatile; and third, new ventures, by definition, have little or no experience in any market.

Consequently, *how can INVs with constrained resources and with almost no experience in any market compete among the most volatile markets?* There are multiple studies suggesting that the success of INVs under globalization depends in a large part on the formulation and implementation of strategy (Cavusgil & Zou, 1994; Gabrielsson & Al-Obaidi, 2004; Knight, 2000; Moen & Servais, 2002). It follows, therefore, that the possession and development of resources in creating a competitive strategy to achieve a positional advantage in the international market reflects the degree of success or failure of INVs (Aspelund & Moen, 2001; Gabrielsson et al., 2004; McDougall et al., 1994; Mort & Waeerawardena, 2006).

In addition to the previous research, a recent number of studies have started to empirically investigate the linkages between resources, strategy and performance (Delios & Beamish, 2001; Kor & Mahoney, 2005; Kraatz & Zajac, 2001; Vorhies & Morgan, 2003; Zajac et al., 2000).

In this regard, this thesis is an attempt to shed light on the issue of an increasing emergence and further development of INVs by modelling the factors that help these firms create a positional advantage which leads to performance. Therefore, the research problem on which the present study is based can be formulated as follows:

Which are the factors that play an important role in the resource and capability deployment in creating positional advantage across INVs and how/to what extent are they related to performance?

The identification of those factors that play an important role in the determination of INVs positional advantage and performance is a vitally significant task to: (1) *business practitioners*, in the process of designing and implementing effective international strategies that can take advantage of those factors; (2) *public policy makers*, concerned with the promotion, development and success of the international activities of firms; (3) *academic researchers* in the field, whose one key task is to serve the interests of the public and business community.

1.6 RESEARCH GAP

All scientific knowledge progresses through successive waves of evolution and revolution (Kuhn, 1962). Challenges usually give rise to opportunities, in this regard by recognising the rich theoretical and managerial implications of INVs the present investigation identifies evident research gaps that challenge INVs literature and generate research opportunities in the field.

Substantial scholarly work has shed much light on the development of a contemporary global environment, namely the phenomenon of INVs. Nevertheless, the literature highlights several particular problems that limit existing research. In order to address the research problem of this study, seven issues will be analysed as follows.

First, the majority of studies are either descriptive or largely a-theoretic. Therefore, the resulting lack of a comprehensive theory base for explaining INVs key factors in creating positional advantage makes it difficult to integrate findings from different studies in a coherent body of knowledge (Knight & Cavusgil, 1996; Servais & Rasmussan, 2000). Consequently, in contemporaneous INV literature a considerable number of studies develop a large part of their theoretical approaches by identifying and examining both internal and external key driving forces and trends behind the evident emergence and further development of SMEs becoming international almost at founding (Aspelund et al., 2007). In this regard, the most common factors that trigger the INVs phenomenon are considered to be the new market conditions including the importance of niche markets, technological developments and the increased importance of global networks and alliances. While capabilities is also an addressed factor, most studies approach this from the people's capabilities, including those of the entrepreneur who starts the INV (Fernhaber & McDougall, 2009; Servais & Rasmussan, 2000), and little research is centred on the organisational capabilities of INVs (Zahra & Hayton, 2008).

So far, these different driving forces which to an extent enable INVs to compete globally, have only been superficially explored, but not conveniently integrated in most of the theoretical frameworks of reference designed for conducting research. Nevertheless, the

extent to which these frameworks are explicitly proposed as the conceptual base in each study is not so uniform, probably due to the diverse research objectives being addressed.

Notably, Oviatt and McDougall (1994) have established a theoretical framework which identifies unique resources as the differentiator element and necessary condition of INVs. Accordingly, this manifests the possibility to develop INVs research from the RBV perspective based on Barney's (1991) argument that sustainable advantage for any firm requires that its resources be unique and imperfectly imitable. The RBV argues that resources are a source of competitive advantage as long as they are valuable, rare, inimitable and non-substitutable.

The RBV has developed a series of related propositions that seek to explain the relationship between a firm's resource endowments and its performance and growth (Lockett et al., 2009), see Section 3.2. As empirical evidence relating to the decomposition of firm performance (McGahan & Porter, 1997) typically finds that firm-specific effects are at least as important as industry characteristics, the RBV offers an obvious framework for analysing inter-firm variations in performance.

While previous works on marketing theory related to RBV exist, Srivastava and colleagues (2001) argued that little attention has been given to the application of the RBV as a frame of reference in analysing marketing theories. One of the reasons for this is the difficulty to operationalise the RBV (Bowman & Ambrosini, 2007). In particular, several studies compare the explanatory value of competing theoretical approaches about alternative business internationalisation patterns, usually making a difference between traditional, gradually-internationalising firms, and INVs (Autio & Sapienza, 2000; Rialp et al., 2005).

However, empirical work on the RBV and its potential to identify valuable resources has been limited (Bowman & Ambrosini, 2007).

In addition, frameworks jointly considered for explaining the INV phenomenon include evolutionary economic theory, together with part of the original thinking behind the stage model (Madsen & Servais, 1997; Servais & Rasmussan, 2000), and the international network approach (Coviello, 2006; Freeman et al., 2006). However, the RBV has played an important role in the emergence of IE and the interest on accelerated internationalisation of SMEs by focusing on the reasons why SMEs succeed abroad rapidly without going through different stages. The answer usually implies a tacit knowledge of global opportunities and the exceptional capabilities to leverage such knowledge in a way not matched by competitors. Nevertheless, the following question is still unsolved: *how/to what extent are the resources and capabilities deployed in creating an advantage in INV?* In this regard, several INVs authors have founded their theoretical conceptualisations and testable hypotheses on the RBV (Bloodgood et al., 1996; Coviello & Cox, 2006). Therefore, the possibility to theoretically apply the RBV to INVs is evident.

The second research gap is based on the dynamic capabilities literature as a complement to the RBV (Ambrosini & Bowman, 2009; Wang & Ahmed, 2007). Emerging theories identify a dynamic capability as the capacity of an organisation to purposefully create, extend, or modify its resource base (Eisenhardt & Martin, 2000; Makadok, 2001; Teece et al., 1997). As markets become more globally integrated and new forms of technology and competition arise, firms must adapt and exploit changes in their business environments, while seeking opportunities to create change through technological, organisational, or strategic innovation (Eisenhardt & Martin, 2000; Helfat et al., 2007).

Creating, adapting to, and exploiting change is inherent to INVs. The dynamic capability perspective focuses on the capacity an organization facing a rapidly changing environment has to create new resources, to renew or alter its resource mix (Teece et al., 1997). As dynamic capabilities are future oriented, their purpose is to develop the adequate resource base allowing its modification (Ambrosini & Bowman, 2009). The complex changing environment of globalisation requires INVs to develop dynamic capabilities in a process that impacts upon resources. However, in order to develop and empirically assess a comprehensive model of INVs, it is not clear in the literature how to integrate insights from the RBV with emerging theories on dynamic capabilities. Because of this, the possibility to develop a dynamic perspective in INVs research is manifested. The use of dynamic capabilities theory as a complement to the RBV has been considered in this study to create a comprehensive theoretical model.

The third research gap focuses on EO in the internationalisation context, as a relevant and under-research topic (Chandra et al., 2009; Jantunen et al., 2005). There is no general accepted definition of EO, and what is considered its fundamental nature largely depends on the background of the researcher and the purpose of the research at hand. While an entrepreneurial attitude fundamentally involves alertness to discoveries and the ability to seize opportunities (Kirzner, 1997; Shane & Venkataraman, 2001), internationalisation is the recognition and exploitation of entrepreneurial opportunity that leads to new international market entry (Chandra et al., 2009). Without novelty in creation and the use of resources and capabilities, superior profitability yielding strategic opportunities does not exist. Denrell and colleagues (2003) thus combine strategic opportunities, new resource combinations and the potential for superior performance in their strategic-management framework. The notion of EO suggests that some firms are more disposed than others to

continuously search for opportunities and solutions outside the domain of their current activities.

The essential connection between resources and EO in the literature on strategy research has its origins in Penrose's (1959:25) assertion that *"...it is never resources themselves that are 'inputs' in the production process, but only the services that resources can render. The services yielded by resources are a function of the way in which they are used-exactly the same resource when used for different purposes or in different ways and in a combination with different types or amounts of other resources provides a different service or set of services"*.

Penrose (1959) argues that a firm's potential in terms of taking advantage of productive opportunities and expansion is limited by the ability to recognise opportunities, the ambition to take actions based upon them, and the ability to respond to them. According to her, a firm's growth through the expansion of productive opportunities is limited by the available "entrepreneurial services" in the form of organisational activities related to the introduction of new ideas and changes in products, technology, the organisation, and so on. To fill the gap between opportunities and realised profit resource configurations, firms employ internal "entrepreneurial services" (Moran & Ghoshal, 1999) and organisational reconfiguring capabilities (Teece et al., 1997).

The dynamic capability view of the firm (Teece et al., 1997) explores how firms build, integrate and reconfigure valuable resource positions. Its dynamic capabilities consist of the structures and processes that constitute its ability to reconfigure its resource base to match the requirements of the changing environment (Eisenhardt & Martin, 2000; Winter, 2003). In other words, dynamic capabilities denote the firm's ability to sense and seize

opportunities (Teece, 2000), and hence the dynamic capabilities of the firm reflect the entrepreneurial facet of management (Teece, 2003). Value creation through the recognition of a proactive, autonomous and risk taking approach, as well as sustaining value through disciplined strategic-management actions are essential elements in the dynamic-capability framework. This manifests the possibility to combine EO and strategic-management perspectives when explicating sources of wealth creation. Consequently, the following interrogation is pertinent: *How/to what extent is EO related to performance in INVs?*

Following the empirical investigation of Covin and Slevin (1988) it is suggested that the effect of an EO on performance is contingent upon the way in which organisational elements are integrated to support utilisation of the resource base. Although Shane and Venkataram (2001) suggest that EO research should be kept separate from research on strategic management, several scholars support the integration of the two (Choi & Shepherd, 2004; Hitt et al., 2001; Ireland et al., 2003; McGrath & MacMillan, 2000; Zahra & Dess, 2001). Therefore, the possibility to develop INVs research with the entrepreneurial initiative in the internationalisation context is manifested with an interrogation: *what is the role of EO with regard to resources and capabilities in INVs?*

The fourth research gap centres on ambidexterity in INVs. While exploration and exploitation are fundamentally different logics that create tensions, O'Reilly and Tushman (2004) have argued that firms should be ambidextrous in order to succeed and sustain. Exploration activities include "*things captured by terms such as search, variation, risk taking, experimentation, play, flexibility, discovery*" (March, 1991:71). In contrast, exploitation activities include "*such things as refinement, choice, production, efficiency, selection, implementation, execution*" (March, 1991:71). The broad conceptual distinction

has since been expanded into a wide range of managerial contexts including strategic management (He & Wong, 2004), organisational theory (Holmqvist, 2004), technology and innovation management (Benner & Tushman, 2003), and managerial economics (Ghemawat & Ricart i Costa, 1993). Researchers have consistently argued that exploration and exploitation draw on different structures, processes, and resources, generating significantly different performance outcomes over time (He & Wong, 2004). In this regard, ambidexterity enables the firm to carry out paradoxical strategies that imply tensions, tradeoffs and performance dilemmas.

Recent literature addresses ambidexterity on the particular context of technological innovation. Following the established literature (He & Wong, 2004; Poole & Van de Ven, 1989), technological innovation is distinguished from organisational innovation. While organisational innovation involves changes to organisational structures and administrative process, technological innovation focuses on how firms commercialize new technological knowledge and ideas into new products or processes. He and Wong (2004) extend the exploration versus exploitation construct to define a new typology of technological innovation strategy along two generic dimensions: (1) an explorative innovation dimension to denote technological innovation activities aimed at entering new product-market domains and (2) an exploitative innovation dimension to denote technological innovation activities aimed at improving existing product-market positions. These two generic dimensions are being referred in the rest of this study as explorative innovation strategy and exploitative innovation strategy.

Right from their inception INVs compete locally and internationally for the same resources as multinationals (Lu & Beamish, 2001b). Contemporary literature suggests that firms

pursuing strategic ambidexterity in their internationalisation effort achieve above-average firm-level performance. Strategic ambidexterity enables a firm to carry out inherently paradoxical strategies. In this regard, exploration and exploitation are considered paradoxical as they are fundamentally different logics that create tensions (Han, 2007). Thus, while the literature suggests that building ambidextrous innovation strategy right from inception could help firms to compete more effectively, it would be interesting to test this relationship further.

In addition, there is a significant body of work with the view that an INV is unique and requires new theory and new thinking about firm performance. Further, theoretical and empirical attempts to link ambidexterity to INV performance are still in their infancy (Han & Celly, 2008); the possibility to develop INVs research based on ambidexterity is evident.

Moreover, little is currently known about the antecedents and consequences of such ambidexterity (Raisch & Birkinshaw, 2008). Not withstanding this, March (1991) has long anticipated entrepreneurial firms balancing exploration and exploitation. An important message from the past is that a firm's entrepreneurial pursuit underpinned by values of proactivity, risk-taking, and autonomy does not necessarily succeed. The need for appropriate resource and capability prioritisation is pertinent to the two heterogeneous dimensions: exploration and exploitation. Both dimensions require different sets of resources. Therefore, firms must strike a subtle balance between exploration and exploitation for the purpose of successful innovation (Wang & Rafiq, 2009). The following question has not been solved yet: w*hat is the association between EO and ambidexterity and how/to what extent is ambidexterity related to competitive strategy?*

The fifth research gap refers to INVs as mainly high tech SMEs start-ups formed in recent years with the challenge to compete in the international arena where they have no experience (Oviatt & McDougall, 1994). It is not clear in the literature, whether there are specific factors that play an important role in facilitating INVs with constrained resources and no experience to compete in the international market (Furrer et al., 2008; Jolly et al., 1992; Kaleka, 2002; Piercy et al., 1998). Therefore, it is still an unsolved question: h*ow/to what extent resources and capabilities form the basis to competitive strategy in INVs?* In this regard, there is evidence for the alternative to develop INV research through the identification of such factors as sources of competitive strategy choices in INVs.

Regarding the sixth research gap, it is important to notice that neither marketing nor the INV literature has given much attention to the "black box" between the particular factors that help these firms overcome their limitations to compete and perform internationally (Carbonell & Rodriguez, 2006). The superior market place position that captures the provision of higher customer value, namely positional advantage (Day & Wensley, 1988), has briefly been addressed by INV research. However, to appreciate how competitive strategies on the basis of INVs are created and sustained to generate performance, the understanding of the intermediate state of positional advantage is required. According to this perspective, there is an unsolved inquiry: *how/to what extent does competitive strategy impact on positional advantage?* Conversely, a plethora of studies identify positional advantage as direct antecedents of firm performance because of the relative superiority of value offering determines target customer preferences and buying behaviour (He & Nie, 2008; Henard & Szymanski, 2001). Accordingly, the following query is appropriate: *how/to what extent is positional advantage associated with performance in INVs?*

The seventh research gap is based on the suggestion in the literature that INVs are not a local phenomenon, as they are present in many developed countries spread over different continents. However, there is evidence of increasing endeavours from firms of emerging markets, and more precisely, newly industrialised countries (NICs) to be incorporated into the global economy (Hoskisson et al., 2000; Khanna & Palepu, 1997). NICs are nations with economies more advanced and developed that those in the developing world, but not yet with the full signs of a developed country. Based on features shared in common by these countries in terms of international operations, e.g. open development to the world economy and aggressive pro-export policy, such countries are overcoming the hurdles of firm establishment to ensure competitiveness in foreign markets (WorldBank, 2007). Therefore, there is a clear research opportunity for collecting data from Mexico, a selected emerging market considered in the group of the first generation of NICs with Taiwan, Hong Kong, Singapore, Brazil and South Korea.

1.7 Research Objectives and Research Questions

Having identified the motivation and research problem to develop the present study, as well as the research gaps, the objectives of this study are sevenfold and follow from the above discussion. Essentially, the objectives are focused on eliciting theoretical and empirical evidence regarding the extension of marketing theories like the RBV into INVs research and to empirically test the conceptual model (Figure 3.1).

In this regard, the seven objectives are as follows: 1) To empirically assess the interplay between resources and capabilities and how they are deployed to facilitate positional

advantages in INVs; 2) To empirically assess the interplay between resources and capabilities and how they are deployed to facilitate competitive strategy in INVs. 3) To empirically examine how competitive strategy impacts positional advantage. 4) To empirically examine how EO affects resources and capabilities of INVs. 5) To empirically assess how EO relates to ambidextrous innovation strategy, and how ambidextrous innovation strategy is linked to competitive strategy in INVs. 6) To empirically examine how EO and positional advantage have an effect upon the performance of INVs. 7) To further understand INVs in Mexico.

In attempting to address the research objectives, the following research questions have been formulated: 1) How/to what extent are the resources and capabilities deployed in creating positional advantage in INVs? 2) How/to what extent resources and capabilities form the basis to competitive strategy in INVs? 3) How/to what extent does competitive strategy impact on positional advantage in INVs? 4) What is the role of EO with regard to resources and capabilities in INVs? 5) What is the association between EO and ambidextrous innovation strategy and how/to what extent is ambidextrous innovation strategy related with competitive strategy in INVs? 6) How/to what extent is EO related to performance in INVs? 7) How/to what extent is positional advantage associated with performance in INVs?

Table 1.1 exhibits the relationship among the research objectives, the research questions and the research gaps.

TABLE 1.1 Research Objectives, Questions and Gaps		
Research Objective	**Research Question**	**Research Gap**
Objective 1	Question 1	Gap 1 and 2
Objective 2	Question 2	Gap 5
Objective 3	Question 3	Gap 6
Objective 4	Question 4	Gap 3
Objective 5	Question 5	Gap 4
Objective 6	Question 6 and 7	Gap 3 and 6
Objective 7	Empirical Fieldwork	Gap 7

1.8 RESEARCH METHODOLOGY AND EMPIRICAL FIELDWORK OF THE PRESENT STUDY

The issue of epistemology, or how a person comes to know what (s)he knows (Mitroff & Mason, 1982) is key to deciding the research methods and techniques one should use in investigating a particular phenomenon. Broadly, there are two principal schools of thought on knowledge development, these are widely known as positivism and idealism (Desphande, 1983) The main distinction between them is that positivism is largely focused on verifying theories, whereas idealism is particularly concerned with generating theories (Burrell & Morgan, 1985), see Section 4.2.

The present study adopts a hypothetico-deductive approach to research design. This author hypothesises relationships with the conceptual model (Figure 3.1). The hypotheses are tested through the epistemological assumption of a scientific approach, which involves a structured questionnaire. Given the philosophical position underpinning this, and the fact that evidence found in the INV literature further enriched with the information gathered during the early stage of the study through personal interviews with key executives of INV

firms, an overall framework has been developed to test the descriptive approach. The quantitative data were collected via telephone interviews and analysed via structural equation modelling (SEM) analysis applying AMOS 6.0. Thus, this author has chosen a deductive approach to provide an effective and systematic analysis for this study. Accordingly, conclusions and findings are generalised based on this rigorous scientific method.

1.9 MEXICO: AN OPPORTUNITY FOR INV RESEARCH

Mexico, with the first generation of NICs, commenced the process of economic restructuring in the mid-1960s with profound structural changes in the economy under conditions of a fast growth rate. The early initiation implementing these structural changes, in comparison with China and India that began the process of structural transformation in the late 80's with the third generation of NICs, has allowed Mexico to ground and strongly sustain the pillars of strategy development (Bozyk, 2006). The positive results of switching from an agricultural to industrial economy in Mexico are evident; the country has increased its social freedom and civil rights with an open-market economy, large national corporations operating in several continents and strong capital investment from foreign countries (Philip, 2008; Serra, 1991).

During the development of the present study, the empirical evidence obtained showed that the rapid growth of the INV firm's phenomenon is also found in Mexico (see Section 5.5.1). As one of the most open economies in the world, Mexico has created an adequate nebula to brighten up technology intensive start-ups.

In Mexico, there have been significant public policy efforts to generate an economic open process and to diversify the export products looking to raise the participation of industry sectors other than petroleum, identifying high technology as a vital sector (Gray & Cuevas, 2005).

Mexico is the world's thirteenth largest economy in terms of gross domestic product experiencing growth of 5% every year. The country has taken steps to increase its political cooperation, mainly as a way of influencing the US position on major trade accords. Due to Mexico's rapidly advancing infrastructure, increasing middle class and rapidly declining poverty rates it is expected to have a higher GDP per capita than all but three European countries (Germany, the UK, and France) by 2050. In this regard, besides considering Mexico as a NIC, according to Goldman Sachs, Mexico is also included in the BRIMC classification, a relatively new marketing term to refer Brazil, Russia, India, Mexico and China. The BRIMC (Notimex, 2006) acronym derives from the investment bank thesis called BRIC, referring to the fast growing developing economies that could eclipse the combined economies of the current richest countries of the world (O'Neill, 2003, 2006).

1.9.1 MEXICO'S BACKGROUND

Mexico is not different from the majority of the NIC countries. These were former colonies of highly industrialised countries, completely politically and economically dependent on them. Though the disintegration of the colonial system brought them independence, it also placed them in the group of raw-materials and agricultural countries, producing and exporting mineral products, oil, foodstuffs, farm products, condiments (especially coffee and tea), textiles, leather articles, and the like. This specialisation did not guarantee success

and the majority of these countries suffered a permanent balance of trade and balance of payment deficit. Fluctuations in conditions of a high price flexibility of demand on the international market led simultaneously to profound changes in export incomes, which complicated the situation even further (Bozyk, 2006).

In this regard, the countries that shared this situation and were by that time less developed, including the later NICs, adopted the import substitution economic policy, seeking a solution in anti-import development based on the premise that a country should attempt to reduce its foreign dependency through the local production of industrialized products. Unlike the other less developed countries, NICs withdrew from the import substitution strategy earlier (Baer, 1972).

The first generation of NICs, drawing primarily on Japanese experience, based their development strategy on four pillars: development open to the world economy, adjustment to the structure production to export needs, aggressive pro-export policy and protection of the domestic market. The first generation of NICs accelerated their growth rate and commenced the process of economic restructuring in the mid-1960s.

Structural changes in industry were subordinated to this target, introduced with export development uppermost in mind. The first steps were taken in the direction of the heavy and machine industry, followed by the development of the processing industry, including the electric-machinery and electronic industry, automobile industry, shipbuilding, textile, chemicals and others. Technological assistance to Asian countries came from Japan, and to Brazil and Mexico from the United States. Markets were sought in West European countries but also in the United States and Canada (Bozyk, 2006).

All NICs witnessed rapid growth of employment exceeding the demographic growth rate, which meant population movements from rural to urban areas. This process was accompanied by the development of education at all levels resulting in a growth of labour productivity. Thus, in total, the acceleration of the economic growth rate had its roots in long-term trends of accumulation growth, a significant acceleration of the growth rate of investments and modernization of the production apparatus connected with it, as well as profound qualitative changes in labour resources resulting from changes in the structure of employment and upgraded qualification (Jain, 2006).

1.9.2 MEXICO AND INVS RESEARCH

IE research (McDougall & Oviatt, 2000; Oviatt & McDougall, 1994) to date has largely been focused on new ventures based in developed economies and has not paid significant attention to new ventures based in NICs. Therefore, the limited research on the internationalisation of firms based in NICs has focused on large firms (Wright, 2007), such as Brazil's AmBev (Economist, 2007), China's Lenovo (Spulberg, 2007), India's Tata (Khanna, 2007), and Mexico's Cemex (Salvo, 2007). Clearly there is a gap concerning how small entrepreneurial firms based in NICs internationalise (Yamakawa et al., 2008).

There is evidence that the development of an economic and policy environment supporting new, high-growth, high-technology ventures has become common strategy adopted by many policy makers, as a critical means of promoting future economic growth and job creation (Cooper & Park, 2008). Firms from NICs are accelerating their efforts to integrate into the global economy (Hoskisson et al., 2000; Khanna & Palepu, 1997).

One of the results of this can be appreciated in the change over the last two decades of the conventional foreign direct investment (FDI) pattern. Although developed economy firms remain the dominant source of FDI, NICs firms have started to invest abroad in increasing numbers in recent years. For instance, the increase in outward flow of FDI mainly from NICs (from $16.3 billion to $469 billion during the years of 1980 to 2002) has tripled the increase from developed countries (from $507 billion to $4.3 trillion) (Henisz, 2003; Pacheco-Lopez, 2005a; Zahra, 2005). A recent study further showed that SMEs in NICs are increasingly internationalizing to capitalize on opportunities in foreign markets (OECD, 1997).

In the contemporary environment of trade liberalization, Mexico among other NICs, necessitates an examination of its export strategies for building competitive advantage in foreign markets (Aulakh et al., 2000; Nica et al., 2006).

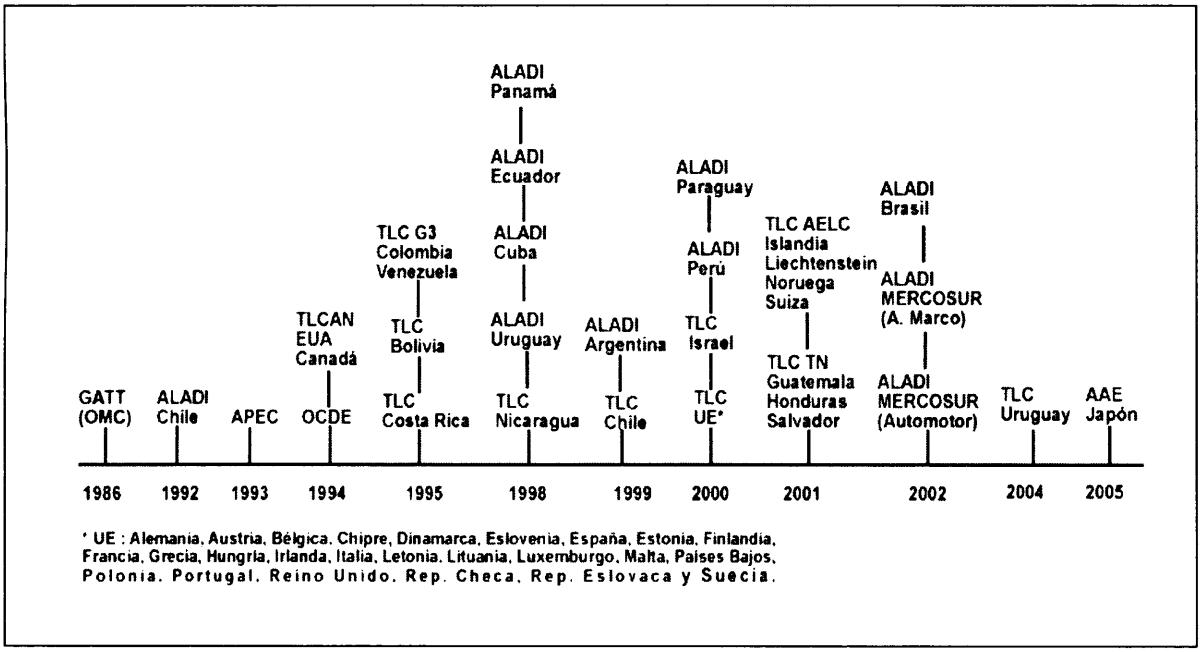
1.9.3 CREATION OF AN ADEQUATE ARENA IN MEXICO FOR INVS TO GROW

The past two decades have seen dramatic changes in the Mexican economy. Appearing as a closed economy until the mid 80s, after more than three decades of pursuing import substitution policies, Mexico embarked on a serious program of trade liberalization, which has led the country to become the thirteenth largest exporter and the tenth largest importer in the world (WTO, 2001). Tariffs were reduced substantially, import licences were gradually rescinded, and export promotion policies were pursued, particularly through the 'Maquiladoras' sector. The advent of the General Agreement on Tariffs and Trade (GATT) in 1986 initiated the economic open process of the country, followed by several agreements from which it is crucial to mention the North America Free Trade Agreement

(NAFTA), in Spanish TLCAN, that came into effect on January 1st, 1994. Up to now, Mexico has negotiated more than 10 free trade agreements with 43 countries from North America, Europe, Latin America and Asia. This net of agreements offers preferential access to a superior market of 1.3 billion of consumers, see Figure 1.1. The process of trade liberalization continues, and Mexico is an active participant on the current discussion regarding the formation of a Free Trade Area of the Americas (Bouzas, 2007).

The major purpose of the change in trade policy regime, in the wake of the debt crisis of the early 1980s, was to accelerate economic development and to "grow out" of debt. This remained the purpose of further trade liberalization programs. Great expectations were raised with the signing of NAFTA that somehow Mexico would embark on a "new golden age" of economic growth and prosperity (Lusting, 1994; Serra, 1991). It is also significant to mention that different opinions have emerged regarding this argument (Pacheco-Lopez, 2005a, 2005b).

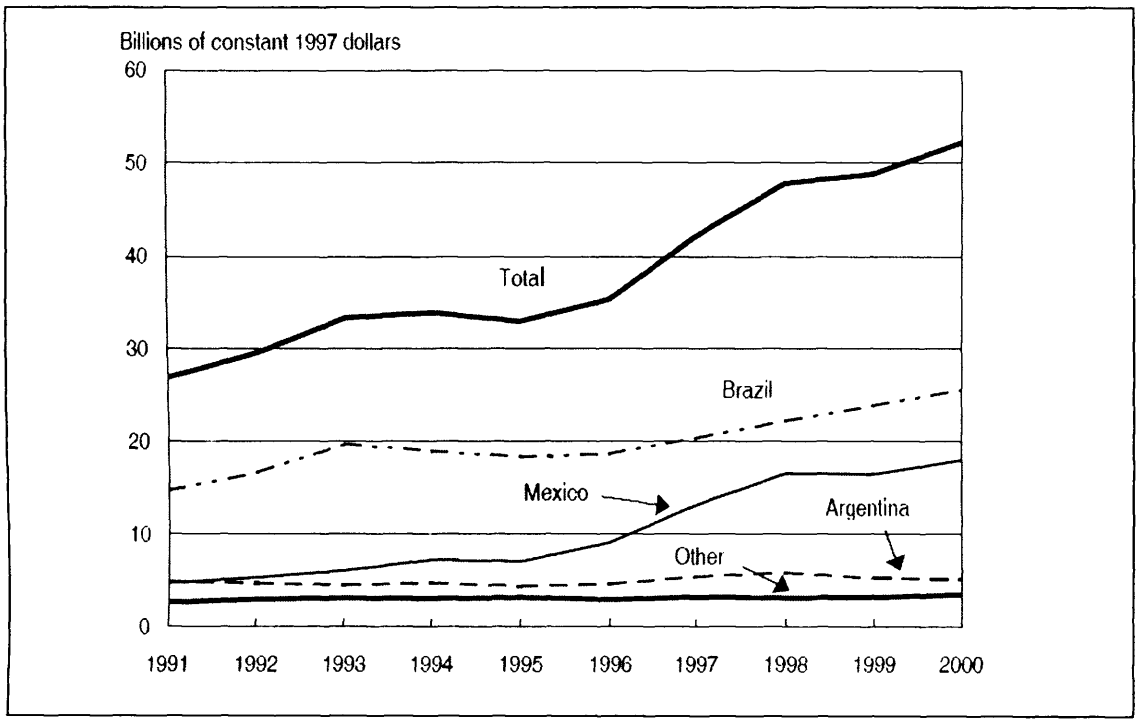
FIGURE 1.1 Open Economic Process of Mexico
SOURCE: Ministry of Economy in Mexico (2007)



The net of agreements signed by Mexico has offered Mexican firms access to diversified markets and new prospects for long term economic growth. As Mexico has grown to become a considerable exporter, it is crucial to underline how the export economy has substantially diversified. In 1985, 70 percent of *non-Maquiladora* exports were classified as petroleum products. Ten years later, over 50 percent of *non-Maquiladora* exports were classified in groups as diverse as automotive and transport equipment, chemical products, iron and steel, electronic equipment and textiles (LatinFinance, 1996). High-tech manufacturing has grown substantially over the last decade in Mexico as elsewhere in Latin America and has become a substantial source of economic growth. The combined production of seven Latin American countries – Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, and Venezuela – increased 93 percent between 1991 and 2000, rising from $27 to $52 billion US dollars. Within such a framework, high-tech manufacturing in Latin America has been dominated by Argentina, Brazil and Mexico accounting for over 90 percent of total high-tech production in 2000 (Hill,2002), see Figure 1.2.

FIGURE 1.2 High Tech manufacturing production in selected Latin American countries 1991-2000

SOURCE: CRI-WEFA World Industry Monitor, World Industry Service database (October 2001)



High-tech manufacturing has become more reliant on trade than any other manufacturing industry in Latin America. Over the decade of the nineties, high-tech trade expanded more than 460 percent, rising from $15.4 to $85.6 billion of U.S. dollars. Measured by trade intensity - the combined value of exports and imports as a share of production - the sector reflected an increment of more than 150 percent by the year 2000, compared to 62 percent in the entire manufacturing sector. As a result, it is crucial to note that in the 90s Mexico shifted from a net importer to a net exporter of high-tech goods (INTECH, 2000).

Therefore, the strong forces that drive globalization worldwide have also reached Mexico and have triggered the need to create new flexible firms that could take advantage of this recent framework by integrating the access to international business in the high tech sector.

Furthermore, the challenge to create INVs in Mexico has been of great magnitude regarding the recent openness of the economy and the new high tech manufacture exporter position of the country.

1.10 CONTRIBUTIONS OF THE PRESENT STUDY

This study contributes to both theory and practice in the several ways. First, an extensive literature review of forty eight of selected studies on IE and personal interviews with key executives of INV (see Section 4.3) helped to specify the model of INVs and the domain of each construct.

In this regard, a model of INVs is conceptualised and empirically tested. The majority of studies that empirically examined the effects of INVs mainly focus on developed nations. Given the limited research in this area, to fill this research gap, this study aims to shed light on the INV literature in a NIC, such as Mexico.

This model, mainly based on second order constructs, helps develop a clearer understanding of the positional advantage, its antecedents (resources, capabilities, competitive strategies, EO, and ambidextrous innovation strategy) and consequences (performance). Besides, multi-dimensional and second-order concepts are conceptualised and empirically tested for resources, capabilities, competitive strategy, positional advantage and performance across INVs. Ambidexterity is measured as an interpretable approach for combining exploration and exploitation measures. Therefore, this study contributes to the marketing and strategy literature by providing a broad-based integration

of marketing theories such as the RBV with INVs. From the twelve hypotheses tested, ten were supported and two were rejected (as discussed in Chapter 8).

The findings indicate that positional advantage of INVs is strongly related to: 1) the availability of key resources combined and transformed into capabilities; and 2) the integration of key resources to generate competitive strategy choices.

The separation of the firm's resource endowments and the capabilities developed is an important theoretical distinction that is rarely applied in marketing theory. It helps to differentiate the abilities of the firm to perform a particular task or activity, from the capacities of the firm to purposefully create, extend or modify its resource base.

This investigation also extends traditional RBV explanations by supporting the emerging dynamic capabilities paradigm that links the organisational processes by which firms develop and deploy resources with business performance.

Therefore, an additional contribution regards the implementation of dynamic capabilities in the conceptual model as complement to the RBV, based on three issues: 1) the cross-fertilisation of EO to resources, capabilities, ambidexterity and performance; 2) an ambidextrous innovation strategy, which enables the firm to integrate, build and reconfigure internal and external innovation strategies to address rapidly changing environments; 3) and a robust theoretical model explaining INVs' positional advantage through a RBV as a process with identifiable stages and linkages between them.

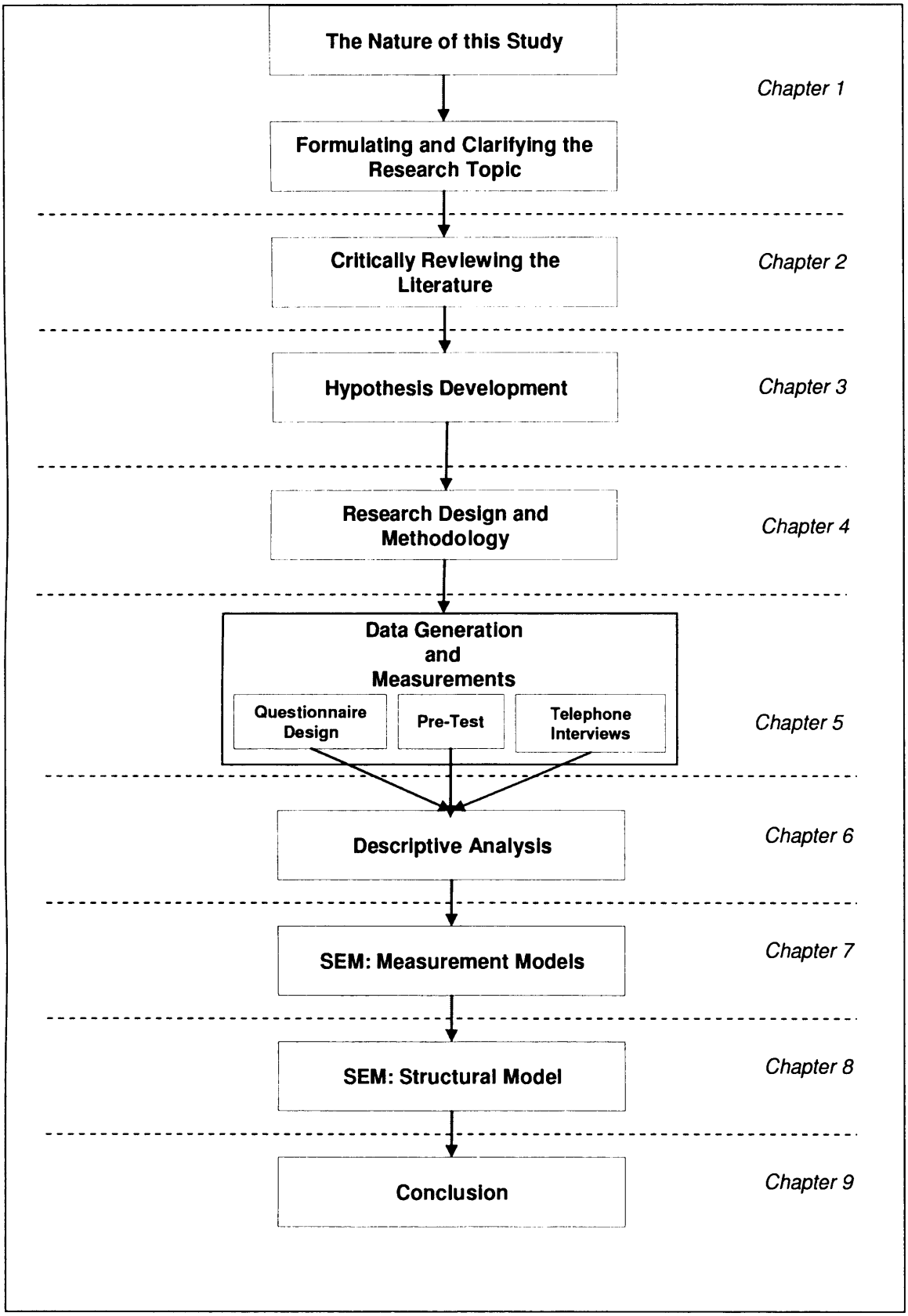
In this regard, the theoretical model and empirical results of this research indicate that particular attention should be paid to generate positional advantage in order to understand firm's performance. The creation of positional advantage is twofold. The former suggests delineating and assessing capabilities dynamically influenced by EO. The latter is concerned with the competitive strategy developed from internal factors like resources and from dynamic capabilities such as EO and ambidexterity.

Thus, integrating the RBV with EO, ambidextrous innovation strategy and competitive strategy provides a stronger theoretical rationale for explaining positional advantage and performance over time.

1.11 Structure of the Thesis and Order of Presentation

This thesis is organised logically into nine chapters. Figure 1.3 presents the structure of the thesis and each chapter is summarised as follows:

FIGURE 1.3 Structure of the Thesis



Chapter one has already briefly introduced the nature of this study, the research context, and the significance of this study by reviewing studies on INVs. Also, it has provided an explanation of the motivations to develop this investigation with the research problem. Further, it has described the INV research gap with the advantages of obtaining empirical evidence from Mexico. Additionally, the research objectives, research questions and an overview of the contribution of the study were presented.

Chapter two provides an insight into the literature in the domain of INVs. Theories, trends and principles in different perspectives (e.g. marketing, strategy and IE) are discussed in detail to create a base for further conceptual development following this chapter. Consequently, an explanation of the methodology used to select INVs studies is provided. The research antecedents are then reviewed in order to explain the internationalisation theories and their limitations. Table 2.2 provides an in-depth chronological view of 47 conceptual and empirical studies developed during the last 15 years (1993-2008) where the evolution of the definitions and interpretations of the INV concept can be appreciated. Following this literature review, a critical assessment is presented in which the most relevant benefits and contributions as well as potential drawbacks are discussed.

Chapter three notes the insufficient attention to the RBV in INVs research. To address this issue, this author draws on the marketing and IE literature to develop a synthesis to extend the RBV to INV literature. In doing so, the chapter describes how the resources and capabilities available to young international start-ups are integrated and shared to create positional advantage and performance. This chapter then presents the conceptual model and the hypotheses are explained.

Chapter four aims to link the proposed conceptual model and related hypotheses previously presented with the empirical approach employed in collecting data for hypotheses testing. Therefore it focuses on the design and methodology used for the present study, starting with the philosophical assumption adopted as a method of inquiry, followed by selecting the research design and data collection method. A detailed explanation of the data analysis method, which is SEM, is included. Moreover, this chapter describes the approach used in the assessment of reliability and validity of the measures employed, and concludes by examining the access and ethics considered by this researcher throughout the period of research.

Chapter five relates to the data generation and measurements. It describes the operationalisation of constructs by selecting measurement scale items and scale type. Additionally, this chapter describes the questionnaire generation and pre-testing to validate the instrument used in the process of data collection. It also covers the execution of data collection by specifying the research tactics in terms of planning what to measure. Moreover, the sampling method is described by defining the target population and sampling frame which was focused on the INVs of Mexico; the selection of sampling procedure; sample size and elements. The final part of this chapter includes the profile of respondents and of the participating INV firms.

Chapter six presents the descriptive analysis and findings of the data obtained from the survey. It highlights two main sections: demographic profiles of the sample and the descriptive analysis of constructs. The demographic profile examines several patterns exhibited in the data set which include the general characteristics of the INVs surveyed and of the export venture. The descriptive analysis of constructs assesses the seven latent

constructs in the conceptual model on a seven-point scale. The findings are displayed using tables and graphs to illuminate the features of the data in order to provide a simplified picture of large datasets.

Chapter seven reports the measurement model analytical process by using SEM via AMOS 6.0 software package. It commences by presenting the data preparation and screening procedures which entail the treatment of missing data, detection of outliners and normality considerations. Multiple item measures were used for all constructs based upon the review of the general literature together with exploratory interviews with managers. This chapter also examines and confirms the existence of dimensions underlying the model variables, as well as providing an assessment of reliability and validity of the scales pertaining to the dimensions. To this end, a series of steps were followed in order to achieve purification and internal consistency of measurement scales. The measures were purified using exploratory factor analysis and reliability analysis. Consequently, the set of items retained were subjected to confirmatory factor analysis to verify the hypothesised factor structure. Moreover, the measures were assessed for unidimensionality, convergent validity, reliability and discriminant validity.

Chapter eight turns to assessing the path model previously exhibited in Figure 3.1 using the AMOS 6.0 programme. The causal process is depicted by a series of structural equations and the hypothesised model is tested simultaneously to establish its consistency with data. In order to ensure over five observations per estimated parameter, a parsimonious model was adopted for this study. Consequently, the results are presented and discussed in the framework of the twelve hypotheses developed. Following the hypotheses test results, a trimmed model was developed.

Chapter nine aims to conclude the research endeavour by presenting a research summary of the overall study, followed by a discussion of key findings and conclusions. This chapter concludes with a discussion of implications, limitations and suggestions for future research directions.

CHAPTER 2
LITERATURE REVIEW AND THEORETICAL PREMISES

2.1 INTRODUCTION

For several decades, the internationalisation process of firms has been the topic of abundant research in the highly interrelated fields of international business, international marketing and, more recently, entrepreneurship. However, conceptualizations and theory development have been diverse, the internationalisation process has been generally conceived as a gradual on-going process, taking place in incremental stages and over a relatively long period of time (Johanson & Vahlne, 1977, 1990, p. 11). Thus, according to the most influential streams of research in internationalisation process theory, firms have usually tended to become international in a slow and rather incremental manner.

When the most critical assumptions and theoretical prescriptions of the internationalisation process models have been empirically examined, basically among SMEs, several paradoxes have usually emerged (Christensen, 1991; Knight & Cavusgil, 1996). In fact, in a couple of exhaustive evaluations of the well-known export stage models, Andersen (1993), even questioned their adequacy as good theories, concluding that their theoretical boundaries, explanatory power, and operationalization had to be radically improved. Several other researchers have also accused the stages models for being too deterministic and mechanistic in nature (Reid, 1983). Consequently, future research in this field should seek new paths of development and alternative visualizations (Coviello & McAuley, 1999; Fillis, 2001; Robertson & Chetty, 2000; Strandskov, 1993).

Such a research gap could be well filled by the emerging topic of IE which focuses on INVs (Oviatt & McDougall, Madsen & Servais, 1997; 1997) which are, by theoretic definition, international at inception.

The purpose of this chapter is to give an insight into the literature of INVs. In this literature review, forty seven studies from the last sixteen years which deal more or less explicitly with the INV's phenomenon are first identified, and then fully examined and critically assessed as a basis for obtaining an adequate view of the state-of-the-art of this increasingly important research avenue in the field of IE.

The chapter starts with the INVs theoretical framework of reference, followed by the methodology used for this synthetic review selected to analyze a number of recent, purposefully-chosen studies. Moreover, this literature review explains INVs' research antecedents, including the gradual internationalisation theory and limitation, as well as the new internationalisation patterns. In addition, this chapter also covers the analysis and discussion of the INVs literature review results, which is systematically compared along with the following criteria: 1) INVs conceptual and operational diversion, where the variety of terms used to describe new internationalisation patterns are detailed and the reasons why INV is the term used in this thesis. This section also explains, the firm's age at international entry and export-to-sales ratio; 2) INVs literature review research objectives; 3) INVs frameworks of study; 4) INVs methodological issues; and 4) cross comparisons of key INVs research findings.

As a result of this literature review, a critical assessment follows in which the most relevant benefits and contributions as well as potential drawbacks, limitations or major discrepancies in the research activities conducted so far are discussed.

2.2 INVs Theoretical Framework of Reference

When examining the literature, it is interesting to observe how the contributors belong to different research traditions, and, as pointed out by Aspelund (2006) and colleagues, one of the consequences is that there is no agreement about the defining characteristics of being *international* or being a *new venture*. Many authors do refer to Oviatt and McDougall (1994; 2005:49) who define INV as *"a business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries"*. But the operationalisation of this broad definition varies. Similarly, Knight and Cavusgil (1996, p. 11) conceptualize them as being small, technology-oriented companies that operate in international markets from the earliest days of their establishment.

Despite many established firms still appearing to internationalise following a slow, evolutionary path of development, other more dynamic and newly-established small firms seem to be able to become international almost at founding or very shortly thereafter. The emergence of these firms, mostly in the last sixteen years, might well indicate that important dimensions of the internationalisation process may have evolved since the 70s and 80s, when much of the existing theory was developed. Thus, the growing significance of international new firms seems to be challenging most of the theory development previously established in the field. In order to enrich an understanding of the business

internationalisation process, this recent generation of INVs should also be taken into account.

It has been widely claimed in the literature that the existence of an increasing number of firms with rapid international growth must be shown to be an empirical fact (Oviatt & McDougall, 1997). Consequently, several key driving forces behind the emergence of INVs, global start-ups, and born globals as well as their rise in number, size, age, geographic distribution, industry affiliation, and even export behaviour and performance have been traced over time by a number of studies in different contexts as will be shown later in this chapter.

Although a significant amount of research has already been conducted in an attempt to describe and explain this relevant phenomenon (Madsen & Servais, 1997), no one has attempted to specifically review, analyze and evaluate, in a systematic and comparative way, this growing stream of research. Therefore, with the aim of identifying the empirical support actually being received by INVs, and to help develop further conceptual explanations for this emerging phenomenon, the literature review of this study is focused on systematically reviewing and objectively evaluating the current conceptual and empirical academic literature concerning these newly established, highly export-involved entrepreneurial firms. More concretely, this literature review expects to shed light on the main characteristics and specific conditions which have usually claimed to be relevant for the emergence and further expansion of this type of firm, mostly characterized by showing a truly global orientation from the very beginning, as well as a fast internationalising character and a high export potential involvement.

Previous and outstanding reviews of primarily empirical literature related to the SME internationalisation field are currently available, though with a very different approach to this literature review (Coviello & McAuley, 1999; Fillis, 2001; Leonidou & Katsikeas, 1996; Rialp & Rialp, 2001; Zou & Stan, 1998). In particular, some of these other reviews focus on specific topics such as the export development models or the determinants of export performance, whereas others offer a much more general approach to the small firm internationalisation issue, usually considering only the empirical work available. Research that focuses on long-established and perhaps more conventionally-internationalised firms falls outside the parameters of this review (Zahra & George, 2002).

In spite of the large quantity of published work which has basically served to establish its recognition and scientific legitimacy, authors already recognize that a general concern in the field of exporting inquiry is the lack of synthesis and assimilation of the fragmented knowledge obtained (Zou & Stan, 1998). Thus, given the fact that there has been a proliferation of the literature concerning rapid internationalised SMEs in the last sixteen years, and that a number of different conceptualizations and empirical methodologies have recently emerged, it seems really worthwhile and useful at this point to offer an exhaustive and updated review of what has been achieved so far in order to better address future research efforts.

Following this argument, the structure of this literature review is as follows. First, a description of the methodology used for approaching the comparative literature review is presented. Then, a significant number of the most relevant studies developed during the last 15 years in the context of the IE discipline that are primarily centred on INVs as a specific research issue are detected, systematically reviewed and compared with the aim to

identify some key conceptual insights, several methodological issues and some empirical findings about the behaviour of these firms. In the following section, a critical assessment of this stream of research in the context of SMEs' internationalisation in light of the previous literature analysis follows. Finally, several conclusions as well as implications including future research directions are outlined at the end of this chapter.

2.3 METHODOLOGY USED TO SELECT INVs STUDIES

As mentioned above, the purpose of this literature review is twofold: 1) to provide an updated review and synthesis of the literature that has emerged during the last sixteen years, from 1993 up to 2009, in relation to the accelerated internationalising activities of new, entrepreneurial SMEs; and 2) to identify directions for future research aimed at developing improved theories and advancing knowledge of this phenomenon. This will be achieved by providing an objective assessment of the state of knowledge in the area.

In this section, the major methodological decisions made in terms of the scope of this review are mentioned briefly, including the selection criteria and the academic sources consulted for the identification of the final number of studies accepted for further analysis in this chapter (48), allowing this author to develop the literature analysis in a highly systematic and rigorous way. As this study focuses on the contemporary scientific contributions appearing in the field of INVs, the publication time frame covers a fixed period of sixteen years, from 1993 until 2009 inclusive. Although some studies on this issue had emerged earlier (Jolly et al., 1992; McDougall, 1989), a cut-off year was established in 1993. Two reasons exist for this: 1) it was then that a pioneering and, at the end, highly referenced empirical work appeared (Rennie, 1993); and 2) to allow for a

reasonable and simultaneously manageable number of studies to be reviewed in far more detail. Moreover, in order to provide a much updated state-of-the-art on the INV issue and some evolution in the state of knowledge, works published during the year 2009 were included.

As has been usual in other reviews (Zou & Stan, 1998), the studies to be considered in this review were firstly identified by a systematic process that combined electronic means with manual search so as to avoid omitting any extremely relevant work. The use of electronic tools as a way of search was conducted by scanning *Emerald* as well as *Ebsco-host* bibliographic databases and by searching other Internet resources, and proved to be highly efficient in generating a number of current articles which contained (whether in their title, abstract or full text) key words such as 'born-global, 'international new venture', 'global start-up', 'international entrepreneurship', and so on. Though the journals ranged sometimes from very specific publications centred on several SME topics to more general outlets in the management field, most of the relevant papers found were published in the core, leading journals for research in the International Business, International Marketing, and Entrepreneurship literatures. A significant part of entrepreneurship literature is actually converging in the field of IE. In addition, a manual search was also conducted for identifying other possible works whether in books, edited books of readings, refereed journal articles as well as conference proceedings and working-papers which, in spite of being relevant for this study, had not been identified electronically. Both search methods, in particular the manual one, also proved to be useful in uncovering some highly related works which did not explicitly mention the specific research issue of interest in their title or abstract, but rather which turned out to contain it.

Among the list of works initially detected, a selection process based upon six major criteria was followed so as to select the final contributions to be more exhaustively reviewed thereafter. In fact, to be eligible for further review, the candidate works had to be: 1) contemporary, as the research phenomenon is itself, studies appearing between 1993-2009; 2) originally in the English language to facilitate comparison; 3) conceptually and/or empirically sound (i.e., rigorous conceptual and/or empirical approach); 4) in the case of articles, those more or less explicitly addressing the key issue of analysis and previously published in leading journals whose scope belonged to the international business, international marketing, and/or small business as well as entrepreneurship disciplines; 5) in the case of chapters from books, proceedings of conferences, and working papers, only those very directly related to the topic under study; and 6) at least most of them, usually listed in references of other major studies with a very similar character and focus. In addition, doctoral dissertations are excluded in this review, such as Knight's (1997) mostly due to their larger format and rather complex disposal.

Based on this rigorous selection process, 48 recent studies from at least 17 different academic journals and other similar sources were identified that met the specified criteria, out of which 30 were produced in the period 2000-2009. In this author's opinion, they represent a significant number of works that demonstrate the urgency and increasing consideration given to this topic of research by current IE researchers. Several bibliographic sources from which the different works, papers and articles finally selected in this literature coverage were chosen are listed in Table 2.1.

Thus, in all, 48 academic works were accepted for further analysis. In a similar vein to the way other authors had previously proceeded (Coviello & McAuley, 1999; Leonidou &

Katsikeas, 1996), each study was content-analyzed based on the information provided in each one in order to identify, for all of them, the following issues: 1) main objective and type of research; 2) framework used for conceptual development or analysis; 3) methodological approach, including data collection method, sample size, and analytical approach of the data when indicated; and 4) key research findings and conclusions.

TABLE 2.1 Bibliographic Sources of IE Studies

Source of publication	Number of works included in this review
The McKinsey Quarterly	1
European Journal of Marketing (EJM)	2
Journal of International Business Studies (JIBS)	7
Journal of Business Venturing (JBV)	3
Academy of Management Executive (AME)	1
Entrepreneurship Theory and Practice (ETP)	3
Industrial Marketing Management (IMM)	1
International Business Review (IBR)	1
Management International Review (MIR)	1
Journal of International Marketing (JIM)	3
Advances in International Marketing (AIM)	1
Academy of Management Journal (AMJ)	4
Asia Pacific Journal of Marketing and Logistics (APJML)	1
International Marketing Review (IMR)	1
Journal of Management (JM)	1
Journal of International Entrepreneurship (JIE)	6
Journal of Marketing Management (JMM)	1
Journal of World Business (JWB)	1
Others (chapters in edited books, working-papers, conference proceedings and/or presentations, etc.)	9
TOTAL NUMBER OF STUDIES ACCEPTED FOR ANALYSIS	**48**

Before ending this section, it is important to point out that the review effort has to be understood purely as a survey of the current state of knowledge in the topic of early internationalisation of SMEs, and not as a fully exhaustive review of the entire population

of works available. Nevertheless, the 48 international studies finally selected in this detailed literature screening, and then accepted for further review, can be regarded to be among the most relevant ones in this field of academic inquiry. Consequently, the following section attempts to elaborate a highly comprehensive and longitudinal assessment of the potential merits and drawbacks shown by some of the most recent and relevant research efforts conducted in this area.

2.4 INVs Research Antecedents

As defined by McDougall and Oviatt (2000) IE is *"...a combination of innovative, proactive and risk-seeking behaviour that crosses national borders and is intended to create value in organisations... the study of IE includes research on such behaviour in multiple countries."*

IE constitutes both a young and increasingly important field of research in which at least three different academic traditions have recently collided: Strategic Management; International Business and Marketing; and Entrepreneurship. Such a convergence is explicitly shown by several efforts aimed to properly define and to consolidate the domain, and thus demarcation, of this particular area of scholarly inquiry (Giamartino et al., 1993; McDougall & Oviatt, 2000; Zahra & George, 2002). Whereas IE was initially regarded as associated with the development of INVs or start-ups engaging in international business from inception (McDougall, 1989), the definition of this field and its scientific domain has evolved significantly since then. Today, much more widely-accepted and comprehensive definitions of IE can be found in Wright and Ricks (1994), McDougall and Oviatt (1996, 2000; 1997), or Zahra and George (2002), for whom IE indicates "*the process of creatively*

discovering and exploiting opportunities that lie outside a firm's domestic markets in the pursuit of competitive advantage". Thus IE has become today a multidimensional research program in which a quite diversified list of topics, frameworks, and approaches co-exist (Giamartino et al., 1993; McDougall & Oviatt, 2000).

Two main streams of research in the field of IE, developed throughout the 1990s, can be distinguished (Zahra & George, 2002). The first one corresponds to the growing international role played by young entrepreneurial ventures, while the second includes the entrepreneurial activities of more established firms also associated with internationalisation, which is usually regarded as international 'intrapreneurship' or corporate entrepreneurship in international markets. On the one hand, one stream focuses on INVs characterized mostly because they become international almost from inception, while the other rather looks at the international activities developed by long-established companies (Lu & Beamish, 2001a; Zahra & George, 2002). Without neglecting the critical importance of the latter stream, this study basically belongs to the former approach. Therefore, this literature review is exclusively focused on this emerging, but at the same time extremely significant, research issue of internationalising new ventures.

INVs have been considered, although only partially, in some of the most recent reviews and general assessments of the SME internationalisation literature (Cavusgil, 1998; Coviello & McAuley, 1999; Fillis, 2001; Peng & York, 2001; Zou & Stan, 1998), thus revealing the actuality of the research topic in this field. An abnormally high speed in a small firm's internationalisation and its high degree of international growth are among the key dimensions of IE under which this stream of literature has been recently developed (Autio et al., 2000; Zahra & George, 2002).

Thus, in contrast to the two most orthodox and well-known schools of research on business internationalisation which conceptualize this phenomenon as a process of gradual commitment, the Uppsala Internationalisation Model (Johanson & Vahlne, 1977) and the Innovation-related export development models (Bilkey & Tesar, 1977; Cavusgil, 1980; Reid, 1981), there seems to exist increasing evidence that such a traditional view of risk-averse, incremental firm internationalisation process involving a varying number of stages, just as "rings in the water" in Madsen and Servais' (1997) words, may be considered conceptually weak, and that changing market and technological conditions are challenging its relevance (Knight & Cavusgil, 1996; Oviatt & McDougall, 1997).

2.4.1 GRADUAL INTERNATIONALISATION THEORY AND LIMITATIONS

The INV phenomenon presents an important challenge to conventional theories of firm internationalisation. Historically, research on internationalisation processes has attracted enormous scholarly attention since the study conducted by Johanson and Vahlne (1977), who drew upon the works of Cyert and March (1963) and Aharoni (1966), and developed a process model best known as the *Uppsala model.* This model is largely based on the behaviour theory of the firm (Cyert & March, 1963) and the theory of firm growth (Penrose, 1959). The central thesis of this model is the gradual acquisition, integration, and use of knowledge about foreign markets and operations through incremental commitments. Internationalisation hinges on two state aspects: knowledge possessed by the firm about specific foreign markets and commitment of firm resources to those markets. The model assumes that management will not commit a higher level of resources to a market until it has acquired increasing levels of experiential knowledge. Because such learning is time consuming, internationalisation is said to occur slowly (Andersen, 1993; Johanson &

Vahlne, 1977, 1990). Weight is given in the model to internationalisation as a stepwise establishment chain, in which the firm evolves systematically from a situation of no foreign involvement to eventual establishment of production abroad. The model assumes that, initially, firms target culturally similar markets, and then advance to newer targets possessing increasing psychic distance (Andersen, 1993; Johanson & Vahlne, 1977, 1990).

The Uppsala model has triggered other studies along the line of experiential learning perspective portraying internationalisation as an incremental sequence, such as the *Innovation Related* model. Derived from the work of Bilkey and Tesar (1977), Cavusgil (1980), and Reid (1981), this model perceives a firm's internationalisation as a progressive series of market targeting innovations evolving slowly as the firm gradually acquires relevant knowledge and experience. Cavusgil's (1980) review suggested that companies tend to internationalise without much rational analysis or deliberate planning, that internationalisation is a gradual process advancing in incremental stages over a relatively long period of time, and that each stage entails increasing commitments of resources and managerial talent. The slowness of the process may be a reflection of management's aversion to risk-taking and its inability to rapidly acquire relevant knowledge and market information (Cavusgil, 1980).

Since the Uppsala and Innovation Related internationalisation models were developed, numerous scholars have advanced various criticisms about their assumptions and validity. First, foreign expansion may proceed more quickly in countries where there is already widespread internationalisation of industry and business activities or where markets are substantially globalised (Johanson & Vahlne, 1990; Levit, 1983). Second, the traditional views emphasise deterministic process, like the establishment chain, in which

internationalisation proceeds almost seemingly without much deliberate planning. Nevertheless, foreign expansion tends to be, in reality, a major undertaking, fraught with contingencies and risk. To confront these challenges, many companies rely on careful strategic planning which accounts for a potentially wide array of product-market conditions and strategic options. In the analysis, firms tend to choose entry modes best suited to their individual circumstances (Douglas & Wind, 1987).

In addition, Sullivan and Bauerschmidt (1990) pointed out that the Uppsala model was exclusively induced from the studies of Scandinavian industrial firms and therefore lacked external validity.

Furthermore, Andersen (1993) evaluated the Uppsala model and Innovation related models in the light of theory construction and criteria. She concluded that the former failed to explain how an internationalisation process begins and how experiential knowledge of foreign markets affects resource commitment while the latter contained unobservable concepts and delivered only trivial explanations of the internationalisation process.

To conclude this section, the phenomenon of the INV firm itself poses important new challenges to traditional internationalisation models. Inherently, and due largely to the advent of facilitating technologies and other factors, INVs go abroad early, often from the incipient days of their existence.

2.4.2 NEW INTERNATIONALISATION PATTERNS

Several studies, especially since the 90s, have identified an increasing number of firms which, instead of following the traditional stages pattern, that is, opting for domestic expansion before initiating foreign activities in geographically or psychically-close countries firstly, choose to be extensively present abroad right from their birth or very shortly thereafter. However, quite surprisingly, this type of firm becoming international, sometimes even global, from, or almost from, inception, has been labelled very differently from one study to another, thus generating some confusion in the area. The terms used are International New Ventures (INVs) (McDougall et al., 1994; Oviatt & McDougall, 1994; 1997; Servais & Rasmussan, 2000); and other names such as Born Globals (Aspelund & Moen, 2001; Bell & McNaughton, 2000; Knight & Cavusgil, 1996; Madsen et al., 2000; Madsen et al., 1997; Moen, 2002; Rasmussan et al., 2001; Rennie, 1993), Global Start-ups (Oviatt & McDougall, 1995), High Technology Start-ups (Burgel & Murray, 2000), Global High-Tech Firms (Roberts & Senturia, 1996), Instant Internationals (Fillis, 2001) have also been used for identifying these firms.

The existence and behaviour of this type of firm has already been reported in different sectors, specially high-tech industries, and geographical areas of the developed world (Knight & Cavusgil, 1996). Therefore, although academic researchers had for a long time ignored them, an increasing number of international scholars in different fields of organization science have turned their attention to this relevant phenomenon; thus demonstrating not only its importance but also its growing consideration as a frontier research issue in the highly related fields of IE, as well as International Business and Marketing (Cavusgil, 1998). To be precise, three extensive fields specifically covered by

many of the leading academic journals from which the majority of studies included in this final review were extracted.

In Table 2.2 the articles that inform the present research are discussed. This summary table encapsulates the specific interest in this topic of accelerated SME internationalisation and deals with one of the objectives of this literature review. It provides quite a rich chronological view of 48 conceptual and empirical studies developed during the last sixteen years (1993-2009). These have more or less explicitly focused on less traditional ventures. In order to synthesize them as systematically as possible, the approach in this literature comparison has been operationally developed, as mentioned above in the methodological section, by means of positioning each academic contribution along the same classification criteria: main objective and type of research, framework, methodological issues as well as key results of each study.

Table 2.2 Chronologically-ordered contemporary research on International Entrepreneurship (INVs, Global Start-Ups, Born-Globals) 1993-2009

Article Author/s (Year)	Objective	Framework	Methodology	Key Research Findings
1. Rennie (1993)	• To understand the reasons for the explosive growth of Born Globals and to develop insights to inform future policy and business planning. • Empirical, descriptive study. • Not explicitly grounded on any specific theory.	• Indicates several arguments for the rise of SMEs and their ability to compete globally.	• Australia's high-value-added manufacturing sector. • Survey (over 300 exporting firms), focus groups and in-depth interviews (60 firms). • Descriptive statistics with no hypotheses.	• Rise of numerous SMEs that successfully compete globally (virtually from inception) without an established domestic base. • A distinctive fast-growing, "born-global" firm's profile can be found in all industries even in sectors considered to be declining. • Born globals are flexible and compete in niche markets based on quality and value created through innovative technology and product design.
2. Oviatt & McDougall (1994)	• To define and describe the increasing phenomenon of firms that are international from inception (INVs), and to present an explanatory framework. • Conceptual study.	• Definition of INVs as start-ups whose origins are international. • A theoretical framework on INVs is developed which integrates accepted MNE/IB theory with recent developments in Strategic Management and Entrepreneurship research. • Theoretical classification of INVs.	• A framework is presented that explains the phenomenon by integrating international business, entrepreneurship, and strategic management theory.	• 4 necessary and sufficient elements for the existence of new ventures that are instantly international (INVs): (1) organizational formation through internalization of some transactions, (2) strong reliance on alternative governance structures to access resources, (3) establishment of foreign location advantages, and (4) control over unique resources (knowledge). • 4 types of INVs are outlined also according to the number of countries involved and the coordination of value chain activities: (i) Export/Import Start-up, (ii) Multinational Trader, (iii) Geographically Focused Start-up, and (iv) Global Start-up.
3. McDougall, Shane & Oviatt (1994)	• To provoke a discussion of the limitations of existing theories from the field of IB in explaining the behaviour of INVs. • Empirical, descriptive, case-study approach.	• 5 generally accepted theories from IB are compared against the emergence and subsequent development of INVs: • (1) Monopolistic Advantage Theory • (2) Product Cycle Theory • (3) Stage Theory of Internationalization • (4) Oligopolistic Reaction Theory • (5) Internalization Theory.	• Compilation of 24 exploratory case studies of INVs in 10 countries, and comparison among themselves. • 12 case studies directly developed by the authors and analyzed by the use of 3 sources of evidence: (1) documents, (2) physical artefacts, and (3) semi-structured personal interviews conducted with the founder/founding team and/or chief financial officers of each firm.	• The formation process of INVs is not well explained by existing theories from the field of IB which assume that firms become international long after they have been formed. • Founders of INVs are individuals who see opportunities from establishing ventures that operate across national borders because of the competencies (networks, knowledge, and background) they have developed earlier and are unique to them. • They engage in international business from the time of venture formation so as to create international business competencies and to avoid path-dependence on domestic competencies that the firm may not be able to shift out of due to inertial forces. • They also prefer to use hybrid governance structures for their international activities to preserve resources during the cash-draining formation process.

Article Author/s (Year)	Objective	Framework	Methodology	Key Research Findings
4. Oviatt & McDougall (1995)	• To identify a pattern underlying the creation dynamics and success characteristics of global start-ups (new firms that are virtually global from inception) versus domestic new ventures. • Empirical, descriptive, case study-based approach.	• A framework describing 6 key driving forces to determine whether the business being considered should be a global or a domestic start-up.	• Compilation of 24 exploratory case studies of INVs in 10 countries, and comparison among themselves. • 12 case studies developed and analyzed by the use of 3 sources of evidence: (1) documents, (2) physical artefacts, and (3) semi-structured personal interviews conducted with the founder/founding team and/or chief financial officers of each firm.	• Characteristics of successful global start-ups are: (1) a global vision exists from inception, (2) managers are internationally experienced, (3) global entrepreneurs have strong international business networks, (4) pre-emptive technology or marketing is exploited, (5) unique intangible assets are present, (6) product or service extensions are closely linked, and (7) the organization is closely coordinated worldwide. • A progress report based on a comparative score card of 12 firms reveals that the first three characteristics are critical at founding.
5. Bell (1995)	• To analyze the relevance of the stages theory in the initial export decision and internationalization process of small firms belonging to high technology and service intensive sectors (the computer software sector). • Empirical study: survey, in-depth interviews.	• Export development internationalization "stage" models.	• Small computer software firms (less than 200 employees) in Finland, Ireland and Norway. • Mail survey (98 firms) followed by in-depth personal interviews (24 firms) • Qualitative, cross-sectional description supported by frequencies.	• Market selection influenced by client followership, targeting sectors, and the industry's trend to collaborate (the concepts of psychic and geographic distance were not supported). • Although firms exhibited increased commitment to export, this was done by entering new markets rather than increasing investments in existing overseas markets (findings did not support incremental internationalization).
6. Coviello & Munro (1995)	• To examine the entrepreneurial high-technology ventures' approach to international market development focusing on their use of network relationships to pursue foreign market opportunities and conduct international marketing activities. • Empirical research: Case-study approach and mail survey.	• Application of a network theory perspective in the context of the entrepreneurial firm that seeks to expand internationally. • The impact of network relationships on international market development, and marketing-related activities within international markets is widely examined.	• 4 in-depth case studies of the internationalization processes of small, entrepreneurial firms in the New Zealand software industry at a relatively mature stage of international development. • Multiple in-depth interviews with the key decision-makers combined with secondary data. • Structured mail survey of 25 younger firms in the same industry and at an earlier stage of internationalization.	• Network theory offers a rich perspective on how and why the international development patterns of entrepreneurial firms occur. More concretely, in terms of the impact of network relationships on international market development and on marketing-related activities, both case and survey results revealed that: • The relatively rapid and disperse involvement in foreign markets by entrepreneurial hi-tech firms can be linked to opportunities and constraints emerging from a network of relationships (both formal and informal). • A heavy reliance on network relationships for marketing–related activities is also detected, though a tendency existed for more established high-tech firms to develop internal marketing capabilities.

Article Author/s (Year)	Objective	Framework	Methodology	Key Research Findings
7. Bloodgood, Sapienza & Almeida (1996)	• To examine the antecedents (strategic and structural characteristics) and outcomes (subsequent performance in terms of sales growth and profitability) of the extent of internationalization of new highly potential ventures based in the US and still relatively young at the time of the initial public offering (IPO). • Empirical, hypothesis–testing, and quantitative research.	• After reviewing the monopolistic advantage theory and stage theory applicability for explaining new venture internationalization, a resource-based view of this phenomenon is used as a relevant theoretical framework. • Hypotheses relationships are established among the initial resource conditions (TMT's international experience, the firm's sources of competitive advantage, degree of innovativeness, and firm's size), the extent of internationalization achieved at IPO, and subsequent firm performance.	• A sample size of 61 venture capital backed, high-potential firms drawn from several industries that were less than five years old at the time of IPO in 1991 and whose performance results were measured in 1993. • Apart from details on the operationalization of the different variables, no other methodological information is given. • Descriptive statistics and zero-order correlations are provided. • To test the hypotheses, initial conditions were regressed against the firm's extend of internationalization, and then both were regressed against firm performance two years later. Firms and industry controls were applied in these analyses.	• A resource-based model on new venture internationalization is significantly, though partly, supported according to this research work. • (Early) internationalization is directly related to the use of product differentiation as a source of competitive advantage, the international work experience of the board of directors, and firm size at the time of IPO. • The use of low cost, product differentiation, or innovation as a source of competitive advantage, and size at the time of IPO was directly related to sales growth in the two year period following the IPO. • The level of internationalization at the time of the IPO is positively related to earnings two years later. • As a general conclusion it can be added from this study that the rapid globalization of markets requires that certain firms compete internationally virtually from the outset. However, results also suggest that early internationalization is finally contingent upon the industry and resource conditions faced by the firm at founding and soon thereafter.
8. Knight & Cavusgil (1996)	• (1) To review traditional internationalization theory; (2) to describe the recent emergence and characteristics of born global firms; (3) to propose factors that may have given rise to their emergence; (4) to suggest implications that born globals may hold for management at smaller companies; and (5) to offer possible approaches for conducting research on these firms. • Conceptual, descriptive study.	• Deeply reviewed Traditional Internationalization Theory (Uppsala and Innovation models). • Then, the study is built upon relevant criticisms posed for this theory's validity and assumptions on prior studies characterizing the born global firm in different geographic contexts. • Recent factors and trends giving rise to the emergence of the born global phenomenon are discussed.	• Propositions. • The born global phenomenon suggests a new challenge to traditional theories of internationalization. These firms, the critical factors and implications associated with their arrival and the associated limitations posed for internationalization theory are described.	• Growing evidence of the widespread emergence of born globals in numerous countries of the developed world. • The born global phenomenon suggests an important new challenge to traditional internationalization theory. • Common characteristics of the born global firm are identified according to previous export-related research among SMEs. • 6 major trends promoting born globals' emergence and international endeavours are: (1) the increasing role of niche markets; (2) recent advances in process technologies; (3) recent advances in communications technology; (4) inherent advantages of SMEs (flexibility, adaptability, etc.); (5) The means of internationalization much more accessible to all firms; and (6) global networks

Article Author/s (Year)	Objective	Framework	Methodology	Key Research Findings
9. McDougall & Oviatt (1996)	• To examine the link existing between new venture performance and the internationalization of new ventures. • Empirical, descriptive, 2-year period (follow-up) study.	• A framework examining changes in degree of internationalization (percentage of international sales) in conjunction with changes in strategies and their implications on venture performance.	• A sample of 62 US new venture manufacturers (36 of which were originally domestic and 26 originally international) in the computer and communications equipment industries during the late 1980s. • Descriptive quantitative data and subgroup analysis.	• Higher levels of internationalization (measured as % of foreign-to-total venture sales) were associated with higher relative market share two years later, whereas no significant direct relationship existed between percentage of international sales and subsequent ROI. • During the 2-year study period, many of the ventures clearly modified their level of internationalization. • Increased international sales in technology-based new ventures seem to require simultaneous supporting strategic actions in order to positively impact venture performance. Thus, successful internationalization appears to imply changes in the venture's strategy.
10. Roberts & Senturia (1996)	• An exploratory effort to explain the globalization patterns, trends, and success of emerging high-technology companies. • Empirical descriptive study.	• Development of an integrated model of globalization that combines a cluster of other influences with elements of two traditional models of global expansion: (1) Vernon's specific product cycle model; and (2) the more generic internationalisation process models.	• A convenience, non-random sample of 19 Massachusetts-based, independent companies that supply software or peripheral products for desktop computing. • In-depth field interviews with senior employees with direct responsibility for international activities. • Descriptive and rather indicative chi-squared statistical analyses.	• Unique aspects of one emerging high-tech industry result in a vastly accelerated globalization pattern –not leading toward overseas production activities- that is inconsistent with traditional expansion models. • The integrated model, building upon Vernon, insights from the generic internationalization model, external environmental variables and the internal "managerial internalization" process shows far better explanatory power than the traditional approaches. • Globalization success is most strongly linked to how aggressively senior management allocates internal resources to developing an overseas business model. • External environmental forces also affect globalization of high-tech products and firms.
11. Oviatt & McDougall (1997)	• To explore and highlight recent challenges to traditional internationalization theories due to the increased significance of INVs and the accelerated speed of their internationalization process. • Conceptual exploratory study.	• General description of existing internationalization theories and their historical context. • Delineation of key research questions related to INVs in order to address emerging empirical dilemmas and to suggest new empirical directions and methods.	• Research Issues: (1) the prevalence of INVs; (2) the role of INVs; (3) IB experience; (4) industry influence on internationalization; (5) managing international risks; (6) accelerated internationalization; (7) inward and outward internationalisation of value chain activities.	• The risk-averse and incremental nature of internationalization described by traditional process theory may inadequately explain the case of INVs. • 7 research issues configure a successful program of research on the internationalization process of small, new ventures: (1) the prevalence of INVs, (2) the role of INVs (3) international business experience, (4) industry influences in internationalization, (5) managing international risks, (6) accelerated internationalization, and (7) inward and outward internationalization of value chain activities.

Article Author/s (Year)	Objective	Framework	Methodology	Key Research Findings
12. Madsen & Servais (1997)	• To summarize the empirical evidence reported about born globals, to interpret this phenomenon at a deeper theoretical level by offering a new conceptualization of the research issue, and to generate propositions about the antecedents as well as the necessary and sufficient conditions for the rise of these firms. • Literature review, conceptual descriptive study.	• Driving forces and theoretical approaches of the phenomenon of Born-globals. • Theoretical links to the U-Model, the (international) network approach, and the evolutionary approach. • A research model of Born-globals is outlined as a general framework for conducting future research into this phenomenon.	• The theoretical analysis carried out gave rise to the formulation of seven propositions about the antecedents of born-global firms, the extension of this phenomenon, the international location of their activities, their sources of supplementary competences, their growth requirements, and their propensity inside the national economies.	• The born-global phenomenon is not limited to high-tech industries and/or specific countries. • Born-globals grow in a way which may be more in accordance with networking and evolutionary thinking. • The propensity and further development of the born-global firm is likely to be affected by the characteristics of the environment, and those of the organization and the founder/entrepreneur, simultaneously.
13. Burgel & Murray (1998)	• To use a large set of data to analyze the determinants of the international market entry choices (selling abroad either by direct exporting or through the use of distributors) made by start-up companies in high-technology industries. • Empirical, hypothesis-testing research.	• Two predominant foreign market entry decisions (direct exporting vs. exporting through distributors) for technology based start-ups are to be a function of firm-specific factors, product specific factors, and target-country specific factors. • Key elements of three competing internationalization theories (the stage models, the transaction-cost economics, and the organizational capability perspective) are incorporated in the authors' hypotheses construction thus forming a multivariate approach.	• The entry decision itself, and not the firm, was chosen as the main unit of analysis. • Random sampling process stratified by size class and service/manufacturing (33 high-tech industries in total). • Finally, 398 export decisions were taken from a UK survey of 246 usable technology-based start-ups with international activities. • Mail survey addressed to the managing directors. • Descriptive statistics and multivariate, regression analysis (three probate models)	• The entry mode decision is necessarily a trade-off between the resources available and the support requirements of the customer. • Issues of the innovativeness of the technology and the historic channel experience of the firm in its domestic market are particularly strong determinants of mode choice. Due to "liability of aliennes" firms selling products that incorporate innovative technology, as well as those approaching large target markets, and start-ups already using intermediaries in their home market tend to rely more on foreign distributors. Direct exporting, in contrast, is chosen when managers show previous international working experience or when a product requires a significant client-specific adaptation. • According to these results, an organizational capability perspective on the behaviour of start-up companies in high-tech sectors offers a better explanation of the entry decisions than either transaction-cost or stage theory.

Article Author/s (Year)	Objective	Framework	Methodology	Key Research Findings
14. Barkema & Vermeulen (1998)	• Firms can internationalise in a number of ways, including through exports, licensing, and foreign direct investment (FDI). FDI can be appreciated from 2 perspectives: whether ventures are set up from scratch or whether they are acquired. This study extends this approach on what motivates the strategic choice to expand internationally through start-ups (wholly or partially owned) or acquisitions. • Empirical descriptive study.	• A framework to test the relationship of product diversity with technological capabilities. Also to test the relationship between firms' product diversity and their propensity to expand through start-ups.	• Hypotheses on how a firm's strategic posture, in terms of its multinational diversity and product diversity, affect its propensity to expand internationally through start-ups or acquisitions. • Sample of 25 firms. The total number of these firms' foreign expansions was 829; 595 were acquisitions and 234 were start-ups.	• The results support the idea that learning from diversity is subject to organisational constraints. There is a curvilinear relationship between product diversity and the propensity to expand through start-ups rather than acquisitions. This is consistent with the idea that learning and capability building increase as firms expand into a variety of businesses. • The evidence suggests that multinational diversity and product diversity interact to influence choices of foreign entry mode.
15. Oviatt & McDougall (1999)	• To design a framework in order to stimulate discussion plus theoretical and empirical efforts that may eventually lead to a contemporary dynamic theory of firm internationalization and its acceleration. • Conceptual descriptive study.	• A framework for developing a dynamic theory explaining accelerated international entrepreneurship (involving breadth and modes of internationalization, and the role of emerging businesses) is identified. • While rapidly changing technology is taken as the foundation of accelerated internationalization, 4 other building blocks (political economy, industry conditions, firm effects, and the management team) also complete this conceptual framework.	• Theoretical study (identification of key research questions and propositions).	• Increasing numbers of new and small firms which emerge to conduct business across national borders are bypassing the incremental, step-wise pattern of internationalizing. In addition, the speed with which they internationalize is accelerating. • 10 issues regarding technological innovation, international regulation, opportunities for foreign growth, the prevalence of emerging business, the size and degree of regulatory protection of a country's economy, industry conditions, firm effects –including both firm size and firm strategy-, and the role played by the management team are hypothesized to be increasing in relative importance to tacit managerial knowledge of foreign markets (U-Model) as determinants of the speed, breadth, and mode of internationalization, and the role of emerging firms. • However, the difficulty of devising a rich yet parsimonious theory that explains accelerated firm internationalization is still significant.

Article Author/s (Year)	Objective	Framework	Methodology	Key Research Findings
16. Liesch & Knight (1999)	• To investigate the role of information in the internationalisation of SMEs. • Conceptual descriptive study.	• Information internalisation is antecedent to SME internationalisation and is being facilitated increasingly by recent important trends. • The research context is formed by the interface between the firm and the market.	• Propositions on information internalisation emphasizing hurdle rate theory for ascertaining the acceptability of firms' internationalisation projects.	• Much SME internationalization today is likely to be the result of decreasing transactions costs which permit to expansion abroad in more "non-traditional" ways. • SME internationalisation via information internalization and reliance on conventional external markets is likely to be a growing phenomenon, and worthy of further inquiry.
17. Jones (1999)	• To review the perceptions of a small sample of high-technology UK firms operating in overseas markets. • Empirical descriptive.	• Survey.	• Questionnaire mailed to 41 firms, selected from the Winners of the Queen's award for Technological Achievement. • A total of 24 usable questionnaires were selected.	• Two testable hypotheses were formulated: • There are no significant differences between high-technology firms operating particular international market-servicing strategies in relation to their perceived performance in overseas markets; • There are no significant differences between high-technology firms operating particular international market-servicing strategies in relation to their perceived competitiveness in overseas markets. • Both hypotheses could not be fully rejected in the course of the study.
18. Knight (2000)	• To investigate the interrelationships of entrepreneurial orientation, marketing strategy, tactics and firm performance among SMEs affected by globalization. • Empirical, hypothesis-testing research.	• A theoretical background is provided on theory of entrepreneurial orientation, marketing strategy, tactics, and their linkage to performance. • A theoretical model and hypothesized relationships are built to anticipate the effect of entrepreneurial orientation (culture) on performance in the moderating context of globalization and through the mediating influences of marketing strategy and tactics.	• 268 randomly chosen, usable manufacturers in highly global industries reflecting electronic and electrical equipment, textile mill products, apparel, and related products. • Mail survey (to the CEOs). • Construct validity and reliability (LISREL) analyses. • Globalization's effect is tested through subgroup analysis, which splits the sample into high/low globalization groups.	• Results indicate that among small firms that perceive higher levels of globalization: (1) Entrepreneurial orientation is associated with the development of a quality leadership; (2) Globalization response; and (3) Internationalization preparation, are positively associated with corporate performance. • Thus, in general, SMEs strongly affected by globalization tend to put greater emphasis on acquiring technology, on responding to internationalization, and on preparing in advance before entering foreign markets as important managerial tactics in dealing with the forces of globalization.

Article Author/s (Year)	Objective	Framework	Methodology	Key Research Findings
19. Autio & Sapienza (2000)	• To examine the domain and the explanatory validity of two currently seen as competing views of the internationalization processes of SMEs. • Empirical, hypothesis-testing research.	• Process Theory of Internationalization (PTI) • New Venture Internationalization Theory (NVIT). • Similarities and differences between these two views help the authors define their respective domain boundaries and derive testable hypotheses accordingly.	• 230 technology-intensive new British firms operating in 17 different industry sectors met sample selection criteria. • Mail survey. • Different sub-sections of the empirical sample according to the internationalization stage of each firm. • Hierarchical regression analyses.	• The two models (NVIT and PTI) should be seen as complementary rather than competing, because both emphasize learning and path-dependencies on the international growth of SMEs. • The NVIT may be better suited to explain the early internationalization patterns of technology-intensive new firms, whereas the PTI might be better suited to explain internationalization patterns in more advanced stages. • Salience of the knowledge-based view in understanding international growth and development patterns of technology-intensive new firms.
20. Madsen, Rasmussan & Servais (2000)	• To provide new empirical evidence, coming from the Danish case, about the structure and behaviour of born globals (products/ markets/competition, geographical markets served, and their choice of entry modes as well as control of marketing activities) in comparison with other types of exporters. • Empirical, hypothesis-testing research.	• Brief description of the main driving forces behind the recent rise of born globals based upon other authors' contributions. • Born global firms are expected to be different in terms of their degree of specialization and niche orientation, of the geographical markets they choose to enter first in, and of their choice of entry modes into foreign markets as well as control over marketing practices.	• A valid sample of 272 manufacturing Danish SMEs (between 10-499 employees) with foreign sales is used. • Mail survey addressed to the CEO. • 47 out of the 272 firms were categorized as born-globals according to several standard operational criteria and then compared against other three types of exporters (experimental exporters, traditional exporters, and international firms). • Frequencies analysis and descriptive statistics looking for statistically significant differences are used.	• Typical Danish born globals tend to be quite small and most operate in non-high tech industries. • The group of born globals is much younger than the other exporters. They have started exporting right away and show very extensive foreign activity quicker; thus, they do not follow a traditional slow and gradual pattern in their internationalization process. • Born globals show a unique profile compared with all other groups of exporters with regard to different factors. They seem to target a narrow customer group which may be located in many different geographical places and they build up sales and marketing networks with external partners. • The born-globals resemble international firms much more than they resemble experimental and traditional exporters in terms of their production methods, geographical scope, the use of intermediaries abroad, and their proactive and global behaviour.

Article Author/s (Year)	Objective	Framework	Methodology	Key Research Findings
21. Servais & Rasmussen (2000)	• To explore some of the main characteristics previously reported about born-globals and to relate these findings to taxonomy of born-globals and factors facilitating different types of these firms using data from a survey in Denmark. • Empirical, causal study with a longitudinal approach.	• Review of external driving forces as preconditions for the rise of born-globals. • Although comprehensive theoretical explanations of the phenomenon of born-globals are still lacking, evolutionary economic thinking (and even part of the original logic behind the stages models) as well as the network approach to internationalization (both local and global networks), and the possible links existing among themselves are the chosen frameworks to understand and explain this phenomenon.	• 144 small and highly export involved Danish born-globals located in several industries of which 22 participated in a case-approach interview and 77 answered a questionnaire. • Selection of firms was based upon an earlier survey study and upon on-going collection of data in Denmark. • Sample split into four groups of born-globals (young and big, young and small, old and small, and old and big) in terms of its year of foundation and the number of employees, and then systematically compared on different factors by means of frequencies analysis and corroborating descriptive data.	• Born-globalness indeed constitutes a manifest category of the internationalization process of SMEs. • Networks, both on the local and on the global markets, are important for the majority of these firms. • Some of the results of the Export channels used by the Born Globals show accordance with the gradual approach. Many of them are very export oriented firms that rely on the use of agents and direct sales to end users. • Almost all firms, and especially the young ones, did start in the group they are placed in 1996 (small or big), meaning that they seemed to find their right size from the foundation. With a few exceptions, these Danish born-globals were not growing measured in the number of employees and had absolutely no intention of doing so. • In terms of their international vs. global condition, young born globals are more oriented towards the international (European) markets than older ones, but no difference is found between the large and small young firms in their orientation towards European or global markets.
22. Autio, Sapienza & Almeida (2000)	• To shed light on the effect of when in its development a firm first goes international and the rate of its subsequent international growth by focusing on the strategic implications of age at entry, knowledge intensity, and imitability on international sales growth in entrepreneurial firms. • Quantitative, hypothesis-testing empirical research with panel data.	• Framework based in knowledge and learning to examine the effects of a firm age at first international sales, its knowledge intensity, and the imitability of its core technology on its subsequent international growth. • Hypotheses to test the learning effects of age at entry, the effects of knowledge intensity, and the effects of imitability on the firm's growth in international sales.	• Panel data on international sales over five years for 59 responding entrepreneurial, privately-held small firms in a rapidly growing, high-tech Finnish market (electronics industry). • Data were collected via mailed surveys (1993) and follow-up telephone interviews were carried out in 1997. • 3 regression models were used for hypothesis-testing.	• Median age at first international entry was 4 years, where 20% of the sample firms initiating international sales during their first year of operation. On the average, these firms grew at a compound annual rate of 31% in international sales (1992-1997). • Earlier initiation of internationalization and greater knowledge intensity are associated with faster international growth. Thus early pursuit of international opportunity induces greater entrepreneurial behaviour and confers a growth advantage. • Contrary to expectations, firms with more imitable technologies also grew faster, thus questioning current views of the role of imitability in international growth.

Article Author/s (Year)	Objective	Framework	Methodology	Key Research Findings
23. Zahra, Ireland & Hitt (2000)	• To examine the effects of international expansion, as measured by international diversity and mode of market entry, on a new venture's technological learning and the effects of such learning on its financial performance. • Empirical, hypothesis-testing study.	• From a knowledge and learning based perspective, a conceptual model integrating several hypotheses is outlined which highlights the effects of new ventures firms' international expansion activities on their technological learning and the implications of knowledge integration for technological learning gained through international expansion.	• 321 independent and corporate INVs from 12 high-tech, US sectors • Data obtained from a combination of two-wave mail survey (1993), secondary sources, archival data, and phone/e-mails contacts with firms and trade associations. • In 103 firms, respondents included more than 1 key manager/executive.	• This study adds to knowledge not only of international diversity and entry modes and their effects on performance and learning, but also to knowledge about new ventures. More specifically, data are provided on the (technological) learning that occurred inside them. • International diversity and high-control entry modes indeed increase technological learning. In turn, this new technological knowledge internally created has a positive effect on firm performance (ROE and sales growth). • International diversity and mode of entry have a positive, direct effect on new venture's performance, in addition to their more indirect effect of increasing technological validity of the data were tested. • Descriptive statistics and several multivariate regression analyses.
24. Bell & McNaughton (2000)	• This study is aimed to clarify the challenge that the growing emergence of born global (knowledge/service-intensive or knowledge-based) firms represent to public policy in support of SME internationalization. Thus, new policy directions and recommendations in support of these firms are provided and widely justified. • Conceptual exploratory study.	• Derived from a review and synthesis of the literature, an eclectic, normative model of small firm internationalization is formally presented that seeks to integrate the diverse pathways smaller firms may take during their internationalization process. • This model is developed around five key issues: external and internal environment, managers' mental model, state of internationalization, and knowledge as a source of competitive advantage. • Also, recent trends that have led to the emergence of born-globals are reviewed.	• Literature review	• Major differences in internationalization (process) behaviour, in terms of motivation to internationalize, international objectives, international expansion patterns, pace, method of distribution/entry modes, and international strategies, exist between traditional firms and born global (knowledge-/service-intensive or knowledge-based) firms. • However, the current activities of most of the national export promotion organizations (EPOs) rather focus on the needs of traditional firms as they are configured to support an incremental internationalization process. • The more rapid pace of internationalization among born globals presents a major challenge to EPOs, not only in terms of providing assistance in a timely manner, but also in respect to the nature of the support provided. • As a consequence of the above, public policy for small firm internationalization requires fundamental reconsideration in order to better address the specific support needs of born global firms.

Article Author/s (Year)	Objective	Framework	Methodology	Key Research Findings
25. McDougall & Oviatt. (2000)	• To reflect the frequent intersection of international business and entrepreneurship. • To reflect the developing worldwide academic interest in this topic. • Conceptual descriptive.	• Comments on the evaluation of submissions for the special research forum on international entrepreneurship.	• Eighty one authors from 21 different countries submitted a total of 34 articles in the forum. • Reviewers from 11 different countries guided the review process.	• International business researchers cannot afford to ignore the growing power of entrepreneurial firms in international competition, nor can entrepreneurship researchers ignore the internationalization of the marketplace. • Although international entrepreneurship is still without a unifying and clear theoretical and methodological direction, the articles in this special research forum bode well for its future.
26. Wickramasekera & Bamberry (2001)	• This study is aimed to ascertain if the phenomenon of born-global firms exists within the Australian SMEs wine industry, the factors associated with being a born global, and the challenges this poses to traditional "stage" theories and the incremental, sequential approach to internationalization. • Empirical, descriptive research.	• An overview of existing export behaviour theories and of previous research into born-globals implicitly delineates the theoretical framework and key research issues of this study.	• Mail survey of a successful regional industry composed of a "raw" sample of 292 SMEs Australian winemakers. • Questionnaires were targeted at the marketing manager of each winery or the person regarded as being responsible for the firm's decision whether or not to export. • 8 semi-structured interviews with winery managers. • Frequencies analysis, mean-test and qualitative description.	• The phenomenon of "born globalness" is not confined to the high technology firms as it also extends to regional firms such Australian wineries. • The acceleration in internationalization is brought about by management experience in the industry, international market knowledge, overseas contacts (networks), coupled with management commitment. • This phenomenon provides in fact an additional support for stage models only when examined in conjunction with networks as an explanatory variable of internationalization, and when other management factors are also taken into consideration
27. Aspelund and Moen (2001)	• A comparison of three different generations of Norwegian exporters to investigate whether differences (in terms of export behaviour and export performance antecedents) exist between exporting SMEs based upon the time period within which they were established. • Empirical descriptive study.	• The conceptual basis lies on the Aaby & Slater's (1989) model for assessing export performance, supported with a general discussion of the recent trends facilitating the emergence of flexible specialists and born-global exporters vs. mass producers. • 2 research questions, in the form of general (implicit) hypotheses, are inquired.	• Mail survey of 213 valid Norwegian small -but devoted exporting firms. • Sampling firms were then clustered into 3 groups (traditional exporters, flexible specialists, and born globals) according to their age. • Comparison analysis along the selected categories (one-way analysis of variance). • 13 regression analyses are used to test whether firms of different age had different export performance	• Results revealed statistically significant distinguishing features between the various generations of exporters. A firm's export behaviour and performance are partly contingent on the year of establishment (firm age), resulting in systematic differences between these generations of exporting firms. • The speed of the internationalization has increased for the recently established firms. • Key factors for the Born Globals (those firms which just a few years after establishment achieve considerable sales in a number of export markets) were found to be technological competitive advantage, niche focused export strategy, and widespread use of IT combined with 40 antecedents. strong consumer orientation.

Article Author/s (Year)	Objective	Framework	Methodology	Key Research Findings
28. Rasmussan, Madsen & Evangelista (2001)	• To see how the founder of a born global has reduced the 'equivocality' in relation to others, specially international actors, through two major activities in the founding process: sense–making through enactment and networking. • Empirical, case-oriented qualitative study with data from Danish and Australian born global firms.	• Past research on the born global firms mostly focusing on theoretical and empirical research conducted in Denmark and Australia, the two geographics of this study. • Based upon these antecedents, and focusing on the founder and his/her interaction with the environment (the founding process itself), an initial and revised research model of the born global firm is developed stressing two connected processes and their characteristics: sense making and networking.	• Interviews conducted in Denmark and Australia allow the authors to develop the 5 case studies of this research (three of the cases refer to Danish born globals and the two other to Australian ones). • Each case is individually analyzed first, and then compared with the others looking at some common patterns, in terms of company information, the founders' background, the founding process (sense making, networking, and internationalization), and notes/analysis.	• From these 5 case studies it can be seen that internationalization was not a strategic objective for the founders in the founding process, but something that was necessary if they founded this or that type of firm. Thus, other reasons than finding a highly international company capitalized the founding decision, though the high degree of internationalization followed in all cases. • The process of sense making can hold disparate elements together and create action. However, the existence of a network at the founding of the born-global was not as important as expected, thus implying that it is possible to found a new, highly international firm from the ground with just a good idea, some experience, and without any previous network of the founder being involved. • The born-global issue must be studied in the context of the degree of internationalization in the actual industry.
29. Larimo (2001)	• To add new information for understanding SME's internationalization, especially that of born global type companies. This goal is achieved by reviewing the main features of the Nordic models of internationalization, and then by checking their fit to the of born globals in terms of their development of product, markets, operation strategies and success factors in foreign markets. • Empirical descriptive case-study approach of two born-globals.	• Nordic internationalization models: the Uppsala Model developed by Johanson & Vahlne and the POM model by Loustarinen. • Characteristics and reasons for the existence of born-global firms, conditions giving rise to them, and common features of this type of firms are built upon previous research efforts made by several authors in different contexts.	• 2 selected cases of Finnish born globals are comparatively analyzed with respect to the background and development of the company, sales object, market and operation strategies, networks, market and competition, and finally recent and future prospects of each case company. • The data for the two cases are based on those received during earlier projects led by the author, annual reports and other interim material, and interviews with an informant manager (in the first case firm) and with the marketing manager (in the second one).	• The 2 born-globals cases behaved in their sales object, market, and operation mode strategies according to an evolutionary framework (the Nordic internationalization models). However, the initiation of exporting from the establishment, and the expansion related to market and operation strategies were extremely rapid processes. • Fast decision-making helped these two firms react fast and be more willing to take greater risks. Also, common elements to both companies are: 1) being focused on a niche market and on their core competence areas; 2) strong market commitment; and, 3) international outlook by the management. • SMEs can internationalize their operations very rapidly and simultaneously be profitable when competing against MNEs. Value creation and flexibility in the form of high quality; technological innovativeness; networking and close customer relationships seem to be critical.

Article Author/s (Year)	Objective	Framework	Methodology	Key Research Findings
30. Peng (2001)	• To document the extent to which the resource-based view (RBV) has diffused to international business (IB) research. • To explain the rationale behind such diffusion. • To provide a state-of-the-art review of the substantive work through a proposed organizing framework. • Conceptual, exploratory study.	• Literature review	• A citation based approach is used to document the extent to which the RBV has penetrated IB research. • Focusing on articles in leading journals which cited two key RBV papers, Barney (1991) and/or Wernerfelt (1984), during 1991 through 2000.	• Discussion of the implications of the diffusion of RBV from strategy to IB in the intellectual marketplace, with an emphasis on future research directions. • Emergence of a comprehensive resource-based theory of the international enterprise approaches a paradigm status.
31. Moen (2002)	• To develop further understanding of the born global/INV phenomenon by studying the differences existing between born-globals and those exporting firms not classified as born-globals in terms of competitive advantages, export strategy, global orientation, and environmental situation. • Empirical, descriptive study comparing small firms in 2 European countries.	• The basic research questions are framed in terms of the factors postulated in the Aaby & Slater's model of export performance, past evidence of born-globalness, factors triggering it, and several reasons justifying the importance of this increasing phenomenon: firms that engage in significant international activity a short time after being founded.	• A valid sample of 335 Norwegian and 70 French randomly selected firms with fewer than 250 employees, classified as exporters and manufacturers. • Mail survey - top level managers. • Companies in both countries were assigned into 4 groups according to their export-to-sales ratio and year of foundation (old and local, old and global, new and local, and new and global or born-global). • Comparative descriptive, one-way analysis of variance and Bonferroni tests.	• A substantial number of newly established exporting firms are born-globals. These firms have a significant international involvement shortly after establishment. • In terms of international orientation, export strategy, competitive advantage and market situation, newly established global firms (born-globals) have similar characteristics to old, global firms, while "new and local" firms are similar to "old and local firms". • The "destiny" of the firm seems to be determined at the foundation juncture (the firm is likely to remain either a high-involvement exporter or a low-scale exporter). • The decision maker's global orientation and the market conditions are important factors, explaining why some firms are born-globals, while others are new-locals.

Article Author/s (Year)	Objective	Framework	Methodology	Key Research Findings
32. Zahra & George (2002)	• To analyze the concept of IE and its theoretical domain, to review past empirical work on IE and analyze its theoretical foundations (synthesis of key factors believed to influence IE), to design a new integrative framework of IE, and to address future research in this field. • Literature review, conceptual, exploratory study including a future research agenda.	• In the third section of this work, a theoretical framework of International Entrepreneurship is presented that connects its antecedents (firm resources and top management team characteristics), types of IE activities (extend, speed, and scope of a firm's international operations), and IE outcomes (both financial and non-financial), together with other strategic and environmental factors that might affect the payoff from IE.	• N/A	• IE does a young but growing, interesting, and important research stream that comprise both IE activities of new ventures and established companies. It offers great opportunities to employ and integrate theories from multiple disciplines thus enriching the development of theory and implications for practicing managers. • The definition and domain of the field of IE is clearly expanded from this study. • Past research is exhaustively reviewed to identify and consolidate factors that may affect IE. • An integrative framework that links factors affecting IE and their outcomes is advanced and outlined. The proposed model makes an integrative use of theories from IB, global strategy, strategic management, and also entrepreneurship. • Specific directions and suggestions for the future scholarly pursuit of IE is provided, mainly in terms of the IE process, the context of IE, and post internationalization processes and outcomes.
33. McDougall, Oviatt & Shrader (2003)	• While previous research has yielded a rich view of characteristics common to INVs and provided generaliazable insights into differences between INVs and Domestic New Ventures (DNVs) the purpose of this study is to examine such differences. • Empirical, descriptive study.	• The entrepreneurial team of INVs have higher levels of experience than DNVs (international, industry, marketing, technical, prior start-up, strategic aggressiveness). • DNVs place greater emphasis on low cost. • INVs place more emphasis on innovative differentiation, quality, services, marketing, focus strategies. • INVs operate in: large number of channels of distribution, more globally integrated industries, industries that have higher levels of technological change, industries with higher competitive intensity, than DNVs.	• This study examines entrepreneurial team experience, strategy, and industrial factors related to new venture internationalization using a sample of 214 Initial Public Offerings (IPO) new ventures (ventures 6 years old or less) of all U.S. based companies that were founded between 1983 and 1988. • 127 DNVs and 87 INVs with an average size of the venture (number of employees 6 years after the founding of the venture) of 500 employees. • The analytical technique used was Logistic Regression.	• There were significant differences between the venture type in entrepreneurial team experience, strategies, and industrial characteristics. • Variables that were significant included: international experience, industry experience, technical experience, aggressiveness, product innovation, quality, service, marketing, channels of distribution and global integration. • Technical experience was significant, but in the opposite direction from what was hypothesized.

Article Author/s (Year)	Objective	Framework	Methodology	Key Research Findings
34. Coviello & Jones (2004)	• To review and assess the methodological aspects of the IE literature in order to offer insight as to the 'state of the art' of IE methods and discuss the implications for future development of the field. • Conceptual exploratory study.	• Literature review	• Review of 55 IE articles. • Review focused on the methodology employed. This was assessed in relation to 4 categories: (1) Time frame and context issues: fieldwork time frame, geographic focus, industry scope, firm size, and firm age. (2) Sample issues: unit of analysis, sampling design, sample criteria, sample size, and key informant. (3) Data collection and analysis issues: approach to data collection and analytical approach. (4) Cross-national equivalence issues: sample equivalence, instrument equivalence and data analysis equivalence.	• The field is rich in many dimensions, and in a relatively short period of time, an identifiable niche of IE research has been created. • IE researchers need to address their methodological decisions with greater coherency and thoroughness.
35. Johnson (2004)	• To identify firm-specific success factors for small high technology international start-ups. • Empirical, descriptive study.	• International start-ups are influenced by internal, external and facilitating factors.	• Qualitative methods: 12 in-depth personal interviews. • Quantitative methods: Mail survey of 600 early-internationalizing high technology firms in the UK and 600 comparable US Firms.	• The key factors influencing UK and US small high technology international start-ups are: • International vision of the founders • Their desire to be international market leaders • The identification of specific international opportunities • Possession of international contacts and sales leads
36. Jantunen, A., Puumalainen, K, Saarenketo, S., Kyläheiko, K. (2005)	• To explore the effect of an entrepreneurial orientation and a firm's reconfiguring capabilities on international performance. • Empirical, descriptive study.	• Dependent variable: international performance • Independent variable: entrepreneurial orientation, reconfiguring capabilities.	• Survey Data from 217 manufacturing and service organizations. • The empirical data used in this study is drawn from a dataset collected in spring 2004 using a structured mail questionnaire. • Single key informants.	• Findings indicate that a firm's entrepreneurial orientation and reconfiguring capabilities have an effect on its international performance and provide empirical support for the dynamic capability view of the firm.

Article Author/s (Year)	Objective	Framework	Methodology	Key Research Findings
37. Jones & Coviello (2005)	• To present a three-stage process of conceptual development in response to the call for a unifying direction for research in the emergent field of IE. • Drawing on classic approaches to internationalisation, the paper develops 3 potential models of internationalisation as time-based process of entrepreneurial behaviour. • Exploratory, conceptual study.	• Simple model of the entrepreneurial process. • Simple model of internationalisation process. • General model of entrepreneurial internationalisation process: entrepreneur, firm, internationalisation behaviour, firm performance indicators, cyclical effect of time and feedback loop.	• To develop a unifying direction for international entrepreneurship, it is essential to first understand the basic commonalities of the international and entrepreneurship literature. • Then, an evolutionary process of conceptual development is more helpful, moving from the simple to the general to the precise.	• The paper develops 3 potential models of internationalisation as a time-based process of entrepreneurship behaviour.
38. Oviatt & McDougall (2005)	• To provide a reformulated definition of international entrepreneurship consistent with a new definition. • Exploratory, conceptual study.	• Theoretical base for the study of international new ventures	• The model begins with an entrepreneurial opportunity and depicts the enabling forces of technology, the motivating forces of competition, the mediating perceptions of entrepreneurs, and the moderating forces of knowledge and networks that collectively determine the speed of internationalization	• The model shows that • the speed of entrepreneurial internationalization is determined by four types of forces: • (1) enabling, • (2) motivating force of competition • (3) mediating, and • (4) moderating
39. Acedo & Florin (2006)	• Develop a model integrating individual-level and firm-level characteristics to provide an entrepreneurial cognition perspective on the internationalization of small and medium size ventures. • Contribute to the understanding of why some leaders of SMEs identify and pursue international expansion opportunities while others don't. • Empirical, descriptive study.	• Both firm level and individual level characteristics indirectly influence a firm's international expansion through the entrepreneur's perception of risk associated with international expansion strategies. • Find support for the proposed model using SEM (partial least squares) that allow for the development and testing of complex frameworks.	• The model proposed integrates two levels of analysis: (a) the firm level resource and knowledge assets that support an international expansion strategy, and (b) the international orientations of the individual that drives it. • Structured interviews and questionnaires to the top manager/owner. • Obtained sample: 104 firms. • Sample of Spanish ventures SEM.	• The paper offers a complex theoretical model of what may be one of the most important strategic actions in a venture's growth potential. • The focus on the individual, and the integration of general attitudes with those specific to the international context, provides a rich explanation of the central role played by the entrepreneur's cognitive dimensions. • Results show the central role played by the entrepreneur's risk perception of international expansion as a potential mediator or moderator of both individual level and firm level determinants of international entrepreneurial behaviour.

Article Author/s (Year)	Objective	Framework	Methodology	Key Research Findings
40. Coviello (2006)	• The purpose of this study is to assess the network dynamics of INVs on the INV networks rather than the INV *per se*. • Empirical descriptive study.	• Drawing the concepts of structure and interaction together, networks can be characterized by dimensions that portray: (1) what the network looks like (structure); and (2) who is involved, how they are related and so on (interactions). Consequently, a sensible and complete network analysis would incorporate both types of network dimension in a time-based manner.	• This study positions the network as a dependent variable. • This study follows Granovetter (1973) by concentrating on the developmental sequence of networks over time. • Data collection involved a series of inductive interviews at each site. • Each case had 3 matrices (Stages I, II and III) where, ultimately, the network in Stage III enveloped that of Stages I and II. • To build the network matrices, spreadsheets were created using UCINET 6 software.	• The authors develop seven empirically based propositions for future investigation • Overall, the results suggest that, although a small dense network is perhaps beneficial at the conception stage in order to generate initial resources from trusted sources, the overall changes in network structure lead to an increase in social capital for the INV.
41. Coviello & Cox (2006)	• The purpose of this research is to develop an understanding of the resource dynamics of INV networks. This is accomplished by investigating the ways a network facilitates INV resource development and generates social capital from conception through to growth, including internationalization. • The focus is on examining the resource characteristics of INV networks and the patterns of resource change over time. • Empirical, descriptive study.	Few studies have empirically explored RBV and very few studies integrate both resource and network issues in the context of the INV—an organizational form found to be different from other new ventures in a number of ways: (1) conception, (2) commercialization and (3) growth stages of venture development.	• Resource classification at two levels: (1) resources commonly discussed in the entrepreneurship literature: physical, human, financial and organizational capital. (2) Social capital to encompass the variety of resources accessible through the network. • Case research. • Data were collected from three organizations in New Zealand. • Selection criteria: start-up firms serving international markets, and similar in size and age (less than ten employees, less than six years of age, and had entered their foreign market within three years of conception.	• Content analysis of the case data suggests that for all three INVs, Stage I is characterized by the development of internal knowledge, systems and structures (i.e. organizational capital). The commercialization phase of Stage II was dominated by human capital. The results for Stage III are slightly more idiosyncratic in the organizational capital flows. • The INVs demonstrated networks dominated by either mobilization or acquisition flows in Stage I (conception). Acquisition flows were most evident during commercialization (Stage II), while developmental and/or mobilization flows characterized growth (Stage III). • The results suggest that resource generation is identifiable at conception. • With respect to flow nature, the results show that a key function of the INV network is the transfer of new resources into the firm through acquisition or mobilization. This supports the suggestion of Bergmann Lichtenstein and Brush (2001) that the network itself operates as an instrumental resource.

Article Author/s (Year)	Objective	Framework	Methodology	Key Research Findings
42. Freeman & Cavusgil (2007)	• The authors advance some theoretical explanations regarding the behaviour of these firms integrating the network perspective and resource-based view in international entrepreneurship. • Causal, empirical study.	Constructs: (1) environment (internal and external entry forces); (2) internationalisation (attitudinal dimension); (3) entrepreneurial capabilities; (4) capability of the network; (5) strategic partnership.	• Qualitative, Australian case based study. • Australia was selected as the country context because this was where the phenomenon of born-global companies was first recognised and articulated (McKinsey & Company, 1993). • Fieldwork conducted from 2001 to 2005, and follow-up interviews were conducted. • Research design on quasi-longitudinal study (time series). • Semi structured interviews.	• Identification of four stages of commitment to accelerated internationalisation by top management: (1) *Responder* state is characterised by international awareness and is widely accepted as the initial stage of an adoption process model. The owner/manager develops an understanding of the internal and external forces determining the entry process through his/her network ability. (2) *Opportunist* state of commitment is characterised by "international interest" but little knowledge of foreign markets. (3) In the *experimentalist* state firms are willing to internationalise using inward and/or outward activities as well as linkages. Top managers have the knowledge to increase or decrease their level of international involvement. (4) The *strategist* operates with strategic alliances or joint manufacturing rather than following a gradual process of outward linkages, such as exporting. Such a leap is considered innovative, proactive, and risk taking and is a characteristic of rapidly internationalizing firms. • Any of the four attitudinal mind-sets facilitates internationalisation, but the strategist state adopts a more benevolent collaborative behavioural stance designated to preserve key relationships. The strategist also avoids the short term orientation, competitiveness, and self-interest of the responder, the opportunist, and the experimentalist.
43. Fan & Phan (2007)	• To examine the pattern of entry into international markets for a set of INVs, and show that such firms need not be as distinct as previous research has portrayed them. • In particular, the decision for a new venture to internationalise at inception is influenced by the size of its home market and by its production capacity, as well as by the economic forces. • Descriptive, empirical study.	The model used in this study is based on the international market entry decision making of a de *novo carrier* in a two-step process: first it allows the carrier to decide whether or not to go international at birth, and then, conditional upon that decision, to choose the amount of capacity to allocate to the international market.	• Survey. • Sample of firms that trade in a product sold to the general public in a technologically homogenised industry over a wide geographic area. The data is taken from the intra-European scheduled passenger airline industry.	• Economic factors play a significant role in influencing firms to internationalise early (or not): early internationalisation may represent the profit-maximizing strategic path for some firms. • The cultural similarity of the home market relative (as implemented through linguistic similarity) to an international market has an impact on the inaugural capacity allocated to those international markets even as the number of competitors increases. • The next generation of research in born globals should focus less on merely confirming the existence of such firms and more on the economic and non-economic context in which their early internationalisation decisions are made.

Article Author/s (Year)	Objective	Framework	Methodology	Key Research Findings
44. Fernhaber, Gilbert, McDougall (2008)	• To examine how the concentration of industry clustering in a new venture's headquarters location affects its level of internationalisation. • Descriptive, empirical study.	If industry clustering is the condition that influences not only the supply of but also competition over resources needed for operations, then for new ventures, which are particularly dependent upon their local environment for the resources needed to sustain operations, the industry clustering in their geographic location is an important influencer of their internationalisation behaviour.	• Sample of 156 publicly held new ventures.	• Results confirm that location influences new venture internationalisation, and firm characteristics impact the nature of the relationship. Smaller new firms are negatively affected by the concentration of industry clustering sooner than larger new ventures. • Findings highlight the importance of geographic location as an external source for acquiring internationalisation resources. • Contribution for existing research drawing upon the RBV as this study sheds light on the potential origins of critical resources for internationalising operations, and demonstrates how one characteristic – the industry clustering in a venture's geographic location – can influence the availability of resources that aid internationalisation. • The concentration of industry clustering within a location can foster new venture internationalisation by making available resources needed to support the internationalisation process. However, too much industry clustering stimulates competition effects, which may constrain the venture's ability to garner the resources needed to internationalise its efforts.
45. Blesa, Monferrer, Nauwelaerts, Ripolles (2008)	• This paper focuses on how international new ventures acquire market knowledge from foreign markets and develop sustainable positional advantages there. • Descriptive, empirical study.	• Past research into internationalisation processes assumes that prior experience influences both a firm's capability to absorb foreign market knowledge and its international competitiveness. • However, recent international entrepreneurship research seems to suggest that an early international commitment can also contribute to develop competitive advantages.	• The hypotheses derived from the model were tested using extended data gathered from samples of Spanish and Belgian new ventures. • We used confirmatory analysis to evaluate convergent validity. • A structural equation model was used to test the research hypotheses.	• The results of the data analysis allow us to confirm that an early international commitment influences the positional advantages of international new ventures, since it facilitates the development of market orientation.

Article Author/s (Year)	Objective	Framework	Methodology	Key Research Findings
46. Gamboa & Brouthers (2008)	• Nine major entrepreneurship, IB and management journals were examined to see if the amount of IE research published in major entrepreneurship, IB, and management journals is increased over time. • Conceptual, exploratory study.	• Entrepreneurship journals tend to favor replication studies while IB and management journals prefer non replications. • Because replication is straight forward while no replication is more difficult to conceptualize and execute, there are many more replication than non replication IE studies.	• Literature review. • To identify top journals, this study used the Financial Times 40 list to rank business schools to guide faculty publication.	• Findings indicate that although IE content more than doubled in the entrepreneurship journals, only a modest increase occurred in the international business journals and no increased occurred in the management journals.
47. Styles & Genua (2008)	• To explore the internationalization of high technology firms created through the commercialization of academic research. • To explore the effect of networks and entrepreneurial orientation.	• Uses international entrepreneurship framework developed by Jones & Coviello (2005). • The general model is made up of 6 components: *Internationalization behaviour* is influenced by both *entrepreneur* and the *firm*, which are moderated by the *external environment*. These factors determine a firms' *performance* which is measured over *time*.	• Qualitative case study design. • Within the case study method replication logic is adopted. Four case studies.	• The data suggest that "fundamental" networks of the academics involved in the firms assisted in the identification and exploitation of initial opportunities to internationalize. • The research also suggests that only certain dimensions of entrepreneurial orientation impacted the internationalization of firms. Specifically, risk taking, technological innovativeness, and autonomy in certain parts of the organization assist in the entrepreneurial stages, while proactiveness and product-market innovativeness assist the success of firms internationally.
48. Fernhaber & McDougall-Covin (2009)	• Venture capitalists (VC) play an important role influencing the strategic direction of the firms. • Drawing on the RBV, the purpose of this study is to shed insight into multiple resources that VCs bring to a new venture. • In particular, how intangible resources individually and jointly contribute to new venture internationalisation.	• Dependent variable: New Venture Internationalization • Independent variables: VC reputation, VC international knowledge, interaction variable. • Control variables: new venture age, new venture size, new venture international experience, • IPO year.	• Sample of 93 high-technology VC-backed new ventures in the US. • High-tech industry. • A firm was deemed to be a new venture if the firm was 6 years old or less at the time of Initial Public Offering (IPO).	• VCs can serve as a catalyst to new venture internationalization through the provision of knowledge and reputation resources. • The international knowledge of a VC is more positively related to new venture internationalization when the VC is also reputable. • Explore how new ventures overcome internal shortcomings to leverage the intangible resources held externally by VCs and pursue a large-scale strategy such as internationalization, which is regarded as riskier and more challenging.

2.5 Analysis and Discussion of the INVs Literature Review Results

In order to understand and objectively assess the current state of knowledge in this area, some issues related to the different objectives, categories of studies and theoretical frameworks are discussed below, as well as those other patterns regarding methodology and key findings of the reviewed studies. This section will begin by addressing some major discrepancies that can be easily detected within the literature in terms of both the alternative names given to this type of venture and the empirical definition of the INV's condition of an exporting firm.

2.5.1 INVs Conceptual and Operational Misleading

Terms used to describe New Internationalisation Patterns

As mentioned above, the denomination given to this specific phenomenon has been rather diverse and somewhat confusing, because synonymous labels have not always been used to describe those firms that decide to internationalise from inception: INVs, global start-ups, born globals, instant internationals, global hi-tech firms, and so on. It is important to note that an increasing number of scholars, mainly from the fields of strategy, marketing and entrepreneurship, have tended to apply the name INVs to these newly-established, highly-involved exporters. Conversely, the term born global has sometimes been criticized for its overstatement of the nature of international reach by a new firm. The supporters of the born global term, base their arguments on the entrepreneurial terminology of the term regardless of their specific field of precedence (Hordes et al., 1995).

In spite of the alternative names used for describing this concept, the emphasis has generally been put on examining smaller, entrepreneurial firms which are early internationally-oriented, roughly from the time of their birth, and for which the generally accepted theories of international business apparently fail to explain their existence and behaviour (McDougall et al., 1994). Thus, while the underlying notion and theoretical definition of the phenomenon of INVs, born-global, or global start-up, as a young, entrepreneurial firm that is virtually engaged in international business right from inception, seems to be highly consistent and quite widely accepted in the literature (Knight & Cavusgil, 1996; Oviatt & McDougall, 1994), the same cannot be concluded from the perspective of the empirical operationalisation given to this concept. In fact, too many different criteria have been somewhat arbitrarily chosen by authors, thus making any comparison extremely challenging.

Firm Age at International Entry and Export-to-Sales Ratio

A major area of controversy in this sense can be found in terms of the specific time span, generally measured in years, or time elapsed between the moment of first international sales obtained by a firm and the moment of its founding, a usual criterion used in operationally defining an INV or born-global firm. Sometimes the time span goes together with the export-to-sales ratio, which corresponds to the export percentage of sales from total sales of the firm.

While some researchers seem to advocate a six-year period time span, as the eligible standard in measuring such a delay in initiating international operations from the start-up of a business (Oviatt & McDougall, 1997), other authors have selected other criteria for empirically defining INVs.

In an attempt to differentiate the term born global from the other terms used to describe new internationalisation patterns, a short time span has been a determinant characteristic. Nevertheless, the term still implies that the firms export to more than one country, which is not usually the case. For instance, according to Rennie (1993), born global firms began exporting, on average, only two years after foundation and achieved 76% of their total sales through exports. Although, following Knight and Cavusgil (1996), Madsen and colleagues (2000), and also Servais and Rasmussan (2000) empirically define them as "*firms that were established after 1976 and have reached a share of foreign sales of at least 25% after having started export activities within three years after their birth*". For Aspelund and Moen (2001), the set of born globals in their sample is basically comprised of exporting firms established in, or post a specific year (1989), while Moen (2002:158) defines them as "*having export sales higher than 25 percent and an establishment date post-1990*". Thus, while the two-to-three year period from birth to export initiation by a firm has been tentatively adopted as a measure for such a time lag, quite different empirical definitions and approaches to the INVs issue can be found in the literature.

From a different perspective, other authors conceive the firm age at international entry as a central research issue in itself. In particular, Autio and colleagues (2000) introduce the learning effects of age at entry as one of the determinant dimensions of international growth among entrepreneurial firms, thus examining, instead of assuming, whether it is better for these firms to strategically start the internationalisation process, soon after founding, or to postpone international entry until the firm has accumulated significant resources. This seems to be, according to this literature review, the most rigorous approach.

The possible theoretical controversy of whether the firm's age at international entry has to be embedded in the operational definition of the INV or the born-global concept or, alternatively, used as a separated explanatory variable can be left aside as it seems after all to be a researcher's methodological choice. According to this literature review, what is needed is the establishment of more unified criteria for the empirical definition of the INV (born global/global start-up, etc.) condition of a nascent, entrepreneurial small firm. This is, indeed, a highly theoretical concept which is essentially complex and multidimensional. Consequently, any future effort in its operationalisation should be multidimensional as well. Thus, it indicates measures should include, at least, a high export involvement at a certain point in time, the firm's age at international entry, and the number of export markets covered in a relatively short amount of time. Furthermore, there should be the addition of measures to understand the INV process, as well as the INV competitive strategy, positional advantage, and outcome.

Taking into account the previous explanations, and in order to establish unified criteria for the international entrepreneurial firms, the present study adopts the term INV. The measuring recommendations will be considered in Chapter 5.

2.5.2 INVs Literature Review Research objectives

In terms of research objectives, most of the studies identified above generally aim to describe, understand and interpret the reasons underlying the growing emergence of the INVs' phenomenon (Knight & Cavusgil, 1996; McDougall et al., 1994; Rennie, 1993; Roberts & Senturia, 1996; Wickramasekera & Bamberry, 2001). In this sense, they try to

reveal the differentiating characteristics, as well as the particular behaviour observed by these small firms abroad, often in a specific setting, and a number of factors determining their performance usually in comparison with other counterparts, whether exporting or not (Aspelund & Moen, 2001; Bell, 1995; Madsen et al., 2000; Moen, 2002; Oviatt & McDougall, 1995; Servais & Rasmussan, 2000).

Several studies have adopted some more specific research objectives. A comparative explanatory framework approach can be detected in the studies developed by McDougall and colleagues (1994), Oviatt and McDougall (1997), Madsen and Servais (1997), Autio and Sapienza (2000), and Zahra and George (2002). The links existing between new venture internationalisation, further performance and subsequent international growth have been also examined in some previous longitudinal research (Autio et al., 2000; Bloodgood et al., 1996; McDougall & Oviatt, 1996). The critical role played by network relationships for the international market development is explicitly investigated by Coviello and Munro (1995), while Rasmussan and colleagues (2001) also investigate the importance of the networking issue, together with other elements, in understanding the role played by the founder or entrepreneur in the founding process of an INV firm.

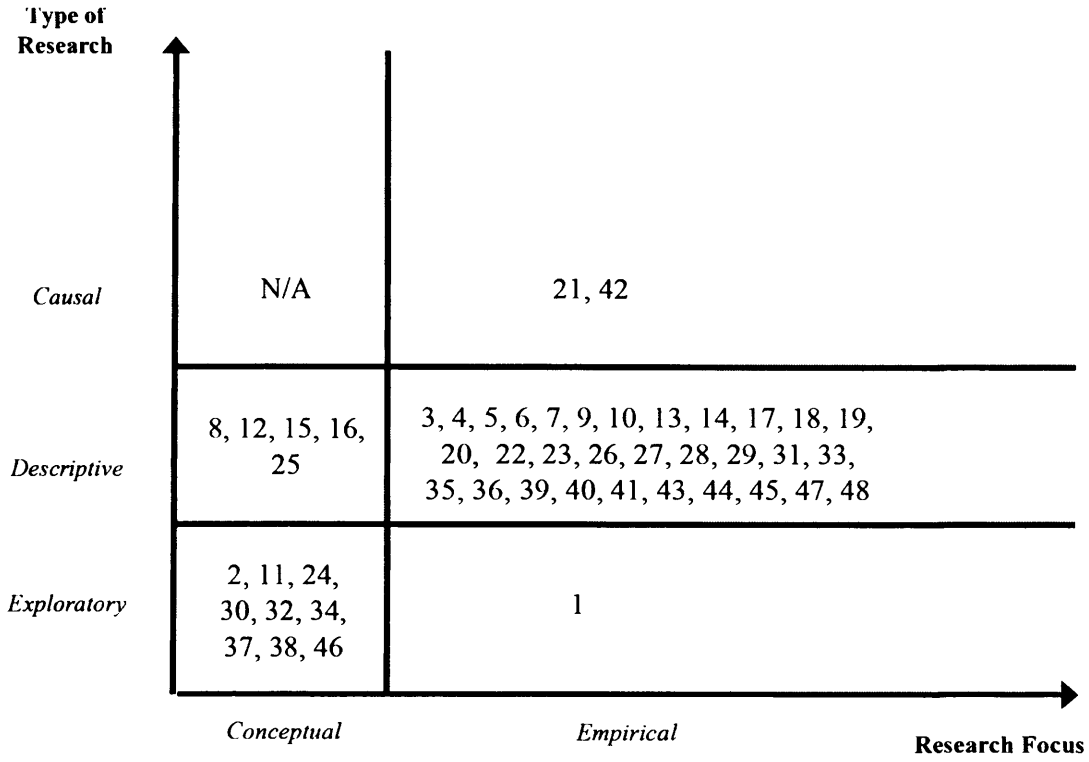
On the other hand, Burgel and Murray (2000), and also Zahra and colleagues (2000) choose to analyze the determinants and learning effects of mode of entry choices made by hi-tech start-ups. Finally, the study developed by Knight (2000) is driven from the entrepreneurship and marketing paradigm to explore globalization effects on SMEs, while Bell and McNaughton (2000) focus on identifying the challenges faced by public policy supporting small business internationalisation, which are associated with the increasing emergence of INVs.

Interestingly, a significant portion of the current literature about INVs has often been assumed to deal directly with high-tech businesses, usually considering the more critical globalization effects that are present in the type of sectors in which these firms compete (Autio & Sapienza, 2000; Autio et al., 2000; Bell, 1995; Burgel & Murray, 2000; Coviello & Munro, 1995; McDougall & Oviatt, 1996; Roberts & Senturia, 1996; Zahra et al., 2000).

Of course, this assumption on the type of firm and sector under analysis has usually had a tremendous impact on a number of methodological decisions taken in empirical studies, as well as on key research findings, as will be discussed below. Concerning the different types of research conducted so far in this field, both quantitative and qualitative oriented research coexist, although empirical studies of a rather descriptive, comparative and exploratory nature (Aspelund & Moen, 2001; Bell, 1995; Coviello & Munro, 1995; Madsen et al., 2000; Moen, 2002; Rasmussan et al., 2001; Rennie, 1993; Roberts & Senturia, 1996; Wickramasekera & Bamberry, 2001) seemingly predominate over highly consistent conceptual studies (Bell & McNaughton, 2000; Madsen & Servais, 1997; Oviatt & McDougall, 1994; 1997, 1999; Zahra & George, 2002) and well supported, hypothesis-testing empirical research (Autio & Sapienza, 2000; Autio et al., 2000; Bloodgood et al., 1996; Burgel & Murray, 2000; Knight, 2000; Zahra et al., 2000). According to the issues discussed above, for this literature review a 'taxonomy' of the different studies reviewed was designed to facilitate a certain cross-comparison of this literature. Such a classification scheme is developed as an organizing framework of the recent IE literature centred on INVs and other terms related, and is organized by means of a matrix along two different axes: conceptual versus empirical research, on the horizontal axis; and exploratory, descriptive and causal research on the vertical one.

The results of this matrix are shown in Figure 2.1. The exact positioning of all of these works in this figure is represented by the number given, in rigorous chronological order of appearance, to each individual study in Table 2.2. It can be seen from the above that empirical research has tended to be far more abundant than conceptually-oriented research on this issue.

FIGURE 2.1 Taxonomy of Contemporary Research on IE



1	Rennie (1993)	25	Larimo (2001)
2	Oviatt & McDougall (1994)	26	Moen (2002)
3	McDougall, Shane & Oviatt (1994)	27	Zahra & George (2002)
4	Oviatt & McDougall (1995)	28	Rasmussan, Madsen & Evangelista (2001)
5	Bell (1995)	29	Larimo (2001)
6	Coviello & Munro (1995)	30	Peng (2001)
7	Bloodgood, Sapienza & Almeida (1996)	31	Moen (2002)
8	Knight & Cavusgil (1996)	32	Zahra & George (2002)
9	McDougall & Oviatt (1996)	33	McDougall, Oviatt & Shrader (2003)
10	Roberts & Senturia (1996)	34	Coviello & Jones (2004)
11	Oviatt & McDougall (1997)	35	Johnson (2004)
12	Madsen & Servais (1997)	36	Jantunen, A., Puumalainen, K, Saarenketo, S., Kyläheiko, K. (2005)
13	Burgel & Murray (1998)	37	Jones & Coviello (2005)
14	Oviatt & McDougal (1999)	38	Oviatt & McDougall (2005)
15	Knight (2000)	39	Acedo & Florin (2006)
16	Autio & Sapienza (2000)	40	Coviello (2006)
17	Madsen, Rasmussen & Servais (2000)	41	Coviello & Cox (2006)
18	Servais & Rasmussen (2000)	42	Freeman & Cavusgil (2007)
19	Autio, Sapienza & Almeida (2000)	43	Fan & Phan (2007)
20	Zahra, Ireland & Hitt (2000)	44	Fernhaber, Gilbert, McDougall (2008)
21	Bell & McNaughton (2000)	45	Blesa, Monferrer, Nauwelaerts, Ripolles (2008)
22	Wickramasekera & Bamberry (2001)	46	Gamboa & Brouthers (2008)
23	Aspelund & Moen (2001)	47	Styles & Genua (2008)
24	Rasmussen, Madsen & Evangelista (2001)	48	Fernhaber & McDougall-Covin (2009)

2.5.3 INVs FRAMEWORKS

As summarized in Figure 2.1, a certain number of types of research and theoretical frameworks can be found in contemporary INV literature. However, the extent to which these frameworks are explicitly proposed as the conceptual base in each study is not so uniform, probably due to the diverse research objectives being addressed.

For instance, only a minority of studies can be considered to be highly-conceptual, often including a future research agenda related to the behaviour of these firms (Knight & Cavusgil, 1996; Madsen & Servais, 1997; Oviatt & McDougall, 1994; 1999; Zahra & George, 2002). Building upon existing internationalisation theories and recent developments in the field of Strategic Management and Entrepreneurship, Oviatt and McDougall (1994, 1999) have established a theoretical framework and types of INVs. This theoretical framework identifies unique resources as the differentiator element and necessary condition of INVs. Therefore, based on Barney's (1991) argument that sustainable competitive advantage for any firm requires that its resources be unique and imperfect imitable, the possibility to develop INVs studies from the RBV perspective is evident.

Madsen and Servais (1997) have developed a research model of the propensity and further development of INVs in which the characteristics of the environment, of the organization itself, and of the founders are seen to be critical. Also, the possible links existing between the recent INVs literature, the internationalisation process model, the Uppsala-Model, along with the network and evolutionary approaches are widely explored by these authors. From a more policy-oriented perspective, Bell and McNaughton (2000) outline an eclectic,

normative model of small firm internationalisation that seeks to accommodate the diverse pathways that smaller firms both traditional and INVs may take during their internationalisation process. Finally, a general theoretical model on IE, as a major research field, has been more recently developed by Zahra and George (2002). Their model basically connects the IE antecedents with its types of activities and outcomes, together with other strategic and environmental issues.

Whereas most of the empirical studies clearly identify which theory provides the conceptual basis and focus for their further investigation (Aspelund & Moen, 2001; Autio & Sapienza, 2000; Autio et al., 2000; Bell, 1995; Bloodgood et al., 1996; Burgel & Murray, 2000; Coviello & Munro, 1995; Knight, 2000; McDougall et al., 1994; Moen, 2002; Rasmussan et al., 2001; Roberts & Senturia, 1996; Servais & Rasmussan, 2000; Zahra et al., 2000), some of them are solely based on the past literature of INVs (Madsen et al., 2000; McDougall & Oviatt, 1996; Oviatt & McDougall, 1995; Wickramasekera & Bamberry, 2001), or are simply not explicitly grounded on any specific theory (Rennie, 1993).

A significant number of studies develop a large part of their theoretical approaches by identifying and examining both internal and external key driving forces and trends behind the observable emergence, continuous rise and further development of small firms becoming international almost at founding, i.e. rather than from inception (Aspelund & Moen, 2001; Bell & McNaughton, 2000; Knight & Cavusgil, 1996; Madsen et al., 2000; Madsen & Servais, 1997; Moen, 2002; Oviatt & McDougall, 1995; 1997; Rennie, 1993; Servais & Rasmussan, 2000). According to these authors, among the most common factors triggering and giving significance to this growing phenomenon, there are at least four of

extreme importance and, moreover, interrelated: 1) New market conditions in many sectors of economic activity, including the increasing importance of niche markets for SMEs worldwide; 2) Technological developments in the areas of production, transportation and communication (IT); 3) The increased importance of global networks and alliances, and 4) More elaborate capabilities of people, including those of the founder also called entrepreneur who starts the INV (Knight & Cavusgil, 1996; Madsen & Servais, 1997; Moen, 2002; Servais & Rasmussan, 2000).

So far these different driving forces which to a large extent enabled SMEs to compete globally, and in particular their consequences, have been only superficially explored, and not conveniently integrated in most of the theoretical frameworks of reference designed for conducting research. Furthermore, it can be expected that such trends will be even stronger over the next few years, thus making the INVs phenomenon more widespread in the future. Therefore, more and more industries and firms will be highly affected by these factors and should be expected to internationalise more rapidly than ever before.

In order to explain the phenomenon under analysis, some of the reviewed works above seem to rely exclusively on a single theoretical framework, usually that of the Nordic internationalisation process models; basically, the Uppsala-Model; or other similar export stage behavioural-oriented models, an approach generally known as the traditional Process Theory of Internationalisation (Bell, 1995; Knight & Cavusgil, 1996; Wickramasekera & Bamberry, 2001). In a similar vein, Coviello and Munro (1995) adopt a network theory perspective to examine the impact of network relationships on international market development and marketing-related activities among entrepreneurial firms. Also, the traditional Aaby and Slater (1989) model for assessing export performance, though

complemented with some previous findings shown in the INVs literature, constitutes a major conceptual basis for the works developed by Aspelund and Moen (2001) and Moen (2002).

On the other hand, several studies are expressly designed to compare the explanatory value of competing theoretical approaches about alternative business internationalisation patterns, usually distinguishing between traditional, gradually-internationalising firms and INVs (Autio & Sapienza, 2000; Bell & McNaughton, 2000; McDougall et al., 1994; Oviatt & McDougall, 1999), or are explicitly built upon different frameworks of analysis. This reveals a certain amount of theoretical integration in the IE field focusing on this latter type of venture (Knight, 2000; Rasmussan et al., 2001; Servais & Rasmussan, 2000; Zahra & George, 2002). For instance, evolutionary economic theory, together with part of the original thinking behind the stage models, and the international network approach, as well as their respective links, have been frameworks jointly considered for explaining the INV's phenomenon (Madsen & Servais, 1997; Servais & Rasmussan, 2000). Rasmussan and colleagues (2001) try to incorporate the entrepreneurship literature into this view for examining the founding process of an INV, thus stressing the interaction between the founder and the environment through two interconnected processes: sense making and networking. Also, the combined entrepreneurship and marketing paradigm is followed by Knight (2000) in order to evaluate the behaviour and performance of SMEs affected by relevant globalization impacts. Finally, several authors have founded their theoretical conceptualizations and testable hypotheses on highly exhaustive and recently developed theoretical frameworks such as the resource-based view of the firm (Bloodgood et al., 1996; Coviello & Cox, 2006), the transaction cost theory and organizational capability

perspectives (Burgel & Murray, 2000), or the increasing knowledge and learning based view (Autio et al., 2000; Zahra et al., 2000).

As a result of this literature review, though it does not seem to be the rule in this stream of research, this researcher's opinion is that the use of a single theoretical framework for explaining the acceleration of international operations by young SMEs appears to be somewhat reductionist and likely to inhibit any further theory development on this issue. Alternatively, the much more promising trend, also detected in this review, in terms of a multiple and combined use of existing theories and frameworks in explaining this phenomenon constitutes a step toward a more holistic understanding of it, which should be undoubtedly encouraged and stressed in further research. However, In spite of this increased theoretical rigour, some authors in the field regret that comprehensive theoretical explanations and causal models of the phenomenon of INVs are still lacking (Knight & Cavusgil, 1996; Oviatt & McDougall, 1999; Servais & Rasmussan, 2000). Therefore, there seems to be enough room for a better developed, conceptually rigorous, and more generally-accepted theoretical framework of reference in this topic.

2.5.4 INVs Empirical methods

A wide variety of research methods characterize the contemporary INV literature, something that constitutes, in the opinion of this researcher, an excellent reflection of both, the highly complex nature of the research issue itself, and the very diverse research objectives being addressed. In this context, specific mention should be made of the usual distinction observed between two possible methodological approaches, surveys and case

studies, as alternative, though not mutually excluding, research techniques in conducting the empirical work.

INVs Quantitative and Qualitative Studies

In particular, these studies aimed at identifying general patterns characterizing the specific behaviour and subsequent performance of these firms, usually against other ventures, and those adopting a very formal hypothesis-building or testing approach in conducting such research efforts, tend to rely significantly more on medium-to-large-scale, aggregate survey data and databases as their basic, and generally sole, research technique. This category includes studies developed by Bloodgood and colleagues (1996); McDougall and Oviatt (1996); Burgel and Murray (2000); Knight (2000); Autio and Sapienza (2000); Madsen and colleagues (2000); Autio and colleagues (2000); Aspelund and Moen (2001); and Moen (2002). Also, among fully or partly quantitative, survey-based studies, cross-sectional approaches (Aspelund & Moen, 2001; Autio & Sapienza, 2000; Bell, 1995; Burgel & Murray, 2000; Knight, 2000; Madsen et al., 2000; Moen, 2002; Rennie, 1993; Wickramasekera & Bamberry, 2001; Zahra et al., 2000) tend to be more widely applied than purely longitudinal ones (Autio et al., 2000; Bloodgood et al., 1996; McDougall & Oviatt, 1996; Servais & Rasmussan, 2000). Nevertheless, as the high internationalisation level of an INV is indeed the result of a whole process, research that is too static in nature should be preferentially avoided.

On the other hand, those authors who attempt to understand complex and rather context specific issues related to INVs usually make greater use of research designs based on qualitative and grounded approaches, and more specifically of case-study research. As a

consequence, case-based research, highly longitudinal in nature, is clearly represented in the INVs streams of literature. Such a qualitative, case-based approach is explicitly applied in studies such as those made by McDougall and colleagues (1994), Oviatt and McDougall (1995), Roberts and Senturia (1996), Rasmussan and colleagues (2001). Interestingly, only six out of the thirty three empirical studies reviewed have used multiple research methods for gathering and analysing relevant data, thus combining surveys with in-depth field interviews, secondary sources, and even case studies (Bell, 1995; Coviello & Munro, 1995; Rennie, 1993; Servais & Rasmussan, 2000; Wickramasekera & Bamberry, 2001; Zahra et al., 2000).

INVs and High-Tech Sectors

As mentioned above, a large number of studies have tended to assume that the issue under study is highly associated with high-tech sectors, thus developing their empirical research specifically in small business contexts of a highly technological base content (Autio & Sapienza, 2000; Autio et al., 2000; Bell, 1995; Burgel & Murray, 2000; Coviello & Munro, 1995; McDougall & Oviatt, 1996; McDougall et al., 1994; Oviatt & McDougall, 1995; Roberts & Senturia, 1996; Zahra et al., 2000). However, other authors have also addressed their investigation towards firms and start-ups with international activities from a wider spectrum of sectors and markets, including manufacturing and services, not necessarily fast growing and highly technological (Aspelund & Moen, 2001; Bloodgood et al., 1996; Knight, 2000; Madsen et al., 2000; Moen, 2002; Rasmussan et al., 2001; Rennie, 1993; Servais & Rasmussan, 2000; Wickramasekera & Bamberry, 2001). It seems clear to us that studies which choose to examine INVs by focusing exclusively on populations, and derived samples, of high-technological firms in fast-growing, global sectors may be

providing quite different and not fully comparable results to lesser context-specific research.

The INVs Phenomenon is Multi Country

A very positive aspect of the empirical research conducted so far is that the emergence of INVs has been reported in several countries of the developed world (Knight & Cavusgil, 1996), thus demonstrating that this phenomenon is not country-specific at all. These firms have been found to exist in places as diverse as Australia, the US, Switzerland, Ireland, New Zealand, the UK, Germany, France, Israel and most of the Nordic Countries, like Denmark, Norway, and Finland. Nevertheless, future research should cover other different geographical areas, particularly in NICs and emerging markets, to confirm the non-geographic specificity of this issue.

The Use of Key Informants in INVs Studies

Beyond the small number of studies using samples or archival data, the key informant in firm level studies is habitual in the IE literature. The majority of studies acknowledge the importance of accessing the informant who retains institutional history and influence as regards IE. The empirical methodology used generally in most studies, either surveys or case studies, is characterized by collecting information from key groups of individuals, such as the founder or founding team, CEOs, managing directors, and so on; mostly in charge of international decision-making processes in their respective firms (Coviello & Jones, 2004). Under this assumption, these key executives hold the strategic information of firms that aggressively pursue a position in the international markets (Nath & Mahajan, 2008).

Survey Approach in INVs Research

When a survey-based approach has been applied, somewhat biased and not very large-scale sampling designs are performed. Basically mail structured-questionnaires have been utilised to collect usually quantitative information only, cross-sectional analyses clearly dominate, and non-response bias, while construct validity and reliability analyses of the collected data have not tended to be generally reported. Moreover, due to their highly comparative and their exploratory rather than explanatory approach, many of these studies have separated their samples of firms under analysis into different groups of INVs and other types of firms to significantly differentiate their respective characteristics, behaviour, and performance (Aspelund & Moen, 2001; Autio & Sapienza, 2000; Knight, 2000; Madsen et al., 2000; McDougall & Oviatt, 1996; Moen, 2002; Rennie, 1993; Servais & Rasmussan, 2000). Usually, these subgroups of the sampling firms have been empirically defined according to the sometimes arbitrary operationalization of the INVs concept in use. Finally, mainly descriptive, comparative statistics, such as frequencies, chi-squared analysis, t-tests, etc. versus more sophisticated, multivariate approaches like correlation and regression analyses have been used for conducting data analysis. Some relevant exceptions to this general assessment of the quantitative-oriented research can be found in most hypothesis-testing oriented empirical studies (Autio et al., 2000; Bloodgood et al., 1996; Burgel & Murray, 2000; Knight, 2000; Zahra et al., 2000).

Case Study Approach in INVs Research

Regarding other studies making specific use of the case-based approach (Coviello & Munro, 1995; McDougall et al., 1994; Oviatt & McDougall, 1995; Rasmussan et al., 2001;

Roberts & Senturia, 1996), a certain triangulation of data sources exists, though a purposeful selection of firms has not always been well justified, research protocols are not explicitly mentioned, and usually the descriptive data of the different cases is presented in a highly qualitative manner, by means, for instance, of score cards. This data is rarely supported with figures or statistics. Moreover, the specific techniques used for comparative data analysis (content-analysis or the pattern-matching with theory approach) seem to stress literal more than theoretical replication logic (Yin, 1989). This adds some problems regarding the key issue of the generalization possibilities associated with this mode of research. Future studies, applying the case-based approach should make a more rigorous use of this critical qualitative technique by focusing more explicitly on testing existing theory or building a new one (Eisenhardt, 1989a).

Summary of INVs Methodological Issues

In summary, for the purposes of the present research, it can be argued that INVs studies are found in quantitative and qualitative approaches. Although normally appropriate to each study's defined research problem, the overwhelming use of a single method approach of data collection and data analysis may not fully capture the key issues and processes under investigation. Therefore, further research should make a more diversified use of both methodologies. Moreover, while this literature review shows that the INVs phenomenon is multi-country, most of the research has been done in developed countries, generating a particular need to conduct research in other economies such as those newly industrialised. Furthermore, it is important to highlight the use of key informants in INVs studies, such as founders, CEOs, managing directors, among other people in charge of the international decision making process. Finally, structured questionnaires have been used to collect



primary data from INVs, which have subsequently been cross-sectional analysed. Notwithstanding this, construct validity and reliability analyses of the collected data have not been generally reported.

2.5.5 A CROSS COMPARISON OF KEY INVS RESEARCH FINDINGS

While those more specific results contained in each separate study have been extensively reviewed in Table 2.2, in this section the interest is focused on extracting general patterns related to previous findings and conclusions in INVs research. More concretely, the discussion is organized according to both several communalities and major disagreements that can be identified within the existing literature. Although, as this is a highly consistent research field, some more common patterns of findings rather than controversial results have emerged from this review.

INVs Research Communalities

First, with respect to communalities, several studies agree that the issue under study, accelerated internationalisation from establishment, constitutes an increasingly distinctive pattern of the internationalisation process of some SMEs when seen in comparison to other types of businesses (Aspelund & Moen, 2001 ; Madsen et al., 2000; Moen, 2002; Rennie, 1993; Servais & Rasmussan, 2000).

In addition, most of them reveal that the formation process of new ventures that are able to compete almost globally from inception, and also their rise in number, seems to be largely inconsistent with some traditional International Business expansion theories which tend to assume that firms become incrementally international long after they have been established

(Knight & Cavusgil, 1996; Madsen et al., 2000; McDougall et al., 1994; Moen, 2002; 1997; Oviatt & McDougall, 1999; Roberts & Senturia, 1996). Rather, INVs expand internationally in a way that may be more in accordance with evolutionary thinking, organizational capability perspective, knowledge and learning-based views (Autio & Sapienza, 2000; Autio et al., 2000; Burgel & Murray, 1998; Madsen & Servais, 1997; Zahra et al., 2000). Thus, in order to remain useful as an explanatory framework, such stage models should be extended and complemented accordingly with these and other perspectives from international strategic management and entrepreneurship (Wickramasekera & Bamberry, 2001; Zahra & George, 2002).

In particular, network theory applied to both the founders and the new firm itself, has proved to be particularly insightful for explaining the specific international development patterns of these highly entrepreneurial ventures (Bell, 1995; Coviello & Munro, 1995; Madsen & Servais, 1997; McDougall et al., 1994; Oviatt & McDougall, B. M. Oviatt & McDougall, 1994; 1995; Servais & Rasmussan, 2000; Wickramasekera & Bamberry, 2001). A somewhat differing result in this sense is reported by Rasmussan et al. (2001) for whom, in spite of focusing deeply on the network approach, the existence of a network at the founding of 24 a born global company was not found as important as previously expected. Other researchers should deal more directly with this issue in the future.

Also, a number of researchers have similarly discussed several elements for the existence, prevalence, and further development of INVs at an individual, organizational, and environmental level (Knight & Cavusgil, 1996; Madsen & Servais, 1997; Oviatt & McDougall, 1994; 1997). In particular, several industrial and environmental influences affecting new ventures globalization and market conditions are considered to be critical

(Bloodgood et al., 1996; Knight, 2000; Moen, 2002; Rasmussan et al., 2001; Roberts & Senturia, 1996).

INVs Research Discrepancies

In terms of major discrepancies in the research findings and the conclusions of the INVs literature review, two will be developed further. The first one is related with the identification feasibility of finding INVs in different industries and countries, versus their specific location in the high-tech sectors of developed countries only. The second displays the disparity of terms characterising successful internationalisation of young firms.

The first discrepancy refers to the possible identification of a specific INV firm's profile in different industries (Aspelund & Moen, 2001; Bloodgood et al., 1996; Knight, 2000; Madsen et al., 2000; Madsen & Servais, 1997; Moen, 2002; Rasmussan et al., 2001; Rennie, 1993; Servais & Rasmussan, 2000; Wickramasekera & Bamberry, 2001) versus its specific location in high-tech sectors only (Autio et al., 2000; Bell, 1995; Burgel & Murray, 2000; Coviello & Munro, 1995; McDougall & Oviatt, 1996; McDougall et al., 1994; Roberts & Senturia, 1996; Zahra et al., 2000). According to Autio and Sapienza (2000), the new venture internationalisation theory seems to be better suited to explain the early internationalisation patterns of rather technology-intensive new firms.

Clearly, although this central question, of examining whether accelerated internationalisation of SMEs is indeed a completely new and highly country and sector-specific phenomenon, and can only be clarified by further research, this researcher would like to speculate here with a plausible explanation for this critical contradiction generally

found in the literature. It starts with the idea that small firm export behaviour affects both traditional and INV firms. However, INVs can be further classified as being 'knowledge service-intensive' or 'knowledge-based' firms (Bell & McNaughton, 2000). As this latter category of INVs, which is very closely related to the emergence of new technologies, have their core competence precisely in their sophisticated knowledge base (Oviatt & McDougall, 1999), their density in high-tech areas can be expected to be extremely high. In contrast, the former type of INVs make an intensive use of knowledge to develop new offerings, improve productivity, introduce new methods of production and improve service delivery, but are not inherently knowledge-based. Nevertheless, this latter behaviour seems to be increasingly happening in a number of industrial and service sectors, not only those which are considered to be highly technological. Thus, the opinion is centred on more and more countries and industries of a diverse technological content, which will witness in the near future an increasing emergence and further development of mostly knowledge and/or service-intensive INVs against more traditionally-oriented exporters.

A second area open to a certain degree of empirical controversy and debate among researchers is related to the considerable variety and disparity of the results usually found in terms of those factors mostly characterizing the successful internationalisation of INVs (Servais & Rasmussan, 2000). As most of the current empirical research seems to be highly context-specific, almost every author in this field has aimed to elaborate their own list of such key success factors (Aspelund & Moen, 2001; Autio et al., 2000; Bell, 1995; Bloodgood et al., 1996; Burgel & Murray, 2000; Knight, 2000; Knight & Cavusgil, 1996; Madsen et al., 2000; McDougall & Oviatt, 1996; Moen, 2002; Oviatt & McDougall, 1995;

Rennie, 1993; Roberts & Senturia, 1996; Servais & Rasmussan, 2000; Wickramasekera & Bamberry, 2001; Zahra et al., 2000).

Trying to be consistent with the integrative approach of this stream of literature, the *top-ten* characteristics most usually regarded as critical success factors for this type of newly established, highly export-involved entrepreneurial firms abroad would be the following, not necessarily in this order of importance: 1) a managerial global vision from inception (Acedo & Florin, 2006; Moen, 2002; Oviatt & McDougall, 1995); 2) high degree of previous international experience on behalf of managers (McDougall et al., 2003; Wickramasekera & Bamberry, 2001); 3) management commitment (Knight, 2000; Styles & Genua, 2008); 4) strong use of personal and business networks (networking) (Coviello, 2006; Coviello & Munro, 1995; Servais & Rasmussan, 2000); 5) market knowledge and market commitment (Bell, 1995; Fernhaber & McDougall-Covin, 2009); 6) unique intangible resources and capabilities based on knowledge management (Blesa et al., 2008; Coviello & Cox, 2006; Freeman & Cavusgil, 2007; Jantunen et al., 2005); 7) high value creation through product differentiation, leading-edge technology products, technological innovativeness and quality leadership (McDougall et al., 2003; Oviatt & McDougall, 2005b); 8) a niche-focused, proactive international strategy in geographically spread lead markets around the world from the very beginning (Aspelund & Moen, 2001); 9) narrowly-defined customer groups with strong customer orientation and close customer relationships (Fan & Phan, 2007; Fernhaber, 2008; Johnson, 2004); and, 10) flexibility to adapt to rapidly changing external conditions and circumstances (Knight & Cavusgil, 1996).

2.6 CONCLUDING COMMENTS

In this chapter an attempt has been made to provide the theoretical base of the study executed and reported for the purpose of this thesis. Attention has been devoted in this review of the literature to 48 of the most outstanding works from the last sixteen years. Since these publications deal more or less explicitly with the INV phenomenon, they have been firstly identified, then examined and critically assessed as a basis for obtaining an adequate view of the state-of-the-art of this increasingly important research avenue in the field of IE.

The methodology used for this review has allowed us to analyze a number of recent, purposefully-chosen studies that were systematically compared along the following criteria: main objective and type of research; theoretical frameworks of reference; methodological issues; and main findings.

This review suggests that there are major limitations that raise questions about the extent of knowledge regarding the issue of resources and capabilities' combinations in creating positional advantage leading to performance in INVs. The following chapter will provide a conceptual model of INVs based on the RBV of the firm in order to understand the unique bundle of resources and capabilities configuration to conceive positional advantage conducive to performance in the international market.

CHAPTER 3
CONCEPTUAL MODEL AND HYPOTHESES

3.1 INTRODUCTION

INVs overcome the constraints associated with their limited history and smaller size to commit an adequate combination of resources and capabilities to the internationalization process. Pursuing internationalization early in their existence enables new ventures to realize improved performance (Bloodgood et al., 1996; Lu & Beamish, 2001b; McDougall & Oviatt, 1996; Zahra et al., 2000), and to exploit a competitive advantage (Oviatt & McDougall, 2005b). In this regard, there is a need to understand the modelling of resources and capabilities to explain the achievement of positional advantage in the context of INVs (Coviello, 2006; Han, 2007). This chapter aims to present the proposed conceptual model based on this discussion, as well as on the preceding literature review chapter.

Following the suggestion to view INVs through the investigatory lens of the RBV of the firm (Alvarez & Busenitz, 2001; McDougal et al., 1994), the conceptual model has been developed in accordance with the adopted method of inquiry. In this regard, specific research hypotheses are formulated and will be subject to empirical testing in the following chapters.

This chapter proceeds with a review of the RBV marketing theory in the context of IE starting by explaining the origins of the RBV (Barney, 1991). In addition, the present chapter analyses the dynamic capabilities as a complement to the RBV (Ambrosini & Bowman, 2009). Also, this chapter details how marketing theory is related to RBV and

how RBV leads to positional advantage. Subsequently, the association of the RBV and IE is described. Then, it details the conceptual model of INVs positional advantage as a process with recognizable phases and linkages between them. Subsequently, the research hypotheses are developed followed by concluding comments.

The model is being explained with the first set of hypotheses describing the relationship between resources and capabilities. In addition, two different paths to positional advantage are delineated. The first one focuses on the association between resources, capabilities and positional advantage, while the other suggests that resources and capabilities lead to competitive strategy which then is related to positional advantage in order to reach performance.

While dynamism concerns change, the capacity of an organisation to purposefully create, extend, or modify its resource base is considered dynamic (Helfat et al., 2007). Eisenhardt and Martin (2000) explain that path-dependant learning mechanisms shape the creation and development of dynamic capabilities. In this regard, this chapter suggest a dynamic view of the model by explaining the sets of relationships from EO to different constructs in the model and the ability of EO to reconfigure and utilize effectively resources and capabilities available to the firm. In the first instance, the chapter describes the cross-fertilisation of EO to competitive strategy through ambidextrous innovation strategy. Subsequently, the chapter explains the relationship among EO, resources and capabilities. Furthermore, the chapter concentrates on the linkages between EO and performance.

Finally, the present chapter focuses on positional advantage as a direct antecedent of performance. As suggested in Figure 3.1, these sets of relationships suggest a dynamic

view of positional advantage as a process (March & Sutton, 1997; VandeVen, 1992), with identifiable stages and linkages between them. This perspective enables the different view points to be synthesized into a robust theoretical model of a RBV of INVs.

3.2 Theoretical Framework: RBV and Marketing Theory in the Context of IE

A recent development in management research concerns that of analyzing a firm's strategy by focusing on its resources rather than the external environment. Developed from the economics and strategy literature of the 1950s, this approach is known as the RBV and takes an *inside-out* or *firm-specific* perspective on why organisations succeed or fail (Dickson, 1996). This view of strategy highlights the importance of organisational factors in competitive advantage creation, in contrast to the industry-based determinism of Porter's view (Hooley & Greenley, 2005). As such, it acts as a natural complement to the external, market-based approach to competitive advantage that is grounded in industrial organisation economics and synthesized in, for example, the work of Porter (1980).

The RBV of the firm suggests that competitive advantage stems from the possession and deployment of resources that are in some way superior to those of their competitors. Resources that are valuable, rare, inimitable and non-substitutable (Barney, 1991) make it possible for a business to develop and maintain competitive advantages, as well as to utilize these resources and competitive advantages for superior performance (Collis, 1995; Grant, 1991; Wernerfelt, 1984).

In order to explain the conceptual model of the present study the following sections give a brief background to understand the origins of the RBV, as well as the marketing theory related to the RBV, and the association of the RBV with IE.

3.2.1 ORIGINS OF RBV

The origins of the RBV lie in the work of Edith Penrose who was one of the first scholars to recognise the importance of resources to a firm's competitive position. She began by arguing that a firm consists of a *"collection of productive resources"* (Penrose, 1959:24) and continued by suggesting that these resources may only contribute to a firm's competitive position to the extent that they are exploited in such a manner that their potentially valuable services are made available to the firm.

Aside from Penrose (1959), Rubin (1973) is argued to be one of the few scholars to conceptualise firms as resource bundles prior to the formal origins of the RBV. Building in the inroads made by these authors, Wernerfelt (1984), in an attempt at formalising the RBV proposed that while a firm's performance is driven directly by its products, it is indirectly and ultimately driven by the resources that go into their production, a point that was further clarified by Barney (1986) two years later. Because of the rather abstract nature of Wernerfelt's (1984) seminal work, acceptance of this theoretical perspective did not immediately gain the support of academic audiences. As such, widespread appreciation for the RBV did not begin to accumulate until several years later with Jay Barney's article, 'Firm resource and sustained competitive advantage', published in the *Journal of Management* in 1991. This paper is widely regarded as one of the first formalisations of the then fragmented resource-based literature into a comprehensive theoretical framework, and thus empirically testable (Newbert, 2007).

Drawing on arguments by Penrose (1959), Rumelt (1984), Wernerfelt (1984), and others, Barney (1991) based his articulation of the RBV on two fundamental assumptions: that resources are heterogeneously distributed among firms and that they are imperfectly mobile. These assumptions conjointly allow for differences in firm resources endowments to both exist and persist over time, thereby allowing for a resource-based competitive advantage. Barney (1991) argued that firms that possessed resources that were valuable and rare would attain a competitive advantage and enjoy improved performance in the short term. Barney (1991) also contended, drawing heavily on Dierickx and Cool (1989), that in order for a firm to sustain these advantages over time its resources must also be inimitable and non-substitutable.

One of the primary critiques of Barney's (1991) expression of the RBV over time has been its rather static nature. Most notably, Priem and Butler (2001a) argue that "*although the RBV began as a dynamic approach... much of the subsequent literature has been static in concept*" (Priem & Butler, 2001a:33). They continue by noting that in Barney's interpretation of the RBV, "*the processes through which particular resources provide competitive advantage remain in a black box*" (Priem & Butler, 2001a:33). Indeed, years later Barney admits adopting the assumption in 1991 that "*once a firm understands how to use its resources...implementation follows, almost automatically*" as if "*the actions of the firm should take to exploit these resources will be self-evident*" (Barney, 1991:53).

In response to this missing link between resource possession and resource exploitation, Mahoney and Pandian reminded scholars that "*[a] firm may achieve rents not because it has better resources, but rather the firm's distinctive competence involves making better use of its resources*" (Mahoney & Pandian, 1992:365). Similar arguments were put forward

by Peteraf (1993) who argued that to confer a competitive advantage to a given firm its valuable resources must be properly leveraged. Subsequently, a great deal of theoretical work began to emerge regarding the types of processes to which resources must be subjected in order to exploit their latent value, known as capabilities (Amit & Schoemaker, 1993).

3.2.2 DYNAMIC CAPABILITIES AS COMPLEMENT TO THE RBV

The original definition of dynamic capabilities referred to "the firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments" (Teece et al., 1997:516). In this definition, organisational competences denoted managerial and organisational processes or "patterns of current practice and learning" (Teece et al., 1997:516). By altering the organisation's resource base, dynamic capabilities could then open new strategic alternatives or "paths" for the firm (Helfat et al., 2007).

Subsequent work refined and expanded the original concept of dynamic capabilities. Eisenhardt and Martin (2000:1107) defined dynamic capabilities as "*the firm's processes that use resources... to match and even create market change*". In this conception, dynamic capabilities took the form of organisational processes. Eisenhardt and Martin (2000) extended the original definition of dynamic capabilities to include the creation of market exchange, as well as the response to exogenous change. In this regard, the literature

is clear that capabilities are processes; therefore, a dynamic capability is a process that impacts upon resources. Consequently, the literature on dynamic capability should be viewed as a complement to the RBV (Ambrosini & Bowman, 2009).

As is obvious from the above discussion, the RBV has come a long way over the past decade and a half. Originally formalised in 1991 as a rather static list of the ingredients for competitive advantage, it has evolved into a dynamic recipe explaining the process by which these ingredients must be utilised to attain this end. While it is now understood that it is no doubt necessary for a firm to possess valuable, rare, inimitable, non-substitutable resources and capabilities, it is also understood that such a condition is nonetheless insufficient. In addition to possessing these ingredients, firms seeking a competitive advantage must also demonstrate the ability to alter them in such a way that their full potential is realised (Newbert, 2007).

3.2.3 MARKETING THEORY RELATED TO RBV

While previous works on marketing theory related to RBV exist, Srivastava and colleagues (2001) argued that little attention has been devoted to the application of RBV as a frame of reference in analyzing marketing theories. They further highlighted the importance of the need for far more fine-grained analysis of the resource-competitive advantage connection, and contributed by devising a conceptual framework that integrates the RBV and marketing referring to market-based assets and capabilities in gaining competitive advantages. This market-based resource framework was intended to stimulate the attention

needed to examine the evolutionary interplay of market-based assets and capabilities and market-based performance (Dickson, 1996).

Although RBV has characterised the dominant strategic management literature for decades with increasing importance in marketing (Day, 2001; Hunt, 2000c; Powell, 2001; Priem & Butler, 2001a; Rouse & Daellenbach, 2002), recent leading works have not fully articulated the processes by which resources and capabilities are converted into competitive advantages and therefore have not provided a broad-based integration of marketing and RBV (Collis & Montgomery, 2008; Freeman & Cavusgil, 2007; Furrer et al., 2008). This study aims to provide an integration of the RBV into the INVs by exploring the resource and capability combinations in creating positional advantage leading to performance.

3.2.4 Association of RBV and Positional Advantage in International Markets

The RBV enables an understanding of the resources that underpin the alternative positional advantage that may be considered by a firm. Day and Wensley (1988) introduce, and Day (1994) elaborates upon, a potentially valuable framework. These authors suggest that an organisation's ...*"complex bundle of skills that are deeply embedded in organisational routines"* (Day, 1994:38) ...can lead to a positional advantage based upon innovative offerings and superior service. Firms that possess such an advantage should enjoy superior performance.

Central to contemporary strategic thinking is the notion that superior performance requires a business to gain and hold an advantage over competitors. Businesses seeking advantage

are exhorted to develop distinctive competences and manage for lowest delivered cost or differentiation through superior customer value. Despite Porter's (1985) suggestion that a firm must choose between a positional advantage based either on cost or differentiation, Hitt and colleagues (1997) argue that firms can implement an integrated strategy that can lead to both cost advantage and differentiation.

Although the resource-positional advantage-performance framework was developed in the domestic market context, it has been posited that the framework also holds in the international context for two reasons. First, the RBV is based on the assumption of heterogeneity among firms (Barney, 1991). The more heterogeneous the firms are that compete in the market, the more crucial resources and capabilities are to superior performance. In the international market, firms are typically more heterogeneous than firms in the domestic market because they are from different countries and cultures. As a result, resources and capabilities are crucial to superior performance in international markets. Second, an international firm's distinctive marketing capabilities are rooted in its employees' knowledge and skills (Hall, 1993), which are difficult for other international firms to match or imitate because the complex international environment makes it difficult and expensive to do so. Because the international market is ideally suited to meet the two core assumptions of the RBV, that is, resource heterogeneity and resource immobility (Barney, 1991), it offers a fertile field for the application of the RBV.

3.2.5 ASSOCIATION OF RBV AND IE

The RBV of the firm has become an influential perspective in international business research (Foss, 1999; Hitt et al., 2006; Peng, 2001; Westhead et al., 2001). Indeed, as the competitive world of firms has become highly dynamic due to the spread of globalisation and proliferation of information technologies, the RBV is well placed to deal with these changes (V. Sharma & Erramilli, 2004).

The recent interest in the topic of accelerated SMEs' internationalisation has revealed that the RBV has played an important role in the emergence of IE (McDougall & Oviatt, 2000) by solving a key puzzle: *how can some SMEs succeed abroad rapidly without going through different stages suggested by the gradual internationalisation theory?* The answer typically focuses on the tacit knowledge about global opportunities (Peng et al., 2000) and the equally superb capability to leverage such knowledge in a way not matched by competitors (Mitchell et al., 2000; Peng & York, 2001). The RBV logic suggest that *"precisely because it is difficult to obtain, a surplus of tacit knowledge on internationalisation is likely to provide the firm with a competitive advantage in foreign markets"* (Liesch & Knight, 1999:385).

Some recent RBV work has further challenged the gradual internationalisation model. Specifically, Autio, and colleagues (2000) demonstrated that firms following the prescription of the Uppsala model (Johanson & Vahlne, 1977), when eventually internationalising, must overcome substantial inertia because of their domestic orientation. In contrast, firms that internationalise earlier usually need to overcome fewer of these barriers. Therefore, SMEs without established domestic routines may outperform their

competitors who wait longer to internationalise. In other words, contrary to the inherent disadvantages in internationalisation associated with SMEs as suggested by the Uppsala model, there may be inherent advantages of being small when venturing abroad (Liesch & Knight, 1999).

Overall, the RBV literature on IE seems to be still in its infancy. However, the impact of this emerging literature, just like the impact of SMEs that it aims to capture, is increasingly being felt. As more and more SMEs venture abroad, it seems safe to predict that this literature will grow in a more sustainable way (Peng, 2001).

In this regard, the theoretical framework of this study is based on the RBV in the context of IE. As the RBV explains the competitiveness of a firm and its behaviour with reference to resources and capabilities (Collis, 1994; Kaleka, 2002), the present study mainly adopts the approach of RBV and examines how resources and capabilities of INVs form the basis to competitive strategy and positional advantage which leverage performance.

A high performance is the consequence of adequate knowledge and information acquired from organizational resources and its deployment to meet strategic goals (Hunt & Morgan, 1995). The premise in this study is that INVs depend on modelling the resources and capabilities available and on the overall direction provided in the firm's performance.

According to these perspectives, the present study, on the one hand, is consistent with the RBV and, on the other hand, it extends the RBV to INV literature by explaining how the resources and capabilities available to young international start-ups are integrated and shared in order to be associated with the competitive strategy choices to determine

positional advantage and performance. Thus, the main questions are how to model these resource and capability combinations relevant to INVs to create and maintain positional advantage and achieve superior performance.

3.3 CONCEPTUAL MODEL

Drawing upon the fundamental principles of the RBV theory in an international context, and looking for explaining positional advantage through a RBV of INVs the conceptual model proposed in this study is exhibited in Figure 3.1.

The seven key components of the model are: (1) resources, (2) capabilities, by which selected combinations of resources are developed and transformed to create value offerings. This is followed by strategic choices regarding how the venture will compete for target customers are leveraged through (3) competitive strategies, which are devised with the intent to achieve (4) positional advantage in selected markets with (5) performance implications (Morgan et al., 2004; Oliver, 1997; Sapienza et al., 2006; Teece et al., 1997).

Owing to the fact that INVs are exemplar highly entrepreneurial firms being able to adapt in the complex environments of globalisation, it is expected that they sustain an (6) EO that impacts on resources, capabilities, competitive strategy and performance (Knight, 2000; Wiklund & Shepherd, 2005b).

Resources and capabilities of INVs are considered antecedents of positional advantage. Therefore, the adequate resource and capability identification and sharing becomes crucial for the subsistence and performance of firms, especially in the highly uncertain

international markets. (7) Ambidextrous innovation strategy promotes integration across the company and encourages resources and capability identification and sharing by balancing exploration and exploitation activities (Cheng & Van de Ven, 1996; Han & Celly, 2008; He & Nie, 2008).

This investigation integrates some aspects of dynamic capability theory as a complement to the RBV. The integration of EO and ambidextrous innovation strategy in this study is an important factor to build upon this argument. In this regard, this study builds on the idea of organisational imprinting, the process by which events occurring at key developmental stages have persistent and possibly lifelong consequences (Hannan, 1998; Stinchcombe, 1965). The proposed argument lies in the fact that the earlier a firm internationalises, the more deeply imprinted its dynamic capability for exploiting opportunities in foreign markets will be. By exposing young firms to multiple and diverse exogenous and endogenous stimuli, such as competitive conditions and resource demands respectively, early exposure to internationalisation creates an internal imprint for adjustability to uncertain environments and an internal receptivity for continual change (Sapienza et al., 2006).

As Sekaran (2003) proposes, a model must be developed after conducting the exploratory interview, completing a literature review and determining the research problem, this researcher commenced data collection with an initial set of predetermined concepts derived from the conceptual model which will be linked to the research questions and objectives. The ellipses from Figure 3.1 represent both independent and dependent latent variables, while the arrows indicate the direction of the hypothesised association among the variables, that is, from predictor to outcome or consequence (Hoyle, 1995).

Consequently an empirical test of the conceptual model and hypotheses is provided in the following chapters to offer an insight into resource and capability combinations in creating positional advantage leading to performance.

3.3.1 Positional Advantage: A RBV of INVs

By explaining the key elements of the model, Figure 3.1 is an integrating effort to develop a comprehensive theoretical model of INVs' positional advantage. This effort is based on resource-based and path dependant mechanisms that shape the creation and development of positional advantage as a process (Eisenhardt & Martin, 2000; Jones & Coviello, 2005; VandeVen, 1992). This process includes identifiable stages and linkages between them, synthesized into a robust theoretical model of explaining positional advantage through a RBV of INVs.

The conceptual model is conceptualized at the same level as the RBV theory on which it draws. Assessing the relationships at this level of analysis required treating the variables in this model as higher order constructs (Kim et al., 2006; Matsuno & Mentzer, 2000; Morgan et al., 2004; Zou & Cavusgil, 2002), see Section 7.4.1.

Consistent with the RBV and dynamic capability theory as a complement to the RBV, the conceptual model indicates that both the resources and capabilities available have a direct effect on the INV's positional advantage in its target international market (Collis, 1995; Day & Wensley, 1988; Morgan et al., 2004).

Strategy matters most during times of change. As markets become more globally integrated and new forms of technology and competition arise, INVs cannot rest on their

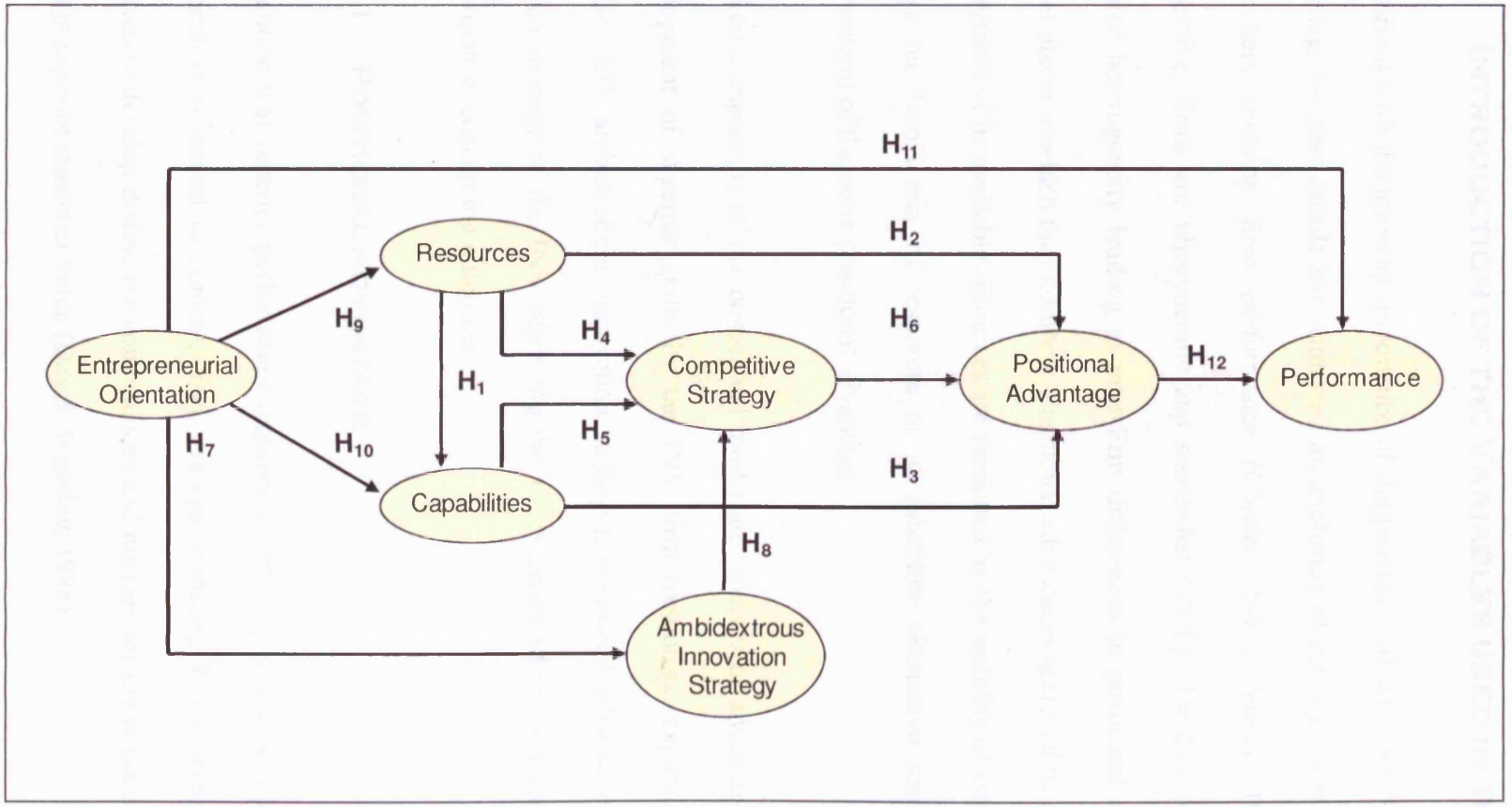
laurels. Firms must adapt and exploit the changes in their environment, while seeking opportunities to create change through strategic innovation managed by a competitive strategy. Creating, adapting to, and exploiting change is inherently entrepreneurial. But entrepreneurial activity of this sort does not imply a lack of strategy or organisation. Indeed, effective change often requires both. To survive and prosper under conditions of change, firms must develop dynamic perspectives to create, extend, and modify the ways in which they make their living (Day & Reibstein, 1997; Helfat et al., 2007).

In addition, the conceptual model suggests dynamism regarding a growing body of research based on EO for the conception, development, configuration and maintenance of dynamic perspectives in new ventures (Zahra, 2006) and the path dependant mechanisms to create and develop dynamic capabilities. In this respect, EO fertilises the model through four different constructs: resources, capabilities, ambidextrous innovation strategy and performance.

Moreover, the conceptual model suggests dynamism by enabling the firm to integrate, build and reconfigure internal and external competences to address rapidly changing environments (Day & Reibstein, 1997; Ghemawat & Pisano, 2001; Porter, 1991). Firms must strike a balance between exploration and exploitation to maintain their current position and a sustainable competitive advantage (Menguc & Seigyoung, 2008). The ability of a firm to advance appropriately and rapidly is based on a competitive strategy that allows firms to decide which paradoxical strategy can be executed to achieve superior performance. The relationship between ambidextrous innovation strategy and competitive strategy test this topic.

The conceptual model pictorially demonstrates the series of causal relationships of constructs under study. The hypothesised relationships in the model have been based on substantive theoretical arguments, current research thinking and directions from the literature reviewed as well as the suggestions from the exploratory interviews which have been reviewed in the preceding chapters and sections.

FIGURE 3.1. Conceptual Model



3.4 INTRODUCTION OF THE VARIABLES USED IN THE STUDY

Concurrent with the growing importance of the international activities of firms, including exporting, the past decade has witnessed an explosion of the interest in the RBV among researchers studying firm performance (Conner, 1991; Peteraf, 1993). From this perspective, firms are idiosyncratic and somewhat "sticky" bundles of resources, with resource heterogeneity leading to inter-firm differences in positional advantages in the market places in which they compete. Positional advantages achieved by a firm through the deployment of its available resources are sustained by the inability of competitors to either imitate the firm's mix of resources or to substitute alternative resources that allow achievement of the same positional advantage.

The key components of the conceptual model are: sources of advantage, concerning the development of superior skills by the INV firm (resources, capabilities, competitive strategy, EO, ambidextrous innovation strategy); positional advantage representing the realised strategy of the INV regarding the value delivered to overseas customers; and, performance, concerning outcomes.

3.4.1 POSITIONAL ADVANTAGE

The notion that superior performance requires a firm to gain and hold an advantage over competitors is central to contemporary strategic thinking. Firms seeking advantage are exhorted to develop distinctive competences and manage for lower costs or differentiation through superior customer value (Day & Wensley, 1988).

Along these lines, competitive advantage in the marketing and strategy literature alludes to positional superiority of the firm in the market or market segment in which it operates. This superiority is based upon delivering superior customer value and/or on achieving lower costs in comparison with competitors (Hooley & Greenley, 2005). In this regard, positional advantage in this study is conceptualised as a superior marketplace position that captures the provision of superior customer value and the achievement of lower relative costs (Day & Wensley, 1988).

The drivers of positional advantage are high leverage resources that do the most to lower costs or create value to customers. Each activity in a firm's value chain is influenced by the combined effect of these drivers. Cost drivers are the structural determinants of the cost of each activity that are largely under a firm's control. Cost drivers determine cost advantage. Cost advantage affects the perceived venture's value offering in the international market. On the other hand, drivers of differentiation represent the underlying reasons why and activity is executed in a unique or superior way. Drivers of differentiation determine differentiation advantage based on superior customer value (Day & Wensley, 1988).

In terms of the this study, the extant literature, together with a series of pre-study, exploratory interviews with export executives, suggested the relevance of the following types of positional advantage achieved in the international context. Regarding the perceived venture's value offering in the international market, *cost* advantage corresponds to the first type of positional advantage used in this study. Considering the differentiation advantage based on superior customer value, *promotion* advantage; and, *marketing product* advantage correspond to the second and third type of positional advantages used in this study.

Cost Advantage

When a firm intends to compete in the selected market by establishing a cost advantage, a variety of internal skills and resources are likely to be deployed in the achievement of this goal (Phillips et al., 1983). More specifically, pricing and communication capabilities may facilitate the adoption of a cost advantage in a particular international market, indicating lacunas in the fulfilment of customer needs for low-cost products. The possession of information related to doing business in the international market and the knowledge of the competitors, would lead to an effective response to competitor's pricing tactics. This superior quality in the channel relationships may be employed to achieve production cost reduction based on a cost leadership competitive strategy (Hill, 1988).

Promotion Advantage

Promotion advantage is based on the knowledge that occurs when the customer is familiar with the brand and holds some favourable, strong and unique brand association in memory. It includes the degree in which a particular brand is associated with the general product category, known as share of mind (Baker et al., 2005; Morgan et al., 2006). One of the best examples of brand association is when a consumer asks for a product by a specific brand rather that the general name, i.e. a person wanting facial tissue may ask for Kleenex.

Marketing Product Advantage

Marketing product advantage includes the product availability for customers and the product design and style. Availability is becoming an increasingly important issue for customers and is related to the delivery speed to customers. The reduction of lead times and ensuring availability of the product to the customers at the right time is an essential ingredient of marketing product advantage. This controlled supply of products is a result of

co-ordination of brand and its relationships between customer, marketing and production teams working efficiently to fulfill consumers' desires (Ritter & Walter, 2003).

Product design differentiates the venture value offering from those of competitors as it satisfies a broad array of requirements in a condition of balanced effectiveness. The design takes into consideration the particular manufacturing facilities, available materials, know-how, and economic resources of the manufacturer. The product should appear significant, effective, compatible with the culture, and appear to be worth more than the price (Calantone et al., 2006).

3.4.2 RESOURCES

The RBV literature highlights the importance of identifying specific resources that are valuable in a particular research context (Rouse & Daellenbach, 1999). Resources are the tangible and intangible entities available to the firm that enable it to produce efficiently and/or effectively a market offering that has value for some market segment or segments (Barney, 1991; Wernerfelt, 1984). Resources carry the potential of strengthening the competitive position of the firm (Barney, 1986; Hall, 1992). Resources, along with capabilities, should be defined and assessed relative to competitors (Collis, 1995; Collis & Montgomery, 2008). This is a critical task which implies comparison with the resources possessed by competitors. It should be noted, however, that making comparisons of this type is impeded by the difficulty in marinating objectivity in such a judgement, as well as by the inherent complexity of a number of resources. As a further step, firms would be

particularly interested in those resources that may lead to a sustainable competitive advantage (Barney, 1991; Grant, 1991; Wernerfelt, 1984).

Of primary interest of a firm is to identify those resources that may play an important role in shaping its competitive position. Resources which are valuable, rare, imperfectly imitable and non-substitutable (Barney, 1991; Collis, 1995; Peteraf, 1993) should be expected to sustain their value over time. Interesting is to notice that since the early work of Barney (1991) human resources was included in his resource categorisation and later this explanation was developed further by Barney and Delwyn (2007) arguing that a variety of firms have attempted to develop their human resources to provide sources of sustainable competitive advantage.

In their work Barney and Delwyn (2007) explained how human resources can create value in the firm. However value is a necessary but not sufficient criterion for competitive advantage. If the same characteristic of human resources is found in many competing firms, then that characteristic can not be a source of competitive advantage for any of them. Valuable, but common characteristics of human resources provide only competitive parity, ensuring that a firm is not at a substantial competitive disadvantage because it does not posses this characteristic. Thus, it is important to develop and exploit rare characteristics of the firm's human resources to gain competitive advantage. In this regard, Barney and Delwyn (2007) detailed how valuable and rare characteristics of a firm's human resources can provide above-normal profits for the firm in the short tem, however, if other firms imitate these characteristics, then over time the characteristics will provide no more than competitive parity. Therefore, the firm must attempt to develop and nurture characteristics of the firm's human resources that cannot easily be imitated by competitors

neither substituted. According to Quick (1992) maybe other firms could equal the cost, maybe other firms could equal the quality of the service and constitutes a great value, but the one thing they would find it impossible to equal very easily is the spirit of the people and the attitude they manifest toward customers. In other words, human resources serve as a source of sustained competitive advantage when they create value, are rare, virtually impossible to imitate and not substitutable.

Grant (1991) added to human resources, another two categories: financial and reputational. Lack of resources to finance international operations has frequently been identified as a critical problem which firms experience in their attempt to initiate internationalisation and/or maintain a global commitment (Leonidou et al., 2007). This may be so, as international engagement demands far more working capital and financial liquidity in comparison with domestic business operations (Reid, 1983). The reasoning supporting the relationship between financial resources and competitive advantage in the international markets is straightforward (Grant, 1995; Leonidou & Kaleka, 1998). Spare financial resource capacity provides the means for additional investments in personnel development and training, setting up distribution networks, creating raw materials reserves and establishing facilities that may be required for creating an attractive offering for the international market (Madsen et al., 2000). According to this perspective, financial resources are valuable and sometimes rare. However, they can be imitable and sometimes substitutable. Furthermore, recent studies of Song and colleagues (2008) based on previous work of Robinson and McDougall (2001) argue that the possession and deployment of financial resources can facilitate success in new ventures.

Reputational resources regard the public perception of the firm (Fombrun & Shanley, 1990). Therefore, they are associated positively with customer loyalty, market share, and sales (Dowling, 2006; Fernhaber & McDougall-Covin, 2009). According to Hall (1992), intangibles such as reputational resources are most likely to satisfy the conditions necessary to generate competitive advantage. Reputational resources are valuable, rare, inimitable and non substitutable. Because of this they serve as a source of sustained competitive advantage.

While INVs-related resources have not been discussed explicitly in the RBV literature, and based on the above discussion, this research focuses on *reputational*, *financial* and *human* resources.

Reputational Resources

Senior managers have only recently started to focus on brands as assets and on brand reputation as a major component of an organization's marketplace value (Knox, 2004). Strategic management theory suggests that favourable reputations can create a competitive advantage and affect corporate performance. Reputation takes the form of an intangible asset that is closely tied to the firm and available to use over the long term (Hall, 1992; Wernerfelt, 1984). Brand reputation is among the few remaining tools that firms can use for differentiation. A strong reputation offers the leading firm a valuable resource that it can continue to exploit to sustain its position in the market. Reputational resources enhance trust and confidence based on the credibility in the firm, leading individuals to feel safe in buying its products (Dowling, 2006).

Financial Resources

Financial resources regard to the availability of money in the form of cash, securities, creditors, loan facilities, etc possessed by a firm. Given the financial liquidity requirements international operations, financial resources include the level of financial resources available, access to capital, speed of acquiring and deploying financial resources and the size of the financial resources devoted for the venture (Leonidou & Kaleka, 1998; Morgan et al., 2006).

Human Resources

Most of corporate annual reports boldly state that the firm's people are its most important asset (Gomez-Mejia, 1988). Following numerous human resource scholars (Boxall & Steeneveld, 1999; Huselid et al., 1997; Lado & Wilson, 1994; Wright et al., 2001), firm's human resources are defined as all of the knowledge, experience, skill, and quality of a firm's employees (Barney & Delwyn, 2007). Human resources are intangible resources generating rents which are normally appropriated by both, the individual(s) associated with the deployment and collectively by the firm (Castanias & Helfat, 1991; Collis & Montgomery, 2008). Grant (1995) regards that human resources lead to competitive advantage.

Recognizing the fact that people are one of the firm's greatest assets, business leaders across the globe are coming to rely more upon effective processes to use human resources to formulate strategy. The knowledge, experience, skills and quality of the personnel are taken into account for strategy implementation (Morgan & Hughes, 2007).

3.4.3 CAPABILITIES

"Capabilities are complex bundles of skills and collective learning, exercised through organisational processes that ensure superior coordination of functional activities" (Day, 1994:38).

Capabilities differ from resources in that they cannot be given a monetary value, as can tangible plant and equipment. The reason for this is that capabilities are so deeply embedded in the organisational routines and practices that they cannot be traded or imitated easily (Collis, 1994). It is not an easy task to enumerate all possible capabilities, because every business develops its own configuration of capabilities that is rooted in the characteristics of the market, previous commitments and anticipated requirements. However certain types of capabilities can be recognised in INVs, corresponding to the core processes for creating value (Sapienza et al., 2006). These capabilities include: *distribution*, *service*, *pricing* and *communication*.

Distribution Capabilities

The configuration of INVs' routines to provide superior support to distributors and develop a close relationship in working with them, are known as distribution capabilities. Anderson and Coughlan (1987) and Lilien (1979) argue that differentiation advantages, such as branding, require a high degree of knowledge about customers. These requirements necessitate that INVs and distributors maintain a close relationship so that INVs could have a strong influence on distributors (Keegan, 1984) in terms of offering superior customer service.

International operation incurs various costs, including foreign market research, negotiation with distributors, shipping, tariffs and duties, and mandatory adaptation of product and promotion. In the absence of a strong relationship between an INV and its foreign distributors, the costs of international marketing are high because the potential opportunistic behaviour of foreign distributors increases the costs associated with contractual negotiation and enforcement. Improper adaptation of product and promotion due to lack of cooperation from distributors further increases the cost for an INV (Zou et al., 2003).

In contrast, if a close relationship exists between an INV and a distributor, trust and commitment in the international channel increase, and the potential opportunistic behaviour of both parties decreases (Morgan & Hunt, 1994). When trust and commitment are increased, the cost of negotiation declines. Therefore, product and promotion adaptations are more effective (Cavusgil & Zou, 1994).

Service Capabilities

Purchasing considerations pertaining to the service offerings can be extensively found in studies on the performance and service oriented capabilities. Although the importance of pricing and reliability has traditionally been reported in the literature on the purchasing decision criteria, there is a tendency in recent studies toward the use of service attributes as a crucial factor in the purchasing process (Wilson, 1994). Given the heightened attention to the importance of service-related attributes in marketing practice, the deployment of service capabilities in influencing the purchasing selection decision is both understandable and warranted (Katsikeas et al., 2004).

It should be noted that purchasing firms take into account multiple criteria in their supplier selection and evaluation decisions. Some decisions criteria are more important in comparison with others. For instance, while many purchase decisions rely on the product's price as a choice factor, a significant and increasing number of buying firms look beyond price to the impact of the purchase on their cost. A buyer may be willing to accept a higher price if the seller's capabilities (e.g., after sales service) can facilitate the reduction of the buyer's overall costs.

Communication Capabilities

The effective marketing communications management is considered a communication capability. In particular the literature has highlighted the important role of information regarding customers, competitors, channel members, and the broader market environment in the successful development and execution of marketing strategy (Jaworski & Kohli, 1993). Information sharing among parties in the relationship and feedback facilitates information processing about the market (Duncan & Moriarty, 1998). When the venture enhances the ability to gather competitor information, such as competitors' cost structures and competitive behaviours information, the venture can initiate effective cost-containment programs, which leads to low-cost advantage. In addition, the quality of the channel relationships, information related to doing business in this market reinforces the development of advantages (Zou et al., 2003).

Pricing Capabilities

Managers in firms without effective pricing processes may be unable to set prices that reflect the wishes of its customers or the adequate response to competitor's pricing tactics. As a result, resources may be used ineffectively. The customers and the firm may misuse their resources. Firms must invest in resources and routines to develop the ability to set the right prices. In this regard, pricing is a capability (Dutta et al., 2003).

From a resource-based view, a firm can enjoy a competitive advantage by "*implementing a value-creating strategy not simultaneously implemented by large numbers of other firms*" (Barney, 1991:107). Firms can, for example, create value by combining and developing resources in ways that improve products or that lower costs (Peteraf, 1993). Even when a firm has created value, however, it might not generate economic rents. In addition to creating value, a firm must also set the right prices to capture the potential rents. Pricing is an important means by which a firm appropriates value through market-based exchange. If a firm sets prices too low, it may cede some of the value created to the customer. In contrast, if the firm sets prices too high, then the quantity sold will be too low. A firm's ability to set the right prices is an important means of appropriating value and therefore an important determinant of the ability of a firm to generate rents.

Very little literature, however, has directly addressed the process by which firms set or change prices (Rao et al., 2000; Rao, 1984). Some recent research, however, indicates that the price-setting process may be sufficiently complex to merit attention. Following the resource-based view, these processes for setting or changing prices are capabilities that a firm can use as a basis for competitive advantage (Wernerfelt, 1984; Peteraf, 1993; Teece, Pisano, and Shuen, 1997). Given that a firm has created value, it is not a foregone

conclusion that the firm will capture that added value by setting the right prices. Rather, firms must develop that ability in its pricing processes. Further, these processes are imperfectly imitable because of time decompression diseconomies (Dierickx and Cool, 1989). A firm cannot simply purchase the systems and skills required for pricing effectively. Instead, a firm must tailor and develop its pricing systems and processes to meet both its own and its customers' requirements.

Firms that respond quickly to market changes have inherent competitive advantage because "*heterogeneity in supply is always changing*" (Dickson, 1992:71). The quick response to competitor's pricing tactics and customer needs may offer firms strong motivation to find ways to reduce costs without affecting the quality of the output. In this regard, pricing capabilities is the effective use and managing of pricing skills and tactics to meet competitor challenges and customer changes in the market.

Central to any pricing decision in INVs, this study takes into account responding quickly to competitors' pricing tactics and customers' changes. These processes are supported by communicating pricing structures and levels to customers.

3.4.4 COMPETITIVE STRATEGY

A firm can outperform its rivals only if it can establish a difference that it can preserve. It must deliver greater value to customers or create comparable value at a lower cost (Porter, 1980). Previous studies on export venture performance have identified competitive strategy as an antecedent of positional advantage (Morgan et al., 2004). However, competitive strategy is not automatically linked to positional advantage, only when superior resources

and/or its deployment into capabilities are mediated jointly by strategic choices. Therefore, competitive strategy leads to positional advantage when competitive strategy comes from the accurate identification of the handful of resources that have the greatest leverage on position and performance (Hunt, 2000b; Spanos & Lioukas, 2001).

Much of the understanding of competitive strategy can be traced to Porter's seminal low-cost-differentiation-focus framework. Recently, however, there have been key developments that evoke a re-conceptualisation of the Porter-based perspective on competitive strategy.

The pace and intensity of change in the global business environment have become much more pronounced during the past two decades. As a result, speed understood as the response time to competitors and customers, has become more valuable as a competitive weapon. In addition, the Internet has minimised the importance of physical boundaries and distance, and can enable firms to serve larger markets more efficiently (Parnell, 2006).

A key concern of business strategy is the link between the competitive strategy adopted by an organisation and its performance. According to Porter, a business can maximise performance either by striving to be the low cost producer in an industry or by differentiation its line of products or services from those of other businesses; either of these two approaches can be accompanied by a focus of organisational efforts on a given segment of the market. Further, a business attempting to combine emphasis on low costs and differentiation invariably will end up "*stuck in the middle*" (Porter, 1980:41). This notion of incompatible strategies received considerable early support (Dess & Davis, 1984; Hambrick, 1981, 1982; Hawes & Crittendon, 1984). However, later studies challenged it

by proposing to combine low cost and differentiation strategies (Buzzel & Gale, 1987; Buzzel & Wiersema, 1981; Hall, 1983; Hill, 1988; Murray, 1988; Parnell, 1997; Phillips et al., 1983; Proff, 2000; White, 1986; Wright, 1987). Whereas Porter contends that the assumptions associated with low costs and differentiation are incompatible, those in the "combination strategy school" have argued that businesses successfully combining low costs and differentiation may create synergies that overcome any tradeoffs that may be associated with the combination.

Proponents of the combination strategy approach, base their arguments not only on a broad economic relationship but also on anecdotal evidence demonstrating how individual firms have identified such relationships unique to one or a small group of firms in an industry. Competitive strategies include: *delivery differentiation*, *marketing differentiation*, and *cost leadership*.

Delivery Differentiation

Since the paper by Stalk and Hout (1990) on time-based competition, there has been extensive research on the effects of customer responsiveness as a strategic competitive weapon. Since the late 1980s, a large volume of literature has recognised that customer demand increases with lower delivery times as well as with lower prices (So, 2000). Karmarkar (1993) pointed out that lead times are most probably inversely related to market shares or price premiums or both. So and Song (1998) noted that shorter delivery times can allow a price premium. Also, customers may be willing to pay a price premium for shorter

delivery times. The length of the delivery time is a decision variable that directly affects overall demand and a reliability constraint is used to ensure a satisfactory service level once the delivery time is selected (Ray & Jewkes, 2004).

Marketing Differentiation

Marketing differentiation works to deliver greater exchange value through branding, advertising, and other unique marketing techniques. Marketing and customer-linking skills are more relevant for marketing differentiation strategies (Day, 1994). In this regard, marketing differentiation strategies provides uniqueness and points of difference through communication to build awareness, as well as with new and differentiated product offerings (Menguc et al., 2007).

Cost Leadership

Cost leadership focus on minimising cost by being the lowest provider in the market. In order to provide customers with lower prices than competitors, some companies experience control in expenses such as selling and promotion (Hill, 1988).

3.4.5 ENTREPRENEURIAL ORIENTATION

The conceptualisation of EO has been the focus of systematic inquiry in the literature (Covin et al., 2006). In this regard, there is no general accepted definition of EO (Lyon et al., 2000). The conceptualisation of EO depends on the purpose of the research at hand

(Jantunen et al., 2005). In this study, EO refers to the process, practices, and decision-making activities that lead to new entry. Thus, it involves the intentions and actions of key players functioning in a dynamic generative process aimed at new creation. The key dimensions that characterise an EO include a propensity to act *autonomously*, the willingness to *take risks* and a tendency to be *proactive* relative to marketplace opportunities (Lumpkin & Dess, 1996). The extent to which each of these dimensions is useful for predicting the nature and success of a new undertaking may be contingent on external factors. Small young firms, such as INVs, might exhibit dependency on risk-taking, more than older and larger firms to achieve improved performance (Wiklund & Shepherd, 2005b). In addition, taking an initiative by anticipating and pursuing new opportunities with a proactive attitude in an autonomous way facilitates INVs to establish themselves in a global marketplace (Mathews & Zander, 2007).

Autonomy

Autonomy refers to the freedom guaranteed to individuals and teams in an organisation to exercise their creativity developing promising ideas. Thus, an important impetus for new-entry activity is the independent spirit necessary to further new ventures (Brock, 2003; Lumpkin et al., 2009).

Proactiveness

Economics scholars since Schumpeter (1934) have emphasized the importance of initiative in the entrepreneurial process. Several authors have emphasised the importance of first-

mover advantage as one of the best strategies for capitalising on a market opportunity (Lieberman & Montgomery, 1988). By exploiting asymmetries in the marketplace, the first-mover can capture unusually high profits and get a head start on establishing brand recognition. Thus, taking initiative by anticipating and pursuing new opportunities is often referred as proactiveness (Lumpkin & Dess, 1996).

Risk Taking

Risk taking denotes the willingness to make investments in projects that have uncertain outcomes or unusually high profits and losses (Lumpkin & Dess, 1996). Risk taking is an important dimension of EO as entrepreneurial firms tends to experience a higher level of external and internal uncertainty (Wang, 2008).

3.4.6 AMBIDEXTROUS INNOVATION STRATEGY

To be ambidextrous, firms have to reconcile internal tensions and conflicting demands in their task environments. Whereas earlier studies often regarded these trade-offs insuperable, more recent research has presented a range of organisational solutions to support ambidexterity (Raisch & Birkinshaw, 2008).

Whereas Duncan (1976) was one of the first to use the term ambidexterity, it is March's (1991) landmark article that has frequently been cited as the catalyst for the current interest in the concept. March proposes that *exploitation* and *exploration* are two fundamentally different activities between which firms divide their attention and resources. Whereas

exploitation is associated with activities such as "*refinement, efficiency, selection, and implementation*", exploration refers to notions such as "*search, variation, experimentation and discovery*" (March, 1991:102). Exploitation and exploration may require therefore fundamentally different organisational structures, strategies and contexts.

Several scholars maintain that there is a trade-off between aligning the organisation to exploit existing competencies and exploring new ones (Ancona et al., 2001). Earlier research had often claimed that strategy practices that simultaneously address efficient exploitation and effective exploration may be impossible to achieve (McGill et al., 1992). Much of contemporary management theory had thus presented strategy in terms of discrete, contrasting categories, forcing firms to focus on either exploitation or exploration (Ghemawat & Ricart i Costa, 1993). In his 1991 article, March conversely argues that organisations need to be aligned to both exploitation and exploration. A one sided focus on exploitation may enhance short-term performance, but can result in a competency trap because firms may not be able to respond adequately to environmental changes and will suffer from obsolescence (Leonard-Barton, 1992). Conversely, too much exploration may enhance a firm's ability to renew its knowledge base but can trap firms in an endless cycle of search and unrewarding change (Volberda & Lewin, 2003). Levinthal and March (1993) conclude that survival and success depend on a firm's ability to engage in enough exploitation to ensure the firm's current viability and to engage in exploration to ensure future viability.

In addition, it is important to consider that the challenges of the internationalisation process cause firms to seek an alternative route to increased performance. Tushman and O'Reilly (1996) suggest that firms capable of simultaneously pursuing exploration and exploitation

are more likely to achieve superior performance than firms emphasizing one at the expense of the other. As mentioned in section 1.6, the present investigation focuses ambidexterity on the context of technological innovation based on the way how firms commercialize new technological knowledge and ideas into new products or processes (He & Wong, 2004).

Exploitation

Early literature of exploitation argues that exploitative activities are those that build upon existing products and technologies and are efforts to seek competitive advantage through technical enhancements or cost advantages. Exploitation requires the efficiency and consistent implementation that common understandings facilitate (Levinthal, 1997). Exploitation involves incremental innovation, implementation, refinement, based on routines and efficiency (Beckman, 2006). This study refers to an exploitative innovation dimension to denote technological innovation activities aimed at improving existing product-market positions (He & Wong, 2004).

Exploration

Espoused by Aldrich (1999) explorative activities include efforts to win a technology race in a new niche or gain competitive advantage by introducing new generations of products, extending product range and entering into new technology fields. Exploration involves radical innovation, creating new markets and product, experimentation, broad search and discovery (Katila & Ahuja, 2002; Miner et al., 2001). This study refers to an explorative

innovation dimension to denote technological innovation activities aimed at entering new product-market domains (He & Wong, 2004).

3.4.7 PERFORMANCE

A sizeable body of IB research is devoted to building knowledge about the determinants of performance. Most of the studies do not measure performance in a manner that captures the multifaceted nature of the construct. However, there is a consensus in the IB field regarding the multidimensional nature of the performance construct (Ariño, 2003).

While some studies use multiple measures of performance (Francis & Collins-Dodd, 2000; Lu & Beamish, 2001b; Luo, Shenkar, & Nyaw, 2001), these studies often use multiple measures sampled from the same conceptual performance domain, for example, multiple financial performance measures. Thus, rather than examining measures from across the three performance categories (effectiveness, efficiency and adaptiveness), they provide a narrow perspective of antecedents on performance elements. In order to create a multidimensional approach, and supported by recent IB literature (Hult et al., 2008), three measures of performance have been suggested in this study: *effectiveness*, *efficiency* and *adaptiveness*.

Effectiveness

Effectiveness regards the degree to which the desired organisational goals are achieved. Effectiveness is the success of a venture's product and programs in relation to those of its competitors in the market (Vorhies & Morgan, 2003). Effectiveness is a way to measure

operational performance as it includes market outcomes, such as market share (Hult et al., 2008).

Efficiency

Efficiency regards the ratio of organisational resource inputs consumed to goal outcomes achieved (Vorhies & Morgan, 2003). Efficiency can be measured as financial performance indicated by ratios such as return on investment, return on sales and profit margin (Hult et al., 2008).

Adaptiveness

Adaptiveness regards the adequate response over time to changing conditions and opportunities in the environment. Adaptiveness includes data related to new venture products such as the number, revenue and time to market. It also includes the response to competitors product changes in the market (Walker & Ruekert, 1987).

3.5 RELATIONSHIP BETWEEN RESOURCES AND CAPABILITIES

Concurrent with the growing importance of the international activities of firms, including exporting, the past decade has witnessed an explosion of the interest in the RBV among researchers studying firm performance (Conner, 1991; Peteraf, 1993). From this perspective, firms are idiosyncratic and somewhat "sticky" bundles of resources, with resource heterogeneity leading to inter-firm differences in positional advantages in the market places in which they compete.

Research on resources is voluminous. Firm resources were viewed as the factors of production, that is, tangibles such as land, labour, and capital. However, Penrose (1959) consciously avoided the term 'factors of production' and viewed the firm as a collection of productive resources; therefore, her work introduced the notion of intangibles into the context of firm resources.

Additionally, recent theoretical contributions distinguish between capabilities and resources available to the firm (Grant, 1996; Helfat et al., 2007; Makadok, 2001; Teece et al., 1997). A resource in the broadest sense is anything upon which an organisation can draw in an effort to accomplish its aims. In a narrower sense, a resource is a tangible, intangible, or human asset upon which an organisation can draw. Capability refers to the capacity to perform a particular task, function or activity. Capabilities, unlike resources, capture the process domain of deployment (Hughes et al., 2007; Madhavaram & Hunt, 2008). According to Slotegraff and colleagues (2003:296), *"deployment occurs when resources are put into action"*.

In the context of this study, resources are the firms' tangible or intangible controlled assets that constitute the raw materials available to the INVs. Capabilities are organisational processes of the INV by which available resources are developed, combined, and transformed into value offerings for the international market (Amit & Schoemaker, 1993; Day, 1994; Helfat et al., 2007). In the INVs literature this process is present at a much faster rate. Firms entering foreign markets step-by-step can adjust their resources and capabilities gradually, whereas INVs need to respond very fast to opportunities in the global marketplace. Rapid globalization is expected to put extremely high pressure on deploying key resources for a faster, deeper, and more expansive global commitment.

INVs, often have limited resources and capabilities that are required for global expansion, and therefore need to ensure sufficient and superior capabilities to be able to support the rapid growth requirements (Gabrielsson et al., 2004).

Scholars historically have used 'resources' as a general term to refer to inputs into organisational processes, but within INVs, strategic resources are the focus (Amit & Schoemaker, 1993; Barney, 1991). A strategic resource meets certain criteria: it is valuable, such that it reduces costs or increases value to customers, rare enough and difficult to imitate or substitute. Resources identified in the literature as potentially strategic include, reputational (Fernhaber & McDougall-Covin, 2009; Morgan et al., 2006), financial (Leonidou & Kaleka, 1998; Morgan et al., 2006) and human (Gomez-Mejia, 1988; Morgan et al., 2006).

Performance is substantially determined by the strategic resources the firm possesses and by the strategic capabilities that can be derived from them. The application of these internal resources and capabilities to an external context of markets and competition is a critical factor contributing to the success of the INV firm. Therefore, the resources and capabilities depend on each other and develop over time (Grobler, 2007).

The relationship between resources and capabilities is a primary object of interest in strategy development following the RBV (Grant, 1995). While capabilities are built upon the effective combination of one or more resources, resources in turn might be important for more than one capability to come into existence (Grobler, 2007). Consequently, the exploratory interviews along with the literature reviewed, provided a strong indication that the possession of strategic resources were often at the root of the deployment of strategic

capabilities for INVs. The term *strategic* referred to resources and capabilities denotes that they are valuable, rare, inimitable and non substitutable. In the context of this study and to simplify the terms, strategic resources and strategic capabilities in the hypotheses and in the respective construct will be termed as resources and capabilities. As a result, it is possible to articulate the following hypothesis:

H1: ***The possession of resources is positively related to the deployment of capabilities in INVs.***

3.6 RELATIONSHIP AMONG RESOURCES, CAPABILITIES AND POSITIONAL ADVANTAGE

While capabilities are assembled by the effective mix of resources, there is literature suggesting that some resources can be strategic in nature without being linked to one or more capabilities. Therefore, a firm can possess resources that are not related to a capability. This usually is the case when sheer possession of a resource makes the difference in competition or when resource directly translates into a positional advantage of the organisation (Grobler, 2007). On this basis, it is possible to hypothesis the following:

H2: ***The possession of resources is positively related to the positional advantage achieved in the international market where the INV firm competes.***

The RBV emphasizes resources and capabilities as central to understanding a firm's performance (Morgan et al., 2006). Additionally, the RBV is based on the assumption of heterogeneity among firms. The more heterogeneous the firms are that compete in the

market, the more crucial capabilities are to superior performance (Barney, 1991; Makadok, 2001; Teece et al., 1997). From this perspective, managers select from available firm-specific resources and capabilities and transform them to achieve positional advantage in the market (Barney, 1991; Grant, 1991). This idea was developed in the domestic market context. However, firms competing over international markets are typically more heterogeneous than firms in the domestic market because they are from different countries or cultures. As a result, capabilities are crucial to achieve a positional advantage in the international market (Morgan et al., 2004; Zou et al., 2003).

Consequently, a driver of positional advantage is the high leverage resources combined and deployed into distinctive capabilities to achieve positional advantage (He & Nie, 2008). In this regard, the following hypothesis can therefore be advanced:

*H3: **The possession of capabilities is positively related to the positional advantage achieved in the international market where the INV firm competes.***

3.7 Relationship among Resources, Capabilities, Competitive Strategy and Positional Advantage

Strategy is a contested concept. The generic literature is characterised by a diverse range of competing theories and alternative perspectives. Traditional models of competitive strategy have tended to focus on exogenous factors (Porter, 1980). In contrast, the RBV of strategic management emphasises the importance of endogenous factors (Penrose, 1959). With the relationship among resources, capabilities, competitive strategy and positional advantage,

this study integrates insights from the two theories, and is reinforced with the dynamics capabilities explained in sections 3.7 and 3.8.

Competitive strategies are planned patterns of resource and capability deployments that support choices about how the venture will compete for target customers and achieve its desired goals (Aulakh et al., 2000). The link of competitive strategy with the RBV is documented in the literature, where studies such as Furrer and colleagues (2008) explore the resource configurations, generic strategies and firm performance. In addition, Collis and Montgomery (2008:142) note that the RBV "*inextricably links a company's internal capabilities (what it does well) and its external environment (what the market demands and what competitors offer)*".

Positional advantage can be conceptualized as a superior marketplace position that captures the provision of superior customer value and the achievement of lower relative costs (Day & Wensley, 1988). The argument is based on the idea that resources and capabilities can be structural drivers of positional advantages such as low cost and differentiation. Although Porter (1985) suggests that a firm must choose between a cost advantage positioning and a differentiation positioning, Hitt and colleagues (1997) argue that firms can, and in some circumstances must, implement an integrated strategy that can lead to both cost advantage and differentiation. The simultaneous achievements of cost advantage and differentiation have been empirically supported in the United States (White, 1986) and in emerging countries (Aulakh et al., 2000).

Competitive strategies are devised with the intent to achieve advantage positions in selected markets (Day, 1984; Hamel & Prahalad, 1994). Capabilities and resources do not

automatically give an advantage to the firm; they only provide an opportunity to leverage its skills and resources to achieve advantages through cost and/or differentiation (Axinn & Matthyssens, 2002). Therefore, competitive strategy emerges as the critical factor that could effectuate this leveraging (Parnell, 2006).

In this regard, firms develop their strategies internally using resources and capabilities. Competitive strategies should enable firms to occupy certain positional advantages whether through differentiation and/or cost leadership (Aulakh et al., 2000; Hitt et al., 1997; Porter, 1980; White, 1986). Thus, competitive strategies function by showing customers (external constituents) what the firm has to offer in terms of its resources and capabilities (internal strengths) (Hunt & Morgan, 1995).

Consequently, competitive strategy indirectly affects the relationship among resources, capabilities and its positional advantage by determining how well resources and capabilities are matched with market requirements (Menguc et al., 2007; Morgan et al., 2004); the appropriateness of planned resource and capabilities (Zou et al., 2003); and, the quality of strategy implementation (Morgan et al., 2006).

Firms sustain an advantage if rivals are unable to acquire and deploy a similar or substitute mix of resources and capabilities (Dierickx & Cool, 1989; Hall, 1993; Hughes & Morgan, 2007; Oliver, 1997). As a result, the theoretical model postulates that both the combinations of available resources and capabilities to be deployed in the international market and the strategic choices regarding how the venture will compete for target customers through the competitive strategy, are associated with positional advantages achieved by the venture.

From this perspective, INV managers deploy available firm specific resources and capabilities to form the basis to competitive strategy that impact positional advantage in the international market (Barney, 1991; Carbonell & Rodriguez, 2006; Hult & Ketchen, 2001; Morgan et al., 2004; Roth & Morrison, 1992).

Furthermore, the fieldwork interviews were strongly suggestive of a positive relationship between competitive strategy and positional advantage in the international market. It was consistently understood amongst managers that INVs systematically pursuing an overall cost leadership or differentiation strategy achieve a privileged market position, in comparison with firms that do not have a clearly stated competitive strategy. Therefore, it is possible to advance the following hypotheses:

H4: ***The possession of resources forms the basis to competitive strategy pursued by the INV firm.***

H5: ***The possession of capabilities forms the basis to competitive strategy pursued by the INV firm.***

H6: ***The competitive strategy pursued by the INV firm is positively related to the positional advantage achieved in the international market where the INV firm competes.***

3.8 RELATIONSHIP AMONG EO, AMBIDEXTROUS INNOVATION STRATEGY AND COMPETITIVE STRATEGY

3.8.1 EO AND INVS

The appearance of INVs and the phenomenon of accelerated internationalisation start with entrepreneurial initiative and the process underlying the firm's entry into the global business arena. Starting with the proactive strategising that underlines the recognition of new business opportunities, with autonomy absorbing the risk involved, these firms are appearing to exploit new opportunities created by globalisation (Mathews & Zander, 2007).

Based on the discussion in the literature review, prior studies have tried to incorporate the EO literature on INVs (Rasmussan et al., 2001). Some studies underline the influence of EO on INVs by combining entrepreneurship and the marketing paradigm in order to evaluate the behaviour and performance of SMEs affected by relevant globalisation effects (Knight, 2000). On the other hand, recent literature has focused on the overestimated role of strategic orientations, including EO, for international performance in smaller firms (Frishammar & Andersson, 2009).

EO can be conceptualized as a firm's strategic orientation and refers to the decision-making activities, processes, and practices that lead to new market entry (Lumpkin & Dess, 1996). The notion of EO suggests that some firms are more willing than others to continually search for opportunities and solutions outside the realm of their current activities (Lumpkin & Dess, 1996; McDougall et al., 1994). Decisions with regard to international expansion imply a high level of uncertainty as the firms enter physically or culturally distant markets

or become more dependent on revenues generated in markets different from the more familiar domestic market (Calof & Viviers, 1995). In an international context, there are several studies which support the role of entrepreneurial behaviour which in general identify EO as the key driver for strategic initiatives intended to enhance organizational performance (Knight, 2001).

Since firms high in EO are willing to undertake *risky* decisions, they may more readily accept the uncertainty embedded in further increasing cross-border activity (Lumpkin & Dess, 1996; Miller, 1983). Furthermore, the perceived uncertainty in foreign markets may be overcome by the constant seeking for new opportunities.

Therefore, when a firm *proactively* reflects the inertia for exploiting emerging opportunities, experimenting with change and mobilizing first-mover actions, a firm may overcome the uncertainty that arises when increasing the intensity of its activities in that market (Morgan & Strong, 2003). Firms high in EO are in a better position to take advantage of additional foreign opportunities. *Autonomy* enables opportunity seeking (Lumpkin et al., 2009) by affording organisational members the freedom and flexibility to develop and enact entrepreneurial initiatives (Ireland et al., 2003). In the context of EO, autonomy is essential to the process of leveraging a firm's existing strengths, identifying opportunities that are beyond the organisation's current capabilities, and encouraging the development of new ventures (Kanter et al., 1990). Similarly, the degree of *innovative* activity may also increase the firm's potential to leverage its existing capabilities by increasing the intensity of its activities in current foreign markets or by entering new foreign markets (De Clerq et al., 2005; Wiklund & Shepherd, 2003).

In this regard, different combinations of the dimensions of EO may occur depending on the context and type of entrepreneurial activity pursued (Lumpkin & Dess, 1996).

3.8.2 AMBIDEXTERITY IN THE CONTEXT OF INNOVATION STRATEGY

As internationalisation is inevitable and has become increasingly important in the survival and performance of firms, questions still remain as to which optimal strategies will achieve superior performance in internationalisation (Han, 2007). Recent trends show that the central concern of corporate strategy has to do with making choices about how much to invest in different types of activities. In this regard, two broad types of activities between which firms divide attention and resources have been proposed in the literature: exploration and exploitation. Exploration implies firm behaviours characterised by search, discovery, experimentation and risk taking, while exploitation implies firm behaviours characterised by refinement, implementation, efficiency, production and selection (Cheng & Van de Ven, 1996).

Prior research suggests that firms are more likely to develop a natural tendency to focus on either exploitation or exploration, but not both. Henderson and Clark refer to this tendency as the *"competency trap"* (1990:29), Weick refers to it as a *"key dilemma facing organisations"* (1995:386), while for Levinthal and March it is a *"basic unresolved problem"* (1993:105).

While the conceptual distinction between exploration and exploitation and their implications for strategy and structure have been intensively studied, there has been little

empirical investigation of the association between the two. Notwithstanding, the ambidexterity premise suggested by O'Reilly and Tushman (2004) arguing that firms need to achieve balance between the two in order to influence performance, it has generated little empirical evidence in the literature. Recently, scholars have examined ambidexterity in various contexts such as with performance in SMEs (Lubatkin et al., 2006). Also in the context of internationalisation, managing across national boundaries and retaining local flexibility while achieving global integration (Bartlett & Ghoshal, 2002) as well as examining whether ambidexterity can likewise help firms to achieve superior performance in internationalisation is central (Han, 2007).

Moreover, dynamic capabilities foster congruence between the firm's strategy and the changing business environment. Dynamic capabilities enable a firm to alter its capability base through the integration, adaptation, reconfiguration, gaining, and shedding of resources to generate new value-creating strategies (Teece et al., 1997). More pertinent to this discussion, dynamic capabilities have been linked to discussions of balancing strategic exploitation and exploration (Benner & Tushman, 2003). For example, Brown and Eisenhardt (1998) proposed that dynamic capabilities can enable a firm to rhythmically switch between exploratory and exploitive organizational strategies. In this regard, recent literature has identified ambidexterity as a dynamic capability based on the argument that it is the firm's ability that enables a firm to adapt over time by simultaneously exploring new market opportunities and exploiting existing markets (O'Reilly & Tushman, 2008).

In recent years, ambidexterity has been addressed in the context of technological innovation. Therefore, this study proposes to test the ambidexterity in this particular

context. Technological innovation focuses on how firms commercialize new technological knowledge and ideas into new products or processes, see Section 1.6.

While various typologies of innovation strategy have been used in the existing innovation management literature, none has been explicitly grounded in the exploration versus exploitation construct. For example, Zahra and Das (1993) summarized the four most commonly used typologies of innovation strategy as: (1) pioneer versus follower posture; (2) product versus process innovation (or both); (3) the intensity of investment in innovation; and (4) the sources of innovation (internal versus external, or both). None of these draws directly on the exploration versus exploitation distinction. Henderson (1999) classified innovation strategies into proprietary versus standards-based strategies, and suggested that the former may be more related to exploration, while the latter may be more related to exploitation, but did not pursue the relationship further.

He and Wong's (2004) approach of balancing exploration and exploitation provides direct empirical evidence on how firms prioritize their resources and capabilities for technological innovation. The explorative innovation dimension denotes innovation activities aimed at entering new product-market domains while the exploitative innovation dimension focuses on innovation activities aimed at improving existing product-market positions. Their findings suggest the need for firms to manage the tension between exploration and exploitation on a continuous basis. For example, through the development of synthesizing capability to create positional advantage out of conflicting forces as advocated by Nonaka and Toyama (2002).

3.8.3 RELATIONSHIP BETWEEN EO AND AMBIDEXTROUS INNOVATION STRATEGY

Exploration and exploitation are fundamentally different logics that create tensions. They compete for firms' scarce resources, resulting in the need for firms to manage the trade-offs between the two. However, there is a synergistic effect between the two as well, and hence there is a need for firms to manage the balance between the two. In this regard, March (1991) also suggested that maintaining an appropriate balance between exploration and exploitation is critical for firm survival and prosperity. As argued by Levinthal and March (1993:105), *"the basic problem confronting an organization is to engage in sufficient exploitation to ensure its current viability and, at the same time, to devote enough energy to exploration to ensure its future viability"*.

Owing to the fact that firms with EO creatively discover and exploit opportunities in the pursuit of competitive advantage (Morgan & Hughes, 2007; Wiklund & Shepherd, 2005b), they continuously need to exploit existing opportunities by deploying their resources and capabilities, as well as exploring new opportunities in the market. In this regard, there is evidence in the literature that EO is related with the firms capability of operating simultaneously explore and exploit strategies to achieve superior performance.

Recently, scholars have examined ambidexterity in various contexts such as ambidexterity and performance in SMEs (Lubatkin et al., 2006) and the interplay of exploration and exploitation (Gupta et al., 2006), and in the context of internationalisation (Bartlett & Ghoshal, 2002; Han, 2007). Ambidexterity does not guarantee success, however it increases the possibility of being able to shape the evolution of the firm (O'Reilly & Tushman, 2004; Tushman, 1997).

While a firm's ability to jointly pursue both an exploitative and exploratory orientation has been positioned as having positive performance effects, little is currently known about the antecedents and consequences of such ambidexterity in INVs (Lubatkin et al., 2006). To that end, this group of hypotheses focuses on the pivotal role of EO triggering the process of ambidextrous innovation strategy, which is essential to attaining competitive strategy in INVs.

Drawing on the newly formed concept of strategic ambidexterity, the present study proposes that EO is an antecedent of ambidextrous innovation strategy in INVs. On this basis it is possible to hypothesise the following:

H7: EO is positively related to ambidextrous innovation strategy in INV firms.

3.8.4 Relationship between Ambidextrous Innovation Strategy and Competitive Strategy

Increasingly INVs compete for the same resources as multinationals locally and internationally right from their very inception (Lu & Beamish, 2001b). Therefore, building ambidextrous strategy, right from the time of their inception, may help those firms to compete more effectively. Moreover, firms that pursue strategic ambidexterity in their internationalization effort achieve above-average internationalization performance in the short term and achieve above-average firm-level performance in the long term. Strategic ambidexterity enables a firm to carry out inherently paradoxical strategies that embody and manifest strategic objectives. Exploration and exploitation are paradoxical because of being fundamentally different logics that create tensions. They compete for firms' scarce

resources, resulting in the need for firms to manage the trade-offs between the two. However, there is a synergistic effect between the two as well, and hence there is a need for firms to manage the balance between the two (Han, 2007).

The competitive environment evolves in a dynamic process (Day & Reibstein, 1997; Ghemawat & Pisano, 2001; Porter, 1991). High velocity environments facilitate fast strategic decisions. Combining and recombining resources to deploy capabilities is a dynamic, interactive process (Eisenhardt, 1989b). The ability of a firm to progress rapidly and appropriately is based on a competitive strategy that allows firms to decide which paradoxical strategy can be executed to achieve superior performance. The world of globalization and technological change where INVs compete requires dynamic strategic decisions to adapt continuously. With an ambidextrous strategy the firm is capable of externally exploring and internally exploiting the findings in a balanced way (Han, 2007; Helfat et al., 2007). From this perspective, this study argues that ambidexterity enables the firm to integrate, build and reconfigure internal and external competences to address rapidly changing environments. In consequence, it is possible to state the following hypothesis:

H8: Ambidextrous innovation strategy is positively related to competitive strategy.

3.9 RELATIONSHIP AMONG EO, RESOURCES AND CAPABILITIES

Entrepreneurial companies with EO create, define, discover, and exploit opportunities frequently well ahead of their rivals (Hamel & Prahalad, 1994; Miller, 1983). One source of these differences lies in these firms' developing and applying different resources and capabilities (Zahra, 2006). Research has shown that INVs are exemplar highly entrepreneurial small firms which challenge the conventional theories of incremental internationalisation by competing in uncertain and complex environments (Mort & Waeerawardena, 2006).

Given the turbulent environment posed by globalisation, it is expected that INVs necessitate a strong entrepreneurial posture in strategy making. INVs, which may have fewer resources to compete head to head with larger rivals, have in their favour a strong EO and will fare better than those SMEs that lack such an orientation (Knight, 2000).

INVs are more alert to the possibilities of combining resources from different national markets possessing an unusual constellation of capabilities (McDougall et al., 1994). In this regard, EO is a firm's ability to reconfigure and utilize effectively its resources and capabilities (Jantunen et al., 2005). Consequently, hypotheses underpinned by this evidence could justifiably state that:

H9: EO is positively related to the possession of resources.

H10: EO is positively related to the possession of capabilities.

3.10 Relationship between EO and Performance

Much of the literature supports EO as a key ingredient for firm success (Wang, 2008), more specifically in INVs (Knight, 2000). The EO-performance literature is long-standing, and empirical evidence has shown that firms with more EO perform better (Wiklund, 1999; Zahra & Covin, 1995). Most recently, Rauch and colleagues (Rauch et al., 2004), based on a meta-analysis of 37 studies, conclude that the EO-performance relationship is moderately large and that firms benefit from EO.

Passive behaviours in uncertain and complex environments characterized by evolving globalisation often give rise to deteriorating performance. Product-market success is likely to be achieved through a proactive posture that distances the firm from rivals, with a risk taking position, which reflects the propensity to devote resources to projects that entail a substantial possibility of failure. Vital also is autonomy suggesting the independent action of a person or a team in giving birth to an idea or a vision and then carrying it through to fruition (Dess et al., 1997; Lumpkin & Dess, 1996; Miles & Snow, 1978; Wiklund & Shepherd, 2005b).

EO has been found to lead to improved performance (Hughes & Morgan, 2007), although the empirical results are mixed. Lee and colleagues (2001) found only weak evidence of a positive relationship between EO and the start-ups' performance, while Slater and Narver (2000) found no link at all with business profitability. Wiklund and Shepherd (2003) suggest that an EO enhances the relationship between a firm's knowledge-based resources and its performance, and Naman and Slevin (1993) emphasize its fit with organisational structure and strategy. Lumpkin and Dess (1996) suggest that the relationship with

performance is context-specific. Dimitratos and colleagues (2004) found that uncertainty in the firm's domestic markets has a positive moderating effect on the relationship between entrepreneurship and international performance.

Further, the findings of Zhara and Garvis (2000) suggest that entrepreneurial activities enhance overall and foreign profitability as well as revenue growth. In addition they find that entrepreneurship moderates the relationship between environmental hostility and performance to the advantage of the latter. However, upon a closer examination, they found that the relationship between entrepreneurship and foreign performance was curvilinear, in a form of an inverted U-shaped. The interpretation is a possible reflection of *"difficulties firms may experience in managing their complex foreign operations or from the costliness of coordinating, directing, and managing their venturing and innovation initiatives in multiple foreign markets."* (Zahra & Garvis, 2000: 486).

All this points to the fact that the issue of EO in an international context is a relevant and under-researched topic, and that the firm's EO and its ability to reconfigure and utilize effectively its resources and capabilities have an effect on its performance in international markets. As EO supports opportunity recognition in new markets, there is reason to suppose that it has a positive effect on international performance. With reference to the previous, the following hypothesis may therefore be advanced:

H11: EO is positively related to performance.

3.11 RELATIONSHIP BETWEEN POSITIONAL ADVANTAGE AND PERFORMANCE

A positive relationship between positional advantage achieved and business performance has been widely proposed in the literature (Bharadwaj et al., 1993; Morgan et al., 2004; Varadarajan & Cunningham, 1995). Firms attempt to provide offerings that create superior customer value and satisfy customers. Subsequently, high customer satisfaction should indicate increased loyalty and profitability (Anderson et al., 1994). Alternatively, by reducing the cost of the delivered offering firms are likely to both attain higher profit margins and thus increase their profitability, or lower the product price and achieve larger sales volume and greater profits (Day & Wensley, 1988). The study of Menguc and colleagues (2007) showed that positional advantage drives not only effective firm performance in terms of various growth metrics but also higher returns on investments which improve efficient firm performance. Findings from Langerak (2003) depicted positional advantage as a core element of lowering cost and adding value for customers while maintaining desirable profit margins. According to Hunt and Morgan (1995), firms that obtain positional advantages are equipped to achieve superior performance.

Therefore, positional advantages are direct antecedents of performance because the relative superiority of a venture's value offerings determines target customers' buying behaviour (Anderson et al., 1994; Piercy et al., 1998) and the outcomes of this behaviour for the INV (Cavusgil & Zou, 1994). In view of this, it is possible to hypothesise:

H12: Positional advantage is positively related to performance.

3.12 CONCLUDING COMMENTS

This chapter has provided the theoretical framework for this study based on the critical literature review from the previous chapter and the theoretical framework discussion.

This theoretical framework, illustrated in Figure 3.1, shows how the seven constructs, which are: EO, resources, capabilities, competitive strategy, positional advantage, performance, and ambidextrous innovation strategy, relate with each other. Most importantly, the proposed framework clearly highlights the twelve hypotheses linking the constructs examined in this study. In essence, the model represents an attempt to ascertain structural characteristics, such as the determinants and consequences of modelling resources and capabilities in creating positional advantage, and subsequently provides guidelines for the data collection and pertinent analysis, which will be discussed in the next chapter. Subsequently, the hypotheses formulated specifically for this study will be subjected to empirical testing after assessing their validity and reliability.

CHAPTER 4
RESEARCH DESIGN AND METHODOLOGY

4.1 INTRODUCTION

The aim of this chapter is to link the proposed conceptual model and related hypotheses previously presented, with the empirical approach employed in collecting data for hypotheses testing. Therefore, this chapter is devoted to the design and methodology used for this research study. It starts by focusing upon the philosophical assumption adopted as a method of enquiry in the current investigation, followed by selecting the research design, and the data collection method.

Furthermore, this chapter includes an explanation of the data analysis method, which is SEM, as well as the procedural stages of this data analysis method. The approach used in the assessment of reliability and validity of the measures employed, is also provided.

The final part of this chapter concerns the access and ethics considered by the researcher throughout the period of research, finishing with some concluding comments.

4.2 PHILOSOPHICAL ASSUMPTIONS

Marketing research can never be isolated from epistemological commitments whose diversity leads to a variety of possible ways of approaching and engaging with any substantive area. The researcher inevitably must choose between different approaches by making an area of interest reachable (Johnson & Joanne, 2000). According to Deshpande (1983) positivism and idealism are the two major philosophical positions concerned with

knowledge development. Positivism is linked with the hypothetic-deductive, objective and natural science world view. Conversely idealism is said to subscribe to the inductive, subjective and social anthropological world view (Guba & Lincoln, 1998).

Positivism in marketing reflects the attempt to apply models and methods derived from the natural sciences to the social sciences. An alternative to the positivist orthodoxy with a direction towards idealism comes from the intellectual heritage of Weber (1949) and his notion of *Verstehen* among other German theorists. In essence it is based upon the premise that the ultimate reality of the universe lies in spirit rather than in the data of sense perception (Burrell & Morgan, 1979).

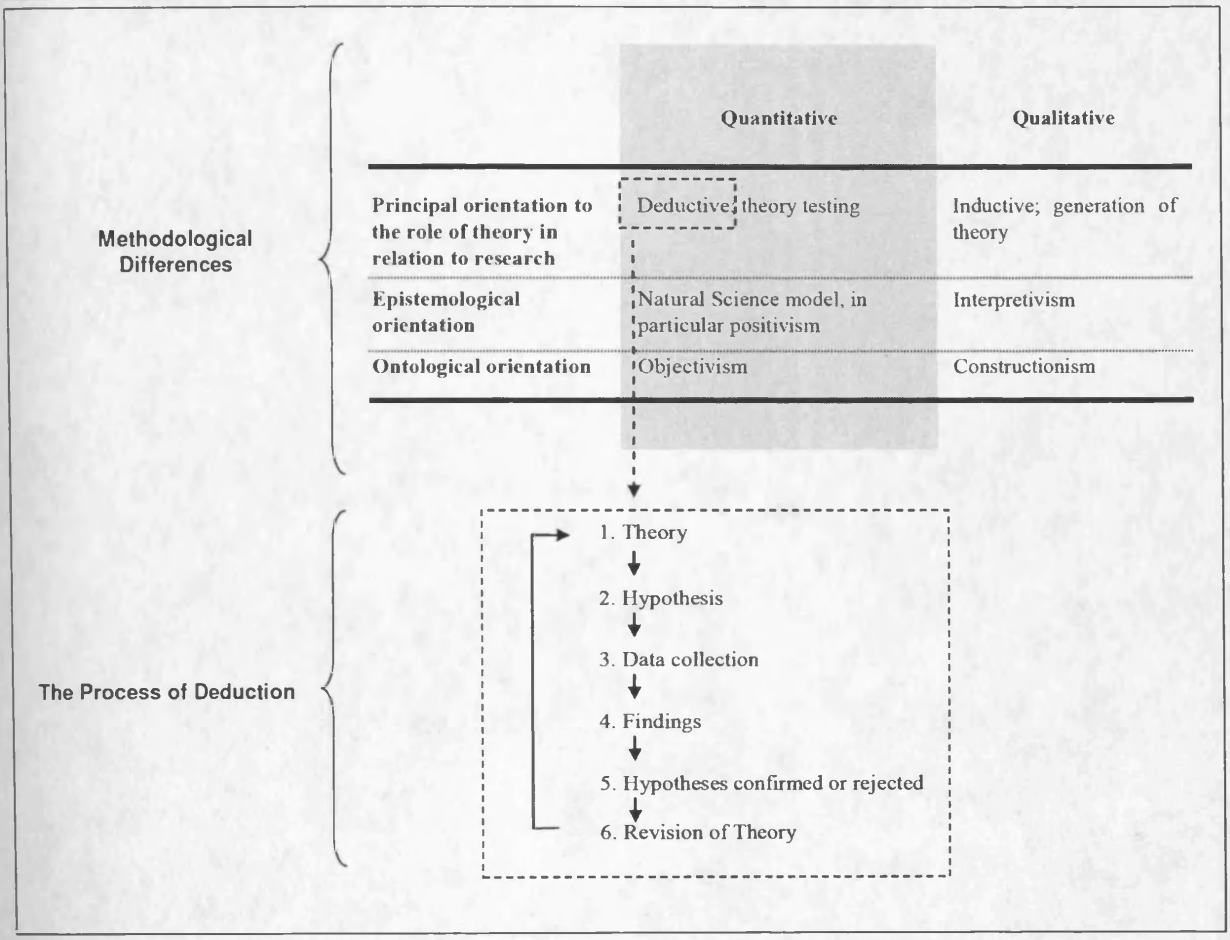
The adherents of the major schools of thought of positivism and idealism continue to debate the classic argument between quantitative and qualitative methods. A fundamental distinction between the methods could be categorized in three strands, such as the principal orientation to theory development as well as the epistemological and ontological orientation, which are illustrated in Figure 4.1. The first strand aligns the quantitative method as primarily deductive towards verifying and confirming theory while the qualitative paradigm is inductive through theory generation. Qualitative methodology starts with an extrapolation of 'grounded events' (Glaser & Strauss, 1967) rather than beginning with hypotheses and models. While writing on the subject of research methods in marketing, Deshpande (1983:107) indicates that *"qualitative methodologies are more situated for theory construction or generation and quantitative methodologies for theory verification of testing".*

From the basic epistemological question *"what is the nature of the relationship between the knower and the known"* (Guba, 1990:18), the epistemological strand of Figure 4.1

shows natural science and interpretation as the prevalent metaphors for the quantitative and qualitative paradigms respectively. Natural science epistemology assumes that one reality exists driven by immutable laws and mechanisms called realism (Mir & Watson, 2001), the contrary 'interpretivism' epistemology stands on relativism to understand the multiple and intangible meanings as there is more than one reality (Schwandt, 1998).

The final strand of Figure 4.1 draws upon the basic ontological questions faced by social scientists: "*what is the nature of reality*" or "*what is the nature of the knowable*"' (Guba, 1990:18) where objectivism corresponds to the quantitative paradigm and constructivism to the qualitative paradigm. By treating the social world as if it was the natural world, objectivism refers to the independent position of the investigator from the investigated object without influencing it. This is backed up by a relatively deterministic view of human nature. Positivists assume knowledge is achieved by following a precise, predetermined approach in gathering data (Desphande, 1983). The opposite of this is the transactional position of constructivism, where the investigator and the investigated are interlinked, and the findings are created as the investigation proceeds (Mir & Watson, 2001).

FIGURE 4.1 Quantitative Research and the Process of Deduction
SOURCE: Adapted from Bryman and Bell (2003) p.11



Interestingly, if one searches marketing journals the word 'positivism' is used infrequently, and when it is used it is often by those wishing to disparage, reject or distance themselves from that philosophical mode. Just because marketing researchers are not calling themselves 'positivist' does not mean that they are not adopting positivist assumptions (Kolakowski, 1972). On the contrary, a quick scan of the majority of marketing journals provides clear examples of positivist assumptions.

While it is argued that positivism has increased in the field of marketing, it is important to remember that marketing is not in any sense a unified field (Desphande, 1983). The practice of marketing is eclectic and pragmatic, with managers drawing on knowledge

from a variety of different fields ranging from sociology and anthropology to statistics and mathematics. Mirroring this, the study of marketing has been approached from a variety of different disciplines, each having their own traditions and approaches. The use of the positivist approach towards conducting marketing research has been suggested as one way of overcoming this fragmentation (Morgan,2003; Pfeffer, 1995). However, several suggestions have been made to achieve a balance in theory construction and testing, carrying with this methodological implications (Coviello & Jones, 2004).

4.2.1 METHOD OF INQUIRY ADOPTED FOR THE PRESENT STUDY

As mentioned earlier, the researcher is normally confronted with a philosophical choice regarding the nature of human action and its explanations which has direct methodological implications. Broadly speaking, this author argues that the present study adopts a positivist position based on objectivism and the existence of a real world as the ontological assumption. In this regard the object of study is defined by objective criteria rather than human interests and desires. It is assumed by this author that the true nature of reality can only be obtained by testing theories about actual objects, processes or structures in the real world. Thus, this study adopts a hypothetic-deductive approach to test the theoretical model with a quantitative research strategy, as depicted in Figure 4.1.

The methodological position of this research rests on the emphasis of quantitative methods. The study was conducted by a structured questionnaire survey and a systematic analysis technique based in SEM analysis demanding highly structured methodologies that rest upon quantifiable observations. This author assumes the role of objective analyst and

interprets the collected data in a value-free manner. Furthermore, this author is independent and neither affects nor is affected by the subject of the research.

As this study follows the deductive approach detailed in Figure 4.1, it began on the basis of what is known about INVs. Therefore an exhaustive examination and review of theory through existing literature was the first step to develop the twelve hypotheses. Embedded within the hypotheses are the concepts that were translated into researchable entities. This drove the field research by gathering quantitative data with a highly structured questionnaire through telephone interviews and analysed via SEM.

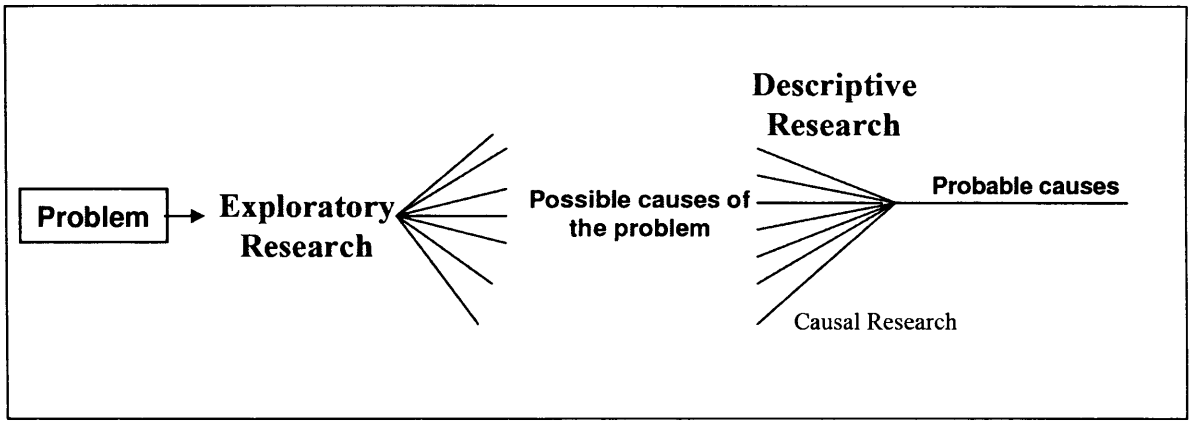
As an inside-out perspective, the RBV posits to look inside firms to locate the distinguished characteristics for superior performance. In order to get at the elements of interest, this research traced "*the value generation trail backwards to its source*" (Rouse & Daellenbach, 1999:966). It began with the dependent variable, performance and its links with positional advantage, and then looked back for sources of advantage that meet the valuable, rare, inimitable and non-substitutable criteria. Furthermore, the findings confirmed ten out of twelve hypotheses. Accordingly, conclusions and findings are generalised based on this rigorous scientific method.

4.3 RESEARCH DESIGN

Churchill and Iacobucci (2005) describe the research design as the blueprint used to guide a research study toward its objectives. It is the plan for a study that provides the specification procedures to be followed by researchers in hypotheses testing (McDaniel & Gates, 1999). Thus, the evidence generated from the data would confidently and convincingly answer the research question (De Vaus, 2001).

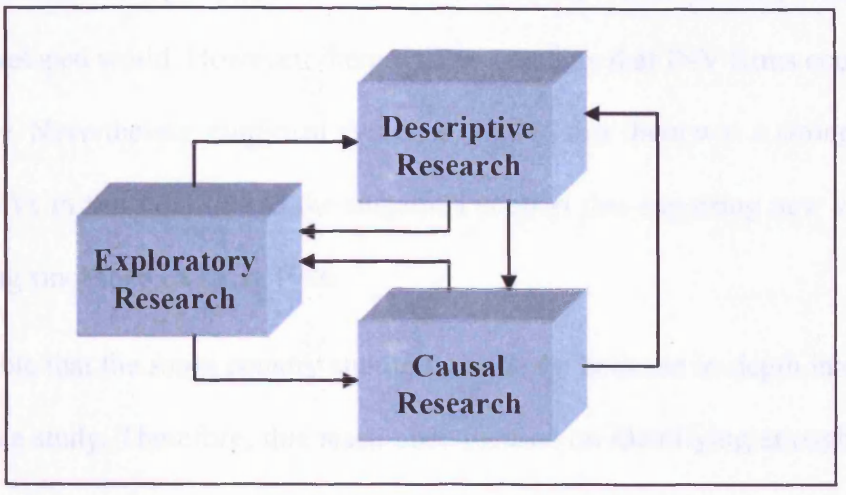
In general, research design is categorized into three basic types: exploratory, descriptive and causal. The researcher may employ more than one strategy in the research project due to more than one purpose. While the first step is to use exploratory techniques to acquire plenty of preliminary hunches or ideas into a vaguely defined research problem, descriptive and causal approaches are used to narrow the possible causes, see Figure 4.2. Descriptive research can show the relation between variables, whereas causal research determines cause and effect outcomes typically for experimentation (Aaker et al., 2007).

FIGURE 4.2 Types of Research Design
SOURCE: Aaker, Kumar and Day (2007) p.83



Nevertheless, these three research design categories can be conceived as stages in a continuous research process (Churchill & Iacobucci, 2005). The interrelationships between the three basic types of research design are illustrated in Figure 4.3. It can be appreciated that exploratory research is generally employed as an initial step to provide insights and understanding of the specific phenomena investigated.

FIGURE 4.3 Types of Research Design
SOURCE: Churchill & Iacobucci (2005) p.75



The research design of the present study is mainly descriptive, as it provides a snapshot of INV firms' environment. However, regarding the innovativeness of the INV term in the literature, the initial stage of this study used an exploratory approach to generate all possible reasons for the problem. It is important to highlight that even though a descriptive research design is primarily used in this study, during the early stage of the study, exploratory research was imperative in order to gather initial knowledge particularly in identifying the specific attributes, features and components of the research setting investigated. By this time, the study was seeking insights into the general nature of the problem. Therefore, an extensive literature search and in depth personal interviews with key executives of INV firms framed an overall picture of this investigation, and helped to specify the domain of each of the constructs. The aim of the initial exploratory approach was based on two elements namely as identifying the relevance of the constructs to the INVs' business environment, and the relationship between studied variables. Figure 4.2 illustrates in bold, the research design followed during the present study.

By the time the decision of which country to apply the in-depth interviews was required this researcher had developed a special interest in Mexico, as most of the published studies are in the developed world. However, there was no certainty that INV firms could be found in the country. Nevertheless, empirical evidence showed that there was a strong possibility of finding INVs in this NIC due to the sustained support that exporting new ventures had been receiving since the GATT in 1986.

It was desirable that the same country should be used for both the in-depth interviews and the descriptive study. Therefore, this researcher focused on identifying enough INV firms in Mexico for the posterior descriptive study. This process is explained in Section 5.5.1.

To this end, once Mexico was established as the nation to collect the data from, nine relatively unstructured, in-depth interviews with executives from nine INV firms were conducted in the country.

It is important to note that small and medium firms in Mexico are not used to sharing information and usually they are not approached for research purposes. As INV firms correspond to a subset of SMEs, they share this characteristic. In this regard, the support of Bancomext and Nafinsa was a cornerstone during this initial exploratory phase that enabled this researcher to establish the right contacts in the INV firms and get the appointments for interviews.

Bancomext is the National Bank for International Trade, and Nafinsa is the national financial institution to promote overall development and modernization of the industrial sector in Mexico. Bancomext and Nafinsa are developing banking institutions in charge of supporting Mexican SMEs. The difference relies upon the mode of promoting growth;

Bancomext is specialized in SMEs with international operations and Nafinsa offers customized programs for entrepreneurs.

All interviews with executives of INVs were conducted by this study's researcher. The data was gathered and assembled using nine interviews with nine INVs in a manner consistent with grounded theory research design (Glaser & Strauss, 1967; Strauss & Corbin, 1990). In this initial stage, interviews were used for four reasons: (1) SMEs often prefer face-to-face interviews, particularly in Latin countries such as Mexico. (2) It is often necessary when examining Mexico-related business activities to establish a relationship with respondents in order to receive a response. This connection was used later as a referral when the survey was applied. (3) Another very important aspect of interviews is that they are less structured than surveys, allowing for spontaneous discussion of problems and solutions as they arise in the interview and, in turn for follow-up questions on a topic and development of recommendations that have practical value (Frey & Oishi, 1995). (4) Finally, as INVs is a new area of study, the benefit of conducting interviews to develop a theoretical understanding of a new domain is well-established (Daft & Lewin, 1990; Eisenhardt, 1989a).

Following an introductory session explaining the scope of the study and with the purpose of reducing possible respondent uncertainty, the interviewees were faced with open-ended questions based on the nature of the main constructs of the conceptual model. The first part of the interview focused on the link between the constructs and the INVs business environment. With regard to the executives' experience, they were encouraged to explain the importance of the constructs in the international framework of the new ventures. Next, drawing upon the knowledge already gained through reviewing pertinent literature, in

those cases where the literature appeared to be inconclusive between certain constructs' relationships, they were asked to elaborate upon and illustrate their opinions. The information contained in their answers was recorded in the form of key words for further consideration and analysis.

The interviews were taped and transcribed. The nine interviews were in Spanish and subsequently transcribed. This researcher as being a native Spanish speaker took notes. Later the interviews were transcribed and translated by this author and a second Spanish native speaker. This reduces potential error and ensures validity of the transcription process. All interview results were summarized and INVs managers contacted for validation. If any discrepancies were found in the transcription, the interview subject would be contacted for clarification. Additionally, to corroborate the research findings of this exploratory initial stage, information was gathered from other sources such as government officials responsible for investment in exporting SMEs. In general, there was great consistency in the evidence gathered from all sources on all issues examined and the efforts to validate the results reported by sources outside the sample also corroborate the findings.

To summarise this section, the exploratory approach of the present study was useful to trigger choices in order to approach INV firms with more direct possible causes of the problem, and to apply descriptive research with a higher possibility of success. Regarding the little prior knowledge on which to build, the exploratory approach generated plenty of options for the problem of this investigation. Subsequently, descriptive research was utilised to filter out many of the possible causes and to produce the probable causes, as is explained in the next section of this chapter.

4.3.1 CROSS SECTIONAL DESCRIPTIVE RESEARCH

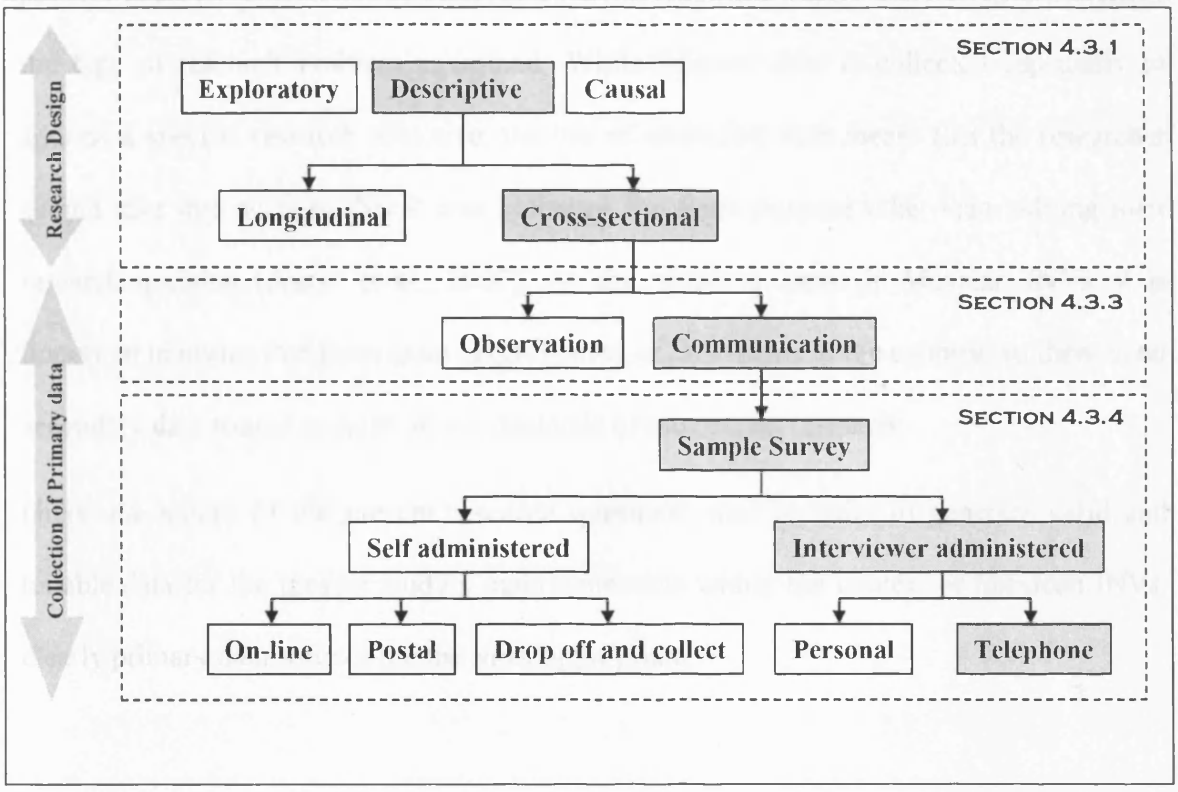
Descriptive research embraces a large proportion of marketing research. Craig and Douglas (2005) highlight two main types of descriptive study, cross sectional design and longitudinal design.

As cross sectional design is a one-time study which primarily involves a sample from a specific population at a single point of time, it is the most widely adopted by marketing research. The sample selected is representative of the universe.

Cross sectional design offers advantages over longitudinal design due to financial and time constraints. From the INVs studies cited in Chapter two, just one of twenty seven made use of longitudinal research design (McDougall & Oviatt, 1996). As cross comparison studies of the INV phenomenon point out, this is to be expected in an area where empirical evidence is recent and incremental development of knowledge is necessary (Rialp et al., 2005). Due to the above, the present study is a cross sectional descriptive research as illustrated in the research design part of Figure 4.4.

FIGURE 4.4 Research Design and Primary Data Collection

SOURCE: Adapted from Churchill & Iacobucci (2005) p.109; Aaker et. al. (2007) p.78



An acknowledged weakness of the cross sectional approach is its temporal priority, therefore causality inferring is not present. Rather, this study is limited to the task of identifying patterns of association, which are consistent with the causal linkages implied from the conceptual model. As a result of this situation, a pragmatic stance is adopted at the findings interpretation.

4.3.2 COLLECTION OF PRIMARY DATA

Data collection methods can be grouped according to whether they use secondary or primary sources. The choice of suitable data collection methods should be determined by the type of research problem examined. While primary data is collected especially to address a specific research objective, the use of secondary data means that the researcher should take into account that it was collected for some purpose other than solving their research question (Aaker et al., 2007). As this study is based in Mexican INVs, it is important to notice that there is no classification of INV firms in the country, so there is no secondary data source to fulfil all the demands of the current research.

Given the nature of the present research questions, and in order to generate valid and reliable data for the present study's main constructs within the context of Mexican INVs, clearly primary data sources are the most appropriate.

4.3.3 SURVEY RESEARCH

Primary data can be collected in two ways, asking people directly or watching them. The first one is related to communication and involves a verbal or written survey. The second one is related to observation suited for obtaining information about certain demographic/socioeconomic characteristics (Bradley, 2006).

As shown in the collection of primary data frame of Figure 4.4, the primary data method for this study is communication, implemented through survey research using a standardised questionnaire.

Survey research tends to be the most popular method generally utilised in descriptive research design. Surveys have the distinctive feature of enabling the researcher to collect a large amount of standardised data using a question and answer format (Bradley, 2006; Malhotra & Birks, 2007). In this regard, the survey method is relevant for the present study, for which in order to apply SEM, the target sample should be 200 or more firms. For further discussion on sample size determination please refer to Section 5.5.3.

It is further argued that an interviewed administered survey is a better method of collecting data than traditional mail survey in emerging economies, as it gives the researchers the chance to clarify questions. It is known that in emerging economies, problems of data collection and reliability of responses may be exacerbated by the difficulties experienced by respondents in understanding terms and concepts familiar to managers (Riordan & Vandenberg, 1994). Therefore, the interview offers respondents an opportunity to ask for clarification to enhance their understanding of the issues under investigation (Hoskisson et al., 2000).

4.3.4 Interview Administered Survey

Survey methods using questionnaires differ according to the amount of contact the researcher has with the respondents. As illustrated in Figure 4.4, questionnaires could be self or interviewer administered. In the self administered mode, the research instruments are usually completed by the respondents without the presence of an interviewer. They can be administered electronically, posted or delivered by hand. On the other hand,

questionnaires could be personally administered by the interviewer via telephone or face to face (Saunders et al., 2007).

The survey in the present study was administered through centralized computer-assisted telephone interview. As several authors suggest, the choice of the survey method was influenced by factors depending directly on the research questions and objectives, such as importance of reaching a particular respondent, size of sample, and types and number of questions (Bryman & Bell, 2003; Malhotra & Birks, 2007; Saunders et al., 2007; Zikmund, 2003).

Regarding the characteristics of the respondents in the context of an emergent economy, such as Mexico, the most effective way to access specific information in the country is to approach the managers personally in the office environment. Potential respondents are likely to feel safer and more willing to accept an invitation to participate in a study when it is conducted at their workplaces (Hair et al., 2006a).

Most of the studies that identify low response rates as the major disadvantage of self administered surveys are from developed countries (Walker et al., 1987), nevertheless this effect is increased in emerging economies. The reported response rates are less than 25 percent from mail surveys based on research in China (Luo & Peng, 1999); however there is no available response rate data from Mexico.

Additionally, the vagaries of the postal system in Mexico may also affect the response rate. Also relying on a covering letter is not enough to counteract any possibility of objection, especially in a country so used to personal communication. Finally, the technological and informational infrastructure in the country cannot be compared with that available to reach SMEs of industrialized countries (Parmar, 2003). This affects the effectiveness of

This study aims to examine the interrelated relationships of dependent and independent variables among EO, ambidextrous innovation strategy, resource, capabilities, competitive strategy, positional advantage and performance. The model depicted in Figure 3.1, hypothesises interrelationships among multiple independent and dependent variables and it has been suggested by different scholars (Byrne, 2001; Hair et al., 2006; Tabachnick & Fidell, 2001) that when attempting to examine the simultaneous effects of multiple independent and dependent variables, the best analytical strategy is to use SEM.

4.4.1 Basic Concepts of SEM

SEM results from an evolution of multi-equation modelling developed in econometrics and merged with measurement principles from psychology and sociology. In its most general form, SEM consists of a set of linear equations that simultaneously test two or more relationships among directly observable and/or unmeasured latent variables (Joreskog & Sorbom, 1993) and the account of measurement error in the estimation process (Kline, 2005). SEM combines the logic of confirmatory factor analysis, multiple regression, and path analysis in the application of a single technique (Breckler, 1990). SEM has the unique ability to examine a series of dependence relationships, where a dependent variable becomes an independent variable in subsequent relationships, within the same analysis while simultaneously analysing multiple dependent variables. Therefore, researchers are allowed to test the full scope of their hypothesised relationships within one statistical

approach, rather than being forced to use multiple approaches consecutively as in prior research (Shook et al., 2004).

While SEM serves purposes similar to multiple regression, several aspects set it apart from the older generation of multivariate procedures (Bollen & Long, 1993; Fornell, 1982). SEM is somewhat like a multiple regression in that several variables are used to predict another variable. Nevertheless SEM models are more complex than regressions in that they estimate a series of separate but interdependent, multiple regression equations simultaneously by specifying the structural model. Another advantage of SEM over regression is that it incorporates factor analysis to take advantage of the correlations among variables tapping a common construct (Hoyle, 1995). In this vein, SEM estimates a series of separate, but interdependent, multiple regression equations simultaneously by specifying the structural model used by the statistical program.

SEM also has the ability to incorporate latent variables into the analysis. A latent construct, also termed latent variable, is a hypothesized and unobserved concept that can be represented by observable or measured variables. It is measured indirectly by examining consistency among multiple measured variables, also referred to as indicators (Hair et al., 2006).

As such, SEM is viewed as a powerful method to address numerous research problems. The reasons for SEM's attractiveness are twofold, first it provides a straightforward approach of dealing with multiple relationships simultaneously while providing statistical efficiency, and second SEM provides a transition from exploratory to confirmatory analysis (Byrne, 2001; Hair et al., 2006).

4.4.2 SEM AS A CONFIRMATORY ANALYTICAL TOOL

Factor analysis is defined as a multivariate statistical technique that analyses data on a relatively large set of variables and produces smaller sets of factors, which are linear combinations of the original variables, so that the set of factors captures as much information as possible from the data set (McDaniel & Gates, 2007).

It is widely acknowledge that SEM is a confirmatory analytical tool and its usefulness lies in its ability to estimate the strength of hypothesised relationships of constructs in the proposed cause and effect model. The goal of SEM is to determine how well the hypothesised model fits the observed data. More specifically, the technique determines whether the hypothesised causal structure is consistent with the correlation or covariance matrix of the data being considered (Breckler, 1990).

By contrast, most other multivariate procedures are essentially descriptive by nature, so that hypothesis testing is difficult, for example exploratory factor analysis. SEM is a priori technique, and thus requires researchers to conceptualise in terms of a model, by specifying variables' directionalities and effects among them. On the other hand, although traditional multivariate procedures are incapable of assessing measurement error leading to serious inaccuracies, SEM provides explicit estimates of error variance parameters. Therefore, the application of other methods would ignore the errors in the explanatory variables and the validity of the research findings might be threatened (Byrne, 2001).

With Confirmatory Factor Analysis (CFA), the researcher must specify both the number of factors that exist within a set of variables and which factor each variable will load highly on before results can be computed. The technique does not assign variables to factors, as

Exploratory Factor Analysis (EFA) does. Instead, the researcher must be able to make this assignment before any results can be obtained. Therefore, CFA is more suitable for those cases where there is a theoretical rationale for the inclusion in the measurement model of indicators and constructs, as well as for the degree of association between variables and constructs, or even between constructs (Thompson, 2004).

CFA is used to provide a confirmatory test of the measurement theory. SEM models often involve both, a measurement theory and a structural theory. A measurement theory specifies how measured variables logically and systematically represent constructs involved in a theoretical model. In other words, measurement theory specifies a series of relationships that suggest how measured variables represent a latent construct.

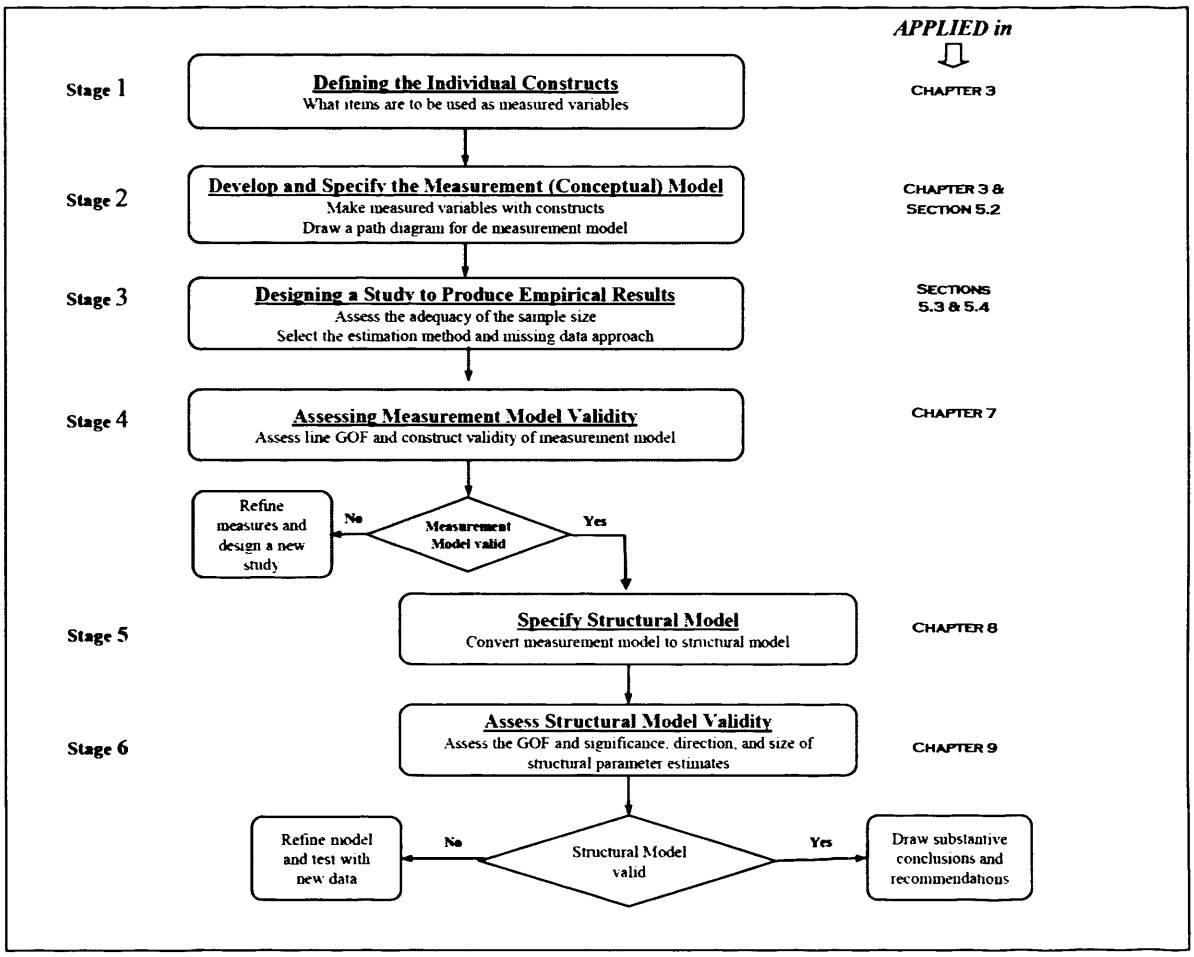
Measurement theory requires that a construct first be defined. Therefore, CFA cannot be conducted without measurement theory. In EFA, such a theory is not needed nor is the ability to define constructs ahead of time.

4.4.3 SEM Procedural Stages

According to Anderson and Gerbing (1988) the true value of SEM come from the benefits of moving through measurement and structural models simultaneously. To ensure the measurement and the structural models are precisely specified and the results are valid, this study followed a six-stage process for SEM (Hair et al., 2006), as exhibited in Figure 4.5. The process consists of (1) defining individual constructs; (2) developing the overall measurement model; (3) designing a study to produce empirical results; (4) assessing the measurement model validity; (5) specifying the structural model; (6) assessing structural model validity.

FIGURE 4.5 Six-Stage Process for SEM

SOURCE: Adapted from Hair, Black, Babin, Anderson and Tatham (2006) pg. 759



4.5 SEM STAGE 1: DEFINING INDIVIDUAL CONSTRUCTS

A good measurement theory is a necessary condition to obtain useful results from SEM. Hypotheses tests involving the structural relationships among constructs will be as reliable as far as the measurement model explains how these constructs are built. The researcher must invest significant time and effort early in the research process to make sure the measurement quality will enable valid conclusions to be drawn.

The process begins with a good definition of the constructs involved, followed by a pre-testing. Construct definition should provide the basis for selecting individual indicator items. A researcher operationalises a construct by selecting its measurement scale items and scale type. The definition of individual constructs and the items used as measured variables for each construct are described in Section 5.2. It is important to mention that construct definition in this study took into account the relevant information gathered from the initial exploratory approach, regarding the innovativeness of the INV term, and the extensive literature search on the research field, as described in Chapter two, and on the individual constructs, as explained in Chapter three.

In attempting to ensure theoretical accuracy, in many instances, the constructs were defined and operationalised as they were in previous research studies with a seven point Likert-type scale.

Generally, when measures are either developed for a study, or taken from various sources, some type of pre-test should be performed. The pre-test should use respondents similar to those from the population to be studied so as to screen items for appropriateness (2006). Section 5.4.7 offers a detailed explanation of the measures' pre-test process applied for the present investigation.

4.6 SEM Stage 2: Developing and specifying the Measurement Model

With the constructs specified, the researcher must develop the measurement model, at this stage also known as the conceptual model, to be tested. In doing so, relationships among factors or constructs and the nature of each construct are defined.

In this stage, each latent construct to be included in the model is defined and the measured indicator variables, also known as items, are assigned to latent constructs. Although this identification and assignment can be represented by equations, it is simpler to represent this process with a diagram. Section 5.2 describes the process of assigning measured variables with constructs, and the conceptual model is depicted in Figure 3.1.

Several key issues should be highlighted at this point, such as unidimensionality, items per construct, and reflective versus formative factor models (Hair et al., 2006).

Unidimensionality

Unidimensional measures mean that a set of measured variables or indicators has only one underlying construct. Unidimensionality becomes critically important when more than two constructs are involved. In such a situation, each measured variable is hypothesised to relate to only a single construct. Unidimensionality was taken into account in the present study in developing and specifying the measurement model.

Items per construct

Researchers are faced with a dilemma in deciding how many indicators are needed per construct. On the one hand, researchers prefer many indicators in an attempt to fully

represent a construct and maximize reliability. On the other hand, parsimony encourages researchers to use the smallest number of indicators to adequately represent a construct.

Even though more items produce higher reliability estimates and generalisability (Bacon, 1995), more items are not necessarily better. More items require larger sample sizes and can make it difficult to produce truly unidimensional factors. Good practice dictates a minimum of three items per factor or construct, particularly when other constructs have more than three.

Reflective versus Formative factor models

The contrasting direction of causality leads to contrasting measurement approaches, reflective versus formative measurement models. Reflective measurement theory is based on the idea that latent constructs cause the measured variables and that the error results in an inability to fully explain these measures. Thus the arrows are drawn from latent constructs to measured variables. As such, reflective measures are consistent with classical test theory (Nunnally, 1978).

In contrast, formative measurement theory is modelled based on the assumption that the measured variables cause the construct. The error in formative measurement models is an inability to fully explain the construct. A key assumption is that formative constructs are not considered latent. Instead they are viewed as indices where each indicator is a cause of the construct.

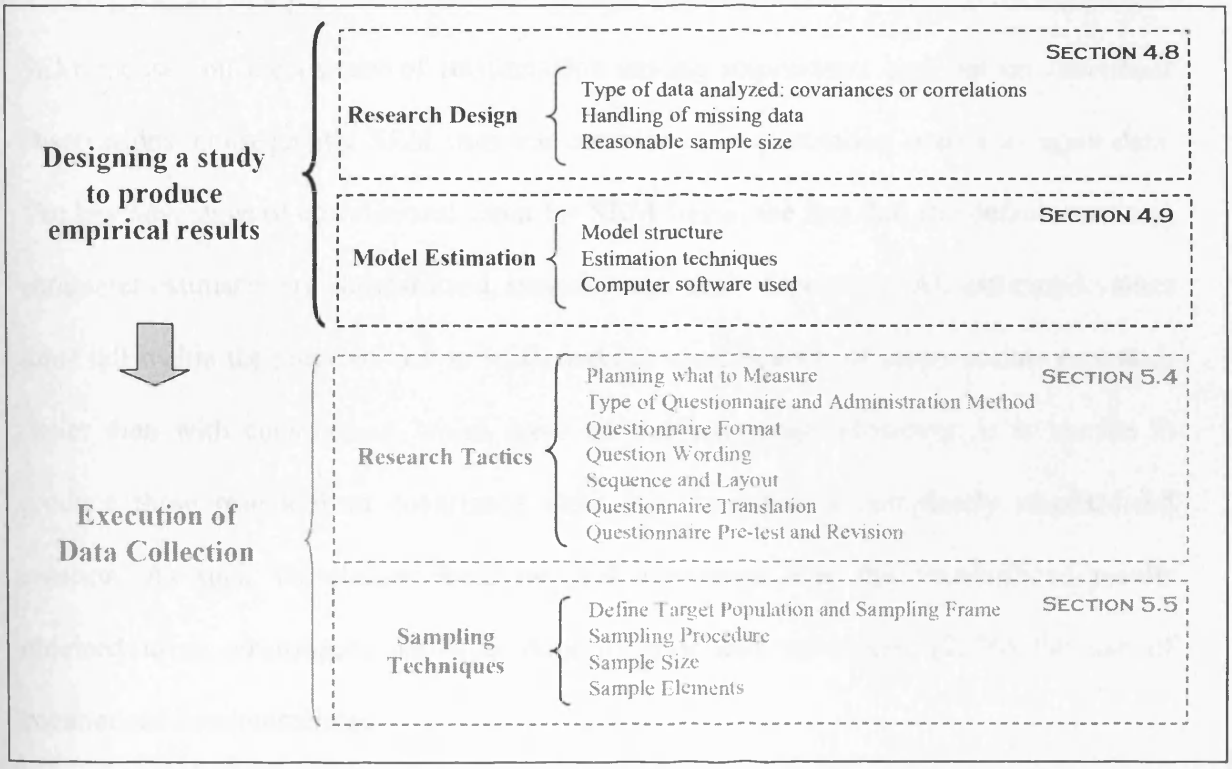
The present research follows reflective measurement theory, which is implemented in the measurement models of Chapter six.

4.7 SEM Stage 3: Designing a Study to Produce Empirical Results

With the basic model specified in terms of constructs and measured variables, this step requires that the study be designed and executed to collect data for testing the measurement model, in order to focus on research design and model estimation.

This section starts with the theoretical explanation of designing a study to produce empirical results. It is composed by 1) research design in SEM; and 2) model estimation in SEM, in order to establish the base for the data collection execution, which is detailed in the following chapter, as depicted in Figure 4.6.

FIGURE 4.6 Study Design in SEM
SOURCE: Adapted from Hair, et al. (2006) pg. 737 & Aaker et al. (2007) pg. 317,380



4.8 RESEARCH DESIGN IN SEM

As with any other multivariate technique, SEM requires careful consideration of factors affecting the research design necessary for successful SEM analysis. It is important to note the sample size and missing data can have a profound effect on the results no matter what method is used. Moreover, SEM can be estimated with either covariances or correlations. Thus, the researcher must choose the appropriate type of data matrix. A discussion regarding these issues in SEM is developed in the following sections which conclude with a summary of research design issues.

4.8.1 TYPE OF DATA ANALYZED

SEM focuses on the pattern of relationships among respondents and not on individual observations, consequently SEM uses the covariance or correlation matrix as input data. The key advantage of correlational input for SEM lies in the fact that the default resulting parameter estimates are standardized, meaning not scale dependent. All estimated values must fall within the range of -1.0 to +1.0, making identification of inappropriate estimates easier than with covariances, which have no defined range. However, it is simple to produce these results from covariance input by requesting a completely standardized solution. As such, correlations hold no real advantage over the standardized results obtained using covariances and according to Hair and colleagues (2006) the use of covariances is recommended.

The primary advantages of using covariances arise from statistical considerations. First, the use of correlations as input can at times lead to errors in standard error computations

(Cudeck, 1989). In addition, any time hypotheses concern questions related to the scale or magnitude of values, for example comparing means, then covariances must be used because this information is not retained using correlations. Finally, any comparisons between samples require that covariances be used as input. Software today makes the selection of one type over another (Joreskog & Sorbom, 1993). Covariance matrices provide the researcher with far more flexibility due the relatively higher information content they hold. The present study utilised covariance as detailed in Chapter seven.

4.8.2 HANDLING OF MISSING DATA

Missing data or incomplete data is "*one of the pervasive problems in data analysis*" (Tabachnick & Fidell, 2001:58), and "*a fact of life in multivariate analysis*" (Hair et al., 2006:49). In a similar voice Olinsky and colleagues (2003:53), viewed them as a "*problem that permeates much of the research being done today*". The researcher can scarcely avoid some form of missing data problem. In this regard, the challenge of the researcher is to address issues raised by missing data that affect the generalisability of the results. The significance of missing data depends on the pattern of missing observations, frequency of occurrence and the reasons for the missing values. Therefore, the pattern of missing data is more important than the amount missing. If missing values are scattered randomly through a data matrix, they rarely pose severe problems. However, non-randomly missing values are serious no matter how few of them there are because they impact on the generalisability of results (Johnson & Wichern, 2002). In addition, it is debatable how many missing observations can be tolerated. Generally, it is commonly accepted that if the

missing observation is relatively small within a large database, the problem could be considered as less serious and any treatment should yield similar results (Kline, 2005).

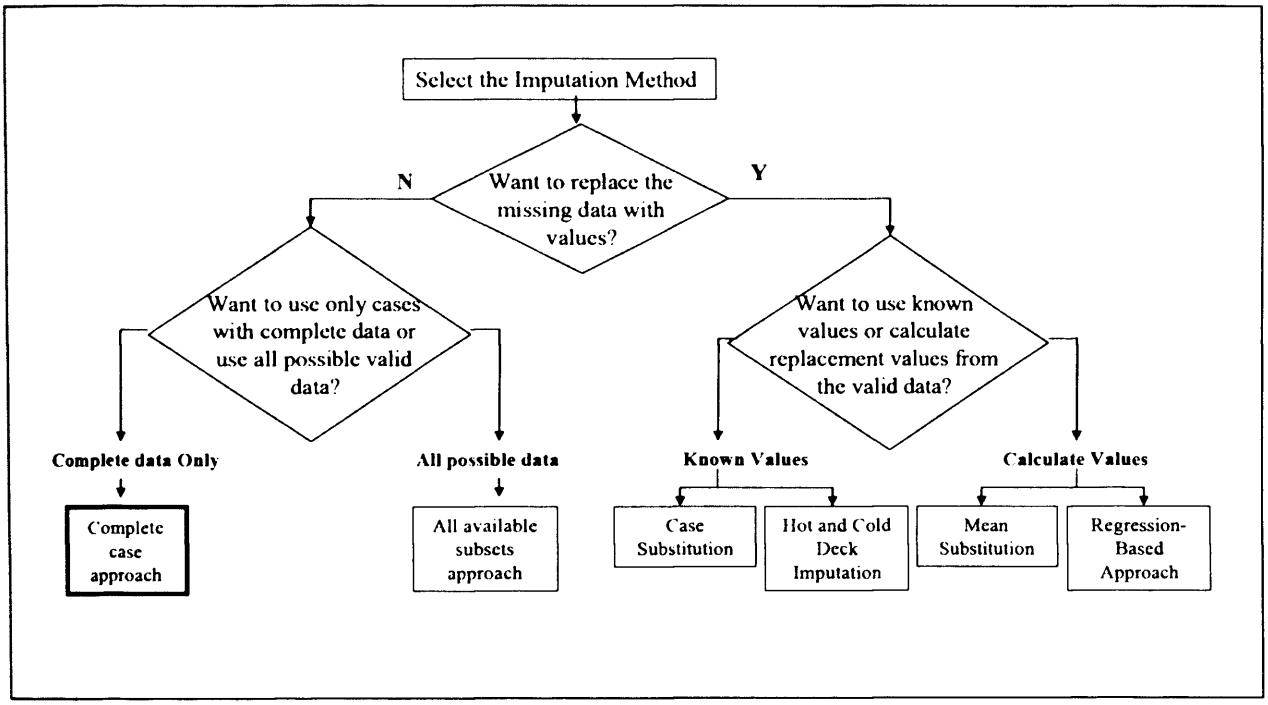
Accordingly, de Vaus (2001), as well as Schafer and Graham (2002) maintain that the missing data problem could be minimised or avoided during the survey instrument administration stage. Similarly, Roth (1994) advocates that the best possible method of dealing with missing data is to prevent the problem occurring by careful planning and meticulous data collection. These suggestions were taken into consideration and were implemented in the current research. As described previously in the research design and methodology chapter, the administration method of the survey employed in this study, that of telephone interview, ensured minimising the item omissions in the data set. These incomplete observations were specified as missing intentionally, by virtue of the measurement design, which in this context was to increase the quality of the data obtained (Arbuckle, 2003; Kamakura & Wendel, 2000; Malhotra & Birks, 2007). These intentionally missing data were generally assumed as data missing at random (Byrne, 2001; De Vaus, 2001; Kamakura & Wendel, 2000; Schafer & Graham, 2002).

Approaches for Random Missing Data

There are two basic approaches for random missing data: one is the imputation using only valid data, as shown in the left part of Figure 4.7, and the second type is imputation by using replacement values, exhibited in the right part of the same figure. The first approach looks either for cases of complete data or to use all possible valid data. The second

approach presents two options: one is related with using known values, whereas the other calculates replacement values from valid data (Hair et al., 2006).

FIGURE 4.7 Imputation Method Selection
SOURCE: Adapted from Hair, et al. (2006) pg. 53



Imputation using Only Valid Data

The intent of the imputation approach using only valid data is to represent the entire sample with those observations of valid data. This representation can be done by the complete case approach or by using all available data. The underlying assumption in both is that the missing data are in a random pattern and that the valid data are an adequate representation.

The simplest and most direct approach for dealing with missing data is to include only those observations with complete data. This approach, known as the complete case, is

present in all statistical programs usually as the default method, and particularly corresponds to the LISTWISE option in SPSS. Yet the complete case approach has two distinct disadvantages. First, it is most affected by any non-random missing data processes, because the cases with any missing data are deleted from the sample. Thus, even if only valid observations are used the results are not generalisable to the population. Second, this approach also results in the greatest reduction in sample size, because missing data on any variable eliminates the entire case. It has been shown that with only 2 percent of randomly missing data, more than 18 percent of the cases will have some missing data. Thus, in many situations with even very small amounts of missing data, the resulting sample size is reduced to an inappropriate size when this approach is used. As a result, the complete case approach is best suited for instances in which the extent of missing data is small, the sample size is sufficiently large to allow for deletion on the cases with missing data, and the relationships in the data are so strong as to not be affected by any missing data process (Johnson & Wichern, 2002).

The second imputation method using all available data does not actually replace the missing data, but instead imputes the distribution characteristics or relationships from every valid value. By distribution characteristics, means or standard deviations are inferred, as well as correlations in the case of relationships. Known as the all-available approach, this method is used to estimate correlations and maximize the pairwise information available in the sample. The distinguishing characteristic of this method is that each correlation for a pair of variables is based on a potentially unique set of observations; for this reason, the number of observations used in the calculations can vary for each correlation. Thus, the imputation process occurs not by replacing the missing data on the remaining cases, but instead by applying the obtained correlations as representative of the

entire sample. One concern about this approach is that it can generate out of range values for correlations and eigenvalues. Therefore, the eigenvalues in the correlation matrix can become negative and this might change the variance properties of the correlation matrix. Although the correlation matrix can be adjusted to eliminate this problem, many procedures do not include this adjustment process. In some extreme cases, the estimated variance/covariance matrix is not positively definite. The researcher needs to consider these issues when selecting the all-available approach (Arbuckle, 1996).

Imputation using Replacement Values

The second type of imputation is the method of estimating replacement values for the missing data, which replaces missing values with estimated values based on other information available in the sample. The principal advantage is that once the replacement values are substituted, all observations are available for use in the analysis. The available options vary from the direct substitution of values to estimation processes based on relationships among the variables. The following discussion focuses on the four most widely used methods, although many other forms of imputation are available (Little & Rubin, 2002). These methods can be classified as to whether they use a known value as a replacement or calculate a replacement value from other observations.

The methods of using known replacement values have the common characteristic to identify a known value, most often from a single observation, that is used to replace the missing data. The observation may be from the sample or even external to the sample. A primary consideration is identifying the appropriate observation through some measure of similarity. In the hot or cold deck imputation the researcher substitutes a value from

another source for the missing values. In the hot deck method the value comes from another similar observation in the sample. The cold deck imputation derives the replacement value from an external source (e.g., prior studies, other samples, etc.). Here the researcher must be sure that the replacement value from an external source is more valid than an internally generated value. Another method of using known replacement values is the case substitution, where entire observations with missing data are replaced by choosing another non sampled observation. For doing this, it is necessary to have additional cases available which are not in the original sample. This method is most widely used to replace observations with complete missing data (Malhotra, 1987).

The second basic approach involves calculating a replacement value from a set of observations with valid data in the sample. The assumption is that a value derived from all other observations in the sample is the most representative replacement value. The most widely used calculating replacement values methods are mean substitution and regression imputation. Mean substitution replaces the missing values for a variable with the mean value of that variable calculated from all valid responses. The regression imputation approach is used to predict the missing values of a variable based on its relationship to other variables in the data set. Although it is argued that it reinforces the relationships already in the data, the resulting data become more characteristic of the sample and less generalisable (Hair et al., 2006). The regression method of imputation holds promise in those instances for which moderate levels of widely scattered missing data are presented and for which the relationships between variables are sufficiently established (Kline, 2005).

The SEM analysis estimation procedure requires a full set of observations (Pallant, 2005). Consequently this author has adopted the regression imputation which is the most widely used method for missing data treatment, the complete case approach which is highlighted in Figure 4.7. It was taken into account that this method assumes that the variable with missing data has substantial correlations with other variables and these correlations were sufficient to produce a meaningful estimate. Hence, this author is confident that using this method will not affect the generalisability of results. The frequency and percentage missing data in the present study is suitably addressed in Section 6.2.1.

4.8.3 Reasonable Sample Size

SEM in general requires a larger sample relative to other multivariate approaches. Given that larger samples are usually more time consuming and expensive to obtain, the critical question in SEM involves how large a sample is needed to produce trustworthy results. Opinions regarding minimum sample size have varied (MacCallum, 2003; MacCallum et al., 2001). Bentler and Chou (1987) note that researchers in SEM may go as low as five cases per parameter estimate only on the condition that the data is normally distributed, with no missing data or outlying cases. Indeed, Stevens (1996) suggested that a good rule of thumb is 15 cases per predictor in a standard ordinary least squares multiple regression analysis. Since SEM is closely related to multiple regression analysis in some respects, 15 cases per measured variable in SEM is not unreasonable. More generally, Loehlin (2004) concludes that for the CFA model with two to four factors, the investigator should plan on collecting at least 100 cases with 200 being better. One recommended sample size is between 150 and 400, and it should be noted that as the sample size becomes larger, the

method becomes more sensitive and almost any difference is detected, making goodness-of-fit measures suggest poor fit (Hair et al., 2006; Tanaka, 1993). Sample size in the present study is explained in Section 5.5.3.

4.8.4 SUMMARY OF RESEARCH DESIGN ISSUES

In designing an SEM analysis, the researcher must address issues facing all multivariate techniques: types of data to be analysed, the impact of missing data and the sample size required to meet research objectives. SEM has the unique characteristic to focus on the covariance matrix rather than on individual observations.

4.9 MODEL ESTIMATION

In addition to the more general research design discussed in the previous section, SEM analysis has several unique elements as well. These relate to the model structure, estimation technique used, and computer program selected for the analysis.

4.9.1 MODEL STRUCTURE

The most important step in setting up an SEM analysis is determining and communicating the theoretical model structure to the program. Path diagrams can be useful for this purpose. Knowing the theoretical model structure, the researcher can then specify the model parameters to be estimated. Specifying free and fixed factors is a critical difference between SEM and other multivariate techniques. A free parameter is one to be estimated by the SEM analysis whereas in a fixed parameter the value is specified by the researcher. SEM requires that each possible parameter be specified as estimated or as free.

The specification of the structural and measurement models is followed by the selection of the computer program for estimation. No matter which software is used, the researcher

must be able to specify the complete SEM model in terms of each parameter to be estimated (Kline, 2005).

4.9.2 ESTIMATION TECHNIQUE

Once the model is specified, the researcher must choose what mathematical algorithm will be used to identify estimates for each free parameter. Early attempts in SEM estimates were performed with Ordinary Least Squares (OLS) regression. These efforts were quickly supplanted by Maximum Likelihood Estimation (MLE), which is more efficient and unbiased when the assumption of multivariate normality is met. MLE has become the most widely employed in the majority of SEM programs (Olsson et al., 2004; Olsson et al., 2000). Thus, the estimation of parameters AMOS utilises by default is MLE. However, it is important to note that MLE assumes the following conditions have been met: 1) large sample; 2) the distribution of the observed variables is multivariate normal; 3) the hypothesized model is valid (West et al., 1995); and 4) the scale of the observed variables is continuous. Taken into account these suggestions, the estimation technique applied for the present study is MLE.

Model identification is focused on whether there is a unique set of parameters consistent with the data. If a unique solution can be found for the values of the structural parameters, the model is considered identified. If on the other hand a model cannot be identified, the parameters are subject to arbitrariness, with the implication that different parameter values define the same model. In such a case the attainment of consistent estimates for all parameters is not possible, and thus the model cannot be estimated empirically (Bentler, 1995). To ensure identification, the number of estimable parameters must be less than the number of data points (i.e., variances and co-variances of the observed variables). This

situation results in positive degrees of freedom that can allow rejection of the model, thereby rendering it of scientific use (Byrne, 2001).

4.9.3 Computer Software Used

Available software packages include Linear Structural Relations (LISREL), Equations (EQS), and Analysis of Moment Structure (AMOS). Joreskog and Sorbom's LISREL (1996) has contributed to the spread of SEM techniques throughout social science research (Bollen & Long, 1993). Bentler's EQS (1992) is widely used and a flexible package that is less sensitive to non-normal data than other SEM software. James Arbuckle and Werner Wothke's AMOS (1999) is relatively recent software which has become popular because of its friendly graphical interface and easier approach to specify structural models.

Developed within the Microsoft Windows interface, AMOS is an addition to the SPSS statistical program. It allows choosing from two different modes of model specification. One approach is based on a graphical interface, known as AMOS Graphics, which enables it to easily specify the parameters to be estimated directly in a path diagram. Using the other, AMOS Basic, models are specified via equation statements assembling the traditional input file orientation (Byrne, 2001). For these reasons, the present SEM approach applied AMOS 6.0.

4.9.4 Summary of Estimation Issues

The unique issues facing SEM analysis have been supported with advanced statistical algorithms and computer software providing a wider range of estimation options for handling various conditions in the input data, but also user-friendly interfaces.

4.10 SEM Stage 4: Assessing the Measurement Model Validity

With the measurement model specified, sufficient data collected, and the decision of the estimation technique already made, the researcher comes to the most fundamental event in SEM testing, which refers to the validity of the measurement model. Measurement model validity depends on its goodness-of-fit and specific evidence of construct validity. Goodness-of-fit (GOF) indicates how well the specified model reproduces the covariance matrix among the indicator items, such as the similarity of the observed and estimated covariance matrices. There are three general groups of GOF including: 1) absolute fit measures which assess only the overall model fit; 2) incremental fit measures that compare the proposed model to some baseline model; and 3) parsimonious fit measures that are designed specifically to provide information about which model among a set of competing models is best, considering its fit relative to its complexity (Hair et al., 2006). The characteristics and acceptable levels of fit for each of the fit indices are summarised in Table 4.1.

The development of such a wide variety of measures for the assessment of the model's fit, along with limitations associated with each one, demonstrated the absence of a single satisfactory descriptive measure. Therefore, it is suggested that one or more measures from each class be employed in order to gain a consensus across the various types of measures, regarding the acceptability of the proposed model (Bollen, 1989b). The Sections 6.4.1 to 6.4.7 display the goodness-of-fit of the measurement models for each of the constructs of

this research including resources, capabilities, competitive strategy, positional advantage, performance, EO, and ambidextrous innovation strategy.

Additional evidence of construct validity in SEM includes convergent validity and discriminant validity, which are explained in Section 4.13.3. On assessing the measurement model validity, explained in Chapter seven, the present study applied average variance extracted for convergent validity and reliability measures derived from CFA. Convergent validity was also evidenced with the significant loadings of items on their positioned constructs. The discriminant validity test applied in this study corresponds to the average variance extracted (Fornell & Larcker, 1981). This test is based on comparing the square correlation estimates for any two constructs with the average variance extracted. The value of the square correlations is less than the average variance extracted for all cases, see Section 7.4.9. For the reliability approach composite reliability was followed. Additionally item-to-total-correlation and Cronbach alpha were tested, as described in Chapter seven.

TABLE 4.1 Summary of Alternative Goodness of Fit Indices

SOURCE: Adapted from Byrne (2001) pgs. 75-88; Hair et al. (2006) pgs. 746-753

Fit Index	Description	Acceptable Fit
Absolute Fit Measure		
Chi-square (χ^2)* also known as Minimum Discrepancy (**CMIN**) in AMOS.	• Test of the null hypothesis that the estimated variance-covariance matrix deviate from the sample. • Greatly affected by sample size. The larger the sample, the more likely is that the p-value will imply a significant difference between model and data.	Non significant (χ^2) at least p-value>0.05
Normed Fit Chi-square (χ^2/df)*	• Chi-square statistics are only meaningful taking into account the degrees of freedom. • Also regarded as a measure of absolute fit and parsimony. • Value close to 1 indicate good fit but value less than 1 imply over fit	Value smaller than 2 and high as 5
Standardised Root Mean Square Residuals (**SRMR**)	• Representing a standardised summary of the average covariance residuals. • Covariance residuals are the differences between observed and model-implied covariances.	Value < 0.05 good fit Value 0.1 – 0.05 is adequate fit
Root Mean Square Error of Approximation (**RMSEA**)*	• Representing how well the fitted model approximates per degree of freedom	Value 0.05 to 0.08 is adequate fit. Value > 0.08 to 0.1 mediocre fit, greater than 0.1 poor fit. (Browne & Cudeck, 1993; Steiger & Lind, 1980)
Goodness-of-Fit Index (**GFI**)*	• Representing a comparison of the square residuals adjusted for the degree of freedom	Ranges from 0 to 1, values close to 1 are indicative of good fit. Value >0.95 good fit 0.90 – 0.95 adequate fit
Incremental Fit Measure		
Adjusted Goodness of Fit index (**AGFI**)	• Goodness-of-fit adjusted for the degree of freedom. • Less often used due to not performing well in some applications. • Value can fall outside 0–1 range	Value >0.95 good fit 0.90 – 0.95 adequate fit
Bentler-Bonett normed fit index (**NFI**)*	• Representing a comparative index between the proposed and more restricted, nested baseline model (null model) not adjusted for degree of freedom, thus the effects of sample size are strong.	A value > 0.9 is considered representative for a well fitting model. Value >0.95 good fit 0.90 – 0.95 adequate fit
Tucker-Lewis Index (**TLI**)* in Lisrel (Tucker & Lewis, 1973), also known as Bentler-Bonett non-normed fit index (**NNFI**) in AMOS	• Comparative index between proposed and null models adjusted for degrees of freedom. Can avoid extreme underestimation and overestimation and robust against sample size. • Highly recommended fit index of choice	Value >0.95 good fit 0.90 – 0.95 adequate fit
Comparative Fit Index (**CFI**)* identical to Relative Non centrality Index (**RNI**)	• Comparative index between proposed and null models adjusted for degrees of freedom. Interpreted similarly as NFI but may be less affected by sample size. • Highly recommended as the index of choice.	Close to 1 very good fit. Value >0.95 good fit 0.90 – 0.95 adequate fit
Bollen's incremental fit index (**IFI**)* (Bollen, 1989a)	• Comparative index between proposed and null models adjusted for degrees of freedom.	Value >0.95 good fit 0.90 – 0.95 adequate fit
Parsimonious Fit Measures		
Parsimony Normed Fit Index (**PNFI**)	• The index takes into account both the model being evaluated and the baseline model	Higher values indicate better fit, comparison between alternative models.
Parsimony Comparative Index (**PCFI**)	• The index takes into account both model being evaluated and the baseline model	Same as above

Note: *Fit index employed in the present study.

It is important to note that many researchers conduct EFA on one or more separate samples before reaching the point of trying to confirm the measurement model. EFA is the tool for identifying factors among multiple variables. As such, EFA results can be useful in developing a theory that will lead to a proposed measurement model. It is here that CFA enters the picture. It can confirm the measurement developed using EFA. In this regard, the present study used EFA with principal components analysis.

4.11 SEM Stage 5: Specifying the Structural Model

Specifying the measurement model, by assigning indicator variables to the constructs they should represent, is a critical step in developing an SEM model. This activity is accomplished in stage 2. Stage 5 involves specifying the structural model by assigning relationships from one construct to another based on the proposed theoretical model. Although the focus in this stage is on the structural model, estimation of the SEM model requires that the measurement specifications be included as well. In this way, the path diagram represents both, the measurement and structural part of SEM in one overall model (Hair et al., 2006). The present study presents the specification of the structural model in Chapter seven.

4.12 SEM Stage 6: Assessing Structural Model Validity

The final stage involves efforts to test the validity of the structure and model and its corresponding hypothesised theoretical relationships, which in this study correspond to H_1-H_9 of the theoretical model. If the measurement model has not survived its test of validity

in stage 4, stages 5 and 6 cannot be performed. If stage 4 provides a green light, meaning the measurement model is validated, then a valid test of the structural relationships can be performed.

The process of establishing the structural model's validity follows the general guidelines outlined in stage 4. The observed data are still represented by the observed sample covariance matrix. However a new SEM estimated covariance matrix is computed and it is different from that for the measurement model. This difference is a result of the structural relationships in the structural model.

Good model fit alone is insufficient to support a proposed structural theory. The researcher must also examine the individual parameter estimates that represent each specific hypothesis. A theoretical model is considered valid to the extent that the parameter estimates are: 1) statistically significant and in the predicted direction; and 2) nontrivial. The first one observes that the parameters are greater than zero for a positive relationship and less than zero for a negative one. The second characteristic should be checked using the completely standardised loading estimates. Therefore the structural model of the present study is considered acceptable only when it demonstrates acceptable model fit and the path estimates, representing each of the nine hypothesis of the theoretical model, are significant and in the predicted direction (Gerbing & Anderson, 1988).

4.13 Validity and Reliability Assessment

Theory construction is very much dependent upon clarity and appropriateness of the concepts employed (Zaltman et al., 1982); accordingly, the researcher's goal of reducing measurement error can follow several paths. In assessing the degree of measurement error

present in any measure, the researcher must address two important characteristics: validity and reliability.

Validity is the degree to which a measure accurately represents what it is supposed to (Sekaran, 2003). Ensuring validity starts with a thorough understanding of what is to be measured and then making the measurement as "correct" and accurate as possible. If validity is assured, the researcher must still consider the reliability of the measurements. Reliability is the extent to which a variable or set of variables is consistent in what it is intended to measure. If multiple measurements are taken, the reliable measures will all be consistent in their values. It differs from validity in that it relates not to what should be measured, but instead to how it is measured. Reliability is a necessary but not sufficient condition for validity. It can therefore be seen that validity is concerned with how well the concept is defined by the measures, whereas reliability relates to the consistency of the measures (Bagozzi, 1984).

4.13.1 VALIDITY

Validity is the extent to which a measure or set of measures correctly represents the concept of study; the degree to which it is free from any systematic or non-random error. As described in the following sections there are different forms of validity, which include content and construct validity.

4.13.2 CONTENT VALIDITY

The first step toward establishing the correspondence between theoretical constructs and items measured is content validity. This is a non-statistical type of validity that involves the systematic examination of the construct content *"to determine whether it covers a representative sample of the behaviour domain to be measured"* (Anastasi & Urbina, 1997:114). A construct has content validity built into it by a careful selection of which items to include. According to this perspective, content validity is the assessment of the correspondence of the variables to be included in a summated scale and its conceptual definition (Zaltman et al., 1973). This form of validity is very closely related to face validity, which subjectively assesses the correspondence between the individual items and the concept through ratings by expert judges, pre-tests with subpopulations, or other means. The objective is to ensure that the selection of scale items extends past just empirical issues to also include theoretical and practical considerations. If a measurement scale does not possess content validity, it cannot possess construct validity no matter what statistical analysis is conducted (Churchill, 1979; Hair et al., 2006; Robinson et al., 1991a).

In the context of this study, the process to ensure content validity was through a literature review and expert judgement. The literature review is described in Chapter three. The theoretical constructs and proposed measurement scales were extensively pre-tested in personal interviews with 'expert' practitioners, as described in Sections 4.3 and 5.4.7. The items adopted for all scales employed were those characterised by substantial clarity and for which there was consensus among experts' opinion on their contribution toward circumscribing the theoretical constructs.

4.13.3 CONSTRUCT VALIDITY

Construct validity is the extent to which a set of measured items actually reflects the theoretical latent construct those items are designed to measure. Thus, it deals with the accuracy of measurement. Evidence of construct validity provides confidence that the item measures taken from a sample represent the actual true score that exists in the population. Construct validity consists of convergent and discriminant validity (Jackson & Trochim, 2002).

Convergent Validity

Convergent validity is the extent to which the latent variable correlates to items designed to measure the same latent variable (Garver & Mentzer, 1991). Several ways are available to estimate the relative amount of convergent validity among item measures. Increasingly popular in marketing and strategy literature is the method of convergent validity assessed using structural equation modelling. This method involves the construction of a measurement model in which all constructs are described by theoretically specified indicators. Convergent validity is evidenced when items load significantly on their positioned indicators. Another indicator which can be applied to measure convergent validity and reliability is the Average Variance Extracted (AVE). Finally, it is important to mention that reliability is also an indicator of a convergent validity.

In the case of high convergent validity, high loadings on a factor would indicate that they converge on some common point. At a minimum, all factor loadings should be statistically significant (Anderson & Gerbing,1988). Because a significant loading could still be fairly weak in strength, a good rule of thumb is that standardised loading estimates should be 0.5 or higher, and ideally, 0.7 or higher. The rationale behind this rule can be understood in the

context of an item's communality, which is the estimate of its shared, or common, variance among the variables as represented by the derived factors.

With CFA, the AVE among a set of construct items is a summary indicator of convergence (Fornell & Larcker, 1981). The AVE can be applied to measure both convergent validity and reliability. The AVE value can be calculated by using standardised loadings as exemplified in the following formula:

$$\frac{\sum_{i=1}^{n} \lambda_i^2}{\sum_{i=1}^{n} \lambda_i^2 + (\sum_{i=1}^{n} SE_i)} > 0.5$$

Where λi denotes the standardised factor loading, SE is the standardised error, and i is the number of items that measure the construct. It is suggested that if the AVE is less than 0.5, the validity of the individual items as well as the construct are questionable.

Furthermore, it is important to consider that reliability is also an indicator of convergent validity. As shall be discussed later, considerable debate centres around which of several alternative reliability estimates is best (Bacon, 1995).

Convergent validity in the present study was assessed by AVE and significant loadings of the items, as explained in Chapter six.

Discriminant Validity

Discriminant validity is ascertained when the measure of interest does not correlate too highly with other measures that it supposedly differs from, and therefore is the extent to which a given construct discriminates from other constructs. Thus, high discriminant

validity provides evidence that a construct is unique and captures some phenomena other measures do not. CFA provides two common ways of assessing discriminant validity.

First, the correlation between any two constructs can be fixed as equal to one. In essence, it is the same as specifying that the items making up two constructs could just as well make up only one construct. If the fit of the two-construct model is not significantly better than that of the one-construct model, then discriminant validity is insufficient (Anderson & Gerbing, 1988; Bagozzi & Phillips, 1982). In practice, however, this test does not provide strong evidence of discriminant validity, because high correlations, sometimes as high as 0.9, can still produce significant differences in fit (Hair et al., 2006).

A better test is that the square correlation estimates for any two constructs should be less than the AVE (Fornell & Larcker, 1981). The logic here is based on the idea that a latent construct should explain its item measures better that it explains another construct. Passing this test provides good evidence of discriminant validity (Hair et al., 2006). This test is applied in the present study and presented in Section 7.4.9.

In addition to distinctiveness between constructs, discriminant validity also means that individual measured items should represent only one latent construct. The presence of cross loadings indicates a discriminant validity problem and the CFA may not be good (Hair et al., 2006).

4.13.4 Reliability

Reliability is an assessment of the degree of consistency between multiple measurements of a variable. One form of reliability is test re-test, by which consistency is measured between the responses for an individual at two points in time. The objective is to ensure

that responses are not too varied across time periods so that a measurement taken at any point in time is reliable. A second and more commonly used measure of reliability is internal consistency, which applies to the consistency among the variables in a summated scale. The rationale of internal consistency is that the individual items or indicators of the scale should all be measuring the same construct and thus be highly intercorrelated (Churchill, 1979; Nunnally, 1978). Because no single item is a perfect measure of a concept, there are a series of diagnostic measures to assess internal consistency: 1) those that relate to each separate item; 2) the reliability coefficient that assesses the consistency of the entire scale; and 3) reliability measures derived from confirmatory factor analysis.

Diagnostic Measures that relate to each Separate Item

The first type of diagnostic measures relate to each separate item, including the item-to-total correlation and the inter-item correlation. Item-to-total correlation relates to the correlation of the item to the summated scale score, whereas inter-item correlation refers to the correlation among items. Rules of thumb suggest that the item-to-total correlations exceed 0.5 and that inter-item correlations exceed 0.3 (Hair et al., 2006).

The reliability coefficient that assesses the consistency of the Entire Scale

The second type of diagnostic measure is the reliability coefficient that assesses the consistency of the entire scale, with Cronbach's alpha (Cronbach, 1951; Nunnally, 1978; Peter, 1979) being the most widely used measure. The generally agreed upon lower limit for Cronbach's alpha is 0.7 (Robinson et al., 1991; Robinson et al., 1991a), although it may decrease to 0.6 in exploratory research (Robinson et al., 1991a). One issue in assessing Cronbach's alpha is its positive relationship to the number of items in the scale. Because increasing the number of items, even with the same degree of intercorrelation, will increase

the reliability value, researchers must place more stringent requirements for scales with a large number of items.

Reliability measures derived from CFA

Also available are reliability measures derived from confirmatory factor analysis. Included in these measures are the composite reliability and the AVE. As previously mentioned, AVE can be used to measure both reliability and convergent validity. AVE is explained in Section 4.13.3 of convergent validity.

Complementary to AVE, composite reliability is commonly used in conjunction with SEM models. It is easily computed from the squared sum of factor loadings (λi) for each construct and the sum of the error variance terms for a construct (δi) as:

$$\frac{(\sum_{i=1}^{n}\lambda_i)^2}{(\sum_{i=1}^{n}\lambda_i)^2 + (\sum_{i=1}^{n}SE_i)} > 0.7$$

In this study the calculation of Cronbach's alpha coefficient, preceded by item-to-total correlations for an initial refinement of the measures, can be found in Section 7.3. Item-to-total correlations were calculated in order to eliminate those items which did not belong to the content domain of the constructs examined. However, taking into account that Cronbach's alpha is criticised as it inflates on a measuring scale that has a large number of items (Gerbing & Anderson, 1988), the present research also followed suggestions of more rigorous tests for CFA.

Thus, three tests were conducted in the present study to assess reliability. First, individual item reliability was computed (R^2). A value of 0.5 or above proves the evidence of

accepted reliability (Bollen, 1989b). Secondly, composite reliability was calculated. Finally, construct reliability was assessed by estimating AVE. The results are presented in the Measurement Model of Section 7.4.

4.13.5 Unidimensionality as an assumption of Construct validity

Unidimensionality is an assumption underlying the calculation of construct reliability. It occurs when scale items are strongly associated with each other and represent a single concept. The assessment of unidimensionality is to perform confirmatory factor analysis of a multiple-indicator measurement model via goodness-of-fit along with other diagnostic tools such as standardised residuals and modification indices (Anderson & Gerbing, 1988). In the present study, a variety of indices, including GFI, CFI, TLI, and RMSEA, as well as the overall fit of the hypothesized model are presented in Chapter six and Chapter seven.

4.14 Access and Ethics

Ethics refers to moral principles or values that generally govern the conduct of an individual group. The researcher has to consider ethical issues throughout the period of research. Ethical concerns emerge as the researcher plans the investigation, seeks access to organisations and to individuals, and collects, analyses and reports the data. Schminke and Wells (1999) define ethics in terms of a code of behaviour appropriate to academics and the conduct of research. The appropriateness of behaviour is vital as researchers will be affected by broader social norms of behaviour at the time of the study.

The researchers are required to conduct research projects in an objective manner, free from personal biases and motives. Improper execution of research includes using biased

sampling, ignoring relevant data, or misusing statistics, all of which lead to erroneous or misleading results.

The researcher has responsibilities to his/her profession, clients or receptors of the studies, and respondents, and must adhere to high ethical standards to ensure that neither, the function nor the information are brought into disrepute (Aaker et al., 2007). In this regard, the present investigation, which is a purely academic management marketing and strategy project, followed the code of ethics of the Mexican Association of Research Agencies, (Asociación Mexicana de Agencias de Investigación, AMAI) (AMAI, 2008). The AMAI code of ethics favours honesty, trust and mutual respect in research. This code serves as a guideline for research ethical decisions from which three elements are underlined: 1) responsibilities with the informants; 2) social responsibility; and 3) the use of the information gathered.

In terms of the responsibilities with the informants, the AMAI code of ethics defends the respondent's ethics and rights. A respondent who, of his or her free will agrees to participate in a marketing research project has the ethical obligation to provide honest and truthful answers. The respondent can abstain from answering a sensitive question, but falsifying the answer is ethically improper. In the same manner any respondent who participates in a research project has the following rights: the right to privacy, the right to safety; the right to know the true purpose of the research; the right to the research results; and the right to decide which question to answer.

Social responsibility and the use of the information gathered in the AMAI code of ethics correspond to the support of the genuine purpose of the investigation and not to overt or covert purposes that could confuse the data collection with different intentions. The

information gathered through research projects must not be misused in order not to violate the respondent's confidentiality.

4.15 Concluding Comments

This chapter has provided a detailed explanation of the methodological approach adopted in the present study. Specifically, the discussion has covered the philosophical stance, where research design and the data collection method were detailed.

The explanation of SEM as the data analysis method referred to its six procedural stages, which are developed in other chapters, including: (1) the definition of individual constructs in Chapter 3; (2) the development and specification of the measurement model, as well as, (3) designing a study to produce empirical results in Chapter 5; (4) assessing measurement model validity in Chapter 7; (5) specifying the structural model and (6) assessing its validity in Chapter 8.

Subsequently this chapter has also provided the choice of statistical techniques for data analysis, an assessment of validity and reliability, as well as the ethical and moral principles considered by the researcher throughout the period of research.

CHAPTER 5

DATA GENERATION AND MEASUREMENTS

5.1 INTRODUCTION

This chapter describes the operationalisation of constructs by selecting measurement scale items and scale type. It also covers the execution of data collection by specifying the development of the research tactics in terms of planning what to measure and the development and pre-testing of the questionnaire used in the process of data collection. Moreover, the sampling method is described by defining the target population and sampling frame which was focused on the INVs of Mexico; also given are the selection of sampling procedure, and sample size and elements.

The final part of this chapter includes the profile of respondents and of the participating INV firms.

5.2 CONSTRUCT OPERATIONALISATION

In line with the positivist approach, the role of scientific inquiry is to establish the relationships that exist among the theoretical constructs, also known as latent variables of the research model, with observable data (Braithwaite, 1955; Popper, 1959). These constructs are unobservable in nature, but it is imperative to relate them with the empirical world, if the model is to be supported or refuted (Bagozzi, 1984; Suppe, 1977). This link to the empirical world is reflected in the process of operationalisation which is concerned with how the construct is to be measured. Nunnally and Bernstein (1994) define

measurement as a set of rules for assigning symbols to objects in order to: 1) represent quantities of attributes, also known as scaling; 2) or define whether the objects fall into similar or different categories with respect to a given attribute, likewise identified as classification. In social sciences, measurement is typically defined as the designation of numbers to observations according to some set of rules (Stevens, 1968; Summers, 1970). However, these rules, which can be judged as 'good' or 'bad' according to their closeness to 'reality', are particularly difficult to establish simply because 'reality' is under investigation. Accordingly, constructs and the relationships among them are inferred from the observation of presumed indicators of constructs.

In this regard, one of the most important and sometimes subjective steps is the operationalisation of constructs. This definition should provide the basis for selecting or designing individual indicator items. A researcher operationalises a construct by selecting its measurement scale items and scale type. In survey research, operationalising a construct often involves a series of scale items in a common format. The definitions and items are derived from two common approaches: scales from prior research and new scale development.

In many instances constructs can be defined and operationalised as they have been in previous research studies. The majority of research today utilizes scales published in an academic journal article (Hair et al., 2006). After the literature search on the individual constructs of the present study, those constructs scales that had previously performed well were identified and used. The present study used the Likert-type scale based on its use in previous research studies. Also taken into account was the initial exploratory approach

with the aim to identify the relevance of the constructs to the INV's environment and the relationship of the variables studied.

The conceptual model exhibited in Figure 3.1 relating to the constructs in this investigation and the initial pool of items were designated from the review of literature to conceptualise the constructs: 1. EO; 2. ambidextrous innovation strategy; 3. resources; 4. capabilities; 5. competitive strategy; 6. positional advantage; 7. performance. Each of the seven constructs comprises different dimensions generating a total of twenty seven latent variables detailed in the following sections.

The conceptual model is conceptualized at the same level as the RBV theory on which it draws. Assessing the relationships at this level of analysis required treating the variables in this model as higher order constructs (Kim et al., 2006; Matsuno & Mentzer, 2000; Morgan et al., 2004; Zou & Cavusgil, 2002), see Section 7.4.1.

The export venture (i.e., the firm's efforts in a single product or product line exported to a specific foreign market) has been identified as the primary unit of analysis in understanding the seven constructs. The export venture unit of analysis facilitates the isolation of specific antecedents in positional advantage to capture differences in the strategies executed by export ventures that face various market requirements (Ambler et al., 1999; Cavusgil & Zou, 1994).

5.2.1 RESOURCES CONSTRUCT OPERATIONALISATION

There is a significant amount of relevant theoretical work conducted in the strategic management field, which offers classifications of resources (Barney, 1991, 1997; Grant, 1991; Hall, 1993), thus assisting the task of operationalisation. Particular emphasis has been placed on financial, reputational and human resources on determining export venture performance.

Financial Resources

These types of resources are concerned with the ability to access cash and capital (Gomez-Mejia, 1988). The most important characteristics of INV financial resources are the level of financing that can be accessed and the timeframe within which this can be deployed (Morgan et al., 2006; Morgan & Hughes, 2007). Given the relatively high working capital and financial liquidity requirements of international operations, the fieldwork of the present study reinforces the literature indicating that access to financial resources is essential in enabling INVs to effectively engage in relationship building and marketing activities in international markets (Leonidou & Kaleka, 1998; Yaprak, 1985).

Human Resources

Human resources are based on the knowledge and the experience of individual employees. Human resources are related to the number and characteristics of personnel available to formulate and implement strategy (Barney, 1991; Barney & Wright, 1998; Morgan & Hughes, 2007).

Important aspects of human resources identified in the literature indicate the individual-level of experience, knowledge, and skills of the available person (Cavusgil & Zou, 1994;

Daily et al., 2000; Morgan et al., 2006). In the context of INVs, the fieldwork supports the international business literature indicating that INVs' managers think of human resources as concerning the breadth and depth of personnel available to design and execute the venture's marketing strategy (Dimantopoulos & Schlegelmilch, 1994).

Reputational Resources

Reputational resources relate to the intangible image-based assets available to the firm (Fernhaber & McDougall, 2009; Fombrun & Shanley, 1990). Reputational resources include brand image, brand personality and brand name awareness. Brand image is a set of brand associations which according to Roth (1995), is related with functional image, social image and sensory image. Brand awareness includes the concepts of brand recall and brand recognition (Steenkamp et al., 2003). The distinctiveness of the brand image can make a brand more interesting and memorable to express the customer's identity. The appeal of the brand personality can even become a vehicle to express a customer's identity (Keller, 1993).

Operationalisation of Resources

Resources have been operationalised as a higher order construct defined on the basis of Morgan and colleagues (2006) with three dimensions, namely, *financial*, *human* and *reputational*, detailed in Table 5.1. A Likert-type seven point scale was employed to operationalise resources ranging from (1) 'Much Worse' to (7) 'Much Better' with a mid-point label of 'About the same' as presented in Table 5.9.

TABLE 5.1 Sources of Resources Measures			
Sub-constructs	**Measurement Items**	**Label**	**Source**
Financial	Level of financial resources available	finRes_av	Morgan, Vorhies and Schlegelmilch (2006)
	Access to capital	access_cap	
	Speed of acquiring and deploying financial resources	speed_finRes	
	Size of financial resources devoted to this export venture	size_finRes	
	Ability to find additional financial resources when needed	ability_find_finRes	
Human	Knowledge of export marketing personnel	Know_exMkting	Morgan, Vorhies and Schlegelmilch (2006)
	The quality of our export marketing people	qual_exMkting	
	Experience of our export marketing personnel	expe_exMkting	
	The skills of our export marketing people	skills_exMkting	
Reputational	Distinctiveness of our brand image	dis_brandImage	Morgan, Vorhies and Schlegelmilch (2006)
	Brand name awareness	brandName_aw	
	Appeal of our brand 'personality'	brandPer	
	Strength of our brand image	Str_brandIm	

5.2.2 CAPABILITIES CONSTRUCT OPERATIONALISATION

Capabilities are configurations of routines and resources that allow an organization to achieve its goals (Nelson & Winter, 1982). The present study focuses on four capabilities: *pricing*, *service*, *distribution*, and *communication*. These capabilities are not exhaustive but rather representative of the core functional capabilities in the marketing mix that managers of INVs can leverage.

Pricing Capabilities

Pricing capabilities concern the extent to which an INV can effectively use and manage pricing tactics to respond to competitors' challenges and customer changes in the international market. As a spanning capability (Day, 1994), pricing capability helps an INV meet the price competition in the international market. It also facilitates the

implementation of cost-control measures and effective financial management, leading to a low-cost position for the INV. Dicksen (1992) has developed a theory of competitive rationality in which he argues that the lack of fit between supply and demand offers opportunities for suppliers that respond quickly. Therefore, the fieldwork of the present study sustains the literature's argument that responding quickly to competitors' pricing tactics and customer needs may offer firms strong motivation to find ways to decrease costs without affecting the potency of output (Ames & Hlavacek, 1990; Dicksen, 1992). Effective cost control would give an INV an edge over its rivals, thereby leading to low control advantage (Zou et al., 2003).

Service Capabilities

Service attributes are recently considered as principal determinants of the purchasing process (Choi & Hartley, 1996). A buyer may focus on non-price factors and select products which do not have the lowest price if this choice is important to the purchasing firm's strategy to achieve and sustain differentiation advantage in the market or segment in which it competes (Katsikeas et al., 2004). The differentiation advantages of service capabilities require a high level of after sales service (Anderson & Coughlan, 1987; Lilien, 1979). The fieldwork of the present study sustains the argument that delivering high quality after-sales service, attracting and retaining after-sales personnel, as well as training after-sales service personnel are significant service capabilities that enable INVs to design pertinent marketing strategies.

Distribution Capabilities

Distribution capabilities are the INV's abilities to provide superior support to distributors and to develop a close relationship with them. As a critical channel-bonding capability (Day, 1994) it requires a close relationship of INVs and distributors. In this regard, the influence of INVs on distributors is empowered (Keegan, 1984) in terms of offering superior customer service. In the international market, because of the difficulty of acquiring accurate information about customers, an INV that wants differentiation advantages must secure the close cooperation of distributors (Porter, 1986). The fieldwork of the present study supports the view that a strong distribution capability helps secure such close cooperation from INVs distributors (Zou et al., 2003). In this study, distribution capabilities focus on adding value to distributors' businesses. INVs distribution capabilities are measured in terms of the levels of support to distributors, the closeness in working with distributors/retailers as well as attracting and retaining the best distributors.

Communication Capabilities

Communication capabilities refer to the extent to which an INV can effectively use and manage information with its customers (Zou et al., 2003) and channel members (Morgan & Hunt, 1994). In increasingly dynamic marketplaces, communication capabilities have been identified as an important asset (Hult & Ketchen, 2001). Communication capability includes three critical processes, identified by Day (1994): market sensing, customer linkage, and channel bonding. Day argues that communications occur at many levels. When the focus is on customers, the function of communication is customer linkage. Communication is concerned with the number and quality of existing relationships with

key constituents such as customers and channel members (Morgan & Hunt, 1994), in order to persuade customers through the features, price, terms and maintenance of the firm's product.

Market sensing enhances an INV's ability to respond effectively and quickly to shifts in customers' preferences. In addition, market sensing enhances an INV's ability to gather competitor information, such as a competitor's cost structures and competitive behaviours. The fieldwork of the present study supports the limited INV literature in this area (Cadogan et al., 2002) in suggesting that international market knowledge is a key resource in enabling INVs to develop and effectively execute appropriate marketing strategies.

Communications between an INV and the distributors also facilitate channel bonding because of the communications effect on trust and commitment (Duncan & Moriarty, 1998; Morgan & Hunt, 1994). The fieldwork of the present study supports the international business literature in suggesting that a good quality of channel relationships in the international market are particularly important drivers of an INV's ability to design and execute appropriate INV marketing strategies (Ambler et al., 1999; Leonidou & Kaleka, 1998).

Operationalisation of Capabilities

Capabilities have been operationalised as a higher order construct based on four dimensions: distribution, service, communication and pricing. Distribution and pricing capabilities were measured through Zou and colleagues (2003); whereas service capabilities were operationalised based on Katsikeas and colleagues (2004), as well as

Choi and Harley (1996). Communication capabilities were assessed with the fundament of Morgan and colleagues (2006); Morgan, Vorhies and Katsikeas (2003); and Morgan and Hunt (1994), which are consistent with the recent measures of Hughes and Morgan (2007), see Table 5.2. A Likert-type seven point scale was employed to operationalise capabilities ranging from (1) 'Much Worse' to (7) 'Much Better' with a mid-point label of 'About the same' as exhibited in Table 5.9.

TABLE 5.2 Sources of Capabilities Measures

Sub-constructs	Measurement Items	Label	Source
Distribution	Adding value to distributors' businesses	add_value_dist	Zou, Fang, & Zhao (2003)
	Attracting and retaining the best distributors in the export venture market	attr_ret_best_dist	
	Providing high levels of support to distributors	high_supp_dist	
	Closeness in working with distributors/retailers in this market	Close_work_dist	
Service	Delivering high quality after-sales service	deliv_high_qual_afterSalesServ	Katsikeas, Paparoidamis & Katsikea (2004)
	Attracting and retaining after-sales service personnel	attract_retain_afterSalesServ_person	Choi & Harley (1996)
	Training after-sales service personnel	train_afterSalesServ_person	
Pricing	Responding effectively to competitor's pricing tactics	resp_effe_compPri	Zou, Fang, & Zhao (2003)
	Using our pricing skills to respond quickly to any customer changes	Resp_quick_custChange	
	Communicating pricing structures and levels to customers	Comm._pri	
Communication	Quality of our channel relationships in this export market	qual_chRel	Morgan, Vorhies and Schlegelmilch (2006)
	Knowledge of competitors in this market	compKnow_expMkt	
	Information related to doing business in this market	Info_doBus_expMkt	Morgan, Zou, Vorhies, Katsikeas (2003)
	Number of customers with whom we already have a relationship	num_cust	Morgan & Hunt (1994)

5.2.3 COMPETITIVE STRATEGY CONSTRUCT OPERATIONALISATION

Competitive strategy is linked to the relationship between an INV's available resources and capabilities, with its positional advantage by determining how well available resources and capabilities are matched with market requirements (Collis, 1995; Teece et al., 1997). Also with the appropriateness of planned resource and capability allocation (Castanias & Helfat, 1991; Oliver, 1997) as well as the quality of strategy implementation (Day & Wensley, 1988; Dickson, 1992). Thus, the fieldwork of the present study posits that both, the competitive strategies and the adequate deployment of available resources and capabilities, generate linkages with the positional advantages achieved by the INV (Conner, 1991; Grant, 1991; Morgan et al., 2004).

Porter's low-cost-differentiation framework constitutes a major contribution to development of strategic management literature. A key shortcoming of the low-cost-differentiation dichotomy, however, is that these two strategic imperatives are neither opposites in the purest sense, nor are they always mutually exclusive (Bradley, 2006; Hill, 1988; Parnell, 1997). The "combination strategy school" argues that successful firms over the long term exhibit one or more forms of differentiation, including differentiation service and cost leadership. Successful businesses are usually positioned to capitalise on an attractive value proposition emanating directly from their combination of low cost and differentiation (Wright, 1987).

Following the "combination strategy school" and concentrating on a specific market, the generic strategic alternatives for the competing firm are: cost leadership and differentiation. With regard to cost, the literature reports two types of cost leadership: cost

efficiency and asset parsimony. Cost efficiency focus on minimising cost per unit of output, alternatively asset parsimony concentrates on reducing the assets needed to produce each unit. In terms of differentiation, two dimensions are proposed: marketing and service differentiation.

From the exploratory interviews with INVs managers it was evident that they experienced significant difficulty with conceptualising asset parsimony as a distinct construct; they were more inclined to consider it was a way to reduce cost. Additionally, the exploratory interviews indicated that INV firms were placing a great deal of emphasis on differentiated customer service elements, especially delivery services. Indeed, managers stressed the fact that they were trying to improve the value of their offering to customers through superior delivery service and the response to end-user customer orders. In this regard, this author decided to include delivery differentiation items in measuring the competitive strategy pursued by INVs

A marketing differentiation strategy provides uniqueness through image, customer, advertising, promotions, and other marketing related activities (Menguc et al., 2007; Pla-Barber & Escribá-Esteve, 2006). In this respect, marketing differentiation refers to the market sensing and customer-linking capabilities that firms use to connect customers to the firm (Day, 1994).

Based on the "combination strategy school", the fieldwork of the present study supports the argument that INVs successfully combine low costs and differentiation in order to create synergies that overcome any tradeoffs that may be associated with that same combination.

Operationalisation of Competitive Strategy

Competitive strategy has been operationalised as a higher order construct based on three dimensions: *cost leadership*, *marketing differentiation* and *delivery differentiation.*

In the present study three key areas of planned resource and capability deployment have been adapted from Morgan and colleagues (2004) that support INV's strategic choices in competing for target customers. First, cost leadership provides customers with lower prices than competitors (Aulakh et al., 2000; Hill, 1988; Styles & Ambler, 1994; Sullivan & Bauerschmidt, 1991). Second, marketing differentiation develops new and distinct INV products (Aulakh et al., 2000; Samiee & Roth, 1992; Styles & Ambler, 1994) as well as investments in marketing communications (Menguc et al., 2007; Spanos & Lioukas, 2001). Marketing communications is an attempt to build marketing sensing and customer linking capabilities. Third, delivery differentiation enhances efficiency in the delivery of value offerings to customers (Cavusgil & Zou, 1994; Roth & Morrison, 1992). The individual items describing each of the above dimensions are presented in Table 5.3. A Likert-type seven point scale was employed to operationalise export competitive strategy ranging from (1) 'Not at all' to (7) 'To a great Extent' with a mid-point label of 'To some Extent' as depicted in Table 5.11

TABLE 5.3 Sources of Competitive Strategy Measures			
Sub-constructs	Measurement Items	Label	Source
Delivery Differentiation	...guarantee delivery times? ...offer quick delivery and response to end-user customer orders? ...achieve quick delivery and response to distributor orders?	guarantee_deliv_times off_quick_deliv achieve_quick_deliv	Morgan, Kaleka & Katsikeas (2004) Roth & Morrison (1992) Cavusgil & Zou (1994)
Marketing Differentiation	...invest in marketing communications to build awareness? ...develop new export venture product offerings? ...offer a highly differentiated export venture product(s)?	Inv_mktingComm_aware dev_newEVProd off_high_diff_EVProd	Spanos, Lioukas (2001) Morgan, Kaleka & Katsikeas (2004) Aulakh, Kotabe, Teegen(2000)
Cost Leadership	...be the lowest cost provider in this export market? ...provide export venture customers with lower prices than competitors? ...tightly control export venture selling and promotion expense? ...invest in cost savings technology	low_prov_EVMkt EV_cust_low_price control_EV_sell_prom_expense Inv_cos_sav_tech	Aulakh, Kotabe, Teegen(2000) Styles & Ambler (1994)

5.2.4 POSITIONAL ADVANTAGE CONSTRUCT OPERATIONALISATION

This construct captures the positional competitive advantage achieved in the market. Within the strategic management literature the factors leading to positional competitive advantages can be constructed broadly as lower relative costs and superior customer value (Lado et al., 1992; Parnell, 2006; Spanos & Lioukas, 2001).

Attempts to operationally define positional advantage in the strategic management field of INVs are scant. However, viewed as positional advantage achieved, the strategy literature suggests several facets of the competitive advantage construct (Grant, 1995). Further elucidated by the exploratory interviews with INVs' executives, it appears that these facets can be epitomised in the following three dimensions: cost, marketing product and

promotion, the last two accounting for the superior customer value advantage (see Section 3.4.1).

Cost advantage involves the resources consumed in producing and marketing the venture's value offering and affects price and perceived value in the international market (Kotha & Nair, 1995).

The positional advantage based on superior customer value considers image based assets available to the firm (Fombrun & Shanley, 1990; Hall, 1993), the design, style and availability of the product (Katsikeas et al., 2004). Perhaps a firm's most valuable image based asset for improving marketing productivity is the knowledge that has been created about the brand in consumer's minds, especially when the consumer is familiar with the brand and holds some favourable, strong and unique brand associations in memory. These perceptions are known as brand image, whereas brand personality can make a brand more interesting and memorable, and can even become a vehicle to express a customer's identity (Keller, 1993).

The fieldwork of the present study indicates that superior customer value and lower relative cost can enable INVs to build and protect market share and positional advantage. The definition of positional advantage as superior customer value and lower relative costs could denote the comparative nature of the construct, along with the decisive presence of the two market factors, namely, customers and competitors. While competitors are the reference point for comparison in defining both superior customer value and lower relative costs, it is customers' perceptions of the relative value of the offer that determine the establishment of a differentiation-based advantage in a specific market (Barney, 1997).

Ideally, the positional advantage measurement requires obtaining feedback from these two parties, namely, customers and competitors; however, this is not feasible given the research design selected. Drawing upon the exploratory interviews with managers it was confirmed that the INV executives were knowledgeable of both customers' preferences and competitors' moves. This author understands is a big assumption to think that managers know about their competitors moves, however it is found in previous export research (Morgan et al., 2004). This is reinforced with the definition of positional advantage used in the present study, where positional advantage can be conceptualised as a superior market place position that captures the provision of superior customer value and the achievement of lower relative costs (Day & Wensley, 1988).

Operationalisation of Positional Advantage

Positional advantage has been operationalised as a higher order construct based on three dimensions: cost, promotion and marketing product.

The respondents were asked to provide an estimate of how their business compared with those of their competitors with regard to a number of different aspects of cost, marketing product (Morgan et al., 2004) and promotion (Morgan et al., 2006), within the context of the specific INV. In this way, customers were indirectly taken into account, see Table 5.4. A Likert-type seven point scale was applied to operationalise capabilities ranging from (1) 'Much Worse' to (7) 'Much Better' with a mid-point label of 'About the same' as depicted in Table 5.9.

TABLE 5.4 Sources of Positional Advantage Measures

Sub-constructs	Measurement Items	Label	Source
Cost	Unit production costs Cost of goods sold Actual selling price Payment and credit terms	unit_prod_cost cost_goods actual_sell_price pay_credit_terms	Morgan, Kaleka & Katsikeas (2004)
Promotion	Share of mind Brand personality Brand image	share_mind brand_per brand_image	Morgan, Vorhies and Schlegelmilch (2006)
Marketing Product	Product availability for customers Channel delivery speed to customers Product design and style	prod_av ch_deli prod_des_style	Morgan, Kaleka & Katsikeas (2004)

Positional advantages are direct antecedents of INV performance because the relative superiority of a venture's value offering determines target customers' buying behaviour (Anderson et al., 1994; Piercy et al., 1998) and the outcomes of this behaviour for the INV (Cavusgil & Zou, 1994).

5.2.5 PERFORMANCE CONSTRUCT OPERATIONALISATION

It is clear that multidimensional measures of performance should be employed in the field of marketing (Morgan et al., 2004). The operationalisation of the performance construct in the IB context is diverse and complex owing to cross-border variations in the market share, type of measure, and level of analysis (Hult et al., 2008), see Section 3.4.7.

Accordingly, INV performance is conceptualised in this study at the export venture level in terms of three dimensions for the present study: 1) effectiveness, the extent to which organisational goals and objectives are met; 2) efficiency, the relationship between performance financial outcomes and the inputs required to achieve them; and, 3)

adaptiveness, the operational ability to respond to environmental changes (Jaworski & Kohli, 1993; Walker et al., 1987). In most studies, measurement of performance is unidimensional in nature, with the emphasis on the use of measures concerning the effectiveness dimension. Measures that assess the efficiency dimension of performance are less frequently used (Zou et al., 2003). Scant attention has been paid to the assessment of the adaptiveness dimension of performance. Focusing only on unidimensional measurement approaches may lead to an incomplete understanding of the performance of the firm. Therefore, it is important that multidimensional performance conceptualisations and operationalisations be adopted, reflecting contemporary theoretical developments in the general marketing fields.

Effectiveness

Effectiveness is the success of a venture's products and programs in relation to those of its competitors in the market. In the present study, effectiveness was measured by the items market share growth and positive changes in market share in comparison with that of competitors or changes in the market share (Vorhies & Morgan, 2003; Walker et al., 1987).

Efficiency

Efficiency is the outcome of a venture's products and programs in relation to the resources employed in implementing them. The present investigation applied the common measures of efficiency based on profitability such as return on investment, return on sales and the venture's margin (Vorhies & Morgan, 2003; Walker et al.,1987).

Adaptiveness

Adaptiveness is the venture's success in responding over time to changing conditions and opportunities in the environment. Adaptiveness can be measured in a variety of ways, the present study utilised the most common measures like the number and revenue of successful new INV products in relation to those of competitors, as well as time to market for new INV products and the response to competitors product changes in this market (Walker et al.,1987).

Operationalisation of Performance

Performance has been operationalised as a higher order construct based on three dimensions: efficiency, adaptiveness and effectiveness.

The participating INV executives were asked to provide their own rating of their firm's performance in comparison to competitors in the market (Hooley et al., 1990; Peng & York, 2001) in terms of effectiveness, efficiency and adaptiveness (Walker et al.,1987), as presented in Table 5.5. A Likert-type seven point scale was employed to operationalise capabilities ranging from (1) 'Much Worse' to (7) 'Much Better' with a mid-point label of 'About the same' as depicted in Table 5.9.

TABLE 5.5 Sources of Performance Measures			
Sub-constructs	**Measurement Items**	**Label**	**Source**
Effectiveness	Market share growth Positive changes in market share Acquiring new customers	mkSh_grow pos_change_mkSh acq_cust	Walker & Ruekert (1987)
Efficiency	Return on Investment (ROI) Export Venture margins Return on Sales (ROS)	ROI EV_margin ROS	Walker & Ruekert (1987)
Adaptiveness	Revenue from new export venture products Number of successful new export venture products Time to market for new export venture products Responding to competitors product changes in this export market	rev_newEVProd num_succ_newEVProd timeMkt_newEVProd resp_comp_expMkt	Walker & Ruekert (1987)

5.2.6 EO CONSTRUCT OPERATIONALISATION

The concept of EO encapsulates the firm-level processes, practices, decision-making style (Lumpkin & Dess, 1996), and strategic orientation (Wiklund & Shepherd, 2003) of an entrepreneurially-oriented firm. It is a multidimensional construct that changes as firm evolves to better suit the strategic and market needs. Lumpkin and Dess (1996) reasoned that EO dimensions might lead to favourable outcomes on one performance dimension, but unfavourable outcomes on another depending on different conditions. Consequently, these authors further suggested that as firms change, the nature of their EO might change with it. Age and size determine much of the firms' needs; Lumpkin and Dess (1996) highlighted the fact that very young firms, which are usually small might exhibit dependency on risk-taking, for example, more than older and larger firms to achieve improved performance. They conclude that not all EO dimensions may be present or valuable as it depends on firm context and stage of development.

Although Lumpkin and Dess (1996) identify five dimensions of EO, typical conceptualisations of EO include three dimensions: proactiveness, risk taking and innovativeness (Covin & Slevin, 1989; Miller, 1983; Wiklund, 1999; Wiklund & Shepherd, 2003, 2005a; Zahra, 1991). However, the theoretical relevance of autonomy and the less attention paid to it in prior EO research provides the impetus to explore this dimension in INVs. Previous research supports the view that autonomy promotes the launching of entrepreneurial ventures and increases the competitiveness and effectiveness of firms (Brock, 2003). As such, numerous scholars have argued that autonomy is required for entrepreneurial initiatives to emerge and thrive, and constitutes a basic feature of entrepreneurially oriented organisations. A conceptualisation of EO with clear defined sub-dimensions offers the possibility of prescribing more finely tuned sets of activities to deliver specific new venture success outcomes (Lumpkin et al., 2009).

In addition to the above, recent studies of EO and international entrepreneurial business venture start-ups indicate that proactiveness and risk-taking components are positively related with the EO of start-ups, while innovativeness is associated more with the ongoing process of business continuity (Kropp et al., 2008).

In the present study EO is operationalised through riskiness, proactiveness and autonomy.

Riskiness

Riskiness reflects an acceptance of uncertainty and risk inherent in original activity and is typically characterised by resource commitment to uncertain outcomes and activities.

Proactiveness

Proactiveness relates to a forward-looking perspective, where companies actively seek to anticipate opportunities to develop and introduce new products for the purpose of obtaining first-mover advantages and shape the direction of the environment.

Autonomy

Autonomy describes the authority and independence given to an individual or team within the firm to develop business concepts and visions and carry them through to completion (Hornsby et al., 2002; Morgan & Strong, 2003).

Operationalisation of EO

EO has been operationalised as a higher order construct based on three dimensions: proactiveness, autonomy and riskiness.

Participant executives were asked to provide their own rating of their firm's EO related to the INV in terms of riskiness, proactiveness (Morgan & Strong, 2003) and autonomy (Hornsby et al., 2002), as presented in Table 5.6. A Likert-type seven point scale was employed to operationalise capabilities ranging from (1) 'Not at All' to (7) 'To a great Extent' with a mid-point label of 'To some Extent' as depicted in Table 5.11.

The use of weighted measures on a Likert-type scale for performance became extremely adequate to extract this kind of delicate information and to encourage reliable responses, as prior research suggests (Dess & Robinson, 1984). As known, SMEs present a problem with respect to publicly available financial information and such firms are often reluctant to

divulge this information to researchers, regardless of the amount of anonymity promised (Covin & Covin, 1990; Fiorito & LaForge, 1986).

TABLE 5.6 Sources of EO Measures

Sub-constructs	Measurement Items	Label	Source
Proactiveness	We are usually the first ones to introduce new brands of products in the market	First_intro_new_brands	Morgan & Strong (2003)
	We are constantly on the lookout for business that can be acquired	look_out_bus	
Riskiness	New projects are approved on a "stage by stage" basis rather than with "blanket" approval*	new_proj_stage_by_stage	Morgan & Strong (2003)
	We have a tendency to support projects where the expected returns are certain	supp_proj_certain_ret	
	We are constantly seeking new opportunities related to present operations	new_opp_pre_oper	
Autonomy	Employees are permitted to act and think without interference	Employees_no_interf	Engel (1970); Hornsby, Kuratko & Zahra (2002); Spreitzer (1995)
	Employees perform jobs that allow them to make and instigate changes in the way they perform their work tasks	Employees_make_changes	
	Employees are given authority and responsibility to act alone if they think it to be in the best interests of the business	Employees_authority_acto_alone	

* Items reversed-scored for analysis purposes

Also, it is important to take into account that there have been widespread reports of a positive relationship between EO and performance (Wiklund, 1999; Wiklund & Shepherd, 2003, 2005a; Zahra, 1991; Zahra & Covin, 1995).

5.2.7 AMBIDEXTROUS INNOVATION STRATEGY CONSTRUCT OPERATIONALISATION

A central concern of corporate strategy has to do with making choices about how much to invest in different types of activities. Two broad types of activities between which firms divide attention and resources, named exploration and exploitation, have been proposed in the literature. Exploration implies firm behaviours characterised by search, discovery, experimentation, risk taking and innovation, while exploitation implies firm behaviours characterised by refinement, implementation, efficiency, production and selection (Cheng and Van de Ven, 1996; March, 1991).

While the conceptual distinction between exploration and exploitation and their implications for strategy and structure have been intensively studied, there has been surprisingly little empirical investigation of the association effect between the two (Lubatkin et al., 2006). This is notwithstanding the popular ambidexterity premise suggested by Tushman and O'Reilly (2004) that firms need to achieve a 'balance' between the two to achieve superior performance. Ambidextrous firms are capable of exploiting existing competences as well as exploring new opportunities with equal dexterity (Gibson & Birkinshaw, 2004).

Exploration and exploitation are fundamentally different logics that create tensions. They compete for firms' scarce resources, resulting in the need for firms to manage the trade-offs between the two. However, recent literature suggests the synergistic effect between the two, and hence there is a need for firms to manage the balance between the two (Levinthal & March, 1993).

The concept of ambidexterity is also implicit in the recent conceptualisation of dynamic capabilities by Eisenhardt and Martin (2000) who suggested that overall, dynamic capabilities require a blend of the two different strategic logics, namely the logic of exploration and the logic of exploitation. According to Katila and Ahuja (2002), exploitation of existing capabilities is often needed to explore new capabilities, and exploration of new capabilities also enhances a firm's existing knowledge base.

Taking into account that the present study tests the performance of INVs on the basis of the resource based view, this investigation also aims to examine ambidexterity in the particular context of INVs' innovation strategy. In the present study ambidextrous innovation strategy is operationalised through the explorative and exploitative innovation strategies of He and Wong (2004).

Explorative Innovation Strategy

Exploratory activities increase the variance and generate internal variety (McGrath, 2001). The explorative innovation dimension denotes technological innovation aimed at entering new product-market domains. Therefore, in this study explorative innovation strategy is implemented based on the introduction of a new generation of products, extension of product range and penetration to new technology fields (He & Wong, 2004).

Exploitative Innovation Strategy

Exploitative activities are variance-decreasing and efficiency-oriented (March, 1991). The exploitative innovation dimension denotes technological innovation activities aimed at improving existing product-market positions. Hence, in the present investigation exploitative innovation strategy is implemented through the improvement of existing

product quality and production flexibility, as well as the betterment yield or reduction in material consumption (He & Wong, 2004).

Operationalisation of Ambidextrous Innovation Strategy

Ambidextrous innovation strategy has been operationalised based on two dimensions: exploration and exploitation. Both dimensions are presented in Table 5.7. A Likert-type seven point scale was employed to operationalise capabilities ranging from (1) 'Not Important' to (7) 'Very Important' as depicted in Table 5.12.

Modelling ambidexterity required the combination of exploitation and exploration. In the search for the most explainable approach to do so, an additive measure has been used. This has been based on Lubatkin and colleagues' (2006) suggestion that the additive approach regards less significant loss of information, see Section 7.4.1.

TABLE 5.7 Sources of Ambidextrous Innovation Strategy Measures

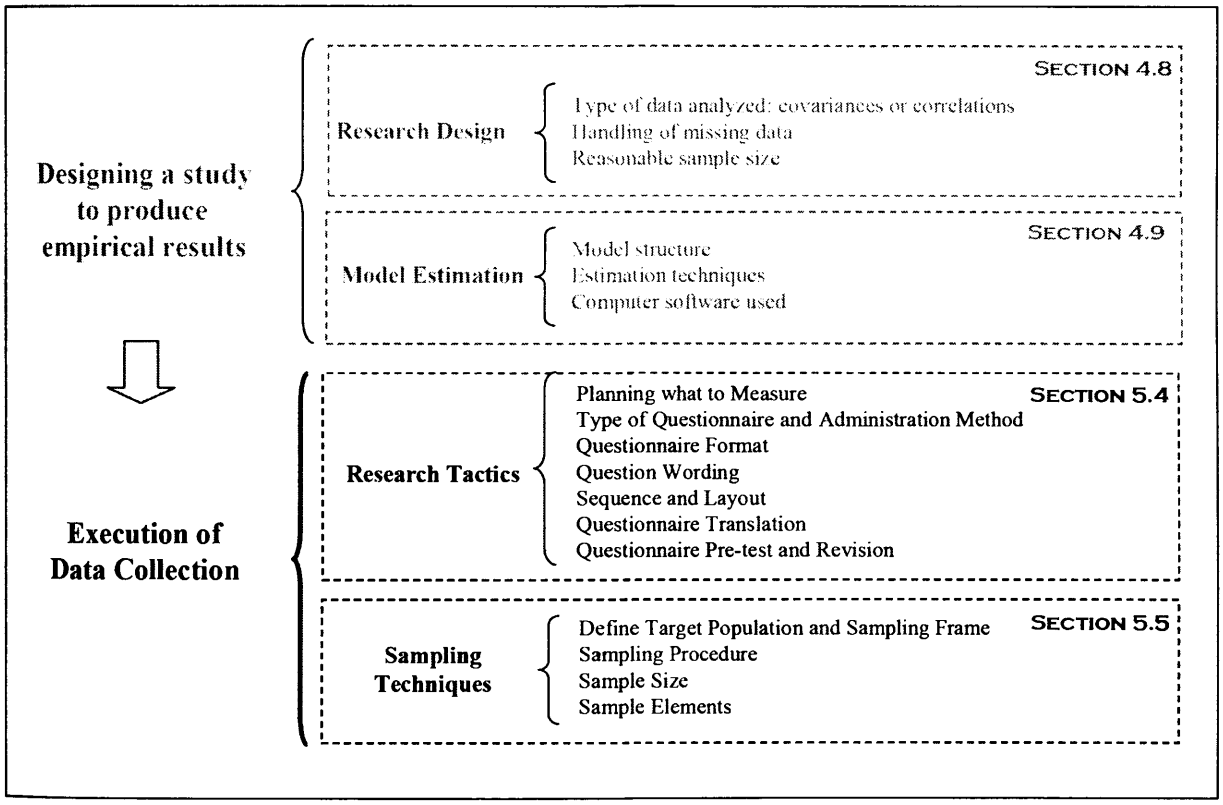
Sub-constructs	Measurement Items	Label	Source
Explorative	Introduce new generation of products	new_gen_prod	He & Wong (2004)
	Extend product range	extend_prod_range	
	Enter new technology fields	enter_new_tech_fields	
Exploitative	Improve yield or reduce material consumption	improve_yield_reduce_mat_cons	He & Wong (2004)
	Improve production flexibility	improve_prod_flex	
	Improve existing product quality	improve_prod_qual	

5.3 EXECUTION OF DATA COLLECTION

With the basic model specified in terms of constructs and measured variables, this step requires that the study be designed and executed to collect data for testing the measurement model, in order to focus on research design and model estimation.

This section is organised in four parts. It starts with the theoretical explanation of designing a study to produce empirical results which is composed of 1) research design in SEM; and 2) model estimation in SEM. Then it moves to the execution of data collection which includes 3) research tactics; and 4) sampling techniques. These four parts are depicted in Figure 5.1.

FIGURE 5.1 Study Design in SEM
SOURCE: Adapted from Hair, et al. (2006) pg. 737 & Aaker et al. (2007) pg. 317,380



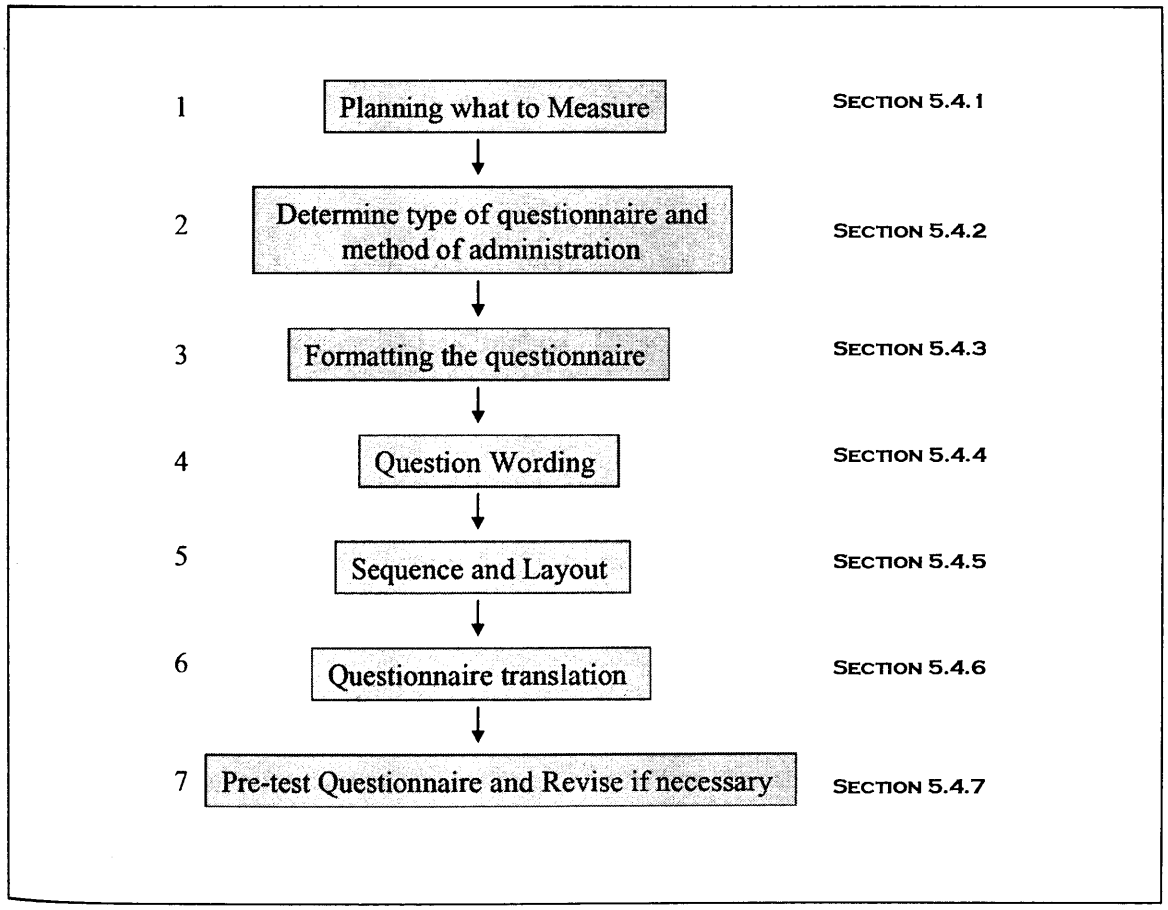
5.4 RESEARCH TACTICS

The research tactics include specifics of the measurement, the questionnaire development, the plan for choosing the sample and the methods of analyses.

It is recognised that marketing research has advanced progressively, however questionnaire design is "*still an art not a science*" (Churchill & Iacobucci, 2005:234). Similarly other authors add their voice by asserting that "*questionnaire construction is properly regarded as a very imperfect art*" (Aaker et al.,2007:316).

As exhibited in Figure 5.2 the guidelines this study employed for questionnaire construction were based on several authors (Aaker et al., 2007; Churchill & Iacobucci, 2005). Also, regarding the international characteristics of the present investigation, step 6 was incorporated into the design by this author based on the publications of Douglas and Craig (2007) relating to the effective translation of the measurement instruments.

FIGURE 5.2 Process of Questionnaire Design
SOURCE: Adapted from Churchill and Iacobucci (2005) p.237; Aaker et. al. (2007) p.317



5.4.1 PLANNING WHAT TO MEASURE

During this first phase of specification about what information should be collected, this research placed emphasis on revisiting the research objectives enriched by the experience of related studies on INVs from exploratory research. As the hypotheses determine what information should be sought and from whom (McDaniel & Gates, 2007), the questionnaire used in this study was designed to solicit responses for the seven constructs incorporated in the conceptual framework (see Figure 3.1).

The conceptualisation of all these constructs - EO, ambidextrous innovation strategy, resources, capabilities, competitive strategy, positional advantage, performance - have been described in Chapter three and operationalised in Section 5.2. Also the characteristics of the business, of the INV and of the respondent were included in order to provide a better understanding of their overall profiles (see Appendix 1).

The questions related to the business characteristics were important to match with the previous data this researcher had elaborated. These questions include the size and age of the business, its industry sector, and when the international operations started. During the sampling, the researcher elaborated a customized INVs' database from secondary data of export firms in Mexico (see Figure 5.11) in order to apply the questionnaire directly to Mexican INV firms. However, as INV firms are small, technology oriented and international at inception (Knight & Cavusgil, 1996; Oviatt & McDougall, 1999), the business characteristics questions reassured the author that the questionnaire had targeted the desired sample.

5.4.2 TYPE OF QUESTIONNAIRE AND ADMINISTRATION METHOD

The questions for the present study were framed as structured regarding the deductive hypotheses-test approach of this research. A telephone survey of 260 respondents was conducted to determine the resource base of the INVs, their innovation strategy and their EO in relation with their performance. Telephone interviews utilizing the key informant approach for selecting managers of INVs was chosen recognising the importance of manager involvement in international marketing strategy decisions.

It is common to find in marketing literature that quantitative, large-scale investigations must frequently confront a lack of archival data on constructs of interest. Thus, they must frequently rely on reports of key informants. This study adopted the key informant approach based on the assumption that this person is able to provide valid opinions and perceptions of those other key decision-makers in the firm (Kumar et al., 1993). The respondents of the telephone survey were key informants chosen from the respondent INV firm with knowledge of the export ventures of the firm.

Although empirical studies suggest that key informant methods have been associated with ethnographic research, in the marketing context generally they have been in conjunction with survey data collection procedures (Phillips, 1981).

While validity and reliability of multiple-informant studies are well documented (Bagozzi et al., 1991; Phillips, 1981), recent studies in marketing related to export involvement have relied on single informants (George & Torger, 1982; Kumar et al., 1993; Lim et al., 2006). Further, a multiple-informant approach could be very costly in Mexico (Aulakh et al., 2000; Parmar, 2003).

Although survey research based on key informants has been useful in studying certain contexts, it may be the only feasible way to get the desired information (Dess & Robinson, 1984). To maintain the validity of this data collection methodology, the selection of key informants and informant response bias were implemented leading to a systematic exclusion of firms from a population (Huber & Power, 1985).

The selection of key informants rested upon targeting the managers who were explicitly responsible for their firm's international operations. This avoided informants from other positions completing the questionnaire. To minimize informant response bias the respondents were repeatedly reminded during the interview that there were no perfect answers, and were asked to answer the question based on the real situation of the firm.

Non response bias could not be statistically examined because comprehensive secondary information was not available, and early and late respondents could not be compared, as the questionnaires were telephone interviews.

However, sample characteristics point to the appropriateness of the represented firms for testing the model, in that the firms on average had foreign sales of 25.3% of total sales and the sample firms belonged to different industries.

5.4.3 QUESTIONNAIRE FORMAT

Before specific questions could be phrased for the present study, the decision was made as to the degree of freedom to be given to respondents in answering the questions. As comparability of respondents is an essential prelude to the use of analytical methods, this descriptive study used closed-response questions. Assuming that each respondent interprets

the words in the same way, the most significant advantage of these questions in large scale surveys is that the answers are directly comparable. Also, closed-response questions are easier to answer in a telephone interview, they require less effort by the interviewer and they make tabulation and analysis easier. There is less potential error due to differences in the way structured questions are asked and responses recorded and normally they take less time than equivalent open-ended questions (Aaker et al., 2007; Zikmund, 2003).

The advantages that closed-response questions offer to his study are clear. However, closed-response questions present several limitations which include the difficulty of question development, rigidity and middle alternative inclusion of alternative responses. The present study strove to overcome the limitations of this kind of question in several ways. First, there are multiple writings that approach how precise questions are hard to develop, for instance since the nineteen fifties we find concern in the literature regarding the "*art of asking questions*" (Payne, 1951:87). The fact that an answer will be received for a closed-question no matter what its degree of relevance, emphasizes the importance of including relevant categories (Bishop et al., 1986; Friedman, 1988). In order to produce meaningful results, the present study placed special care on formulating the questionnaire with suitable categories. It is suggested that exploratory work is necessary to ensure that all potential important response alternatives are included (Aaker et al., 2007); therefore the exploratory work previously described in Section 4.3 of the present study, helped to develop relevant questions with suitable response possibilities. The exploratory work also has been useful in the search to minimise bias by testing the response style according to the national context where the study was implemented (Diamantopoulos et al., 2006).

Second, the very nature of rigid closed responses provides fewer opportunities for self expression; thus the present investigation implemented an interval scale to include middle response categories. Interval scales are one type of attitude rating scales where intervals between adjacent ranks are equal. As a result the numbers used to rank the objects represent equal increments of the attribute being measured. This means that differences can be compared (Bradley, 2006; Churchill & Iacobucci, 2005). As shown in Figure 5.3, the questionnaire section of 'Ambidextrous Innovation Strategy' is an example of the interval scale utilised in this study which ranges from 'not important' to 'very important' with middle options. Interval scales have very desirable properties because virtually the entire range of statistical operations can be employed to analyse the resulting number, include addition and subtraction. Consequently, it is possible to compute the arithmetic mean from interval-scale measures.

FIGURE 5.3 Section Ambidextrous Innovation Strategy of the Questionnaire
SOURCE: Questionnaire of the present study

Ambidextrous Innovation Strategy

To what extent have the following objectives been important to you for undertaking innovation projects for the last 12 months:

Source: HE & Wong, 2004, Org Science

	Explorative Innovation Strategy	Not Important (1)						Very Important (7)
Q31_1:	Introduce new generation of products	1	2	3	4	5	6	7
Q31_2:	Extend product range	1	2	3	4	5	6	7
Q31_3:	Open up new markets	1	2	3	4	5	6	7
Q31_4:	Enter new technology fields	1	2	3	4	5	6	7

	Exploitative Innovation Strategy	Not Important (1)						Very Important (7)
Q32_1:	Improve existing product quality	1	2	3	4	5	6	7
Q32_2:	Improve production flexibility	1	2	3	4	5	6	7
Q32_3:	Reduce Production Cost	1	2	3	4	5	6	7
Q32_4:	Improve yield or reduce material consumption	1	2	3	4	5	6	7

Finally, the potential limitation of closed-response questions regarding the type of response categories that should be listed has generated considerable disagreement among researchers. One area of controversy is whether middle alternatives should be included in the questions. It is not unusual for 20 percent of respondents to choose a middle alternative when it is offered, although they would not have volunteered this answer had it not been mentioned. Hence, if one wants to design questions that will help make a clear actionable decision, it is best not to include the neutral category. One way of handling this problem is to include the 'do not know' alternative, so that respondents are not forced to choose one opinion.

The present study handled this problem by providing the Likert-type scale that captures intensity of respondents' feelings about each particular question. The Likert scale, as one type of attitude scales, is widely used by researchers to measure respondents' attitudes towards a variety of stimuli. The measurement of intensity is useful as a follow-up for items with logical middle positions (Bishop et al., 1986). Likert scales require a respondent to indicate a degree of agreement or disagreement with a variety of statements related to the attitude or object. They are also called summated scales because the scores on the individual item are summed to produce a total score for the respondent (Churchill & Iacobucci, 2005). A Likert scale usually consists of two parts, the item part and the evaluative part. An important assumption of this scaling method is that each of the items measures some aspect of a single common factor; otherwise, the items cannot legitimately be summed. In other words, the resulting scale is 'unidimensional' (Aaker et al., 2007).

Although there is routinely a development of measurement scales in market research, everyone seems to agree that there may never be a perfect scale. However it is

recommended that a scale with more values provides a more managerially relevant categorization of respondents' perceptions than a scale with fewer values (Agarwal, 2003). It is also suggested that a seven-point scale provides higher comparison and precision in findings than five-point scales (Dillon et al., 1990). This study utilised a Likert-type seven category scale in order to maintain uniformity in all sections of the questionnaire. As illustrated in Figure 5.3, 'Explorative Innovation Strategy' and 'Exploitative Innovation Strategy' are common factors, where questions Q31_1 to Q31_4 are the items of the 'Explorative' factor and questions Q32_1 to Q32_4 are the items of the 'Exploitative' factor. The evaluative part is a seven-point Likert scale that ranges from 'Not important' to 'Very important'.

Scales in the Questionnaire's Sections

The ten sections in which the questionnaire is divided are represented in Table 5.8. It is appreciated that the sections 'About your Business' and 'Export Venture Characteristics', correspond to demographic measures, and the next seven sections represent the constructs of the Conceptual Model (see Figure 3.1). The last section of the questionnaire relates to the respondent characteristics such as their position in the company, years of working experience and knowledge in the field.

The constructs of the conceptual model are sub divided into sub-sections following the predominant approach in the literature of each construct. For further detail on the operationalisation of the constructs, please see section 5.2, which corresponds to the definition of individual constructs.

TABLE 5.8 Sections of the Questionnaire

Section	Sub-sections
About your Business	
Export Venture Characteristics	
Resources	Financial Human Relation Informational
Capabilities	Distribution Service Pricing Relation/ Informational
Competitive Strategy	Delivery Differentiation Market Differentiation Cost Differentiation
Positional Advantage	Cost Promotion Marketing Product
Performance	Effectiveness Efficiency Adaptiveness
Entrepreneurial Orientation	Proactiveness Riskiness Autonomy
Innovation Strategy	Explorative Exploitative
Respondent Characteristics	

The sections 'Resources'; 'Capabilities'; 'Positional Advantage'; and 'Performance' of the venture share the requirement of obtaining feedback from competitors. However this is not feasible given the research design selected. Drawing upon the exploratory interviews with managers, it was confirmed that the INV executives were knowledgeable about competitors' moves. Therefore, the respondents were asked to provide an estimate of how their business compared with those of their competitors with regard to a number of different aspects, depending on the subsection of the correspondent construct. In this way, the participating INV managers were asked to provide their own rating of their firm's

resources, capabilities, positional advantage and performance relative to the major competitors. As shown in Table 5.9, a Likert-type seven-point scale was employed, ranging from (1) 'Much Worse' to (7) 'Much Better' with a mid-point label of 'About the same'.

TABLE 5.9 Questionnaire Scale – Sections Resources, Capabilities, Positional Advantage, Performance

Section	Scale
Resources Capabilities Positional Advantage Achieved Performance	Much Worse (1) — About the Same (4) — Much Better (7) 1 2 3 4 5 6 7

The phrased questions of sections 'Resources', 'Capabilities', 'Positional Advantage', and 'Performance' of the venture, are illustrated in Table 5.10. It could be appreciated that the first two questions are almost the same, with the only difference being the reference to either resources or capabilities. The questions of sections 'Positional Advantage' and 'Performance' differ more; however they maintain the comparison with the competitors as do all the sections included in this table.

Table 5.10 Phrased Questions – Sections Resources, Capabilities, Positional Advantage, Performance

Section	Question
Resources	Thinking about the specific export venture, please rate your firm's export marketing **resources**, *relative* to your major competitors (in this export market), in the following areas
Capabilities	Thinking about the specific export venture, please rate your firm's export marketing **capabilities**, *relative* to your major competitors (in this export market), in the following areas
Positional Advantage	Considering the specific *export venture*, please indicate how well your business **compares** to your major direct competitors (in this export market) in terms of
Performance	Please evaluate your *export venture* **performance** over the past year, relative to your major competitors, in terms of

In order to formulate the questions for the constructs of sections 'Competitive Strategy' and 'Entrepreneurial Orientation', the participating INV managers were asked to denote the degree of emphasis that they intended to place upon the marketing functions that denote the items of each subsection of the specific construct. The Likert-type seven-point scale utilised for these sections is illustrated in Table 5.11, it ranges from (1) 'Not at all' to (7) 'To a great Extent' with a mid-point label of 'To some Extent'.

TABLE 5.11 Questionnaire Scale – Sections Competitive Strategy and Entrepreneurial Orientation

Section	Scale
Competitive Strategy Entrepreneurial Orientation	Not At All (1) — To some Extent (4) — To a great Extent (7) 1 2 3 4 5 6 7

Ambidextrous innovation strategy is measured with a Likert-type seven-point scale ranging from 'Not Important' to 'Very Important' as illustrated in Table 5.12.

TABLE 5.12 Questionnaire Scale – Ambidextrous Innovation Strategy

Section	Scale
Ambidextrous Innovation Strategy	Not Important (1) — Very — Important (7) 1 2 3 4 5 6 7

5.4.4 QUESTION WORDING

The wording of particular questions can have a large impact on how respondents interpret them. While a poorly phrased question might generate a measurement error (McDaniel & Gates, 2007), a lengthy question might confuse the respondent (Sheatsley, 1969), and therefore this task is crucial. It is strongly suggested that the rule of thumb is to keep the words simple (Dillon et al., 1990). In line with the recommendations from other studies on the sensitivity of wording and sequence questions, it was decided that the questionnaire should be pre-tested to avoid ambiguous wording or any misleading interpretations (Hornick et al., 1991; Spoden & Teas, 1999). The participants were seven managers with considerable involvement in their firms' international activities. On a previously arranged individual meeting, this researcher applied the draft version of the questionnaire. The participants were encouraged to indicate the questions or words containing some degree of ambiguity and ask further explanation where they felt it was necessary. After they had completed the questionnaire, they were encouraged to suggest ways of improving the research instrument. A number of alterations were introduced as a result of these interviews.

5.4.5 SEQUENCE AND LAYOUT

The order of questions is determined by the need to gain and maintain the respondent's cooperation and make the questionnaire as easy as possible for the interviewer to administer (Spoden & Teas, 1999). The present study followed the basic guidelines for sequencing a questionnaire to make it interesting and logical for both interviewer and respondent; these recommend five stages: 1) confidence; 2) question classification and

smooth flow; 3) from general to focused questions; 4) sensitive questions; 5) physical layout (Aaker et al., 2007; Churchill & Iacobucci, 2005; McDaniel & Gates, 2007).

Stage One: Confidence

To start with stage one, it was important to build the confidence with the respondent and his/her ability to answer. Consequently, the first section in this study addresses the INV firm's general information with open, simple questions. Respondents in particular, were asked questions such as: *how many full time employees presently work in your business*? *State the type of industry sector that best describes your business. When was your company established*? *When did your company first start exporting?* These opening questions help establish rapport as they are easy, not confidential and non-threatening.

Stage Two: Question's Classification and Smooth Flow

Secondly, as the questionnaire should be divided into various sections flowing smoothly and logically from one topic to the next (Malhotra & Birks, 2007), the questionnaire utilised in the present study is divided in ten sections. Therefore in stage two, questions were grouped together according to the similarity of content, as illustrated in Table 5.8. The questionnaire starts with the company's general information and moves easily to the venture characteristics, the resource based view of the venture, the EO and the ambidextrous innovation strategy. In order to avoid sudden shifts, when the new topic of the export venture is introduced in the second section of the questionnaire, a transition statement explains how this topic relates to the purpose of the study of the INVs. The immediate following questions reassured the respondent that the survey would be simple to answer.

Stage Three: From General to Focused Questions

Subsequently, more focused questions started in the 'Resources' section and followed during the sections 'Capabilities' to 'Positional Advantage'. They related more to the research objectives and conveyed to the respondent the area of research.

Stage Four: Sensitive Questions

Furthermore, sensitive questions in this study were related to performance, EO and ambidextrous innovation strategy. These sections consisted of confidential questions, for example, market share growth, growth in sales revenue, venture profitability, return of investment, return of sales, revenue from new venture products, and how proactive and risky the INV is. These sensitive questions were introduced at a point where respondents had developed trust and confidence in the interviewer and the study.

Finally, the last few questions of the respondent characteristics' section were to get classification and demographic information about the respondent. The questionnaire ended by thanking the participants for their contribution to this project.

Stage Five: Physical Layout

The physical layout of the questionnaire influences whether the questionnaire is interesting and easy to administer (Churchill & Iacobucci, 2005; McDaniel & Gates, 1999, 2007). As explained in Section 4.3.4, the present study utilised computer-assisted telephone interviews, consequently the questionnaire layout was designed to make simple and clear interviews by assisting the interviewer during the process. The monitor displayed one question at a time, along with pre-coded possible responses to each question. The interviewer read each question as it was shown in the screen. When the respondent

answered, the interviewer entered the response into the computer and it was automatically stored in the computer's memory when the computer displayed the next question on the screen. The computer-assisted telephone system utilised in this study, selected telephone numbers and dialled automatically.

5.4.6 QUESTIONNAIRE TRANSLATION

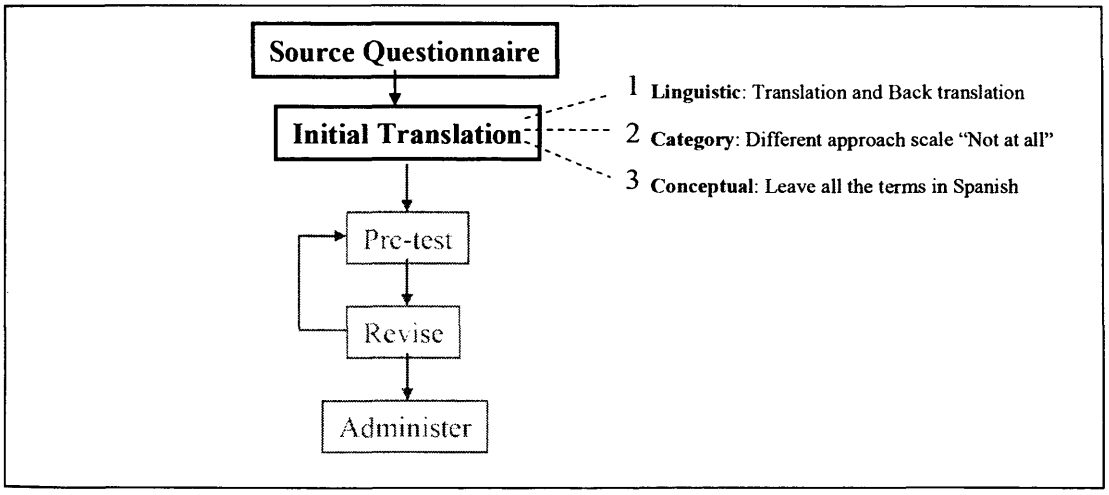
Special attention was placed on the effective translation of the questionnaire as a measurement instrument applied in Mexico. Related studies suggest that in order to obtain meaningful results, it is essential to establish equivalence of meaning in each language and to ensure that each respondent and interviewer clearly understands the questionnaire and instructions. This study applied a collaborative and iterative questionnaire translation (Douglas & Craig, 2007) in order to ensure that different points of view were represented in the final version of the instrument.

The questionnaire was originally written in English and then translated into Spanish by an academic expert in both languages and with substantial experience in marketing research to establish the equivalent terms. Further, to avoid cultural bias, the Spanish version was back translated by this author as illustrated in the linguistic translation of Figure 5.4.

Most of the literature related to translation and, in particular, to the use to back translation has focused on translation of the instrument in general (Adler, 1983). However, international surveys that require attitudinal data could incur difficulties. In this regard, Sekaran (1983:62) argues... *"the equivalence of source and target version of the instrument can be ensured with good back translation by persons who are not only facile with the different languages in question, but are also familiar with the cultures involved,*

and with the usage of the concepts and their meanings in the relevant cultures". Other authors like Craig and Douglas (2005) add the idea to consider not only the linguistic equivalence, but also other equivalence issues, such as category and conceptual equivalence. The translation equivalences and their implementation in the present study as part of the collaborative and iterative questionnaire translation are shown in Table 5.13. The phases of pre-test, revise and administer are explained in the next section, the reason why they appear in a light grey colour of Figure 5.4.

FIGURE 5.4 Initial Translation equivalences
SOURCE: Adapted from Douglas and Craig (2007)



In terms of the category equivalence, previous studies in Venezuela show that equivalent words may reflect different levels of intensity regarding the variations of the Spanish language used in Latin American countries and Spain (Soriano & Foxall, 2002). Particularly, for the present study of INVs applied in Mexico, special care was taken to reflect the complexity of the measurement scales in translation. In this vein as illustrated in

Table 5.13, the measurement scales were translated exactly except for one, the scale 'Not at all' utilised for sections 'Competitive Strategy' and 'Entrepreneurial Orientation'.

The preferred choice for the English term 'Not at all' in Spain would be 'En absoluto', however this term is too formal in Mexico. The pre-test phase of the questionnaire explained on the next section, showed that the high familiarity with the term 'Para Nada' made the concepts measured in sections *competitive strategy* and *entrepreneurial orientation* more approachable to the respondents. Also, the term 'Para Nada' is so recent in the executive context of the country that it facilitates an identification of the participating managers with the measurement scales used in the instrument.

TABLE 5.13 Scales Translation

Section	Scale in English	Scale in Spanish (Mexico)
Resources Capabilities Positional Advantage Performance	Much Worse (1) — About the Same (4) — Much Better (7) 1 2 3 4 5 6 7	Mucho Peor (1) — Algo Parecidos (4) — Mucho Mejor (7) 1 2 3 4 5 6 7
Export Venture Competitive Strategy Entrepreneurial Orientation	Not At all (1) — To some Extent (4) — To a great Extent (7) 1 2 3 4 5 6 7	Para Nada (1) — En alguna Medida (4) — En gran Medida (7) 1 2 3 4 5 6 7
Ambidextrous Innovation Strategy	Not Important (1) — Very Important (7) 1 2 3 4 5 6 7	No es Importante (1) — Muy Importante (7) 1 2 3 4 5 6 7

Finally, this first translation intent approached conceptual equivalence leaving the whole content of the questionnaire in Spanish, even the new terms that were not used in Mexico. The next section describes how this translation evolved.

5.4.7 QUESTIONNAIRE PRE-TEST AND REVISION

The purpose of the pre-test is to identify in advance the problems that respondents might confront during the survey. The process of solving these problems ensures that the questionnaire meets the researcher's expectations in terms of the obtained information (Aaker et al., 2007).

A well-defined pre-test is, without doubt, the best procedure to uncover problems within the questionnaire early in the process. In this vein, the pre-test of the study was implemented in three phases. The first phase consisted in testing the English and Spanish versions of the questionnaire with three different participant managers of INVs in Mexico. During the second phase twenty five managers with considerable involvement in their firm's international activities were interviewed. Finally in the third phase, local research students were recruited and trained to conduct the interviews.

First Phase: Test of the English and Spanish versions of the questionnaire

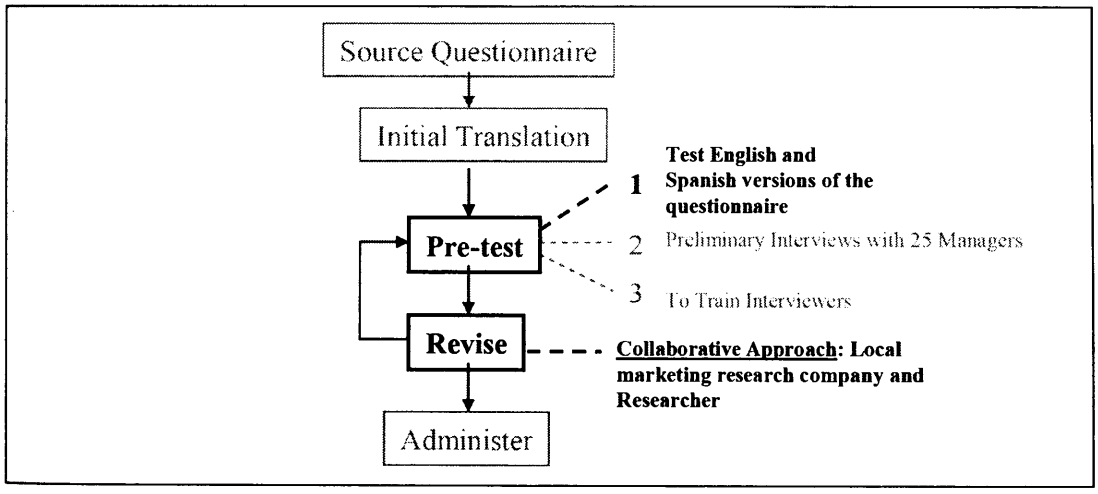
After this, the researcher and the translator arrived at what they believed was an appropriate instrument, and the next step focused on pre-testing each language version of the questionnaire. While less than one third of the studies reported in the Journal of International Marketing incorporate this step (Douglas & Craig, 2007), it became particularly important for the present study. Therefore, the English and Spanish versions of the questionnaire were each tested with three different participant managers of INVs in Mexico. The INV firms were selected from the customized INV database elaborated by this researcher as explained in Figure 5.11 of this study.

Problems in the comprehension of the terms started from the questionnaire title, which was 'Un Estudio de Recursos, Capacidades y Desempeño en Nuevas Aventuras Internacionales ', correlating in English to 'A Study of Resources, Capabilities and Performance in International New Ventures'. In Spanish the phrase 'international new ventures' was not understood by the executives. In the same way, important terms part of the definition of export venture were not clear either. The terms 'aventura de exportación', 'aventura de producto', 'mercadotecnia de exportación', and 'practicas de negocios' which correspond to 'export venture', 'venture product', 'export marketing' and 'business practices' respectively, showed up just in the Spanish version. As these terms are basic to answering the questions regarding the RBV (questionnaire sections: 'Resources', 'Capabilities', 'Competitive Strategy', 'Positional Advantage', 'Performance'), solving the identified issues became crucial.

As suggested by Douglas and Craig (2007), a local marketing research company with extensive experience in conducting similar surveys in Mexico, was invited to join the collaborative team with this researcher to check the translation. As in Mexico it is common to use English terms among the business related middle and high socio-economic sectors, the suggestion was to keep the terms *'export venture'*, *'product venture'*, *'export marketing'* and *'business practices'* in English. The participant managers in the survey were bilingual from the middle and high socio-economic sectors. They represent the classic profile of an international business executive in Mexico. Their suggestion was to keep the terms in English as the business context is familiar with the terms in that way, rather than to introduce them in Spanish.

Regarding the title of the questionnaire, the executives were not familiar with the term 'international new venture' in either languages. Reasons for these include that the term is new even in the academic literature, so it has not permeated into the business practitioner's information. However, the managers felt the novelty of the term 'born globals' in English was easier to understand in the international executive context and even they were identified with it. So, this team supported the introduction of the term 'born global' in the international business context of Mexico. Considering these comments, the revision process started and the iterative translation approach made its first run as exemplified in Figure 5.5.

FIGURE 5.5 First run of Iterative Translation Approach
SOURCE: Adapted from Douglas and Craig (2007)



Second Phase: Preliminary Interviews with 25 Managers

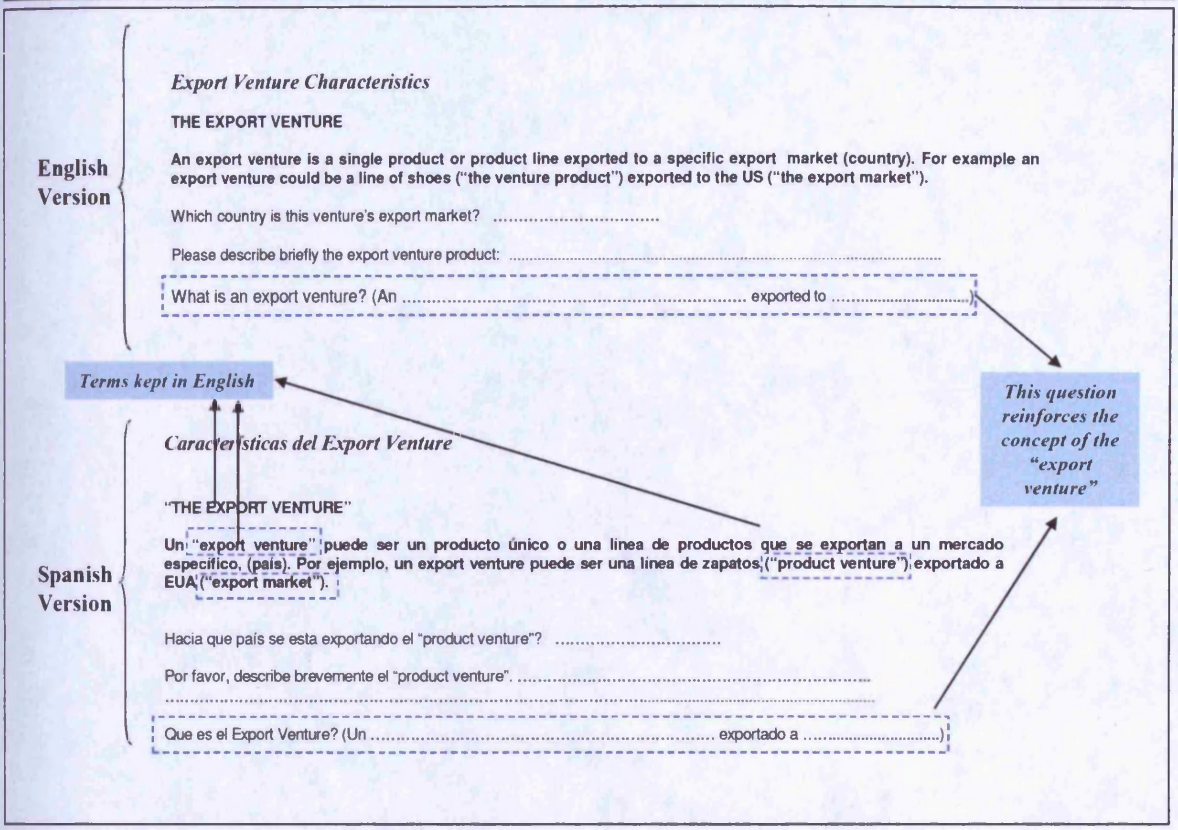
The pre-test allows the researcher to listen to the survey instrument under real-time conditions to determine if the questions are working and are clearly understood by the respondent (Howard, 1995). Therefore, during the second stage of the pre-test, this researcher interviewed telephonically twenty five managers from INVs in Mexico

following the suggestions of authors in the field of pre-test design and marketing research. According to these studies, twenty five respondents reasonably representative of the sample population, may be needed to pre-test longer questionnaires (Aaker et al., 2007; Blair & Presser, 1992). As the research instrument used in the present study consists of 210 questions, it was extremely important for this pilot run to get enough feedback.

A telephone interview was arranged with them all on an individual basis, during which they were asked to answer the questions included in this draft version of the questionnaire. They were encouraged to indicate questions or words containing some degree of ambiguity and ask for further explanation where they felt it was necessary. After they had completed the questionnaire, they were asked probing questions to suggest ways of improving the research instrument.

The terms '*export venture*', '*product venture*', '*export marketing*' and '*business practices*' that had been kept in English were successfully understood. However it was necessary to explain more than once the definition of '*export venture*' stated at the beginning of the questionnaire's 'Export Venture Characteristics' section. As a result, the suggestion from the local marketing company was to let the respondent repeat the concept of 'export venture'. The purpose of this was to ensure the understanding of the concept as it is shown in Figure 5.6.

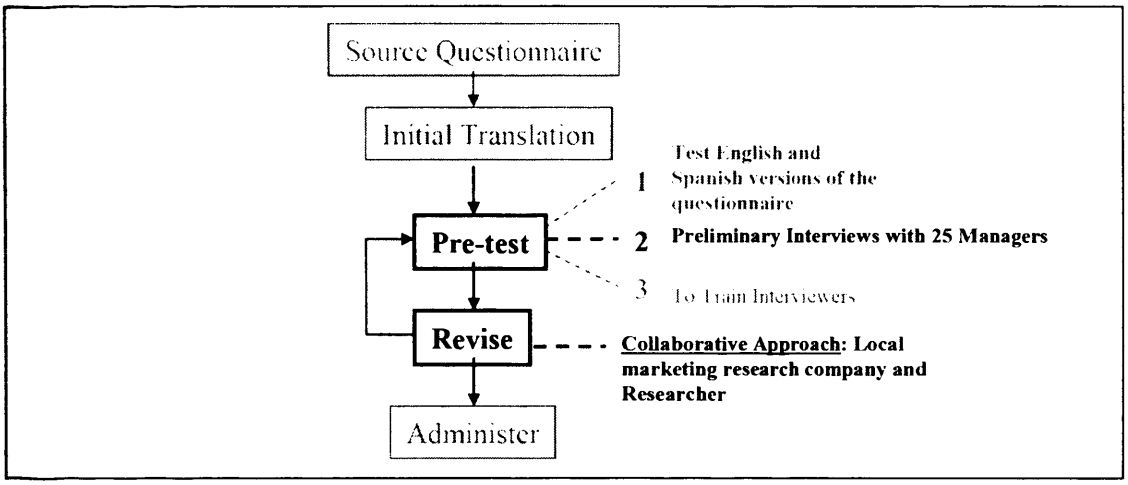
FIGURE 5.6 'Export Venture' definition in the English and Spanish version of questionnaire



The described process helped to establish content validity and enabled this researcher to make necessary amendments for the main survey. It also constituted the second run of the iterative translation approach illustrated in Figure 5.7.

FIGURE 5.7 Second run of Iterative Translation Approach

SOURCE: Adapted from Douglas and Craig (2007)



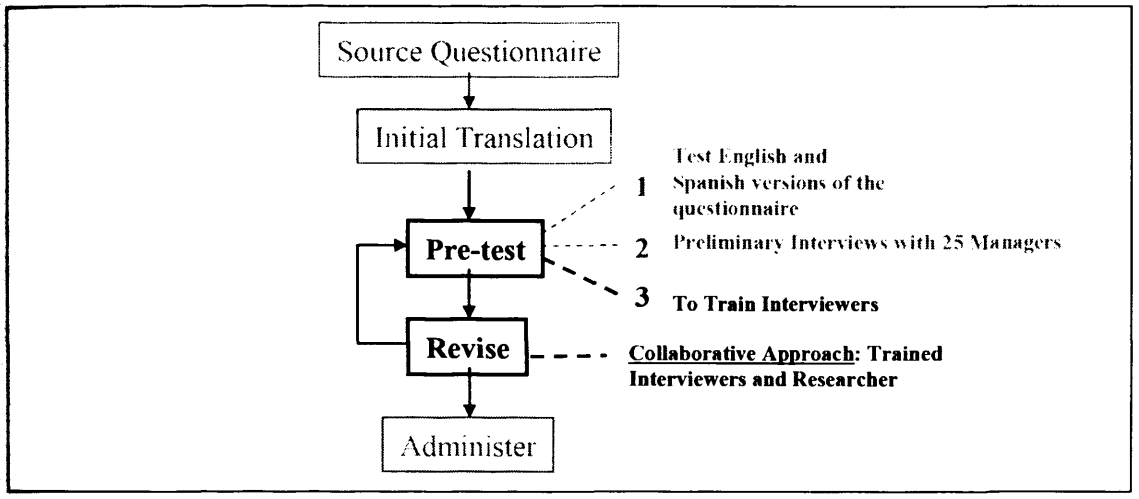
Third Phase: Trained interviewers to conduct the telephone survey

Taking in account that the administration survey technique of the present study is through telephone interviews, the formation of a team to conduct them in a very efficient and effective way was pertinent. This third phase consisted mainly in recruiting, training and conducting telephone interviews with local research students. Therefore, this author contacted the postgraduate departments of traditional local universities and posted ads, interviewed the interested students and chose three among them. After explaining the purpose of this study, interpreting each question and the terminology in the instrument, this researcher conducted three telephone interviews with each of the students. In this way, the student accumulated critical knowledge which was applied when they became trained interviewers.

After the three interviews, minor revisions regarding the order of some questions and words were made to the questionnaire in order to make it clear and easy to apply. The revisions were made in a collaborative approach where this researcher and the trained

interviewers participated as shown in Figure 5.8 and this constituted the third run of the iterative translation approach.

FIGURE 5.8 Third run of Iterative Translation Approach
SOURCE: Adapted from Douglas and Craig (2007)

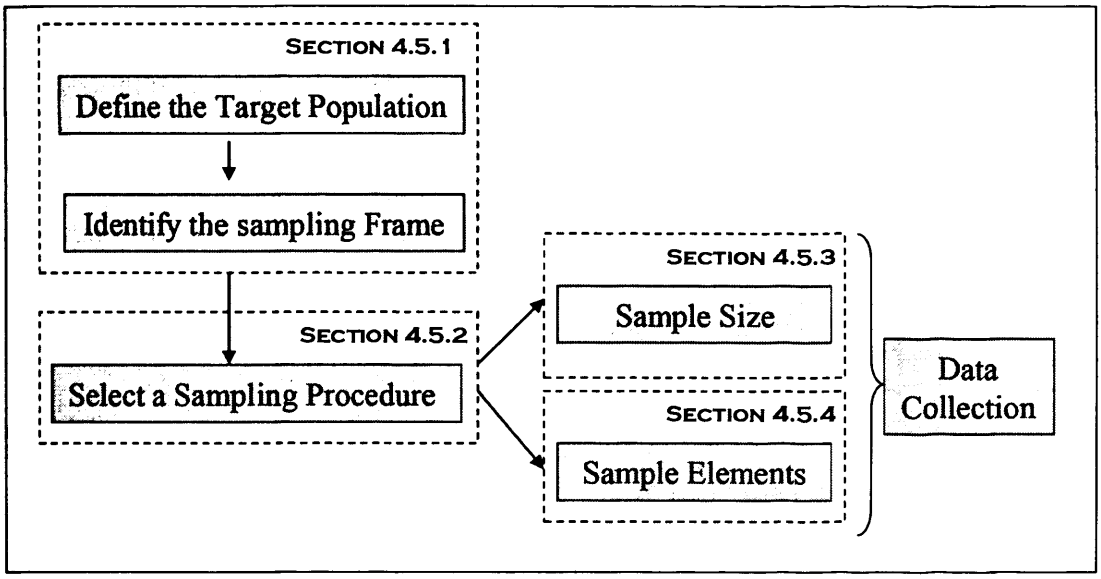


5.5 SAMPLING TECHNIQUES

The procedures for drawing a sample developed by different authors (Aaker et al., 2007; Churchill & Iacobucci, 2005) were adapted for the purposes of the present research, as illustrated in Figure 5.9. As sampling is intended to gain information about a population, it is critical to define and identify the population properly and accurately. These two relevant initial steps of the procedure are explained in section 5.5.1 and detailed in Figure 5.10.

The third step corresponds to selecting a sampling procedure. There are many ways of obtaining a sample and many decisions associated with generating a sample. The present investigation uses probability sampling as detailed in section 5.5.2.

FIGURE 5.9 The Sampling Process
SOURCE: Churchill (2005) p. 323; Aaker et. al. (2007) p. 380



5.5.1 DEFINE TARGET POPULATION AND SAMPLING FRAME

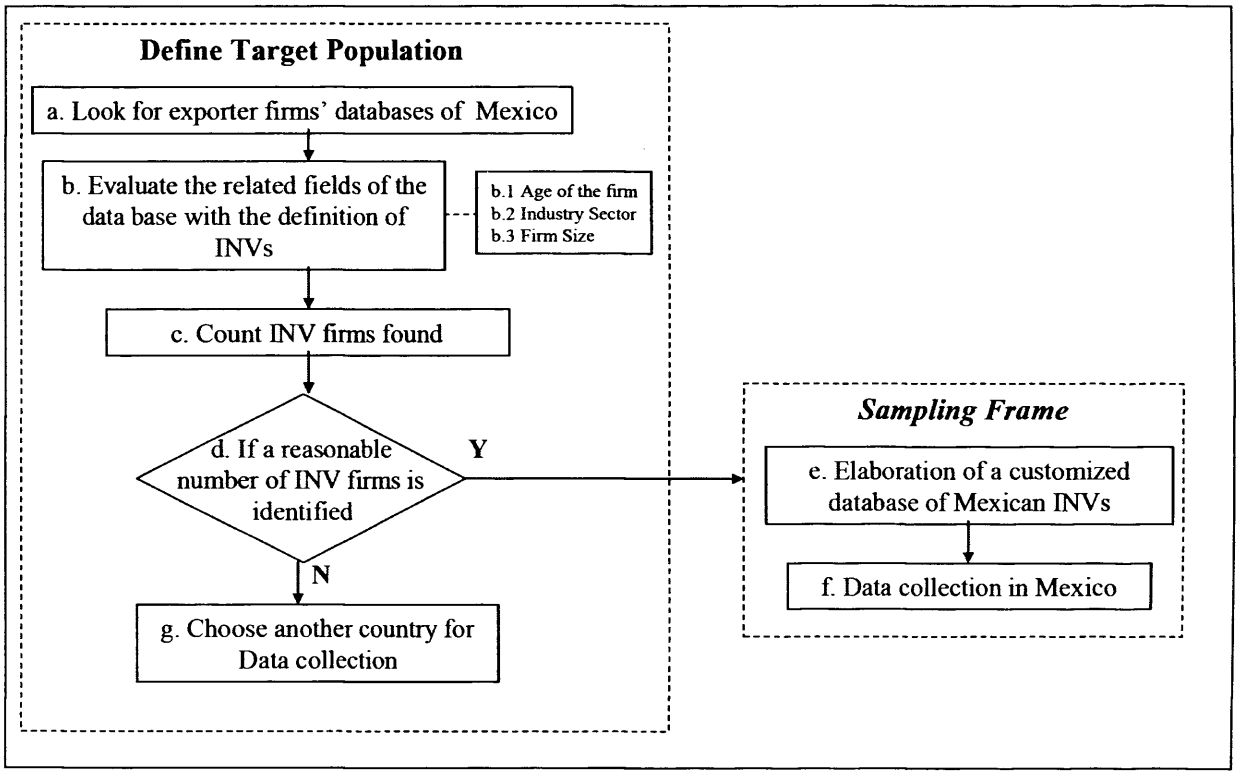
Population definition is directly associated with the research purpose (Malhotra & Birks, 2007). With respect to the present study, the population for INVs was defined as young exporter SMEs of high tech products. In this regard, three conditions were deemed necessary for hypotheses testing purposes in this study. First, participant firms should have internationalized within the first few years from inception. Second, firms should be in the high technology sectors. Third, the number of employees should not exceed 250. The focus of the study upon small and medium sized firms determined the selection of the upper limit in the number of employees.

In terms of the country for data collection and according to the best knowledge of this researcher, the focuses of research on INV firms to date has been mainly in the developed world (Autio et al., 2000; Bell, 1995; Bloodgood et al., 1996; Burgel & Murray, 2000; Coviello & Munro, 1995; McAuley, 1999; Oviatt & McDougall, 1995; Rasmussan et al.,

2001; Rennie, 1993; Reuber & Fischer, 1997; Roberts & Senturia, 1996; Shrader et al., 2000; Zahra et al., 2000), consequently there is a need for considerable broadening of the research agenda to embrace developments in NICs. Additionally, for many NICs including the emerging markets, business incubation is an important way in which to develop early stage ventures (Campbell, 1989; Etzkowitza et al., 2005; Lalkaka, 2002, 2003).

Recent statistical evidence suggests that high-tech manufacturing exports have grown substantially over the last years in Mexico after a serious program of trade liberalization in the country (Aulakh et al., 2000; ElFinanciero, 2005; Hill, 2002; Pacheco-Lopez, 2005b). The present study is interested in the characteristics of the INV firms from emerging economies, with Mexico being the first option for data collection. At the time the present research was developed, there was no previous information of INVs in Mexico. For this reason, the identification of a relevant number of INVs in Mexico became the first task to determine it as the country for data collection. As there were no lists for the specialized population of INVs in Mexico, the elaboration of a database which includes the Mexican INVs, was the next task to achieve the target population and the sampling frame as illustrated in Figure 5.10.

FIGURE 5.10 Target Population and Sampling Frame



The identification of INV firms in Mexico for the present study involved several steps as illustrated in Figure 5.10 including: (a) the search for exporting firm databases of Mexico; (b) the evaluation of the related fields of the database with the definition of the INVs; (c) the quantification of INV firms found; (d) if the number is reasonable then, (f) the elaboration of a customized database of the Mexican INVs which correspond to the target population; and (g) proceed with the data collection in Mexico; or else (e) find another country for data collection.

The algorithm presented in Figure 5.10 was developed during the present study. It shows the identification process for a certain kind of firm in a particular location. The algorithm could be re-used for other studies with adequate customization.

a. Selection of reliable exporting firm databases in Mexico

Several authors consider that secondary data should be consulted before commencing primary research regarding cost and time, especially when it is gathered in a distant country (Bradley, 2006; Churchill & Iacobucci, 2005; Malhotra & Birks, 2007). In the selection of the database, the major concern was that the exporting firms should be comprehensively represented. The databases also needed to contain current and up to date information of each exporting firm. With this in mind the following databases were utilized and listed in order of contribution with the database providing the most INV firms listed first.

- DIEX, 2005 National Trade Directory of Mexico. Publication of the National Bank of International Trade (Bancomext).
- Import Export Directory. Publication of the Mexican Trade Chamber of Commerce (Cámara Mexicana de Comercio Exterior) and the National Chamber of Transformation Industry of Mexico (Canacintra).
- COMCE Directory. Publication of the Mexican Council of International trade and Technology (Consejo Mexicano de Comercio Exterior el Noreste).

To judge the accuracy of each database, three elements were evaluated: the source, the purpose of the publication and its quality (Churchill & Iacobucci, 2005). The three databases were obtained from a primary source based on a yearly survey applied to the main exporting firms in the country. The DIEX has been published since 1990, four years before the signing of the NAFTA, and it constitutes the most reliable source of exporting firms in Mexico with general evidence of good quality information on this topic.

Each database provided a listing of each firm indicating the name and title of the corporate CEO and the address of the firm, as well as other information contained in the list of criteria for INV's definition. Also the databases contained information across numerous industries which were considered important for the purposes of this research. Therefore a multi-industry sample was adopted for three main reasons: first, to enhance the possibility of generalization of findings; second, to ensure a large enough sample size to facilitate rigorous analysis of the data; and third, to minimize the potential for bias arising from peculiarities of individual industries. This selection is in line with that adopted in previous studies of INVs (Autio et al., 2000; Knight et al., 2000; Madsen et al., 2000; Moen, 2002; Zahra et al., 2000).

b. Evaluation of the data base fields related to the definition of INVs

The databases were evaluated in terms of the useful fields supplied for the identification of INV firms in Mexico. The fields 'exporting since' and 'established since' provided important elements to determine the age of the firm at exporting. Furthermore, the 'industry sector' field was useful to determine the high technology firms. Moreover in order to determine the firm size, the field related to number of *employees* was utilised. These fields among others are illustrated in Figure 5.11.

b.1 Age of the Firm

Oviatt and McDougall (1994; 2005:31) define INV firms as "*a business organization that from inception seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries.*"

Before moving forward, is important to clarify the age of the firm at internationalization. McDougall and Oviatt's definition suggests an INV needs to be international "*at inception*"; however, most scholars do not literally interpret this as being international from their first day of operations. Instead, the definition is typically viewed as more descriptive and examines firms that internationalize within the first few years of existence (Knight & Cavusgil, 2004; Shrader et al., 2000; Zahra et al., 2000). For example, some authors examined the internationalization of firms that were six years old or younger (Shrader et al., 2000; Zahra et al., 2000). Within the entrepreneurship literature, new ventures are generally considered to be those firms that are six years old or less (Fernhaber et al., 2007), as this definition is in line with the U.S. Small Business Administration (1992). Other authors have found firms that internationalised on average within three years of founding (Knight et al., 2004) and some studies have gone even further discovering firms that began exporting only two years after foundation (Moen, 2002; Rennie, 1993).

During this step the idea of finding INV firms in Mexico that internationalised within six years or less from creation was acceptable.

b.2 Industry Sectors

While there are few studies of INVs with lower technology sectors (McAuley, 1999), there is a common association of INVs with the high technology sectors (Bell, 1995; Fontes & Coombs, 1997; Francis & Collins-Dodd, 2000; Jones, 1999a, 2001; Jones & Crick, 2000; Oviatt & McDougall, 1994; Preece et al., 1999; Thomas, 1988). The present study refers to technologically innovative INVs that face the need to launch their products and services into international markets rapidly after business start-up.

To identify the Mexican firms in the high technology sector, the NAICS codes were utilised. The NAICS codes correspond to the North American Industrial Classification System. The Mexican government uses the NAICS codes to classify businesses by industry and to calculate the economic activity of these industries within the Mexican economy. The NAICS codes indicated in Table 5.14 were used as they represent the high technology sectors from the definition of the American Electronics Association (AeA). These sectors include: manufacturing; software and tech services; and communication services. Each of these sectors is divided in sub-sectors; therefore the manufacturing sector involves nine sub-sectors. Every sub-sector is composed by a group of NAICS codes. For example the following NAICS codes: 334111 to 334113 and 334119 correspond to the computer and peripheral equipment sub-sector; as well as the NAICS codes 334210, 334220, 334290 and 335921 which are part of the communications equipment sub-sector.

It can therefore be seen that the previously mentioned sectors, shown in Table 5.14, appear to be more representative for high technology INVs and, hence, are the primary focus of inquiry for the present investigation. Further, it was believed that data from firms involved in other traditional manufacturer sectors would tend to skew overall study results (Keeble et al., 1998; Kirpalani & MacIntosh, 1980), accordingly no other sector was considered.

TABLE 5.14 High Technology Sectors according to AeA

MANUFACTURING		SOFTWARE & TECH SERVICES		COMMUNICATIONS SERVICES	
Computer & Peripheral Equipment		**Software Publishers**		**Communications Services**	
334111	Electronic Computers	511210	Software Publishers	517110	Wired Telecommunications Carriers
334112	Computer Storage Devices			517211	Paging Services
334113	Computer Terminals			517212	Cellular & Other Wireless Telecommunications
334119	Other Computer Peripheral Equipment			517310	Telecommunications Resellers
				517410	Satellite Telecommunications
					Cable & Other Program Distribution
				517910	Other Telecommunications
Communications Equipment		**Computer Systems Design & Related Services**			
334210	Telephone Apparatus	541511	Custom Computer Programming		
334220	Radio & TV Broadcasting & Wireless Communications Equipment	541512	Computer Systems Design		
		541513	Computer Facilities Management		
334290	Other Communications Equipment	541519	Other Computer Related Services		
335921	Fibre Optic Cables				
Consumer Electronics		**Internet Services**			
334310	Audio & Video Equipment	518111	Internet Service Providers		
		518112	Web Search Portals		
		518210	Data Processing, Hosting, & Related Services		
Electronic Components		**Computer Training**			
334411	Electron Tubes	611420	Computer Training		
334412	Bare Printed Circuit Boards				
334414	Electronic Capacitors				
334415	Electronic Resistors				
334416	Electronic Coils, Transformers, & other Inductors				
334417	Electronic Connectors				
334418	Printed Circuit Assembly				
334419	Other Electronic Components				
Semiconductors					
334413	Semiconductor & Related Devices				
333295	Semiconductor Machinery				
Defence Electronics					
334511	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical Systems and Instruments				
Measuring & Control Instruments					
334512	Automatic Environmental Controls				
334513	Industrial Process Control Instruments				
334514	Totalizing Fluid Meter & Counting Devices				
334515	Electricity Measuring & Testing Equipment				
334516	Analytical Laboratory Instruments				
334519	Other Measuring & Controlling Instruments				
Electromedical Equipment					
334510	Electromedical & Electrotherapeutic Apparatus				
334517	Irradiation Apparatus				
Photonics					
333314	Optical Instrument & Lens				
	Photographic &				
333315	Photocopying Equipment				

b.3 Firm Size

Prior to the globalization of markets and industries, national markets were segmented: large companies competed mostly in international markets, while smaller businesses remained local. However, the global competitive environment has gradually changed. Globalization has removed the barriers (Levit, 1983) that segmented the national and international markets and separated small and large firms' competitive space in the recent past (Fraser & Oppenheim, 1997). Regardless of size, firms are forced to compete side-by-side in the international arena. In light of SMEs' impressive rapid growth in international markets, the above discussion suggests an intersection of internationally-oriented SMEs and INVs (Coviello & Munro, 1995; Keeble et al., 1998; Knight & Cavusgil, 1996; Knight et al., 2000; Madsen et al., 2000; Madsen & Servais, 1997). In this vein, the firm size utilised in the present study corresponds to the classification of SMEs in Mexico.

SME is a term often employed, however, it is important to consider that regarding the heterogeneity and multiplicity of small and medium firms, the term becomes difficult to define (Guilhon, 1996). According to the Mexican Ministry of Economy, the classification of SMEs is based on the number of employees. Firms with 10 up to 50 employees are considered small, while firms in the range of 51 to 250 employees are medium enterprises. This classification is in line with the European Commission (2003/361/EC). Those firms below 10 employees in Mexico are micro enterprises and were not considered for this study. Such firms were avoided because very small companies tend to reflect part-time operations, unstable objectives or other factors that can skew study outcomes (Brady, 1995; Kirpalani & MacIntosh, 1980; Miesenbock, 1987).

c. Count of INV firms found; d. Is it a reasonable number?

Following the selection of firms, along with the firm eligibility criteria set, a total of 1422 INVs was generated. This size was in accordance to Sudman's (1976) criteria for national samples. The identified firms are high technology SMEs with international operations from the first two years of inception. The INVs founded go in line with the INVs definition (Oviatt & McDougall, 1994, 2005) and exceeded the initial expectations of this research, which were looking for firms that internationalised within six years or less from creation. Surprisingly, the identification of a considerable number of INVs that internationalised from two years of inception, approaches the born global's classification (Aspelund & Moen, 2001; Autio et al., 2000; Knight & Cavusgil, 1996, 2004, 2005; Knight et al., 2004; Knight et al., 2000; Madsen et al., 2000; Madsen & Servais, 1997; Moen, 2002; Moen & Servais, 2002; Rasmussan et al., 2001; Rennie, 1993).

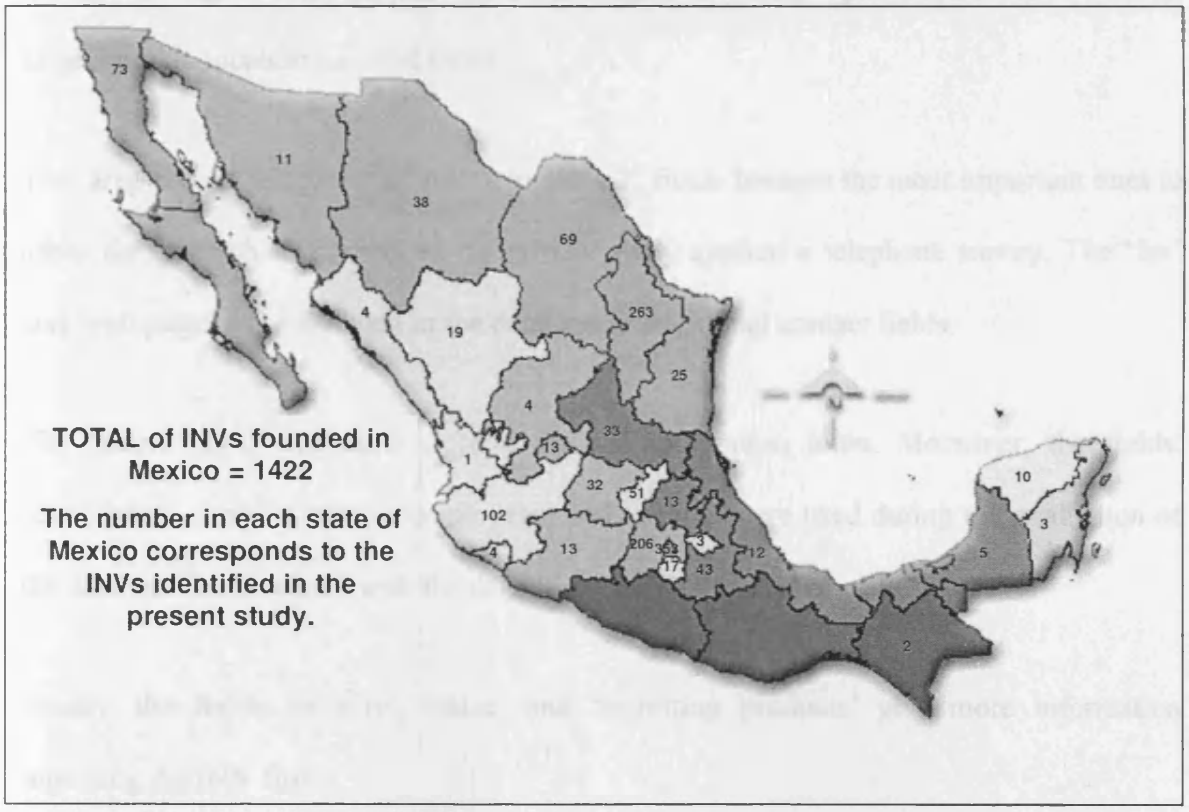
A notable outcome from Knight and Cavusgil's (2005) research implies that firms internationalised about 2.5 years after founding performed better in foreign markets. In this regard, the act of choosing INVs that internationalised from two years of inception could lead the present investigation for greater performance outcomes. However, the firms used in this research could not be classified as born global because some of them export to one country, and Knight and Cavusgil (2004) include in their born global definition that the firms sell their outputs to multiple countries.

The distribution by number of INVs geographically in each state of Mexico is illustrated in Figure 5.11. The six states located in the north part of the country represented in green hold 479 INV firms. From these northern states the highest numbers of firms are situated in Nuevo Leon, with 263 INVs; followed by 73 in North Baja California; 69 in Coahuila; 38

in Chihuahua; 25 in Tamaulipas and 11 in Sonora. As the northern neighbour of Mexico is the United States of America, there is considerable industrial development across the border states of the country.

In addition, in the south central part of Mexico, 559 INVs are shown: 206 in Mexico State which surrounds Mexico City to the north, east and west; and in Mexico City itself 353 INVs. In the west 102 INV firms appear in Jalisco, while in the centre of the country there are 51 INVs in Queretaro, 43 in Puebla, 33 in San Luis Potosi, 32 in Guanajuato, 19 in Durango, 17 in Morelos, and 13 in Michoacán. In the south eastern part of Mexico, 12 INVs were found in Veracruz, 10 in Yucatan, 5 in Campeche, 3 in Quintana Roo, and 2 in Chiapas.

FIGURE 5.11 INVs Distribution by State in Mexico



e. Elaboration of a database of Mexican INVs – Sampling Frame

The sampling frame is usually a list of population members used to obtain a sample (McDaniel & Gates, 2007). In this regard, the aim of this task was to elaborate a database of Mexican INVs with the relevant fields to use as a target population. The customized database of Mexican INVs includes the fields shown in Figure 5.12. The field 'ID' was useful as it represents the link between the source databases and the target INVs' database. However, the 'IRS' and 'CURP' fields were not practical for this study as they are for tax purposes. They stand for the Internal Revenue Service (IRS) and for Population Register Unique Code (CURP - Clave Única de Registro de Población).

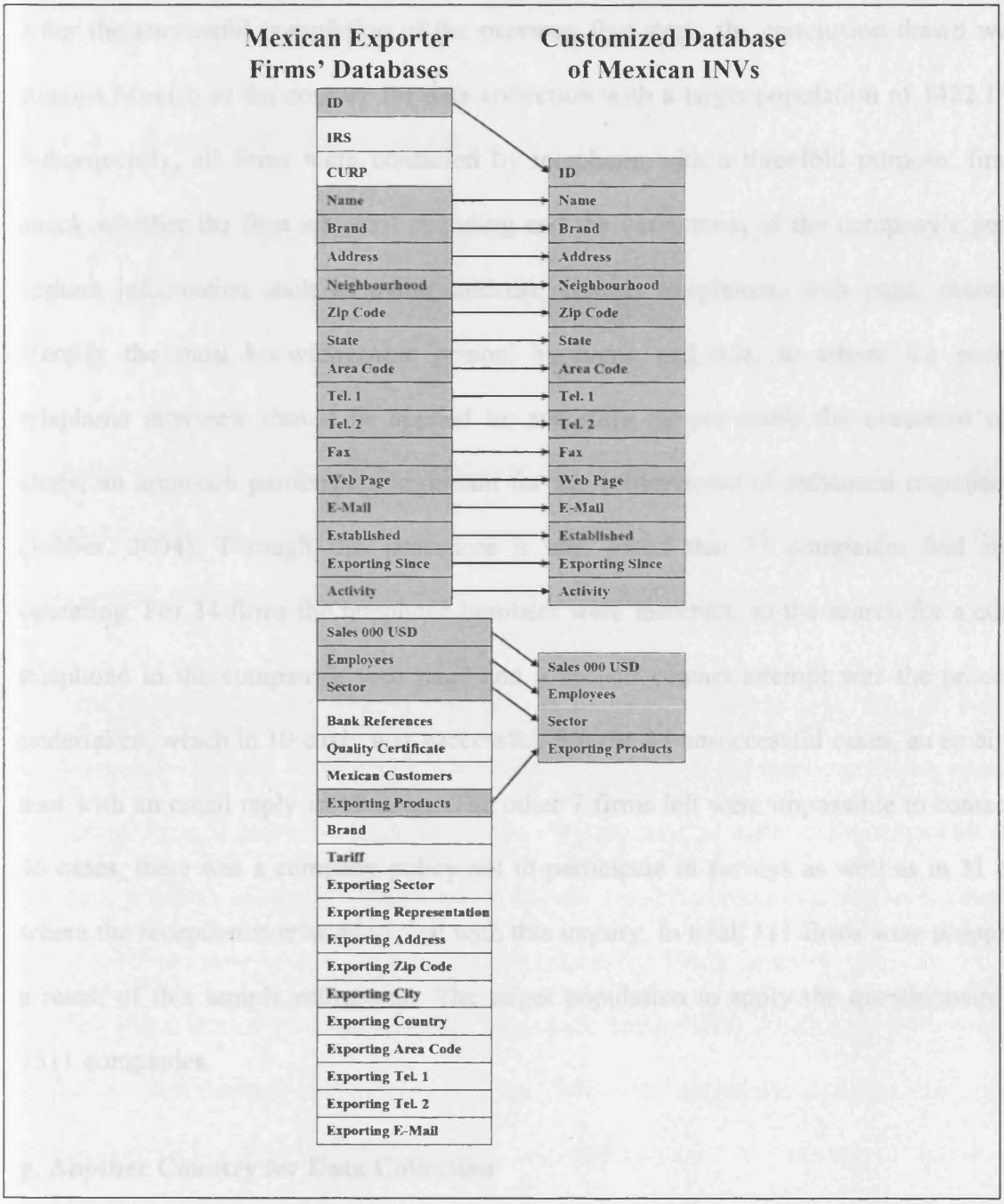
Another pair of utilised fields was the 'name' of the company and the export 'brand'. The first served as a company identifier, whereas the second became linked to the 'export venture' during the survey. The 'address', 'neighbourhood', 'zip code', and 'state' served as geographic location fields of INVs.

The 'area code', 'telephone 1' and 'telephone 2' fields became the most important ones to apply the research instrument as the present study applied a telephone survey. The 'fax' and 'web page' were included in the database as additional contact fields.

The 'email' field was used to send the pre-notification letter. Moreover, the fields: 'established', 'export since', 'employees' and 'sector' were used during the evaluation of the database fields related with the definition of INVs as explained in step 2.

Finally, the fields 'activity', 'sales' and 'exporting products' give more information regarding the INV firm.

FIGURE 5.12 Elaboration of a Customized INV firms Database



f. Data Collection in Mexico – Sampling Frame

After the successful completion of the previous five steps, the conclusion drawn was to suggest Mexico as the country for data collection with a target population of 1422 INVs. Subsequently, all firms were contacted by telephone with a threefold purpose: first, to check whether the firm was still operating and the correctness of the company's general contact information such as name, address, contact telephones, web page; second to identify the most knowledgeable person, by name and title, to whom the posterior telephone interview should be applied to; and third, to pre-notify the execution of the study, an approach particularly important for the achievement of enhanced response rate (Jobber, 2004). Through this procedure it was found that 27 companies had ceased operating. For 34 firms the telephone numbers were incorrect, so the search for a contact telephone in the company's web page and a second contact attempt was the procedure undertaken, which in 10 cases was successful. For the 24 unsuccessful cases, an email was sent with an email reply in 17 cases. The other 7 firms left were impossible to contact. In 46 cases, there was a company policy not to participate in surveys as well as in 31 cases where the receptionist refused to deal with this inquiry. In total, 111 firms were dropped as a result of this sample refinement. The target population to apply the questionnaire was 1311 companies.

g. Another Country for Data Collection

The explanation of previous sections 'e' and 'f' draws upon the case where a reasonable number of INVs has been identified. This section instead is concerned with the opposite case and the possibility of looking for another country for data collection. However, for the

present investigation, this alternative was not applied as a total of 1422 INVs were found in Mexico, as represented in Figure 5.11.

5.5.2 SAMPLING PROCEDURE

While a census is appropriate if the population size is quite small, a sampling is useful if the population size is large and when cost and time, associated with obtaining information from the population, is high (Aaker et al., 2007; Churchill & Iacobucci, 2005).

Random sampling is one of the various methods to select a probability sample. Random sampling is an approach in which each population member, and thus each possible sample, has as equal probability of being selected (Craig & Douglas, 2005).

For the purposes of the present research, probability sampling was used to obtain a representative sample. Probability sampling has several advantages over non-probability sampling. First, it permits the researcher to demonstrate the sample's representativeness. Second, it allows an explicit statement as to how much variation is introduced, because a sample is used instead of a census of the population. Third, it makes possible the more explicit identification of possible biases (Assael & Keon, 1982). Fourth, probability sample from a well-defined population is the soundest sampling strategy to achieve generalisability or externally valid results, although this sampling strategy is not always a practical option for researchers as well-defined populations are frequently unavailable in international settings (Reynolds et al., 2003). Regarding this study, the customized Mexican INVs database elaborated during the present investigation offered a comprehensive list available of the target population from which random sampling

becomes an appropriate technique. Therefore, the INVs population was well-defined and probability sampling was easier to implement. Under these conditions, the generalisation of research results is valid. Finally, the last advantage of probability sampling regards its suitability for descriptive studies. As these studies need a representative sample to generalise the population of interest, probability sampling is preferable (Reynolds et al., 2003).

The first step in the execution of the telephone survey in this research was to send via e-mail a formal pre-notification University heading letter addressed to the head of the exporting activities by name. Two days later the telephone calls were started by the trained interviewers using a computer-assisted telephone interviewing system. The system automatically controlled the sample selection by randomly dialling the numbers of the Mexican INVs database. The computer was programmed to time re-contact attempts; e.g. recall no-contacts after 2 hours, recall busy numbers after 10 minutes; and allow the interviewer to enter a time slot when busy respondents indicated the day and time they could be interviewed. This process continued until a convenient sample quota according to the requirements of the present research was reached.

5.5.3 Sample Size

The sampling distribution of the statistic underlies the determination of sample size. The researcher needs to determine the size of the sample before collecting data. The question of the sample size is complex because it depends on the type of sample; the statistic in question; the homogeneity of the population; and the time, money, and personnel available for the study (Murphy & Myors, 2004; Thompson, 2002).

The present study collected information from a portion of INVs' population in Mexico by taking a sample of elements from the 1422 firms represented in the database of INVs. This infers that more time could be spent on each interview, thereby increasing the response quality. Given the large number of constructs of this study, 7 constructs and 21 sub-constructs, a decent size of sample is required to run a stable model in SEM. Nevertheless, in making a decision pertaining to an appropriate sample size, an inevitable trade-off between statistical accuracy and added information, cost, time, and resources must be taken into consideration.

What constitutes adequate sample size has long been debated and has been a major concern in the application of SEM because it has been acknowledge that a sample size plays a crucial role in obtaining stable, meaningful estimations and interpretations of results (Hair et al., 2006; MacCallum, 2003; MacCallum et al., 2001). A widely accepted approach by researchers is based on the data analysis conducted, and thus influenced by "a priori" requirements or constraints of the technique employed for measuring statistical relationships. In general, it is advocated that the more sophisticated the data analysis is, the larger sample size needed. Further, it is suggested that a minimum recommended level is five observations for each parameter and that a sample size of at least 150 and not exceeding 400 is considered adequate (Hair et al., 2006). This study used a sample size of 260 to conduct SEM analysis via AMOS 6.0 with maximum likelihood estimation.

5.5.4 SAMPLE ELEMENTS

During the selection of the sample elements important information, regarding the profile of respondents and participating firms, was collected and detailed in the following sections.

The profile of respondents is classified according to their company position, their working experience and their knowledge and accuracy.

The profile of INVs is depicted in terms of the distribution of the firms over the high tech sectors in accordance with the products and services exported. Additionally, the profile of the participating firms is exhibited through the size of the INVs, which is measured by number of employees and by sales turnover.

Profile of Respondents

The focus on INVs which are small and medium size firms, in combination with the nature of the research questions addressed in this study, induced the adoption of a single key informant approach. The survey utilizing the key informant approach for selecting executives of INVs was chosen because of the importance of executive involvement in international marketing strategy decisions. To this end, the guidelines provided by Huber and Power (1985) were taken into consideration. Since the investigator's initial attempts to contact INV managers for the exploratory interviews, the issue of identification of the most "knowledgeable" individual within the international operations of the firm had emerged as compelling for the effectiveness of this research project.

Asking over the telephone for the 'Head of International Operations' or the 'Export Manager' previously identified, would not always be successful, so the key phrase 'born global project' substantially improved the effectiveness of these calls. This key phrase was easier to understand by the secretary or receptionist who would answer the phone in most of the cases. The diversity in positions held by respondents in the participating firms is depicted in Table 5.15. Based on this survey, most of the respondents identified themselves

as 'Executive Managers' or 'Managers' with 40 and 38 percent respectively. The top executive participants of this survey were 5% 'Chairman' or 'Managing Directors' and 11% 'Executive Directors'.

TABLE 5.15 Respondent Identification: Key-informant Company Position Analysis

Position within Company	% of Companies
Chairman/Managing Director	5%
Executive Director	11%
Executive Manager	40%
Manager	38%
Other	6%

Secondly, the informants were asked to indicate their years of working experience as shown in Table 5.16, where only nine respondents had less than one year experience and five had more than twenty years experience. The mean is 6.8, the median is 5 and the standard deviation is 6.3.

TABLE 5.16 Key-informant working experience

	Min	Max	Mean	Median	SD
Years of working experience	0.4	34	6.8	5	6.3

Also the informants were asked about their knowledge of export venture marketing programs, strategies, resources and capabilities, as well as their knowledge of their major competitor's marketing programs, strategies, resources and capabilities. Therefore the

informants indicated their degree of knowledge of the export venture and the competitors on a seven-point scale ranging from (1) 'Low' to (7) 'High' with a mid-point label of (4) 'Average'.

Further the validity of the informant's responses was checked in two ways. Firstly, the informants were asked to indicate 'To what extent do you feel you possess knowledge regarding the questions asked in this questionnaire?' and 'To what extent do you believe the responses given by you accurately reflect the realities of your business' involvement in the facility within which you operate?' Thus the informants indicated their degree of knowledge of the questionnaire on a seven-point scale ranging from (1) 'No Knowledge' to (7) 'Knowledge' and their accuracy on a range of (1) 'Not at all accurate' to (7) 'Accurate'. The results shown in Table 5.17 illustrate that the respondents are knowledgeable regarding the export venture, the competitors, and the questions asked in the questionnaire with a mean of 6, 5 and 6 respectively. They also indicate that the informants are accurate about the issues under study.

TABLE 5.17 Degree of Respondents' Knowledge and Accuracy

	Response Scale (%)							Mean	SD
	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
Knowledge of export venture	0	0	0	12	34	41	13	6	0.87
Knowledge of competitors	0	0	0	23	41	25	11	5	0.92
Knowledge of the questionnaire	0	0	0	9	36	36	18	6	0.89
Reflection of the reality in the INV	0	0	0	10	28	41	22	6	0.91

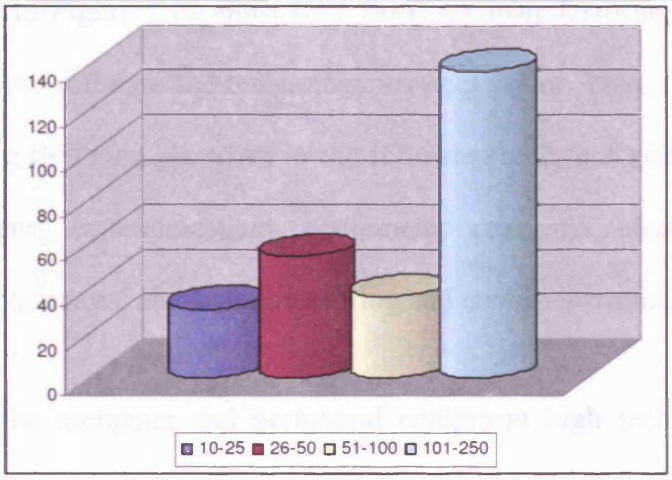
Finally, this author conducted a series of t-tests to examine if there were any differences among the four main groups of respondents on each of the constructs. The results show there were not any significant differences among these responses at the 0.01 level.

Profile of the Participating INV Firms

This section presents an overall profile of the participating INV firms in order to lay out a first sense of the sample. As INVs are small sized firms which rely on cutting edge technology in the development of relatively new product or process innovations (Knight & Cavusgil, 1996), the profile of the sample INVs is measured in terms of the size of the firm and the high tech classification of the export products. Furthermore, a detailed demographic profile of the sample has been developed in Chapter five.

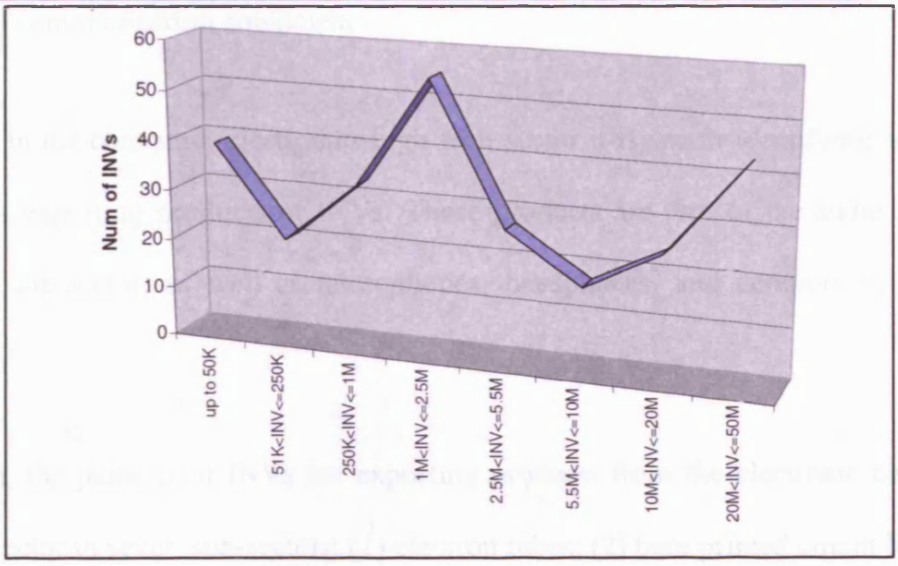
Most of the INVs used for this study fall under the medium sized firm's category. In this regard 174 INVs are represented in the couple of bars located at the right of Figure 5.13, with 51 or more employees, whereas the 86 remaining INVs are small firms with 10 to 50 workers.

FIGURE 5.13 Firm Size of sample INVs – No. employees



In addition to this, the sample INVs exhibit a homogenised distribution referring to their firm size measured in terms of sales turn over, as illustrated in Figure 5.14. The absolute numbers depict 55 INVs in the range of $1 to $2.5 million US dollars; 43 INVs in the range of $20 to $50 million US dollars; and 39 INVs with up to $39 million US dollars.

FIGURE 5.14 Firm Size of sample INVs – Sales Turnover



The export products of the participating INVs are broad in terms of the high tech sector scope. As indicated in Figure 5.15, most INV firms are manufacturing intensive and just one quarter is from the software and technology services sector. Thus, the export products of the manufacturing INVs are classified in the following high tech sectors: computer and peripheral equipment; communications equipment; consumer electronics; electronic components; semiconductors; and lastly measuring and control instruments.

The products that the computer and peripheral equipment high tech sector export are categorized in four sub-sectors: (1) computer storage devices, products such as CDs, DVDs and hard disks; (2) computer terminals; (3) electronic computers; and (4) other computer peripheral, especially electronic transformers, transistors, capacitors, mother boards, computer ventilators, pressed circuits, smart cards, and computer screens.

Furthermore, INVs sell abroad products from the communications equipment high tech sector mainly from four sub-sectors: (1) telephone apparatus; (2) wireless equipment; (3) fibre optic cables; and (4) other communications equipment, for instance, metal mechanical communication equipment.

Moreover, in the consumer electronics high tech sector it is worth identifying automobile speakers as exporting products of INVs. These products are part of the audio and video equipment sub-sector, as well as microphones, headphones, and components for audio equipment.

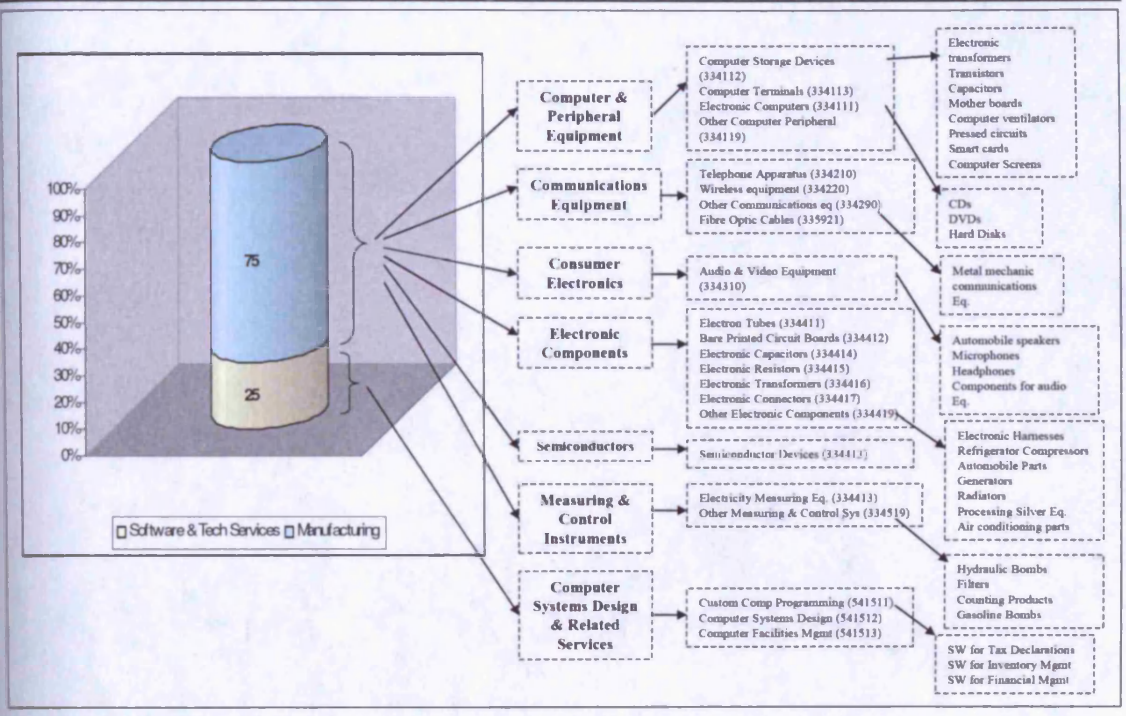
In addition, the participant INVs are exporting products from the electronic components high tech sector in seven sub-sectors: (1) electron tubes; (2) bare printed circuit boards; (3)

electronic capacitors; (4) electronic resistors; (5) electronic transformers; (6) electronic connectors; and (7) other components including electronic harnesses, domestic refrigerator compressors, electronic automobile parts, electronic generators; electronic radiators; electronic processing silver equipment; and electronic parts for air conditioning equipment.

The INVs from the sample are also exporting semiconductors. Besides these, they export products from the measuring and control instruments high tech sector, especially from two sub-sectors: (1) electricity measuring equipment; and (2) other measuring equipment, products like hydraulic bombs, filters, counting manufactured products, and gasoline bombs.

Finally, the last quarter of the participating INVs represent the high tech services sector specialized in computer systems design and related services. The sample firms are exporting in three sub-sectors: (1) custom computer programming, mostly with software for tax declarations, inventory and financial management; (2) computer systems design; and (3) computer facilities management.

FIGURE 5.15 Export Products High Tech Classification from the sample INVs



5.6 CONCLUDING COMMENTS

This chapter has provided a detailed explanation of the constructs operationalisation by selecting measurement scale items and scale type. It has also covered the execution of data collection by specifying the development of the research tactics in terms of planning what to measure and the development and pre-testing of the questionnaire used in the process of data collection. Moreover, it has described the sampling method by defining the target population and sampling frame which was focused on the INVs of Mexico, the selection of sampling procedure, and sample size and elements. The final part of this chapter included a profile of the respondents and of the participating INV firms.

CHAPTER 6

DESCRIPTIVE ANALYSIS

6.1 INTRODUCTION

Having discussed the methodology adopted for this research in the preceding chapter, the descriptive findings of the present study follow. This chapter highlights two main sections, the first one corresponds to the demographic profile of the sample and the second reports the descriptive analysis of constructs. The demographic profile examines several patterns exhibited in the data set which include the general characteristics of the INVs surveyed and of the export venture.

The descriptive analysis of constructs assesses the seven latent constructs in the conceptual model (Figure 3.1) on a seven point scale. It contains percentage frequencies of all items, measures of central tendency and dispersion for each latent construct. The descriptive findings were derived from responses generated from the research questionnaire. They describe basic data analysis such as mean values and standard deviations. The findings are displayed using tables and graphs to illuminate the features of the data in order to provide a simplified picture of large datasets.

6.2 DEMOGRAPHIC PROFILE OF THE SAMPLE

The demographic profile of the sample describes general characteristics of the INVs and of their export venture, which is the unit of analysis of the present study. Considering the INVs, this section displays information such as the number of years of establishment and of exporting, export experience and description of the export activity, including how often these firms export, and the strategy to approach the market. In addition, the distribution of

INVs by high technology sectors is also considered. Furthermore, this section delineates the firm size measured in sales turn over and number of full time employees.

Regarding the general characteristics of the export venture, this section depicts its specific overseas market and product type. Moreover, the export venture's percentage of total sales of the INV was estimated, first including all the sample firms and then by different firm size category.

6.2.1 General Characteristics of the INVs

The sample frame of INVs in the present study was based on high technology SMEs with international operations from the first two years of inception (see Step 3 and 4 of Section 4.5.1). The participating firms differed widely in terms of the year when the company was established, the number of years of exporting, the exporting frequency, the export market strategy followed, the industry sector and firm size. While some firms started operations four years ago, others were created sixty six years ago, as exhibited in Table 6.1. However, the central tendency of the firms' years of establishment was eighteen years as a mean, with a median of fourteen years. The number of years exporting reported by the INVs of the sample varied in the range of two and sixty six, with central tendency values of seventeen and thirteen for the mean and median respectively.

TABLE 6.1 Year of Establishment and Years Exporting of INVs					
	Min	Max	Mean	Median	Std. Dev.
Year of establishment	4	66	18	14	11.07
No. of years exporting	2	66	17	13	11.14

Export Experience

A more detailed analysis regarding the INVs' export years of experience segmented by decades, is depicted in Table 6.2. It is appreciated that 78% of the INVs are young firms with a few years of international experience. These INVs are located in the first two ranges of the table, where more than half of the firms have eleven to twenty years of export experience, followed by the youngest INVs which have been selling abroad during the last 10 years representing more than one quarter of firms surveyed. The remaining 22% of firms from Table 6.2 are classified as more experienced in the international markets, with a range of 21 up to more than 40 years of international experience.

TABLE 6.2 Export Experience		
Export	Range	% of Companies
Years	1 – 10	26%
	11 – 20	52%
	21 – 30	12%
	31 – 40	3%
	>= 40	7%

Description of the Export Activity

A description of the export activity by export frequency and strategy is described in Table 6.3. Regarding export frequency, it can be appreciated that most INVs of the sample export on a regular basis and just 1% sell their products abroad occasionally. The next section of the table shows that more than three quarters of INVs focus their exports on, and allocate resources for their export operations to certain carefully selected export markets following an export market concentration strategy. On the other hand, the remaining 23% of firms have an organizational policy to export to as many markets as possible, with no particular focus on specific overseas markets following a market spreading strategy.

TABLE 6.3 Description of the Export Activity

Export	Range	% of Companies
Frequency	Regular Basis	99%
	Occasionally	1%
Strategy	Market Concentration	77%
	Market Spreading	23%

Distribution of INVs by High Tech Sector

The distribution of INVs from the sample by industry sector, segmented by the NICS codes of the high technology sectors in accordance to the AeA are presented in Table 6.4, see also Table 4.8.

It is appreciated that 75% of the INVs are distributed in the manufacturing category, where the first place measured in terms of the highest proportion of INVs is shared by the high tech sectors of 'Measuring and Control Systems' as well as 'Communications Equipment'.

Subsequently, this is followed by 'Electronic Components' and finally, 'Computer and Peripheral Equipments' high tech sectors.

The remaining quarter of the sample is represented by the 'Software and Technology Services' category, particularly depicted in the 'Computer Systems Design and Related Services'.

TABLE 6.4 Distribution of INVs by High Tech Sector

	Industry Sector and NICS codes	% of Companies
Software & Tech Services	Computer Systems Design and Related Services 541511, 541512, 541513, 541519	25%
Manufacturing	Computer and Peripheral Equipment 334111, 334112, 334113, 334119	13%
	Electronic Components 334411, 334412, 334414, 334415, 334416, 334417, 334418, 334419	18%
	Communications Equipment 334210, 334220, 334290, 335921	22%
	Measuring and Control Instruments 334512, 334513, 334514, 334515, 334516, 334519	22%

Distribution by Firm Size

The distribution of INV sample firms by firm size is measured in two ways, by number of full time employees and by sales. As Table 6.5 draws upon the first distribution mentioned, ranging from 10 to 250 employees, it can be appreciated that the highest percentage of companies is 53% located in the range from 101 to 250 employees. This result illustrates

that most of the INVs are medium firms according to the classification of firm size explained in Section 4.5.1.

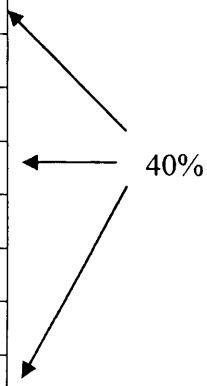
Then, Table 6.5 shows that 21% of INVs employ 26 to 50 people, followed by 14% of the firms with 51 to 100 employees and finally 12% of the companies are the smallest in terms of full time employees with 10 to 25.

TABLE 6.5 Distribution of INVs by Firm Size – No. Employees

Number of Full time Employees	% of Companies
10 – 25	12%
26 – 50	21%
51 – 100	14%
101 - 250	53%

With reference to Table 6.6, the INVs size distribution measured in year's sales turnover up to $50 million US dollars is displayed. It is important to note that 40% of the firms are located in three sales intervals of the table, where the highest portion of INVs are placed in the middle of the table followed by the share of companies in the extremes. Consequently, most INVs are in the sales range above $1 to $2.5 million US dollars representing almost one fifth of the sample. Then, the larger firms with sales turnover higher than $20 to $50 million US dollars correspond to one sixth of the sample, closely followed by the smallest firms with up to $50,000 US dollars. The remaining 60% of INVs are spread homogeneously over the remaining five sales ranges.

TABLE 6.6 Firm Size Distribution of INVs – Sales Turnover	
Sales Range (US dlls.)	**% of Companies**
up to 50K	15%
51K<INV<=250K	9%
250K<INV<=1M	13%
1M<INV<=2.5M	19%
2.5M<INV<=5.5M	11%
5.5M<INV<=10M	8%
10M<INV<=20M	10%
20M<INV<=50M	16%

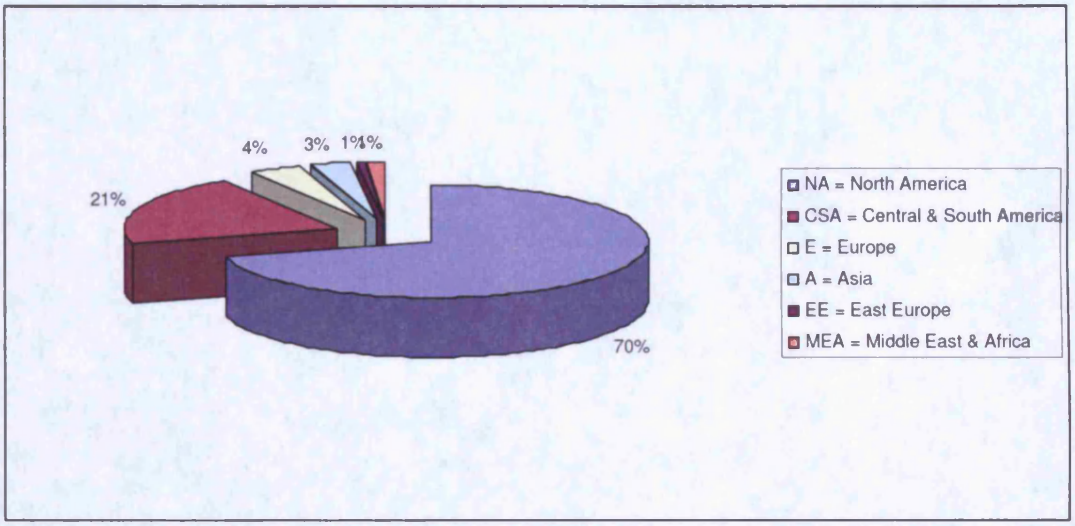


6.2.2 GENERAL CHARACTERISTICS OF THE EXPORT VENTURE

Market of the Export Venture

The unit of analysis for the present study is the export venture. Respondents were asked to select an export venture, which was defined as a specific product or product line exported to a specific overseas market. It is important to notice in the present study that 70% of the INVs' export market is North America as depicted in Figure 6.1, which highlights the importance of the NAFTA in the region, see Figure 1.1. This fact is followed by the significance of the free trade agreements with Central and South America such as the Latin American Association of Integration (ALADI) with the Southern Common Market (MERCOSUR) basically constituted by Brazil, Argentina, Uruguay and Paraguay among others. As indicated in Figure 6.1, Central and South America correspond to 21% of the INVs' overseas market followed by Europe with 4%; Asia with 3%; East Europe with 1%; and finally, the Middle East and Africa with 1%.

FIGURE 6.1 Market of the Export Venture



Distribution of the Export Venture by Product Type

Observation of Table 6.7 reveals that two thirds of the export ventures selected by the participant managers represent industrial goods, also known as business to business goods. The other third export ventures are consumer goods.

TABLE 6.7 Distribution of the Export Venture by Product Type

Product Type	% of Export Ventures
Consumer goods	34%
Industrial goods	66%

Distribution of the Export Venture by Export-to-Sales Ratio

In light of the importance of the export performance construct for the model proposed in this research effort, particular attention was given to the distribution of the export venture as regards their overall performance. Specifically, the export venture's percentage from total sales, termed export-to-sales ratio in Section 2.5.1, was first calculated with all the

sample firms, and then with each of the different categories of the firm's size, based on the sales ranges of Table 6.6. Therefore, the following sections explain nine different distributions of INVs: (1) the distribution of all INVs of the sample; (2) the distribution of INVs with up to $50 thousand US dollars of sales; (3) the distribution of INVs with sales above $50 to $250 thousand US dollars; (4) the distribution of INVs with sales higher than $250 thousand to $1 million US dollars; (5) the distribution of INVs with sales above $1 to $2.5 million dollars; (6) the distribution of INVs with sales higher than $2.5 to $5.5 million dollars; (7) the distribution of INVs with sales above $5.5 to $10 million dollars; (8) the distribution of INVs with sales higher than $10 to $20 million dollars; and finally (8) the distribution of INVs which run from more than $20 to $50 million dollars of sales.

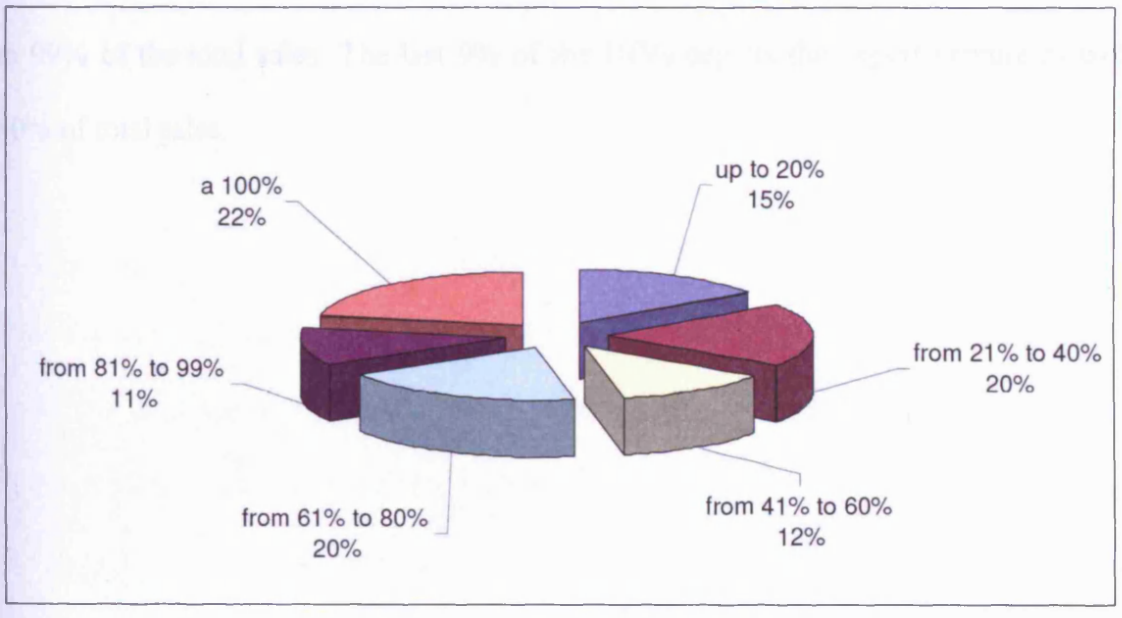
In each of the nine distributions of INVs, the firms were segmented in six intervals regarding their share of export ventures from total sales, as presented from Figure 6.2 to Figure 6.10. Accordingly, the intervals show the firms where the export venture represents: up to 20 percent of total sales, 21 to 40 percent of total sales, 41 to 60 percent of total sales, 61 to 80 percent of total sales, 81 to 99 percent of total sales, and finally 100% of total sales.

1. Distribution of All INVs Sample Firms

The export-to-sales ratio including all INV sample firms is exhibited in Figure 6.2. The three segments located at the left side of this pie chart represent 53% of the INVs surveyed. These firms have in common the fact that more than three fifths of their total sales is based on the export venture. It is significant to note in that in 22% of the sample firms, the export venture represents 100% of the total sales. Then, in 31% of the remaining sample firms, the export venture ranges from more than 60 up to 99% of the total sales.

While the segments at the right side of the pie chart depend less on the export venture as a percentage of their total sales, only 15% of firms have an export venture that corresponds up to 20% of the total sales. Therefore, as Figure 6.2 enlarges upon the export-to-sales ratio including all sample firms, it highlights the fact that in more than 65% of INVs the export venture represents one quarter or more of total sales.

FIGURE 6.2 Export-to-Sales Ratio – All INVs



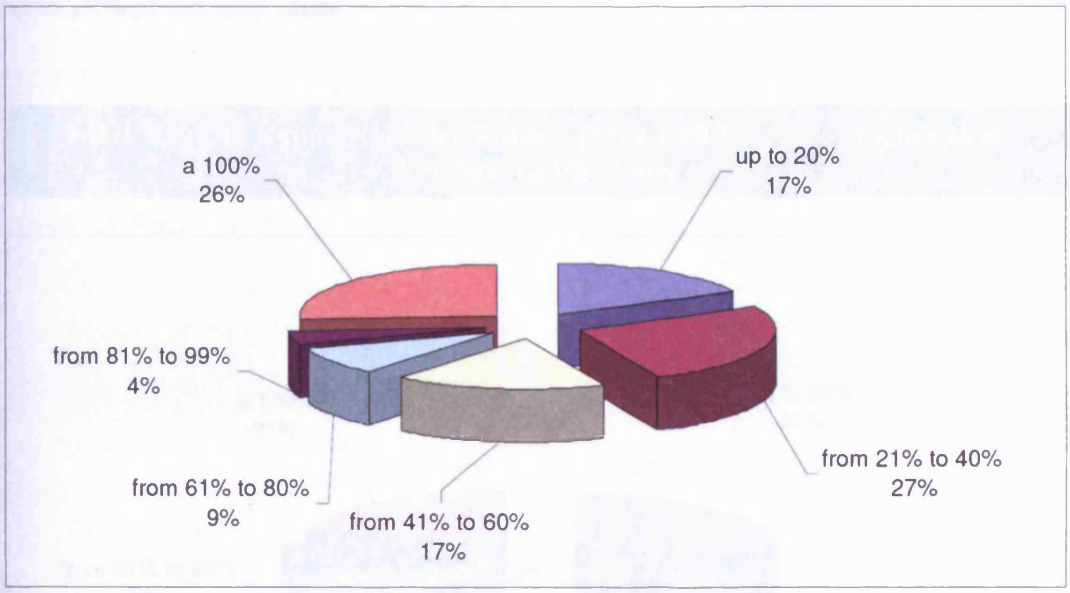
2. Distribution of INVs with up to US$50K of Sales

As Figure 6.3 draws upon the export-to-sales ratio over INVs with year sales up to $50 thousand US dollars, more than half of INVs are concentrated in two slices of the pie chart. The chart indicates that 26% of the firms are dedicated to just the export venture representing 100% of the total sales. It also shows that in 27% of the firms, the export venture represents from 21% to 40% of total sales.

Additionally, more than one third of the sample firms are illustrated in two sectors of the pie chart which group 17% of INVs each. In one of them, the export venture ranges from 41% to 60% of total sales. In the other, the export venture appears with a smaller participation up to 20% of total sales.

Finally, the two left segments of the pie chart detailed in Figure 6.3 represent 13% of the INVs surveyed. These firms share the fact that more than three fifths of their total sales are based on export venture. In 4% of the firms surveyed, the export venture ranges from 81% to 99% of the total sales. The last 9% of the INVs depicts the export venture as 61% to 80% of total sales.

FIGURE 6.3 Export-to-Sales Ratio – INVs with year sales up to US$50K



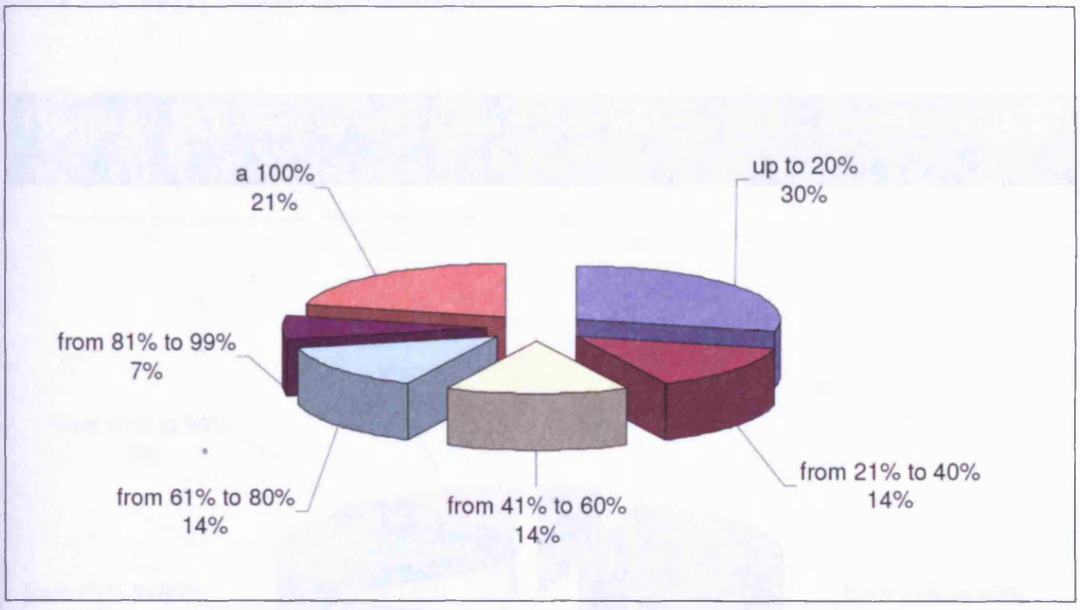
3. Distribution of INVs above US$50K to US$250K of Sales

The export-to-sales ratio over INVs with year sales higher than $50 to $250 thousand US dollars is depicted in Figure 6.4. Notably, 42% of the INVs surveyed, shown in the three pie sectors on the left of the chart, have more than three fifths of their total sales based on the export venture. It is important to observe that in 21% of the sample firms, the export venture represents the total sales. Additionally, in 7% of the firms surveyed the export venture corresponds to 81% to 99% of the total sales, and in the remaining 14% of the firms the export venture stands for 61% to 80% of the total sales.

The remaining 58% INVs are also represented in the three segments located on the right of Figure 6.4. While these firms depend less on the export venture as a percentage of their total sales, it still represents an important income generator. In 14% of the INVs the export venture corresponds to 41% to 60% of the total sales. Furthermore, in 14% of the sample firms the export venture constitutes 21% to 40% of the total sales. Finally, the last sector of

the pie chart shows the remaining 30% of the firms where the export venture corresponds up to 20% of the total sales.

FIGURE 6.4 Export-to-Sales Ratio – INVs with year sales higher than US$50K to US$250K

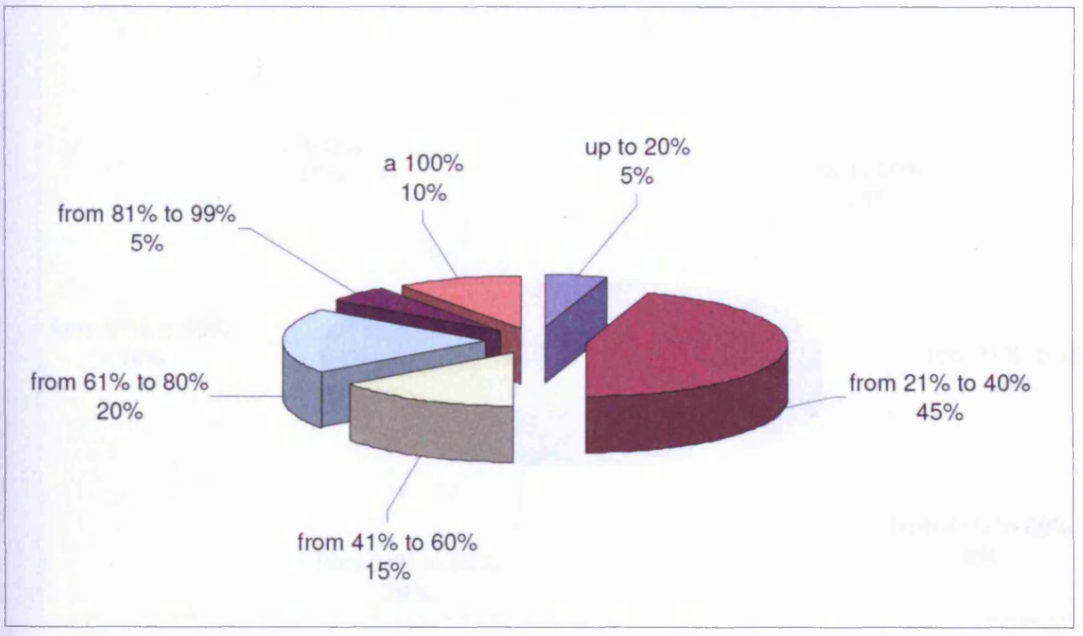


4. Distribution of INVs above US$250K to US$1M of Sales

The export-to-sales ratio over INVs with year sales above $250 thousand to $1 million US dollars is described on Figure 6.5. It is interesting to underline the high percentage of INVs found in the segment where the export venture ranges from 21% to 40% of total sales. While in Figure 6.3 and Figure 6.4 this export venture range corresponds to 27% and 14% of INVs respectively, in Figure 6.5 this segment of the chart groups almost one half of the firms surveyed, representing the highest percentage of INVs concentrated in one export venture interval from the nine distributions analyzed. Further, in 20% of the firms the export venture ranges from 61 to 80 percent of total sales. Moreover, in 15% of INVs the export venture corresponds to 41 to 60 percent of total sales.

The remaining 20% of INVs are illustrated in the three top segments of Figure 6.5. The middle segment of these three indicates 10% of the firms where the export venture represents the total sales. The other two sections of the chart represent 5% of the INVs each, one where the export venture ranges from 81% to 99% of total sales and the other where the export venture represents just 5% of the total sales.

FIGURE 6.5 Export-to-Sales Ratio – INVs with year sales above US$251K to US$1M

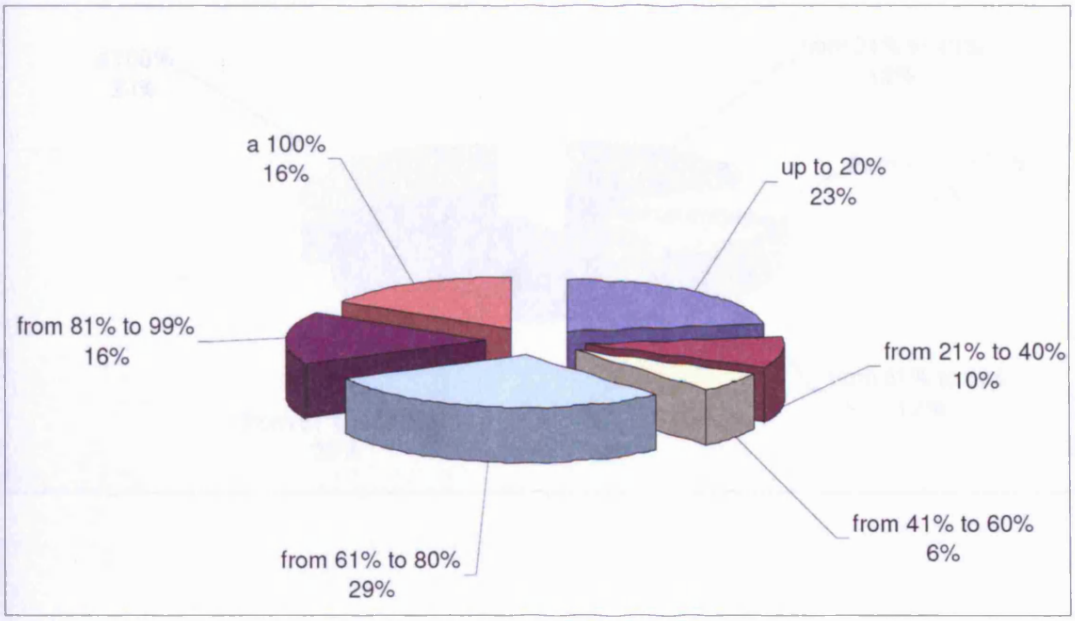


5. Distribution of INVs above US$1M to US$2.5M of Sales

The export-to-sales ratio over INVs with year sales higher than $1 to $2.5 million US dollars is illustrated in Figure 6.6. The highest share of INVs appears in the bottom slice of the pie chart, which shows that 29% of firms depend on 60% to 80% of total sales in the export venture. It is closely followed by 23% of INV where the export venture represents up to 20% of total sales.

Moreover, Figure 6.6 also shows that almost one third of the firms surveyed have the highest export ventures focus in this distribution. They are delineated in two segments of the pie chart each indicating 16% of INVs. Furthermore, in 10% of the firms, the export venture represents 21% to 40% of their export sales. Finally in 6% of the firms surveyed the export venture represents 41% to 60% of total sales.

FIGURE 6.6 Export-to-Sales Ratio – INVs with year sales higher than US$1M to US$2.5M



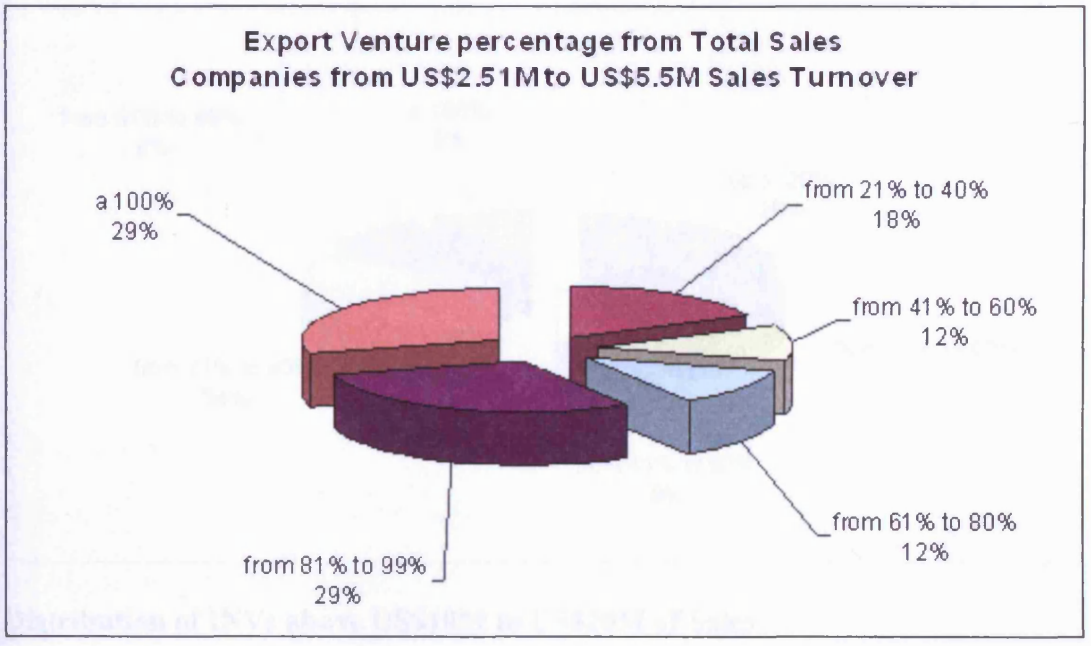
6. Distribution of INVs above US$2.5M to US$5.5M of Sales

The export-to-sales ratio over INVs with year sales above $2.5 to $5.5 million US dollars is pictured in Figure 6.7. It is interesting to see that in this distribution the export venture corresponds to more than 20% of the total sales.

In addition, more than half of the firms surveyed depend greatly on the export venture sales. They are illustrated in two segments of the pie chart, each indicating 29% of INVs.

The next pair represents 24% of INVs depicted in two equal slices of 12% each. Their export ventures range from 61% to 80% and from 41% to 60% of total sales. Finally, in 18% of the firms the export venture represents 21% to 40% of total sales.

FIGURE 6.7 Export-to-Sales Ratio – INVs with year sales above US$2.5M to US$5.5M

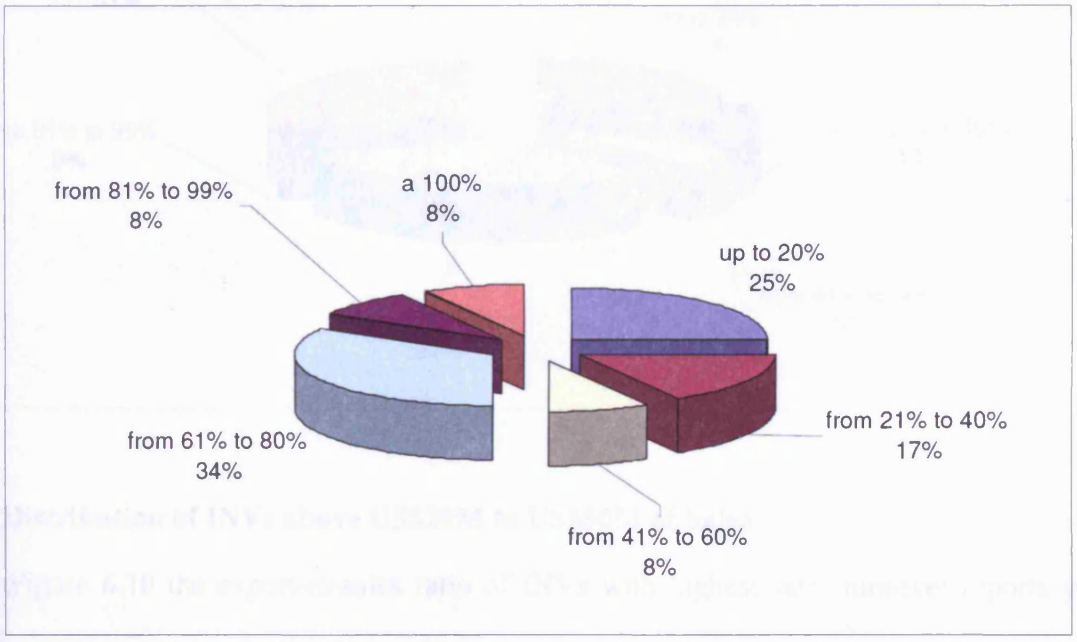


7. Distribution of INVs above US$5.5M to US$10M of Sales

As Figure 6.8 describes the export-to-sales ratio over INVs with year sales above $5.5 to $10 million US dollars, it is important to underline the fact that 34% of the INVs are in the interval of 61% to 80% of export venture participation in total sales. Additionally, in one quarter of the firms the export venture represents up to 20% of total sales. Moreover, 17% of the firms illustrate the portion of 21% to 40% of export venture from total sales. Finally, the last pair of segments in the chart represents 16% of INVs as they are depicted in two

equal slices of 8% each. In one of them the export venture range from 41% to 60% of total sales, and the other shows the export venture as the total income generator for the INVs.

FIGURE 6.8 Export-to-Sales Ratio – INVs with year sales above US$5.5M to US$10M

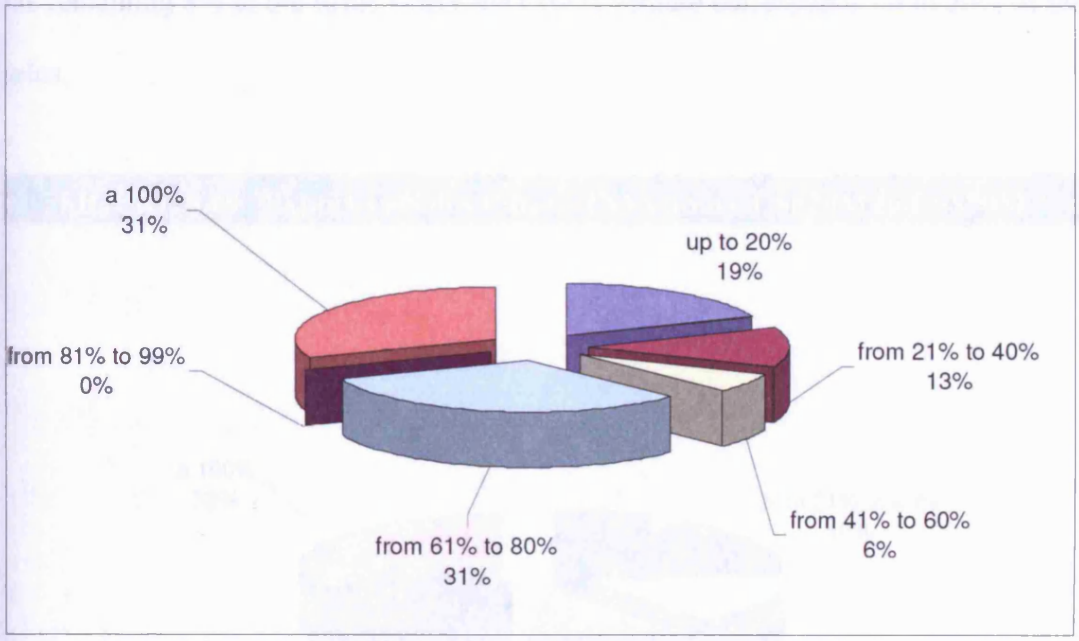


8. Distribution of INVs above US$10M to US$20M of Sales

The export-to-sales ratio over INVs with year sales above $10 to $20 million US dollars is illustrated in Figure 6.9. The highest share of INVs appears in the two segments of equal size, indicating 62% of the firms. One of them shows that 31% of INVs depend totally on the export venture. The other 31% of firms are in the export venture interval of 61% to 80% of total sales.

Furthermore, while in 19% of the firms the export venture represents up to 20% of total sales, in 13% of firms the export venture exemplifies 21% to 40% of total sales. Also, the export venture involves 41% to 60% of total sales in 6% of INVs. Finally, it is significant that there are no firms in the range of 81% to 99% of export venture participation.

FIGURE 6.9 Export-to-Sales Ratio – INVs above US$10M to US$20M



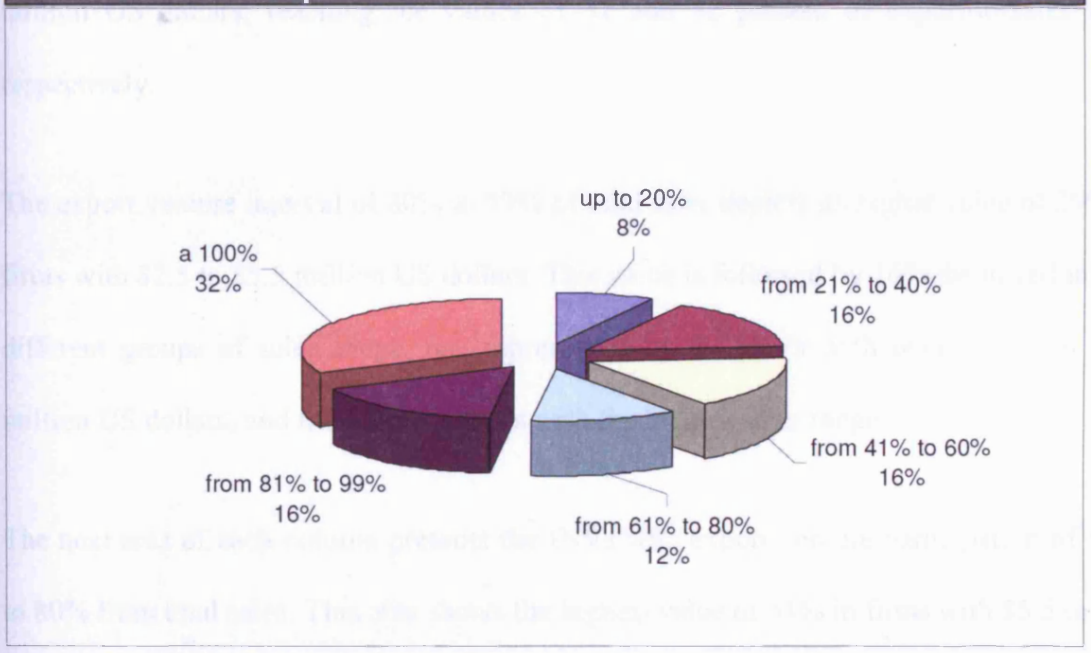
9. Distribution of INVs above US$20M to US$50M of Sales

In Figure 6.10 the export-to-sales ratio of INVs with highest sales turnover reports year sales above $20 to $50 million US dollars. In this regard, almost half of INVs are concentrated in the two segments of the pie chart with maximum export venture participation in total sales. As can be seen from the figure in 32% of the firms the export venture represents the total sales. Additionally, in 16% of the firms, the export venture represents from 81% to 99% of total sales.

The remaining 52% INVs are also shown in Figure 6.10 in the other four segments of the pie chart. While these firms depend less on the export venture as a percentage of their total sales, the export venture still represents an important income generator. In 12% of the INVs the export venture represents 61% to 80% of the total sales. Furthermore, each of the next two segments shows that in 16% of the sample firms the export venture constitutes

41% to 60% and 21% to 40% of the total sales. Finally, the last slice of the pie chart shows the remaining 8% of the firms where the export venture corresponds up to 20% of the total sales.

FIGURE 6.10 Export-to-Sales Ratio – INVs above US$20M to US$50M



10. Distribution of all INVs by Export-to-Sales Ratio

As Figure 6.11 illustrates all INVs grouped by export-to-sales ratio, summarizing Figure 6.3 to Figure 6.10, each column corresponds to each of the previous figures. In particularl, column 'INV<=50K' stands for the export-to-sales ratio over INVs with up to $50 thousand US dollars of sales turn over, represented in Figure 6.3 and so on. This distribution facilitates the export venture interval analysis between INVs classified by sales range.

According to Figure 6.11, it is worth noting the top area of each column constituted by the firms where the export venture represents total sales. This shows a value of 26% over firms with up to $50 thousand US dollars and tends to grow when the firms' sales turnover is higher. This is especially true, among INVs with sales turnover above $10 and above $20 million US dollars, reaching the values of 31 and 32 percent of export-to-sales ratio respectively.

The export venture interval of 80% to 99% of total sales depicts its higher value of 29% in firms with $2.5 to $5.5 million US dollars. This value is followed by 16% displayed in two different groups of sales range, one represented by the INVs with over $1 up to $2.5 million US dollars, and the group of INVs with the highest sales range.

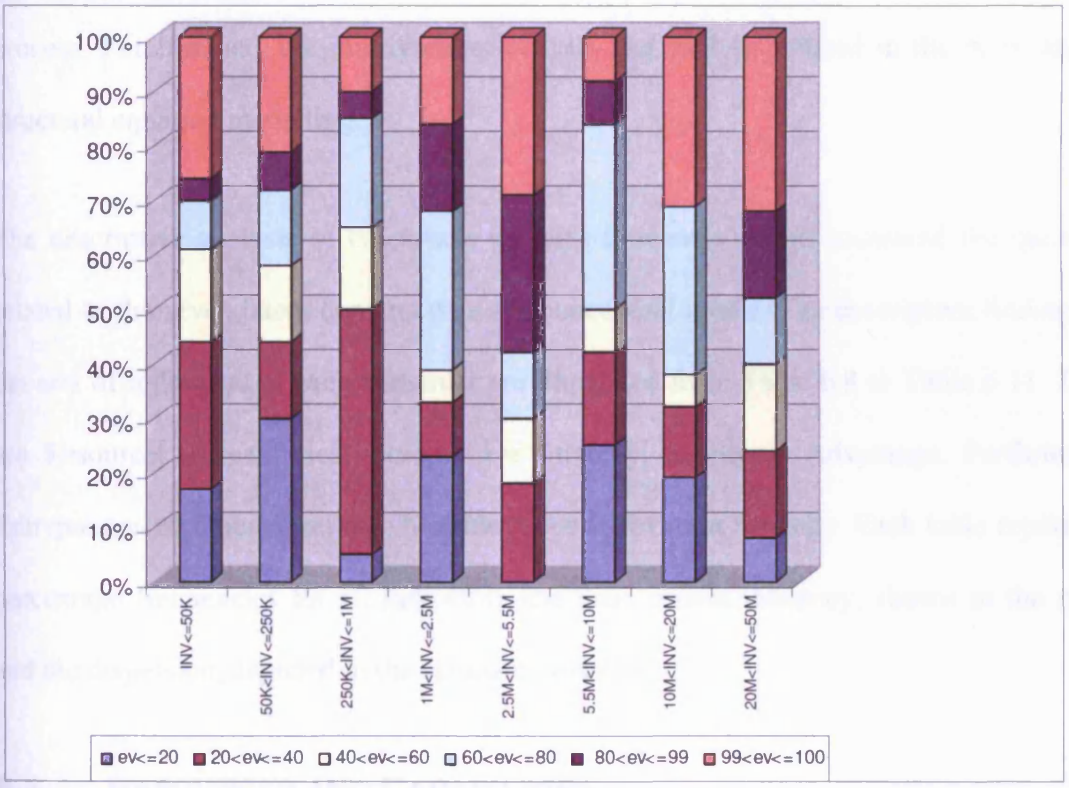
The next area of each column presents the INVs with export venture participation of 60% to 80% from total sales. This area shows the highest value of 34% in firms with $5.5 to $10 million US dollars of sales. This value is closely followed by 31% of firms with $10 to $20 million US dollars of sales, and by 29% of firms in the sales range of $1 to $2.5 million US dollars

The area represented in each column corresponding to the percentage of INVs with export venture participation of 40% to 60% from total sales, is homogeneously distributed among the firms.

The succeeding area lays out the percentage of INVs with export venture participation of 20% to 40% from total sales. In the column of INVs with sales turnover of $250 thousand to $1 million US dollars, the value of 45% of firms stands out from the rest of the columns.

Finally, the area constituted by the firms less dependent on the export venture from total sales, displays its highest value of 30% in the range of firms with sales turnover of $50 to $250 thousand US dollars. This value is followed by 25% and 23% of firms with $5.5 to $10 million US dollars, and firms with $1 to $2.5 million US dollars of sales respectively. Over the three columns located on the right of the chart, this area tends to diminish while the area where export ventures represent the total sales tends to grow.

FIGURE 6.11 Distribution of all INVs grouped by Export Venture participation in total sales



6.3 DESCRIPTIVE ANALYSIS OF CONSTRUCTS

The usefulness of descriptive statistics has been advocated by Bailey (1987:39), who writes, "In a descriptive analysis …the researcher may be more concerned with describing

the extent of occurrence of a phenomenon than with studying its correlations". In addition, these statistics mainly focus on description and presentation of data (Sapsford & Jupp, 1996).

The primary objective of the descriptive analysis is to explore and gain an initial understanding in order to get the 'feel' of the data gathered from the survey. According to Chatfield (1986), the initial data analysis is an important stage of most statistical investigations, not only for scrutinising and summarising data, but also for model formulation using more advanced statistical techniques at the later stage of the analysis process. For instance, the multivariate analysis that will be utilised in the next stage is structural equation modelling.

The descriptive analysis of constructs presents how respondents answered the questions related to the seven latent constructs in the conceptual model. The descriptive findings for the sets of indicators of each construct are illustrated from Table 6.8 to Table 6.11. These are Resources, Capabilities, Competitive Strategy, Positional Advantage, Performance, Entrepreneurial Orientation and Ambidextrous Innovation Strategy. Each table reports the percentage frequencies for all indicators and their central tendency, shown in the mean, and the dispersion, depicted in the standard deviation.

6.3.1 RESOURCES AND CAPABILITIES

Thinking about the specific export venture, the respondents were first asked to rate their firm's 'Resources' and 'Capabilities' relative to their major competitor in the export market according to the following dimensions: 'Financial' and 'Human' for the construct 'Resources'; subsequently 'Distribution', 'Service', 'Pricing', 'Communication' for the

construct 'Capabilities'. On Table 6.8 is revealed that the first construct's mean scores are relatively high, all above 5, which denotes that INVs have a much better level, size and access of financial resources available, as well as a higher speed of acquiring and deploying them than their major competitors. Also the INVs' respondents rate the knowledge, quality, experience and skills of their human resources higher than their major competitors.

In terms of the capabilities measured, the INVs rate their distribution, service, pricing and communication with most mean scores even higher than the resources', with a value above 5.5, except for 5 indicators out of 13. The interpretation of these numbers show that INVs' devote themselves more to developing after sales service, responding quickly to price changes and maintaining a high quality in their channel and customer relationships in a much better way than competitors rather than to developing distribution capabilities towards the closeness to distributors. Other distribution capabilities are rated much better than the competitors, such as the value added to distributors' businesses, the attraction and retention of the best distributors, as well as the support levels provided.

Another interesting finding is that firms tend to have low negative response and high mean scores especially in pricing and communications where communicating pricing structures and levels to customers and the quality maintenance of channel relationships are the principal items of each sub construct respectively.

TABLE 6.8 Descriptive Statistics of Resources and Capabilities of INVs

Constructs	Sub constructs	Items	Response Scale (%)							Mean	SD
			Much Worse (1)			*About the same (4)*			*Much Better (7)*		
			(1)	(2)	(3)	(4)	(5)	(6)	(7)		
Resources	Financial	finRes_av	0.08	0.01	0.06	0.10	0.19	0.25	0.28	5.27	1.74
		access_cap	0.08	0.03	0.08	0.12	0.19	0.22	0.27	5.06	1.80
		speed_finRes	0.07	0.04	0.06	0.11	0.25	0.18	0.25	5.04	1.76
		size_finRes	0.06	0.03	0.04	0.17	0.15	0.22	0.30	5.24	1.74
	Human	know_exMkting	0.08	0.04	0.05	0.13	0.19	0.26	0.22	5.04	1.79
		qual_exMkting	0.06	0.02	0.03	0.09	0.20	0.28	0.29	5.46	1.61
		expe_exMkting	0.07	0.03	0.05	0.10	0.18	0.23	0.30	5.29	1.76
		skills_exMkting	0.05	0.04	0.05	0.08	0.19	0.28	0.27	5.37	1.65
Capabilities	Distribution	add_value_dist	0.06	0.03	0.03	0.12	0.23	0.31	0.21	5.27	1.57
		attr_ret_best_dist	0.06	0.00	0.04	0.10	0.27	0.28	0.22	5.32	1.54
		high_supp_dist	0.04	0.01	0.09	0.08	0.22	0.28	0.25	5.34	1.56
		close_work_dist	0.09	0.03	0.10	0.12	0.27	0.20	0.18	4.80	1.79
	Service	deliv_high_qual_afterSalesServ	0.04	0.04	0.02	0.06	0.16	0.32	0.34	5.68	1.54
		attract_retain_afterSalesServ_person	0.06	0.02	0.04	0.11	0.22	0.32	0.21	5.28	1.62
	Pricing	resp_effe_compPri	0.03	0.01	0.01	0.08	0.25	0.27	0.32	5.70	1.36
		resp_quick_custChange	0.04	0.02	0.01	0.10	0.19	0.30	0.32	5.65	1.46
		comm_pri	0.03	0.01	0.01	0.06	0.22	0.35	0.30	5.76	1.29
	Communication	qual_chRel	0.01	0.01	0.02	0.04	0.18	0.34	0.37	5.93	1.20
		compKnow_expMkt	0.04	0.01	0.03	0.08	0.15	0.32	0.34	5.68	1.51
		info_doBus_expMkt	0.03	0.01	0.01	0.08	0.23	0.30	0.32	5.74	1.35
		num_cust	0.01	0.01	0.06	0.06	0.18	0.27	0.39	5.84	1.32

6.3.2 POSITIONAL ADVANTAGE AND PERFORMANCE

This section refers to the positional advantage achieved and the performance evaluation considering the specific export venture in relation to the competition. To measure the positional advantage, the respondents were asked to indicate how well their business compares to their major direct competitors from the export market, in terms of cost, promotion and marketing product. The first part of Table 6.9 depicts that the positional advantage of the INVs from the sample is rather high, with all mean scores above 5.5 with one exception which corresponds to unit production costs. The result highlights especially that INVs from the sample emphasise the product availability and the channel delivery speed for customers, as well as the product design and style, in accordance with the highest mean scores located in the marketing product dimension. This marketing product sub construct shows all mean scores above 5.8, while the cost and promotion sub constructs highest mean scores relate to the actual selling price and the brand image respectively.

The second part of Table 6.9 illustrates the respondents' evaluation of the export venture performance over the past year relative to their major competitors in three dimensions: effectiveness, efficiency and adaptiveness. The result shows that the INVs of the sample focus first on effectiveness and then on the other two dimensions. Therefore the market and sales revenue growth are more meaningful for the export venture performance than the return on sales and the time to market for new export venture products.

TABLE 6.9 Descriptive Statistics of Positional Advantage and Performance of INVs

Constructs	Sub constructs	Items	Response Scale (%) *Much Worse (1)* (1)	(2)	(3) *About the same (4)*	(4)	(5)	(6)	(7) *Much Better (7)*	Mean	SD
Positional Advantage	Cost	unit_prod_cost	0.03	0.01	0.01	0.15	0.27	0.26	0.25	5.46	1.39
		cost_goods	0.02	0.01	0.03	0.13	0.25	0.27	0.26	5.51	1.33
		actual_sell_price	0.02	0.01	0.01	0.13	0.16	0.35	0.29	5.70	1.30
		pay_credit_terms	0.02	0.02	0.03	0.13	0.24	0.26	0.28	5.53	1.37
	Promotion	share_mind	0.04	0.03	0.05	0.06	0.14	0.30	0.37	5.68	1.57
		brand_per	0.05	0.01	0.06	0.06	0.13	0.28	0.38	5.65	1.63
		brand_image	0.04	0.02	0.04	0.06	0.15	0.29	0.38	5.70	1.57
	Marketing Prod	prod_av	0.03	0.01	0.03	0.04	0.15	0.30	0.42	5.96	1.34
		ch_deli	0.03	0.03	0.01	0.05	0.16	0.34	0.35	5.84	1.38
		prod_des_style	0.04	0.01	0.02	0.08	0.09	0.27	0.46	5.92	1.49
Performance	Effectiveness	mktSh_grow	0.03	0.02	0.02	0.11	0.27	0.24	0.29	5.53	1.39
		pos_change_mktSh	0.01	0.00	0.04	0.10	0.29	0.29	0.24	5.54	1.22
	Efficiency	ROI	0.03	0.02	0.07	0.15	0.25	0.23	0.22	5.21	1.49
		EV_margin	0.04	0.01	0.06	0.09	0.28	0.24	0.25	5.35	1.48
		ROS	0.05	0.01	0.08	0.10	0.27	0.27	0.20	5.19	1.55
	Adaptiveness	rev_newEVProd	0.04	0.04	0.04	0.14	0.24	0.25	0.23	5.24	1.55
		num_succ_newEVProd	0.05	0.03	0.06	0.14	0.15	0.31	0.25	5.28	1.64
		timeMkt_newEVProd	0.06	0.03	0.06	0.15	0.21	0.26	0.22	5.13	1.67
		resp_comp_expMkt	0.09	0.01	0.04	0.11	0.25	0.29	0.20	5.14	1.69

6.3.3 COMPETITIVE STRATEGY AND ENTREPRENEURIAL ORIENTATION

In order to measure the competitive strategy and the entrepreneurial orientation of the INVs of the sample, the respondents were asked to evaluate the dimensions: delivery differentiation, marketing differentiation and cost leadership for the first construct, as well as proactiveness, riskiness, and autonomy for the second one. The results of Table 6.10 show that the highest mean scores, above 5.65, are the quick delivery, guarantee and response to distributor orders. These numbers illustrate that the INVs of the sample identify to a great extent the delivery differentiation competitive strategy followed by the marketing differentiation and cost leadership. Also the offer of extensive end-user customer service, part of marketing differentiation, presents a mean score above 5.8. The lowest mean score of the competitive strategy construct is 5.03, which corresponds to the investment in marketing communications to build awareness.

Also it is interesting to note that managers tend to give higher scores to the search of a business that can be acquired, in addition to the autonomy given to employees especially in the way they perform their work tasks, instigate changes and are permitted to act without interference. It also reveals that companies tend to have higher preferences approving new projects on a stage by stage basis rather than with blanket approval.

TABLE 6.10 Descriptive Statistics of Competitive Strategy and Entrepreneurial Orientation of INVs											
Constructs	Sub constructs	Items	Response Scale (%)							Mean	SD
			Not at All (1)			*To some extent (4)*		*To a great extent (7)*			
			(1)	(2)	(3)	(4)	(5)	(6)	(7)		
Competitive Strategy	Delivery Diff	guarantee_deliv_times	0.03	0.01	0.04	0.03	0.15	0.37	0.36	5.92	1.31
		off_quick_deliv	0.01	0.01	0.01	0.07	0.17	0.33	0.37	5.96	1.19
		achieve_quick_deliv	0.06	0.01	0.01	0.08	0.13	0.36	0.32	5.68	1.59
	Marketing Diff	inv_mktingComm_aware	0.08	0.01	0.09	0.15	0.20	0.27	0.20	5.03	1.70
		dev_newEVProd	0.07	0.03	0.06	0.09	0.28	0.24	0.21	5.11	1.67
		off_high_diff_EVProd	0.04	0.02	0.03	0.04	0.14	0.35	0.35	5.82	1.46
	Cost Leadership	low_prov_EVMkt	0.06	0.01	0.03	0.19	0.26	0.20	0.22	5.16	1.57
		EV_cust_low_price	0.03	0.02	0.03	0.15	0.26	0.25	0.24	5.37	1.43
Entrepreneurial Orientation	Proactiveness	first_intro_new_brands	0.08	0.05	0.09	0.25	0.22	0.18	0.13	4.54	1.66
		look_out_bus	0.03	0.03	0.02	0.11	0.11	0.34	0.34	5.69	1.50
	Riskiness	new_proj_stage_by_stage	0.08	0.04	0.05	0.15	0.19	0.23	0.23	5.08	1.78
		supp_proj_certain_ret	0.02	0.01	0.01	0.10	0.21	0.24	0.38	5.84	1.29
	Autonomy	employees_no_interf	0.01	0.03	0.03	0.13	0.16	0.25	0.35	5.68	1.43
		employees_make_changes	0.01	0.04	0.05	0.08	0.23	0.28	0.28	5.55	1.41
		employees_authority_acto_alone	0.01	0.03	0.05	0.13	0.23	0.26	0.27	5.46	1.40
		employees_access_vital_info	0.09	0.06	0.08	0.29	0.19	0.13	0.15	4.42	1.74

TABLE 6.11 Descriptive Statistics of Ambidextrous Innovation Strategy of INVs

Constructs	Sub constructs	Items	Response Scale (%) *Not at All (1)* (1)	(2)	(3)	*To some extent (4)* (4)	(5)	*To a great extent (7)* (6)	(7)	Mean	SD
Ambidextrous Innovation	Explorative	new_gen_prod]	0.07	0.03	0.04	0.13	0.21	0.22	0.28	5.21	1.74
		extend_prod_range	0.07	0.02	0.05	0.13	0.16	0.23	0.31	5.30	1.74
	Exploitative	improve_yield_reduce_mat_cons	0.04	0.00	0.03	0.05	0.16	0.23	0.46	5.94	1.42
		improve_prod_felx	0.04	0.01	0.01	0.03	0.15	0.34	0.39	5.89	1.44
		improve_prod_qual	0.04	0.01	0.02	0.03	0.12	0.30	0.46	6.01	1.39

6.3.4 AMBIDEXTROUS INNOVATION STRATEGY

This section illustrates the outcomes of the ambidextrous innovation strategy, for which respondents were asked to asses their scores in terms of explorative and exploitative dimensions. As Table 6.11 shows that there is not much difference between both dimensions, the results suggest that INVs are ambidextrous firms capable of pursuing simultaneously exploitative and explorative orientations. The INVs of the sample are able to introduce a new generation of products and extend the product range as well as improving the quality of existing products and production flexibility or reducing material consumption.

6.4 CONCLUDING COMMENTS

This chapter has provided an account of the demographic profile of the sample and the descriptive findings generated from an initial analysis of the data collected in the present study. The demographic profile of the sample has described the general characteristics of the INVs and of the export venture.

Presentation of the descriptive results was made from the seven main constructs in the conceptual model, namely, resources, capabilities, competitive strategy, positional advantage, performance, entrepreneurial orientation and ambidextrous innovation. It is important to note that a comparatively wide distribution of responses was generally found to exist across the various measures employed for the purpose of this research. Based on

the descriptive findings there is significant variance in the responses for every construct. Insights into the data have been derived from this analysis that are used in subsequent analyses and discussions of the present study.

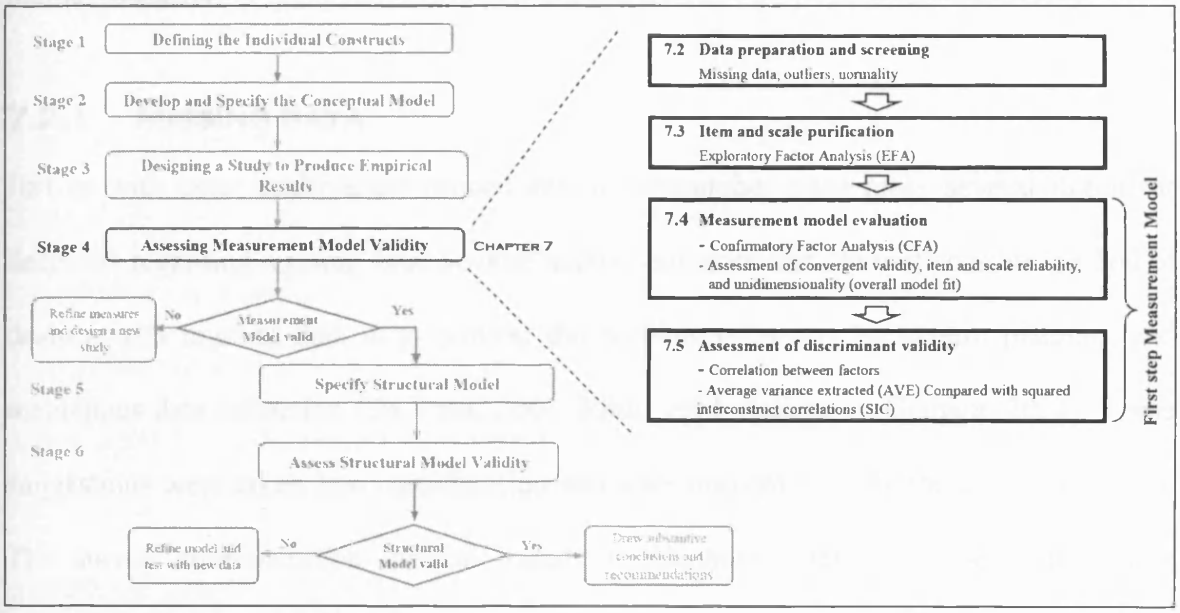
CHAPTER 7
MEASURE VALIDATION: MEASUREMENT MODEL

7.1 INTRODUCTION

The aim of this chapter is to give an assessment of the measurement scales and how well they capture the latent constructs portrayed in the conceptual model, which corresponds to the first part of the SEM analysis. A complete step-by-step approach of the measurement model validity assessment contained in this chapter is exhibited in Figure 7.1. It is important to consider the previous requirements to assess measurement model validity, including data preparation and screening procedures to entail the treatment of missing data, detection of outliers and normality considerations.

As shown in previous chapters, multiple item measures were used for all constructs based upon the review of the general literature together with exploratory interviews with managers. It is therefore essential to examine and confirm the existence of dimensions underlying the model variables, as well as to provide an assessment of the reliability and validity of the scales pertaining to the dimensions. To this end, a series of steps was followed in order to achieve purification and internal consistency of measurement scales. The measures were purified using exploratory factor analysis and reliability analysis. Consequently, the set of items retained was subjected to confirmatory factor analysis to verify the hypothesised factor structure. Moreover, the measures were assessed for unidimensionality, convergent validity, reliability and discriminant validity.

FIGURE 7.1 Measure Validation
SOURCE: Adapted from Hair, et al. (2006) pg. 759; and Koufteros (1999) p. 475



7.2 DATA PREPARATION AND SCREENING

Multivariate analysis techniques have a tremendous analytical power to test hypotheses in the research design, albeit not without limitations (Hair et al., 2006). Data preparation and screening is the initial step in data analysis process. It is a time-consuming but necessary step that is frequently overlooked by the researcher. Here the researcher evaluates the impact of missing data, identifies outliers, and tests for the assumptions underlying most multivariate techniques. Data preparation and screening can avoid leading the model estimation and fitting programmes to a wrong conclusion (Kline, 2005). Naturally, SEM requires assumptions of the distributional characteristics of the data set for an accurate analysis (Tabachnick & Fidell, 2001). Thus, data preparation and screening help the researcher to assess and overcome pitfalls resulting from the research design and data collection practices. Consequently, the following sections contain the evaluation of missing

data, identification of outliers, and tests of the assumptions underlying normality and multicollinearity.

7.2.1 MISSING DATA

Just as with other multivariate procedures, the researcher must make several important decisions regarding missing data. Several authors advocate that the best possible method of dealing with missing data is to prevent the problem occurring by careful planning and meticulous data collection (De Vaus, 2001; Roth, 1994; Schafer & Graham, 2002). These suggestions were taken into consideration and were implemented by the current research. The survey administration method based on telephone interviews employed in this research, ensured minimizing the missing data, as explained in section 4.8.2.

The frequency and percentage of missing data in this study are shown in Table 7.1. These results reveal that missing data will not violate the parameter estimates since it is randomly scattered with no distinct pattern (Missing Completely at Random - MCAR), thus any remedy to treat this missing data is acceptable (Arbuckle & Wothke, 1999; Hair et al., 2006; Tabachnick & Fidell, 2001). Figure 4.7 previously mentioned the approaches for random missing data, which are two basic ones: imputation using only valid data and imputation by using replacement values.

As SEM requires a full set of observations (Pallant, 2005) and upon considering the advantages and drawbacks of the remedies of treating missing data, the response to missing data in the present study is to use the regression-based approach, which belongs to the imputation by using the replacement values approach. This is also consistent with the suggestion put forward by Roth (1994) that regression substitution is a suitable method

when the amount of missing data is less than 10 percent. The regression approach is used to predict the missing values of a variable based on its relationship to other variables in the data set. Although it is argued that this method strengthens the relationships already in the data, the resulting data become more characteristic of the sample and less generalisable (Hair et al., 2006). The regression method of imputation holds promise in those instances for which a moderate level of widely scattered missing data are presented and for which the relationships between variables are sufficiently established (Kline, 2005). Hence, this author is confident that using this method will not affect the generalisability of results.

TABLE 7.1 Summary Statistics of Missing Data

Constructs	Sub constructs	Items	Frequency	Percent
Resources	Financial	finRes_av	1	0.38%
	Human	qual_exMkting	1	0.38%
Capabilities	Distribucion	attr_ret_best_dist	1	0.38%
		high_supp_dist	1	0.38%
	Service	deliv_high_qual_afterSalesServ	1	0.38%
	Pricing	resp_effe_compPri	1	0.38%
		resp_quick_custChange	1	0.38%
		comm_pri	1	0.38%
	Comunication	qual_chRel	2	0.77%
Positional Advantage	Cost	cost_goods	1	0.38%
		actual_sell_price	2	0.77%
	Marketing Prod	prod_av	1	0.38%
Entrepreneurial Orientation	Riskiness	supp_proj_certain_ret	1	0.38%
	Autonomy	employees_access_vital_info	1	0.38%

7.2.2 OUTLIERS

Outliers are the observations displaying unreasonable characteristics; for example, these cases may behave distinctively differently from other observations in the dataset (Hair et al., 2006). Outliers could have extreme values on one variable or a combination of

variables that unduly influence statistics (Tabachnick & Fidell, 2001). If an outlier is a case of an extreme value on one variable, this is a univariate outlier, whilst an odd combination of scores on two or more variables is a multivariate outlier. Outliers potentially occur due to mistakes in responding to the questionnaire by respondents, errors in data recording, or some respondents not being representative of the targeted population under study. An outlier may or may not be influential. In this regard, influential means that removal of the outlier could cause substantial changes in the overall estimation of a specific analysis (Bowerman & O'Connell, 1997). It has been established that influential or problematic outliers can seriously distort statistical tests; specifically in SEM, for example, they can potentially affect the model fit estimates, parameter estimates and standard errors (West et al., 1995) and are assumed to create improper solutions (Bollen, 1987; Dillon et al., 1987). Improper solutions refer to estimates that have parameters outside the admissible range (e.g. Heywood cases in which error variances are negative) or where correlations between latent variables are greater than one (Byrne, 2001; Dillon et al., 1987; West et al., 1995). These offensive estimates are more likely to occur in small samples than in large ones. Thus it is important to identify those extreme values, to check for plausibility and to take necessary solutions, such as deletion or redefining the population (Anderson & Gerbing, 1984; West et al., 1995).

These potential detrimental effects of outliers on statistical analysis strongly suggest that it is essential to recognise the presence of outliers in the dataset, but there is no absolute characterisation of an extreme point for the univariate outlier. A widely accepted rule of thumb is that values with more than three standard deviations away from the mean are considered as outliers (Kline, 2005) or observations with standardised variables values

exceeding ±2.5 for small samples (80 or fewer observations) and scores of 3 to 4 for larger sample sizes (Hair et al., 2006). Even though a few univariate outliers could be identified in the dataset, they were minimized since this study applied a seven point Likert scale.

In turn, multivariate outliers can be diagnosed with the Mahalanobis D^2 measure, which is a measure to assess the position of each observation compared with the centre of all observations on a set of variables (Byrne, 2001). A large Mahalanobis distance score denotes a case as having extreme values on one or more of the independent variables. Further, it is recommended that a very conservative statistical test of significance at 0.001 is the threshold value (Hair et al., 2006; Tabachnick & Fidell, 2001).

Even though it is the prerogative of the researcher to decide whether to retain or discard outliers from the dataset, it is strongly suggested by Hair and colleagues (2006) that they should be retained unless it is proven that they are not representative of the entire population. It was acknowledged that by discarding outliers, the generalisability of the study might suffer. It is noteworthy that AMOS can identify outliers by the Mahalanobis distance; therefore, this measure was employed in the present study to detect the occurrence of multivariate outliers from the variables utilised for SEM. In this study, Mahalanobis distance was measured for each construct through AMOS and then compared with critical χ^2 value with the degree of freedom equal to the number of the independent variables at $p \leq 0.001$ (Hair et al., 2006; Tabachnick & Fidell, 2001).

7.2.3 NORMALITY, LINEARITY, HOMOSCEDASTICITY AND MULTICOLLINEARITY

Normality

The most fundamental assumption in multivariate analysis is normality which refers to the shape of the data distribution and its correspondence to the normal distribution. Multivariate normality means that the individual variables are normal in a univariate sense and that their combinations are also normal. Thus, if a variable is multivariate normal, it is also univariate normal. However, multivariate normality is more difficult to test and a large sample tends to diminish the detrimental effect of normality (Hair et al., 2006).

Violation of the normality assumptions may affect the estimation process or the interpretation of results. For example, West, Finch and Curran (1995) suggest that non normality was found to cause moderate to severe underestimation of standard errors of parameter estimates; their investigation was conducted under conditions where the measured variables were regarded as non normal (skewness=3; kurtosis=21).

The simplest diagnostic test for normality is a visual check of the histogram. A more reliable approach is the normal probability plot, which compares the cumulative distribution of actual data values with the cumulative distribution of a normal distribution. In addition, one can also use statistical tests to assess normality, which are based on the skewness and kurtosis values. Kurtosis refers to the "peakedness" or "flatness" of the distribution compared to the normal distribution. While kurtosis refers to the height of the distribution, skewness is used to describe the balance of the distribution. If a distribution is unbalanced, it is skewed (Hair et al., 2006; Tabachnick & Fidell, 2001; West et al., 1995). Skewed distribution occurs when most of the cases are either below the mean, showing a

positive skew, or above it, displaying a negative skew. A positive skew denotes a distribution shifted to the left, whereas a negative skew reflects a shift to the right.

In addition to examining the normal probability plot, one can also use the statistical tests to assess normality. A simple test is a rule of thumb based on skewness and kurtosis values and which is available as part of the basic descriptive statistics for a variable computed by all statistical software. The statistic value (z) for the skewness value is calculated as follows, where N is the sample size:

$$Z_{\text{skewness}} = \frac{\text{skewness}}{\sqrt{\frac{6}{N}}}$$

A z value can also be calculated for the kurtosis value using the following formula:

$$Z_{\text{kurtosis}} = \frac{\text{kurtosis}}{\sqrt{\frac{24}{N}}}$$

If either calculated z value exceeds a critical value (± 2.58), then we can reject the assumption about the normality of the distribution at the 0.01 probability level or a critical value of ± 1.96 at 0.05 probability level (Hair et al., 2006). Alternatively, datasets with absolute values of a univariate skew index greater than 3.0 are regarded as 'extreme' (West et al., 1995) and a conservative estimation of a univariate kurtosis index greater than 10

may suggest a problem, whereas values greater than 20 are considered 'extremely' problematic (Kline, 2005).

In the current modelling, AMOS 6.0 software was employed to detect normality at both univariate and multivariate levels. Based on the thresholds suggested above, the variables included in the proposed conceptual model were regarded as normally distributed, as presented in Tables 7.2, 7.3, 7.4 and 7.5. Multivariate normality was examined by standardised residual; z-scores below 2.58 indicate that multivariate normality exists (Diamantopoulos, 1994). Upon inspection of all the variables used in the four validated measurement models, all z-scores were less than 2.58 at the 0.01 probability level, and thus overall multivariate normality could be assumed. Furthermore, the skewness and kurtosis statistics for the constructs investigated in this study revealed that they are within the acceptable range as stated earlier. Moreover, in this case the sample size was considered large enough; thus it could compensate for potential biases in parameter estimates (Hair et al., 2006).

The results depicted in the following tables correspond to the assessment of univariate and multivariate normality for the measurement model of every construct. The four following tables exhibit the skewness and kurtosis of each variable of the model's constructs, as well as, the multivariate normality. The representation of resources can be found in Table 7.2; Table 7.3 shows capabilities; Table 7.4 illustrates competitive strategy, positional advantage and performance; and Table 7.5 indicates entrepreneurial orientation and ambidextrous innovation strategy.

TABLE 7.2 Normality - Measurement Model: Resources

Construct	Variable	z-skewness	z-kurtosis
Resources	size_finRes	-1.277	1.441
	speed_finRes	-1.617	2.416
	access_cap	-0.926	0.089
	skills_exMkting	-0.81	-0.135
	expe_exMkting	-0.807	-0.249
	qual_exMkting	-1.631	2.339
	know_exMkting	-1.544	2.551
	finRes_av	-1.539	2.143
	Multivariate	79.43	39.466

TABLE 7.3 Normality - Measurement Model: Capabilities

Construct	Variable	z-skewness	z-kurtosis
Capabilities	attract_retain_afterSalesServ_person	-1.191	0.929
	info_doBus_expMkt	-1.544	2.455
	compKnow_expMkt	-1.539	2.143
	num_cust	-1.277	1.441
	qual_chRel	-1.617	2.416
	comm_pri	-1.612	2.292
	high_supp_dist	-1.055	0.64
	attr_ret_best_dist	-1.261	1.478
	deliv_high_qual_afterSalesServ	-1.542	1.924
	resp_effe_compPri	-1.441	2.419
	resp_quick_custChange	-1.446	2.088
	close_work_dist	-0.708	-0.314
	add_value_dist	-1.192	1.088
	Multivariate	131.868	41.967

TABLE 7.4 Normality - Measurement Model: Competitive Strategy, Positional Advantage and Performance

Construct	Variable	*z*-skewness	*z*-kurtosis
Competitive Strategy	EV_cust_low_price	-1.007	1.065
	build_str_image	-0.911	0.648
	off_extensive_endUsr_custServ	-1.405	1.868
	dev_newEVProd	-0.987	0.377
	inv_mktingComm_aware	-0.866	0.095
	achieve_quick_deliv	-1.713	2.479
	off_quick_deliv	-1.594	2.355
	guarantee_deliv_times	-1.876	2.54
	Multivariate	62.542	31.075
Positional Advantage	prod_des_style	-1.191	0.929
	ch_deli	-1.544	2.455
	prod_av	-1.539	2.143
	brand_image	-1.277	1.441
	brand_per	-1.617	2.416
	share_mind	-1.612	2.292
	pay_credit_terms	-1.055	0.64
	actual_sell_price	-1.261	1.478
	cost_goods	-1.542	1.924
	unit_prod_cost	-1.441	2.419
	Multivariate	131.868	41.967
Performance	pos_change_mktSh	-0.861	1.117
	mktSh_grow	-1.109	1.442
	resp_comp_expMkt	-1.156	0.723
	num_succ_newEVProd	-1.032	0.385
	timeMkt_newEVProd	-0.943	0.282
	rev_newEVProd	-0.932	0.472
	ROS	-0.999	0.666
	EV_margin	-1.056	1.011
	ROI	-0.786	0.335
	Multivariate	91.102	40.691

TABLE 7.5 Normality - Measurement Model: Entrepreneurial Orientation and Ambidextrous Innovation Strategy

Construct	Variable	z-skewness	z-kurtosis
Entrepreneurial Orientation	look_out_bus	-1.459	1.703
	first_intro_new_brands	-0.461	-0.379
	new_proj_stage_by_stage	-0.869	-0.091
	supp_proj_certain_ret	-1.331	2.238
	employees_access_vital_info	-0.338	-0.539
	employees_authority_acto_alone	-0.859	0.357
	employees_no_interf	-1.1	0.714
	employees_make_changes	-1.009	0.501
	Multivariate	37.54	18.652
Ambidextrous Innovation Strategy	new_gen_prod	-0.974	0.207
	extend_prod_range	-1.046	0.327
	improve_prod_qual	-2.08	2.518
	improve_prod_felx	-2.003	2.044
	improve_yield_reduce_mat_cons	-1.793	2.326
	Multivariate	50.572	37.989

Linearity and Homoscedasticity

An implicit assumption of all multivariate techniques based on correlational measures of association is linearity. Nonlinear effects will not be represented in the correlation value since correlations represent only the linear association between variables. An underestimation of the actual strength of the relationship could result from this omission.

Another premise in multivariate techniques is homoscedasticity, which refers to the assumption that dependent variables exhibit equal levels of variance across the range of predictor variables. Homoscedasticity is desirable because the variance of dependent variable being explained in the dependence relationship should not be concentrated in only a limited range of the independent values (Hair et al., 2006; Howell, 2007). In most situations, each dependent value has many different values at each value of the independent variable. In order to capture this relationship, the dispersion of the dependent

variable values, also known as variance, must be relatively equal at each value or the predictor variable.

Both linearity and homoscedasticity refer to the distribution of scores and the nature of the underlying relationship between the variables. These assumptions can be checked from the residual scatter plots which are generated from the multiple regression procedure (Johnson & Wichern, 2002). For these assumptions to be fully secured, this author checked the residual scatter plots and detected no issues of concern. However, due to the limited space, these results are not presented.

7.3 ITEM AND SCALE PURIFICATION

Many authors have argued that prior to performing CFA procedures, the internal consistency of multi-item scales should be assessed on the basis of item analyses (Gerbing & Anderson, 1988; Gerbing & Hamilton, 1996; Heide & John, 1992). It was strongly advocated by Nunnally (1978) that researchers should ascertain item unidimensionality. As unidimensional measures mean that a set of measured variables, or items, has only one underlying construct, unidimensionality becomes critically important when more than two constructs are involved (Johnson & Wichern, 2002). Therefore items within a construct would be useful only when they share a common core in terms of the domain to be measured.

The present section involves item analysis and scale purification. The meaning of this purification assessment is that items performing poorly and violating the predicted factor structure, should be identified and possibly discarded (Churchill & Iacobucci, 2005; McDaniel & Gates, 2007). To this end, each set of items employed to capture a particular

construct was subjected to item analysis in order to isolate items that did not belong to the specific domain.

7.3.1 EXPLORATORY FACTOR ANALYSIS

Exploratory factor analysis (EFA) is the most commonly used analytical technique for reducing a large item pool to a more manageable set. In addition, this analysis has been recognised to be valuable preliminary analysis when no sufficient theory is available to establish the underlying dimensions of a specific construct (Gerbing & Anderson, 1988). As principal components analysis is the most widely accepted extraction technique (Malhotra & Birks, 2007), the present study utilised the multivariate statistical technique of principal components to determine the most suitable items for each construct. Accordingly, three elements were considered for factor analysis, such as the rotational method applied, the number of factors to retain and the minimal level of item loadings and cross loadings (Stewart, 1981).

This study implemented the orthogonal rotation, obtained by the function varimax in SPSS, as it facilitates the accurate interpretation of the underlying structure of the data (Hair et al., 2006). In terms of the number of factors to retain, this study followed the 'eigenvalues-greater-than-one' rule, which has been identified as a popular guideline in the subject (Allport & Kerler, 2003; Cliff, 1988; Churchill & Iacobucci, 2005; Hair et al., 2006). Regarding the cut-off for the minimum level of item loadings and maximum level of items cross-loadings, Tabachnick and Fidell (2001) argue that is a matter of researcher preference. It is a rule of thumb used frequently that *"factor loadings in the range of ±0.30 to ±0.40 are considered to meet the minimal level for interpretation of structure; loadings of ±0.50 or greater are considered practically significant; loadings exceeding ±0.70 are*

considered indicative of significant structure and are the goal of any factor analysis" (Hair et al., 2006:128). Accordingly, the present study followed the convention to retain items with loadings higher than 0.4 (Gerbing & Anderson, 1988) on one single factor and cross-loadings lower than 0.30 on multiple factors (Rentz et al., 2002).

The results of the exploratory factor analysis for each of the model's constructs are documented in the following order: resources, capabilities, competitive strategy, positional advantage, performance, entrepreneurial orientation and ambidextrous innovation strategy.

As shall be discussed in the following sections, principal component analysis was executed for each construct to identify a unidimensional scale for each set. The final results for each construct showed that the Bartlett test of sphericity, a statistical test to determine the presence of correlations among variables, is statistical significant in each of the constructs. In addition, in six of the seven constructs the Kaiser-Meyer-Olkin (KMO) statistic of sampling adequacy surpasses Sharma's (1996) suggested cut-off level as a value greater than 0.8. Only the construct entrepreneurial orientation presents a KMO of 0.779 in Table 7.11, which is considered in the tolerable range by Sharma (1996), who use this term to categorise values greater than 0.6.

7.3.2 EFA - RESOURCES

The initial set of items composing each of the four resources dimensions was subjected to principal components analysis to identify a unidimensional scale for each set. Based upon this analysis, two ill-fitting items were detected in the initial set of items used to capture the financial dimension. These items concerned the 'ability to find additional financial

resources when needed' (ability_find_finRes) and 'strength of our brand image' (str_brandIm). They were dropped from the analysis due to high cross-loading.

The final results of all remaining items are illustrated in Table 7.6, which shows a KMO of 0.88 and a statistical significant Bartlett test of sphericity. After six iterations the analysis converged and a three factor solution was extracted, which accounted for 67.28% of the total variance explained. The first factor was labelled 'Human' followed by 'Financial' and 'Reputational' (Morgan et al., 2006). All items loaded appropriately on the expected dimensions showing values of 0.71 and above, considered indicatives of a well-defined construct. Each factor yielded a reliable Cronbach's alpha coefficient between 0.89 and 0.94.

TABLE 7.6 EFA – Resources*

Item	Factor		
	Human	Financial	Reputational
expe_exMkting	0.88		
qual_exMkting	0.87		
skills_exMkting	0.86		
know_exMkting	0.85		
speed_finRes		0.83	
access_cap		0.81	
finRes_av		0.77	
size_finRes		0.71	
dis_brandImage			0.89
brandName_aw			0.83
brandPer			0.79
Cronbach's Alpha	**0.89**	**0.94**	**0.89**
Total variance explained: 67.28			
KMO: 0.88			
Bartlett's Test of Sphericity:			
	Aprox Chi-Square: 2830.23		
	df: 276		
	Sig: 0.000		

*All correlation coefficients (Pearson) are significant at $p \leq 0.01$(two-tailed)

7.3.3 EFA - CAPABILITIES

All items of the capabilities construct were subjected to principal component analysis. A four factor solution was obtained after the 14 items of the capabilities construct were subjected to principal component analysis. As illustrated in Table 7.7 KMO depicts a value of 0.86 with a statistical significant Bartlett test of sphericity. This solution explains 78.83% of total variance. 'Distribution' was used as the denomination for the first factor (Zou et al., 2003), 'Service' for the second (Katsikeas et al., 2004), 'Pricing' for the third (Zou et al., 2003), and the fourth factor used the term 'Communication' (Morgan et al., 2006).

Indicatives of significant and well-defined constructs are the values exhibited by the items of capabilities. It can therefore be seen that 'Distribution' and 'Pricing' dimensions display results greater than 0.72, while the remaining dimensions indicate values above 0.7, including 'attracting and retaining after-sales service personnel' (attract_retain_afterSalesServ_person) and 'Information related to doing business in this market' (info_doBus_expMkt). Additionally, these two dimensions also present values close to 0.70, such as 'delivering high quality after-sales service' (deliv_high_qual_afterSalesServ), 'quality of our channel relationships in this export market' (qual_exMkting) and 'knowledge of competitors in this market' (compKnow_expMkt). There is one exception in the 'Communication' dimension which corresponds to 'number of customers with whom we already have a relationship' (num_cust), with a significant loading of 0.6 and a Cronbach's alpha coefficient of 0.79. All the residual factors yielded reliable Cronbach's alphas between 0.83 and 0.88.

TABLE 7.7 EFA – Capabilities*

Item	Factor			
	Distribution	Service	Pricing	Communication
add_value_dist	0.88			
attr_ret_best_dist	0.80			
high_supp_dist	0.77			
close_work_dist	0.74			
deliv_high_qual_afterSalesServ		0.69		
attract_retain_afterSalesServ_person		0.82		
train_afterSalesServ_person		0.82		
resp_effe_compPri			0.72	
resp_quick_custChange			0.72	
comm_pri			0.84	
qual_chRel				0.70
compKnow_expMkt				0.66
info_doBus_expMkt				0.74
num_cust				0.60
Cronbach's Alpha	**0.88**	**0.84**	**0.84**	**0.79**

Total variance explained: 78.83
KMO: 0.86

Bartlett's Test of Sphericity:
Aprox Chi-Square: 2792.38
df: 190
Sig: 0.000

*All correlation coefficients (Pearson) are significant at $p \leq 0.01$ (two-tailed)

7.3.4 EFA – COMPETITIVE STRATEGY

As presented in Chapter three, the fieldwork, interviews and the review of the literature in the areas of marketing and strategy revealed three possible dimensions underlying firms' competitive strategy pursued: cost leadership; marketing differentiation; and delivery differentiation. The initial set of items representing each of these dimensions was subjected to principal component analysis to examine the existence of a unidimensional scale for each set. At this stage, one ill-fitting item due to high cross loading was identified in relation to the dimension of cost leadership. The problematic item concerned the firm's intention to '...invest in cost savings technology' (inv_cos_sav_tech) and was excluded from the analysis.

As illustrated on Table 7.8, principal components analysis was executed for the remaining nine items for the competitive strategy construct obtaining a KMO of 0.804 and a statistically significant Bartlett test of sphericity. After five iterations the analysis converged and a three factor solution was extracted, which accounted for 75% of the total variance explained. The first factor was labelled 'Delivery Differentiation' (Roth & Morrison, 1994; 1992) followed by 'Marketing Differentiation' (Aulakh et al., 2000; Samiee & Roth, 1992; Styles & Ambler, 1994), and 'Cost Leadership' (Aulakh et al., 2000; Hill, 1988; Styles & Ambler, 1994; Sullivan & Bauerschmidt, 1991). This last factor displays values superior than 0.70, which are signals of a well-defined construct. A similar situation is present with the 'Marketing Differentiation' and 'Delivery Differentiation' factors, each of them detail just one item below 0.7. Particularly, the loading of the item 'offer a highly differentiated export venture product' (off_high_diff_EVProd) appears to be nearly 0.7. The value of 0.62 from 'achieve quick delivery and response to distributor orders' (achieve_quick_deliv) is considered a practically significant loading according to Hair and colleagues (2006). All the factors display reliable Cronbach's alphas between 0.753 and 0.796.

TABLE 7.8 EFA – Competitive Strategy*

Item	Factor: Delivery Differentiation	Mkting Differentiation	Cost Leadership
guarantee_deliv_times	0.86		
off_quick_deliv	0.85		
achieve_quick_deliv	0.62		
inv_mktingComm_aware		0.84	
dev_newEVProd		0.81	
off_high_diff_EVProd		0.69	
low_prov_EVMkt			0.90
EV_cust_low_price			0.79
control_EV_sell_prom_expense			0.87
Cronbach's Alpha	**0.80**	**0.77**	**0.75**

Total variance explained: 75.02
KMO: 0.80

Bartlett's Test of Sphericity:
Aprox Chi-Square: 541.59
df: 28
Sig: 0.000

*All correlation coefficients (Pearson) are significant at $p \leq 0.01$ (two-tailed)

7.3.5 EFA – Positional Advantage

A unidimensional scale was obtained through the application of principal component analysis for each set of the ten items, constituting the positional advantage construct; see Table 7.9. KMO exhibits a value of 0.91 and the Bartlett test of sphericity is statistically significant. After six iterations the analysis converged and a three factor solution was extracted, which accounted for 85.63% of the total variance explained. The factors were labelled 'Cost', 'Marketing Product' (Morgan et al., 2004) and 'Promotion' (Morgan et al., 2006). Signals of a well-defined construct can be appreciated, especially over the 'Promotion' factor displaying values superior than 0.70. Also, the loadings of 'Marketing Product', from which just the item 'Product design and style' (prod_des_style) appears close to 0.70. In addition, the 'Cost' factor exhibits most values higher than 0.70 and one

significant value of 0.648 from the item 'Payment and credit terms' (pay_credit_terms). The interval range of 0.886 to 0.951 corresponds to reliable Cronbach's alpha coefficients.

TABLE 7.9 EFA – Positional Advantage*

Item	Factor		
	Cost	Promotion	Mkting Product
unit_prod_cost	0.86		
cost_goods	0.79		
actual_sell_price	0.77		
pay_credit_terms	0.65		
share_mind		0.84	
brand_per		0.83	
brand_image		0.82	
prod_av			0.79
ch_deli			0.75
prod_des_style			0.68
Cronbach's Alpha	**0.90**	**0.95**	**0.89**

Total variance explained: 85.63
KMO: 0.91

Bartlett's Test of Sphericity:
Aprox Chi-Square: 3404.79
df: 136
Sig: 0.000

*All correlation coefficients (Pearson) are significant at $p \leq 0.01$ (two-tailed)

7.3.6 EFA – PERFORMANCE

To assess the structure of the performance construct its nine items were simultaneously entered into principal component analysis. The analysis exposed the fact that the item 'Acquiring new customers' (acq_cust) presented high cross loading, and therefore it was removed.

The final results illustrated in Table 7.10 showed a KMO of 0.92 and statistically significant Bartlett test of sphericity. The analysis converged after six iterations and a three factor solution was extracted, which accounted for 75.97% of the total variance explained.

The first factor was labelled 'Efficiency', followed by the 'Adaptiveness' and 'Effectiveness' factors (Walker et al., 1987). All items loaded appropriately on the expected dimensions displaying values greater than 0.73, considered indicatives of a well-defined construct. Each factor yielded reliable Cronbach's alphas higher than the recommended threshold of 0.70 (Churchill, 1991). In particular, the factor 'Efficiency' displays the highest value of 0.92, followed by 'Adaptiveness' with 0.86 and 'Effectiveness' with 0.80.

TABLE 7.10 EFA – Performance*

Items	Factor		
	Efficency	Adaptiveness	Effectiveness
ROI	0.86		
EV_margin	0.82		
ROS	0.81		
rev_newEVProd		0.82	
num_succ_newEVProd		0.76	
timeMkt_newEVProd		0.78	
resp_comp_expMkt		0.74	
mktSh_grow			0.91
pos_change_mktSh			0.73
	0.92	**0.86**	**0.80**

Total variance explained: 75.97
KMO: 0.92

Bartlett's Test of Sphericity:
Aprox Chi-Square: 1619.49
df: 78
Sig: 0.000

*All correlation coefficients (Pearson) are significant at $p \leq 0.01$ (two-tailed)

7.3.7 EFA – ENTREPRENEURIAL ORIENTATION

The eight items of the entrepreneurial orientation's construct were simultaneously entered into principal component analysis. The final results illustrated in Table 7.11 show a value of 0.779 for the KMO statistic of sampling adequacy. Sharma (1996) states that a value

higher than 0.6 is tolerable. In addition, the Bartlett test of sphericity is statistically significant. In essence, both results from KMO and Bartlett's tests support the suitability of the principal components analysis technique for this study.

After six iterations the analysis converged and a three factor solution was extracted, which accounted for 68.12% of the total variance explained. The first factor was labelled 'Autonomy' (Hornsby et al., 2002) followed by 'Riskiness' and 'Proactiveness' factors (Morgan & Strong, 2003). Most items loaded with values greater than 0.70, were considered indicatives of a well-defined construct. Also significant values appeared to be part of the loadings, such as 0.52 from the item 'we are constantly on the look out for business that can be acquired' (look_out_bus), as well as 0.64 from the item 'we are constantly seeking new opportunities related to present operations' (new_opp_pre_oper). Each factor yielded reliable Cronbach's alphas of 0.7 and above surpassing the recommended threshold of 0.70 (Churchill, 1991).

TABLE 7.11 EFA – Entrepreneurial Orientation*

Item	Factor		
	Autonomy	Riskiness	Proactiveness
employees_make_changes	0.78		
employees_no_interf	0.76		
employees_authority_acto_alone	0.75		
supp_proj_certain_ret		0.72	
new_proj_stage_by_stage		0.71	
new_opp_pre_oper		0.64	
first_intro_new_brands			0.89
look_out_bus			0.52
Cronbach's Alpha	**0.78**	**0.70**	**0.71**
Total variance explained: 68.12			
KMO: 0.78			
Bartlett's Test of Sphericity:			
	Aprox Chi-Square: 1619.49		
	df: 78		
	Sig: 0.000		

*All correlation coefficients (Pearson) are significant at $p \leq 0.01$ (two-tailed)

7.3.8 EFA – AMBIDEXTROUS INNOVATION STRATEGY

In order to identify a unidimensional scale for each set of items composing the two ambidextrous innovation strategy dimensions, the six items were subjected to principal component analysis with orthogonal rotation. As presented in Table 7.12, the result of statistic and sampling adequacy KMO exceeds Sharma's (1996) suggestion with a value of 0.83. Furthermore, the Bartlett test of sphericity is statistically significant. These two outcomes from KMO and Bartlett's tests indicate the suitability of the principal components technique for this study.

The two factor solution obtained from principal components analysis explains 76% of total variance. 'Exploitative' was used as the denomination for the first factor and 'Explorative' for the second. Indicatives of significant and well-defined constructs are the values

exhibited by the items. Most of them display results greater than 0.77. Both residual factors yielded reliable Cronbach's alphas above 0.87.

TABLE 7.12 EFA – Ambidextrous Innovation Strategy*

Label	Factor	
	Exploitative	Explorative
improve_yield_reduce_mat_cons	0.89	
improve_prod_felx	0.88	
improve_prod_qual	0.85	
new_gen_prod		0.92
extend_prod_range		0.87
enter_new_tech_fields		0.77
Cronbach's Alpha	**0.91**	**0.87**
Total variance explained: 76.05		
KMO: 0.83		
Bartlett's Test of Sphericity:		
	Aprox Chi-Square: 866.56	
	df: 28	
	Sig: 0.000	

*All correlation coefficients (Pearson) are significant at $p \leq 0.01$ (two-tailed)

7.4 MEASUREMENT MODEL EVALUATION – CFA

The measurement model defines the relations between the observed and unobserved variables. It provides the link between the observed indicator variables and the underlying constructs they are designed to measure, also known as unobserved latent variables. In this vein, the measurement model represents the Confirmatory Factor Analysis (CFA) model and it specifies the pattern by which each measure loads on a particular factor (Byrne, 2001).

Gerbing and Anderson (1988) maintain that item-to-total-correlation, alpha coefficient and principal components analysis could not ensure unidimensionality of measures, which is viewed as an important requirement of valid measurement. They strongly recommend that

a more rigorous statistical procedure should be employed to refine and confirm that the factor structure be generated from the principal components analysis. In this respect, CFA has been proposed as an analytical tool to ascertain unidimensionality of measures (Gerbing & Anderson, 1988). CFA is a core procedure of the structural equation modelling family tree (Kline, 2005) and is generally used by researchers who have some knowledge of the underlying latent variable structure (Byrne, 2001). Hence, in line with this suggestion, all the resulting measures in the current modelling were validated by using the CFA analytical procedure with AMOS 6.

The measurement model of the present study involves assessing measures by CFA performed by using Maximum Likelihood Estimation Procedures (see section 4.9.2). It demonstrates how and the extent to which, the observed variables are grouped to their underlying latent factors (Anderson & Gerbing, 1984).

The focal constructs of the present study were entered into the CFA procedure. Regarding the assessment of the measurement models, a wide range of goodness of fit indices was applied based on the recommended overall fit index by Arbuckle (2003) and Kline (2005). The main purpose of this procedure is to assess a model's overall fit to determine the degree to which the model as a whole is consistent with the data generated from this study.

The CFA results of each construct are given from Table 7.13 to Table 7.19, where it is appreciated that item and factor loadings are expressed as standardised regression loadings. Critical ratios are also displayed, as well as fit indices.

In CFA, the standard factor loadings of observed variables (items) or latent variables (factors) are estimates of the validity of the observed variables. The critical ratio, also called *z*-statistics, corresponds to the parameter estimate divided by its standard error. The larger the factor loadings as compared with their standard errors and expressed by the corresponding *t*-values, the stronger is the evidence that the measured variables or factors represent the underlying constructs (Bollen, 1989b). In general, if the *t*-values are greater than |2| or |2.576|, then they are considered significant at the 0.05 level and 0.01 level respectively (Koufteros, 1999).

7.4.1 MODELLING THE VARIABLES OF INVS

As an integrative general theory of resources and capabilities combinations in creating positional advantage, the theoretical model is conceptualized at the same level as the RBV theory on which it draws. Assessing the relationships at this level of analysis required treating the variables in this model as higher order constructs (Kim et al., 2006; Matsuno & Mentzer, 2000; Morgan et al., 2004; Zou & Cavusgil, 2002).

The constructs were considered in the theoretical model as representing a higher-order factor with the observed items originating from first-order factors that in turn arise from a second-order factor (Heide & John, 1992). Given the number of parameters to be estimated and sample-size constraints (Bentler & Chou, 1987) the measures were divided into seven subsets of the most theoretically related variables corresponding to one subset per construct.

Therefore, the following sections report second order measurement models for resources, capabilities, competitive strategy, positional advantage, performance and entrepreneurial orientation. Only ambidextrous innovation strategy is a first order measurement model as it is implemented with the additive term of exploitation and exploration (Lubatkin et al., 2006). Furthermore, each measurement model was further examined by assessing the unidimensionality, reliability, convergent validity, and discriminant validity.

Modelling Ambidextrous Innovation Strategy

Consistent with Floyd and Lane's (2000) assertion that explorative and exploitative innovation strategies are inseparable orientations, researchers have combined both measures to create a measure of ambidexterity. For example, Gibson and Birkinshaw (2004) as well as Menguc and colleagues (2007) measured ambidexterity with an interaction approach by multiplying exploitation and exploration, whereas He and Wong (2004), besides using the interaction approach, also subtracted exploitation from exploration and used an absolute difference score. As Edwards and Parry (1993) and Edwards (1993) pointed out, however, any time two or more measures are combined into a single index, enough information may be lost that the index cannot be accurately interpreted.

In the search for the most interpretable approach for combining exploration and exploitation measures, and following the procedures recommended by Edwards (1993) regarding the less significant loss of information, this author followed Lubatkin and colleagues' (2006) suggestion of the additive measure for ambidexterity. These authors ran an unconstrained regression equation in which performance was the dependent variable and the orientations of exploration and exploitation were treated as separate independent

variables. Then, three constrained regression equations in which exploration and exploitation were combined into a single index, first by subtracting exploitation from exploration, second by multiplying both orientations, and third by summing the two. The additive model, proved to be superior to the subtraction and multiplication approaches of ambidexterity, as it indicated no significant loss of information. Moreover, the CFA analysis of ambidexterity conducted by these authors showed that the best fit indices corresponded to the model which summed all items.

Conversely, the multiplicative formulation to calculate ambidexterity carries two potential limitations in terms of interdependence: First, it blurs the distinction between the magnitude and the symmetry between exploration and exploitation. For example, a firm's score of 4, might be interpreted as 4x1, but also as 2x2, in terms of exploration and exploitation. Second, it can be interpreted as an interaction term between exploration and exploitation, which is used to test the moderating effect of one variable over another (Kim & Hsieh, 2003). These reinforce the fact that the additive formulation has been used extensively to calculate the impact of magnitude of interdependence (Gundlach & Cadotte, 1994).

Therefore, it is possible to conclude that in order to model ambidexterity as a combination of explorative and exploitative innovation strategies, in the present study an ambidextrous firm will be defined in terms of innovation strategy as the additive term of exploitation and exploration.

7.4.2 SECOND ORDER MEASUREMENT MODEL: RESOURCES

This research proposes a multidimensional resources construct supported by different authors (Hunt & Morgan, 1996; Morgan et al., 2004; Morgan et al., 2006) which according to Morgan and colleagues (2006) includes the following dimensions: reputational, financial and human resources.

The resources model to be tested, and schematically presented in Figure 7.2, postulates a priori a three factor structure. The dissection of its components is described as follows:

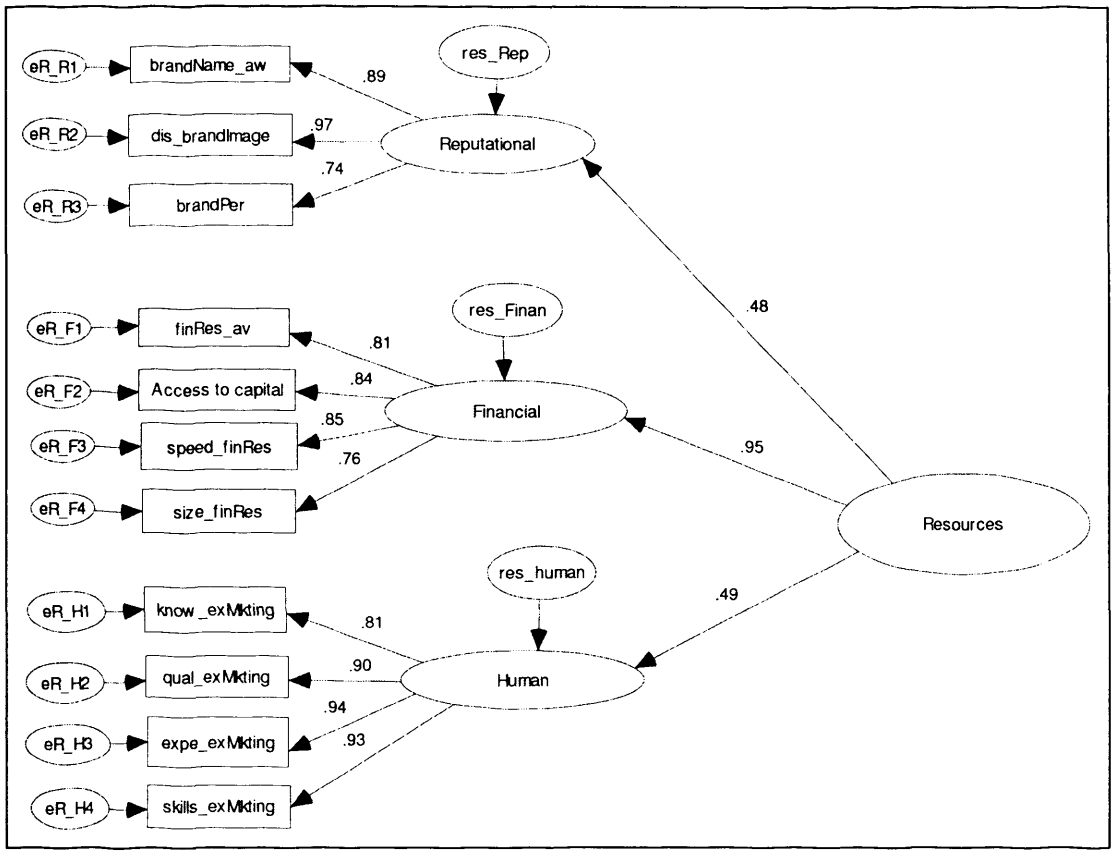
1. Responses to the resources construct could be explained by three first-order factors (Reputational, Financial, and Human) and one second-order factor (Resources).

2. Each item has a non-zero loading on the first-order factor it was designed to measure, and zero loadings on the other two first-order factors.

3. Error terms associated with each item are uncorrelated (eR_R1 – eR_H4).

4. Covariation among the three first-order factors is explained by their regression on the second-order factor.

FIGURE 7.2 Measurement Model – Resources



The CFA results of the construct resources are shown in Table 7.13. Item loadings are 0.74 and higher, and factor loadings display 0.48 and above. Also, all critical ratios are significant at 0.01 level of significance, hence meeting the criteria for convergent validity (Anderson & Gerbing, 1988).

Fit statistics suggest a good fit (TLI=0.97; GFI=0.93; CFI=0.98; NFI=0.95; RMSEA=0.076). In spite of a significant chi-square (X^2=60.98; df =32; p≤0.001), as might be expected given the sensitivity of the test statistic to sample size (Bagozzi & Yi, 1988), all other diagnostics are supportive, such as the chi-square ratio (X^2/df = 1.90) which is in line with the suggestion of adequate fit for minimum discrepancy (X^2/df <2)

(Byrne, 1989). Indeed, MacCallum and colleagues (1996) have proven that the chi-square is unrealistic in most SEM empirical research. In a similar approach, Bagozzi and Foxall (1996) assert that researchers should not exclusively rely on the chi-square test as a measure of fit. Accordingly, the resources measurement model achieves unidimensionality.

The reliability assessment of the resources model is also reached, as Table 7.13 indicates the factor results of composite reliability: 0.94 for reputational; 0.95 for financial and 0.97 for human; which are above Bagozzi and Yi's (1988) cut off point of 0.7. In addition, AVE depicts higher values than 0.5 (Fornell & Larcker, 1981). In conclusion, the results obtained from the resources measurement model show the achievement of unidimensionality, convergent validity and reliability.

TABLE 7.13 CFA Results– Measurement Model of Resources

Factor	Item	λ Items	Critical Ratio (t-value) Items	Composite Reliability	AVE	λ Factors	Critical Ratio (t-value) Factors
				$\frac{(\sum\lambda_i)^2}{(\sum\lambda_i)^2+(\sum SE_i)} > 0.7$	$\frac{\sum\lambda^2}{\sum\lambda^2+(\sum SE_i)} > 0.5$		
Reputational	brandName_aw	0.89[a]	---	0.94	0.85	0.48	5.92***
	dis_ brandImage	0.97	5.39***				
	brandPer	0.74	8.16***				
Financial	finRes_av	0.81[a]	---	0.95	0.81	0.95	7.38***
	access_cap	0.84	6.35***				
	speed_finRes	0.85	6.05***				
	size_finRes	0.76	7.44***				
Human	know_ exMkting	0.81[a]	---	0.97	0.90	0.49	5.28***
	qual_ exMkting	0.90	6.98***				
	expe_ exMkting	0.94	5.23***				
	skills_ exMkting	0.93	5.79***				
Goodness-of-Fit Indices							
X^2 (32) = 60.98 ; X^2/df = 1.90; TLI = 0.97; GFI = 0.93; CFI = 0.98; NFI = 0.95; RMSEA = 0.076 p = 0.001							

***Significant at p<0.01

[a] Fixed parameter

It follows from this procedure that the revised resources measurement model sustains the three factor structure developed a priori, as the three dimensions pursued have adequate measurement properties.

Therefore, employing the final set of items belonging to a particular dimension, composite measures for the lower level factors have been constructed by calculating the mean values of the factors confirmed. These composite measures are applied in further analyses related to hypotheses testing.

7.4.3 SECOND ORDER MEASUREMENT MODEL: CAPABILITIES

The present investigation proposes a multidimensional capabilities construct with four dimensions: distribution (Zou et al., 2003), service (Choi & Hartley, 1996; Katsikeas et al., 2004), pricing (Zou et al., 2003) and communication capabilities (Morgan et al.,2006; Morgan et al., 2003; Morgan & Hunt,1994).

As exhibited in Figure 7.3, the model to examine postulates a priori that capabilities is a four factor structure and the dissection of its constituent elements is presented as follows:

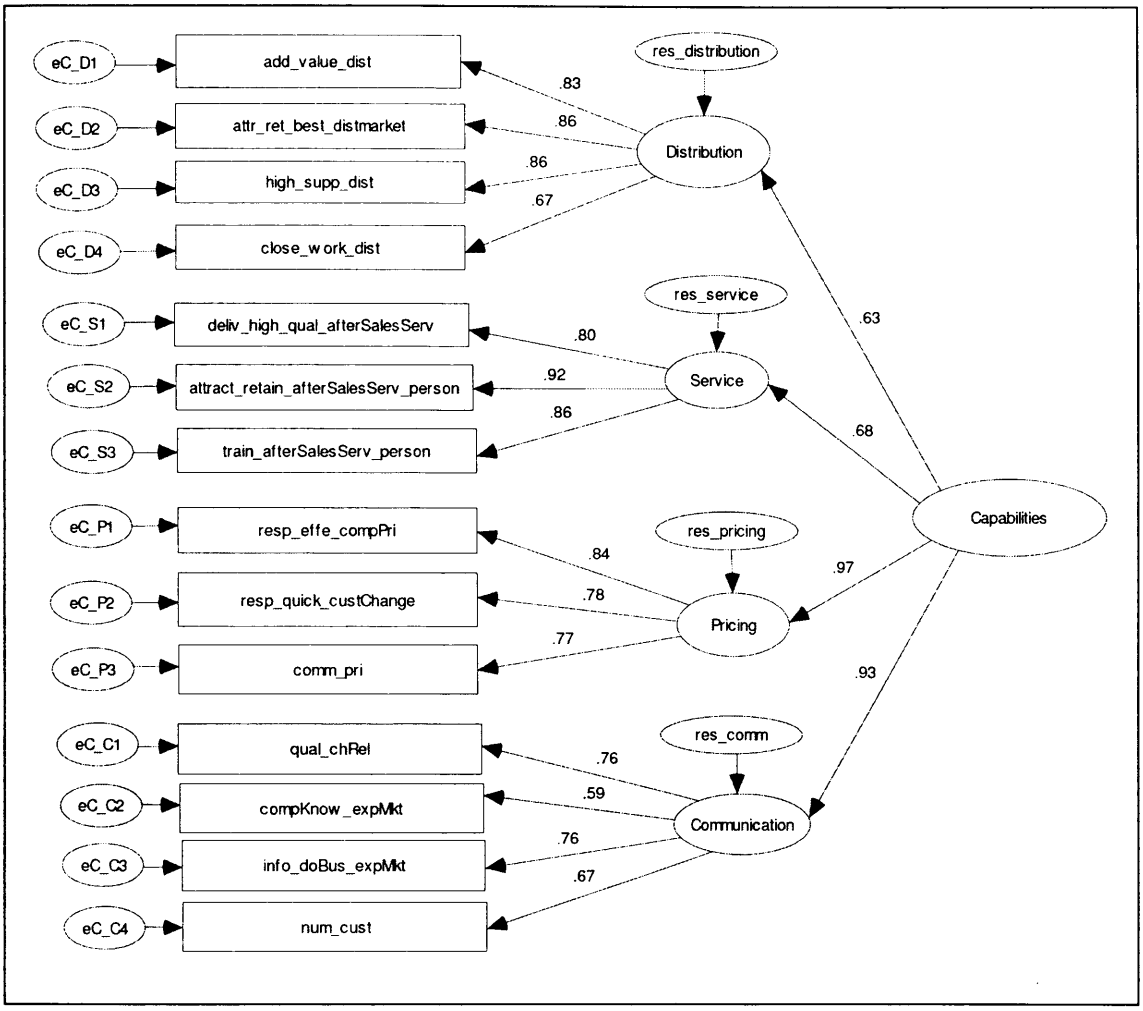
1. Responses to the capabilities construct could be explained by four first-order factors (Distribution, Service, Pricing and Communications) and one second-order factor (Capabilities).

2. Each item has a non-zero loading on the first-order factor it was designed to measure, and zero loadings on the other two first-order factors.

3. Error terms associated with each item are uncorrelated (eC_D1 – eC_C4).

4. Covariation among the three first-order factors is explained by their regression on the second-order factor.

FIGURE 7.3 Measurement Model – Capabilities



As depicted in Table 7.14 the CFA results of the construct capabilities include item loadings of 0.59 and above, besides factor loadings which display 0.64 as the minimum. In addition, all critical ratios are significant at 0.01 level of significance, thus meeting the criteria for convergent validity (Anderson & Gerbing, 1988)

Unidimensionality is also obtained by the capabilities measurement model based on the good fit values of the fit statistics (TLI=0.95; GFI=0.91; CFI=0.96; NFI=0.91; RMSEA=0.070). In spite of the significant chi-square (X^2=107.3; df=61; p≤0.001), as

might be expected given the sensitivity of the test statistic to sample size (Bagozzi & Yi, 1988), all other diagnostics are supportive such as the chi-square ratio (χ^2/df=1.76), which is in line with the suggestion of adequate fit for minimum discrepancy (χ^2/df<2) (Byrne, 1989).

Reliability assessment of the capabilities construct is also achieved as both composite reliability and AVE are far beyond the cut off points of 0.70 (Bagozzi & Yi, 1988) and 0.5 (Fornell & Larcker, 1981) respectively. In brief, the results obtained from the capabilities measurement model show the achievement of unidimensionality, convergent validity and reliability.

TABLE 7.14 CFA Results– Measurement Model of Capabilities

Factor	Item	λ Items	Critical Ratio *(t-value) Items*	Composite Reliability	AVE	λ Factors	Critical Ratio *(t-value) Factors*
				$\frac{(\sum\lambda_i)^2}{(\sum\lambda_i)^2+(\sum SE_i)} > 0.7$	$\frac{\sum\lambda_i^2}{\sum\lambda_i^2+(\sum SE_i)} > 0.5$		
Distribution	add_value_dist	0.83[a]	---	0.95	0.83	0.64	5.57***
	attr_ret_best_dist	0.86	5.98***				
	high_supp_dist	0.86	5.89***				
	close_work_dist	0.67	8.08***				
Service	deliv_high_qual_afterSalesServ	0.91[a]	---	0.95	0.82	0.75	4.53***
	attract_retain_afterSalesServ_person	0.80	5.65***				
	train_afterSalesServ_person	0.86	6.07***				
Pricing	resp_effe_compPri	0.83[a]	---	0.95	0.86	0.96	4.18***
	resp_quick_custChange	0.78	7.08***				
	comm_pri	0.78	7.06***				
Communication	qual_chRel	0.77[a]	---	0.94	0.80	0.94	4.1**
	compKnow_expMkt	0.59	8.15***				
	info_doBus_expMkt	0.75	7.13***				
	num_cust	0.68	7.74***				
Goodness-of-Fit Indices							
χ^2 (61) = 107.31 ; χ^2/df = 1.76; TLI = 0.95; GFI = 0.91; CFI = 0.96; NFI = 0.91; RMSEA = 0.070 p = 0.001							

***Significant at p<0.01

[a] Fixed parameter

It can be concluded from this procedure that the four capabilities dimensions have adequate measurement properties. As a result, the revised capabilities measurement model confirms the four factor structure developed a priori. Consequently, utilising the final set of items representing a particular dimension, composite measures for the lower level factors have been constructed by calculating the mean score of the factors confirmed. These composite measures are used in further analyses pertaining to hypotheses testing.

7.4.4 SECOND ORDER MEASUREMENT MODEL: COMPETITIVE STRATEGY

The present research proposes a multidimensional competitive strategy construct which, according to different authors, includes delivery differentiation (Cavusgil & Zou, 1994; Li & Lee, 1994; Morgan et al., 2004; Ray & Jewkes, 2004; Roth & Morrison, 1992; So & Song, 1998; Stalk & Hout, 1990), marketing differentiation (Aulakh et al., 2000; Morgan et al., 2004; Spanos & Lioukas, 2001) and cost leadership (Aulakh et al., 2000; Styles & Ambler, 1994).

The model to be tested postulates a priori that competitive strategy is a three factor structure. The components of the model are illustrated in Figure 7.4 and explained as follows:

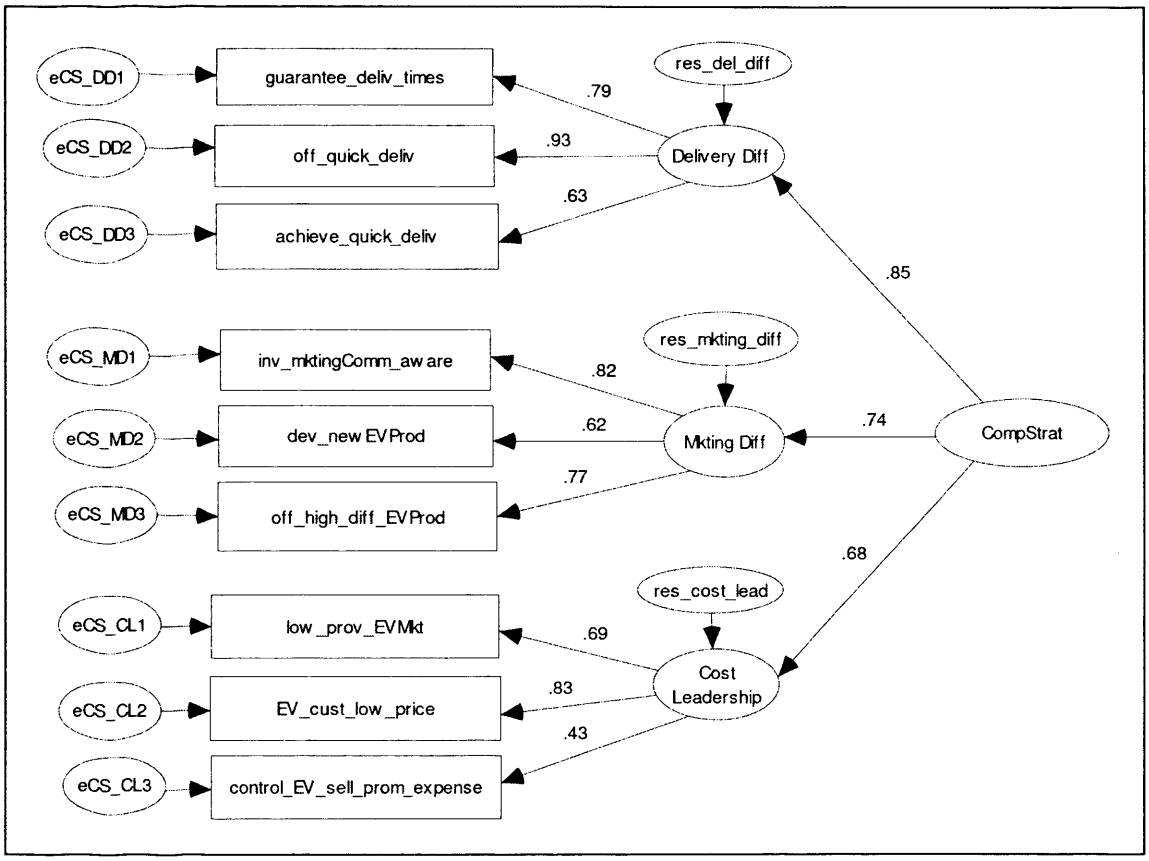
1. Responses to the competitive strategy construct could be explained by three first-order factors (Delivery Diff, Mkting Diff and Cost Leadership) and one second-order factor (CompStrat).

2. Each item has a non-zero loading on the first-order factor it was designed to measure, and zero loadings on the other two first-order factors.

3. Error terms associated with each item are uncorrelated (eCS_DD1 – eCS_CL3).

4. Covariation among the three first-order factors is explained by their regression on the second-order factor.

FIGURE 7.4 Measurement Model – Competitive Strategy



The CFA results of the construct competitive strategy are exhibited in Table 7.15. The values of item and factor loadings are 0.6 and above. Additionally, after examining critical ratios, all are significant at 0.01 level of significance, and therefore the criteria for convergent validity is reached (Anderson & Gerbing, 1988).

The fit statistics present evidence of good fit (TLI=0.95; GFI=0.95; CFI=0.97; NFI=0.94; RMSEA=0.076). Given the relatively large sample, the significant X2 is not surprising (X2=31.76; df =17; $p \leq 0.016$); nevertheless, all other diagnostics are supportive. Furthermore, chi-square ratio (X2/df =1.87) meets the criteria of adequate fit for minimum discrepancy (X2/df<2) (Byrne, 1989). In this regard, unidimensionality is achieved.

Reliability assessment of the competitive strategy construct is confirmed by analysing the values of composite reliability and AVE which are above the cut off points of 0.70 (Bagozzi & Yi, 1988) and 0.5 (Fornell & Larcker, 1981) respectively. In sum, the results obtained from the competitive strategy measurement model show the achievement of unidimensionality, convergent validity and reliability.

TABLE 7.15 CFA Results– Measurement Model of Competitive Strategy

Factor	Item	λ Items	Critical Ratio *(t-value) Items*	Composite Reliability	AVE	λ Factors	Critical Ratio *(t-value) Factors*
				$\frac{(\sum\lambda_i)^2}{(\sum\lambda_i)^2+(\sum SE_i)} > 0.7$	$\frac{\sum\lambda_i^2}{\sum\lambda_i^2+(\sum SE_i)} > 0.5$		
Delivery Differentiation	guarantee_deliv_times	0.79[a]	---	0.94	0.84	0.87	5.92***
	off_quick_deliv	0.93	5.53***				
	achieve_quick_deliv	0.63	8.12***				
Marketing Differentiation	inv_mktingComm_aware	0.81[a]	---	0.89	0.73	0.73	5.35***
	dev_newEVProd	0.62	6.35***				
	off_high_diff_EVProd	0.77	6.05***				
Cost Leadership	low_prov_EVMkt	0.69[a]	---	0.80	0.58	0.60	6.77***
	EV_cust_low_price	0.89	8.01***				
	control_EV_sell_prom_expense	0.62	8.317***				
Goodness-of-Fit Indices							
$X^2(17) = 31.76$; $X^2/df = 1.87$; TLI = 0.95; GFI = 0.95; CFI = 0.97; NFI = 0.94; RMSEA = 0.076 p = 0.016							

***Significant at p<0.01

[a] Fixed parameter

It is therefore possible to conclude that the three current competitive strategy dimensions have adequate measurement properties. Accordingly, this procedure of revising the competitive strategy measurement model corroborates the three factor structure developed a priori. Moreover, using the last set of items belonging to a particular dimension, composite measures for the lower level factors have been built with the mean values of the factors confirmed. These composite measures are implemented to a greater extent in analyses related to hypotheses testing.

7.4.5 SECOND ORDER MEASUREMENT MODEL: POSITIONAL ADVANTAGE

This research proposes a multidimensional positional advantage construct, which according to different authors includes cost, marketing product (Morgan et al., 2004) and promotion (Morgan et al., 2006).

The model to prove postulates a priori that positional advantage is a three factor structure, as detailed in Figure 7.5 and described as follows:

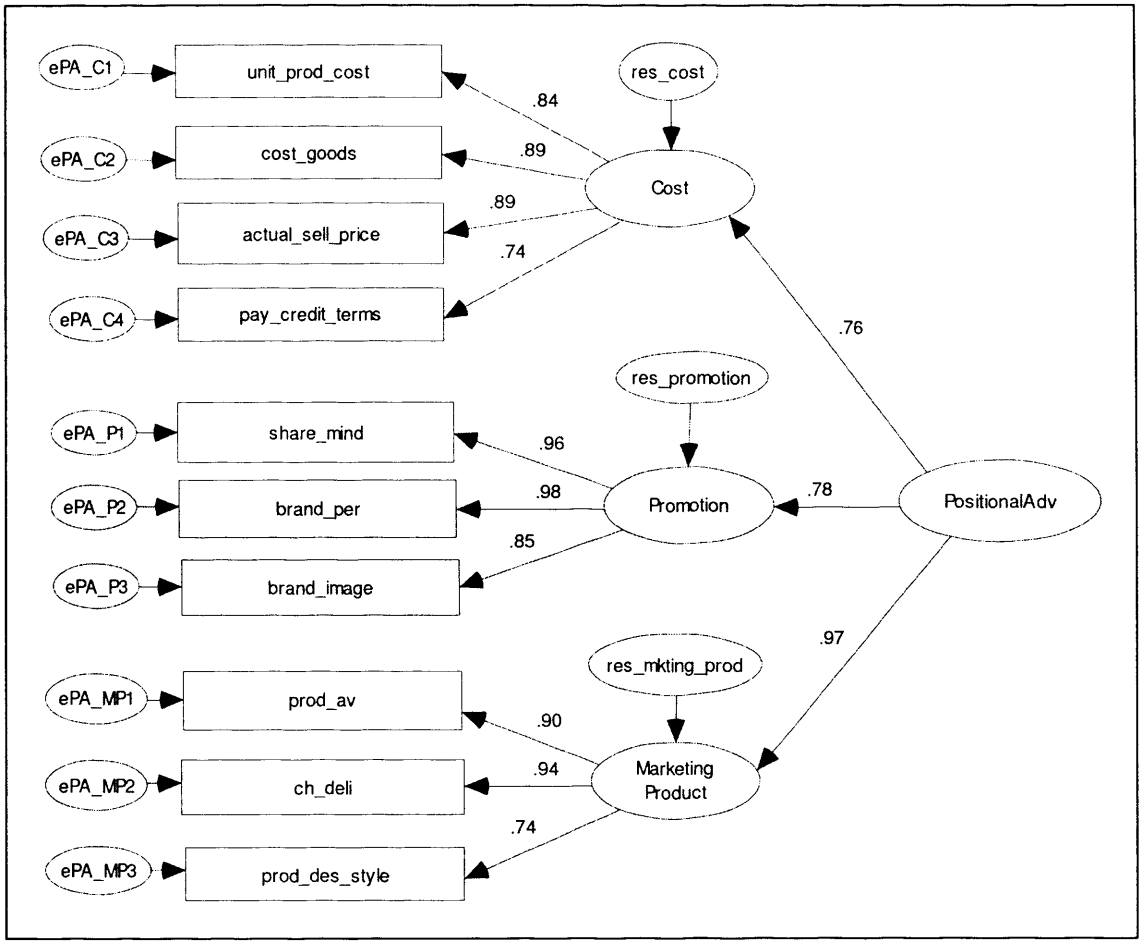
1. Responses to the positional advantage construct could be explained by three first-order factors (Cost, Promotion and Marketing Product) and one second-order factor (PositionalAdv).

2. Each item has a non-zero loading on the first-order factor it was designed to measure, and zero loadings on the other two first-order factors.

3. Error terms associated with each item are uncorrelated (ePA_C1 – ePA_MP3).

4. Covariation among the three first-order factors is explained by their regression on the second-order factor.

FIGURE 7.5 Measurement Model – Positional Advantage



The CFA results of positional advantage construct show item and factor loadings of 0.74 and above, see Table 7.16. Besides, all critical ratios are significant at 0.01 level of significance; consequently, reaching the criteria for convergent validity (Anderson & Gerbing, 1988).

Moreover, despite the fact that the overall X^2 statistic for the measurement model is significant (X^2=65.53; df=32; p≤0.001), as might be expected from the sensitivity of this test statistic to sample size (Bagozzi & Yi, 1988), the other fit indices (TLI=0.97;

GFI=0.92; CFI=0.98; NFI=0.96; RMSEA=0.082; X^2/df =1.99) suggest that the model provides a good fit to the data achieving unidimensionality.

Regarding the reliability assessment, both composite reliability and AVE are far beyond the cut off points, which are 0.70 (Bagozzi & Yi, 1988) and 0.5 (Fornell & Larcker, 1981) respectively. In summary, the results obtained from the positional advantage measurement model show the achievement of unidimensionality, convergent validity and reliability.

TABLE 7.16 CFA Results– Measurement Model of Positional Advantage

Factor	Item	λ Items	Critical Ratio *(t-value) Items*	Composite Reliability	AVE	λ Factors	Critical Ratio *(t-value) Factors*
				$\frac{(\sum\lambda_i)^2}{(\sum\lambda_i)^2+(\sum SE_i)} > 0.7$	$\frac{\sum\lambda_i^2}{\sum\lambda_i^2+(\sum SE_i)} > 0.5$		
Cost	unit_prod_cost	0.84[a]	---	0.97	0.90	0.76	5.07***
	cost_goods	0.89	5.99***				
	actual_sell_price	0.89	5.93***				
	pay_credit_terms	0.74	8.0***				
Promotion	share_mind	0.96[a]	---	0.98	0.94	0.78	5.88***
	brand_per	0.98	4.48***				
	brand_image	0.85	8.18***				
Marketing Product	prod_av	0.90[a]	---	0.97	0.90	0.97	4.96***
	ch_deli	0.94	4.2***				
	prod_des_style	0.74	8.11***				
Goodness-of-Fit Indices							
X^2 (32) = 65.53 ; X^2/df = 1.99; TLI = 0.97; GFI = 0.92; CFI = 0.98; NFI = 0.96; RMSEA = 0.082 p = 0.001							

***Significant at p<0.01

[a] Fixed parameter

It can be concluded that the three positional advantage dimensions exhibit adequate measurement properties. It follows from this procedure that the revised positional advantage measurement model supports the three factor structure developed a priori. Hence, utilising the final set of items falling into the domain of a particular skill dimension, composite measures for the lower level factors have been constructed by

calculating the mean scores of the factors confirmed. These composite measures are employed in subsequent analyses of hypotheses testing.

7.4.6 SECOND ORDER MEASUREMENT MODEL: PERFORMANCE

The current investigation proposes a multidimensional performance construct, which according to different authors includes effectiveness, efficiency (Vorhies & Morgan, 2003; Walker & Ruekert, 1987) and adaptability (Walker & Ruekert, 1987).

The model to be tested postulates a priori that performance is a three factor structure. The components of the performance model are delineated in Figure 7.6 and explained as follows:

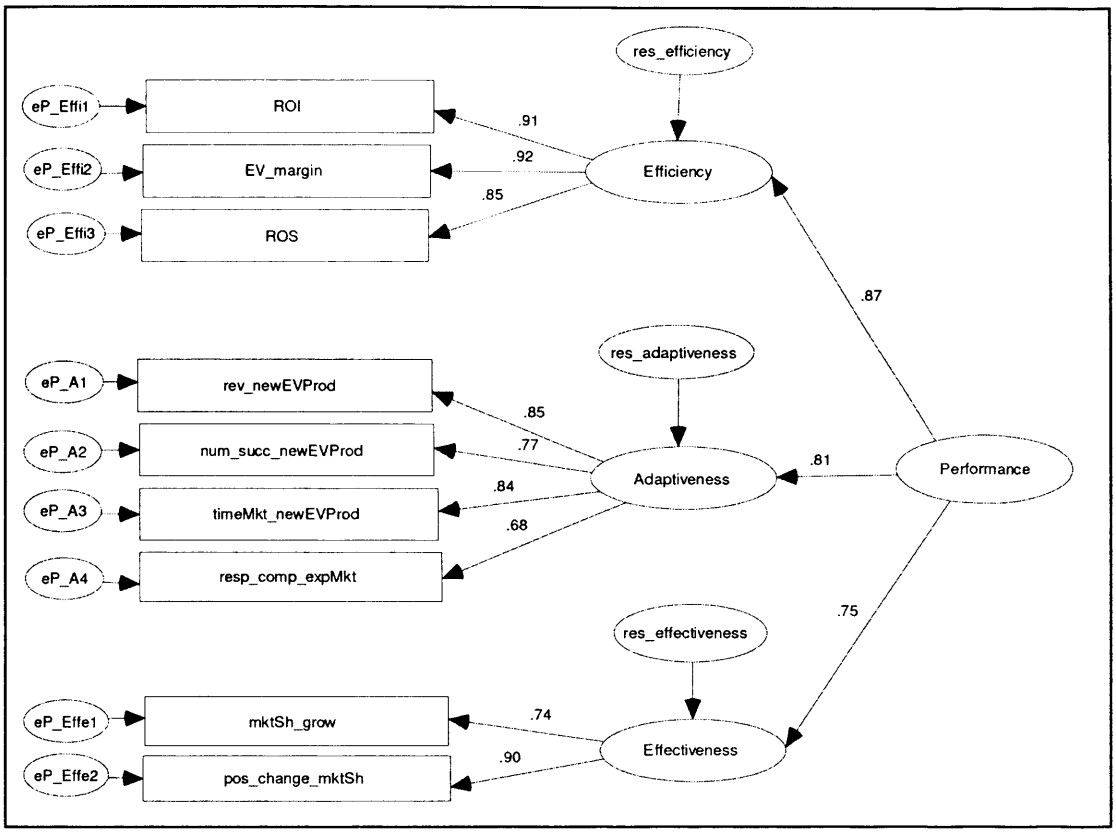
1. Responses to the performance construct could be explained by three first-order factors (Efficiency, Adaptiveness and Effectiveness) and one second-order factor (Performance).

2. Each item has a non-zero loading on the first-order factor it was designed to measure, and zero loadings on the other two first-order factors.

3. Error terms associated with each item are uncorrelated (eP_Effi1 – eP_Effe2).

4. Covariation among the three first-order factors is explained by their regression on the second-order factor.

FIGURE 7.6 Measurement Model – Performance



The CFA results reported in Table 7.17 indicate that the performance measurement model represents an excellent fit to the data. Item and factor loadings are 0.69 and higher, all critical ratios are significant at a probability level of 0.01, hence the criteria for convergent validity is implied (Anderson & Gerbing, 1988).

Furthermore, the chi-square statistic for the model is non-significant (X^2= 32.017; df=24; p≤0.127) and the other diagnostics (TLI=0.99; GFI=0.96; CFI=0.99; NFI=0.97; RMSEA=0.046) are strongly positive. Subsequently, the X^2/df ratio meets the criteria of adequate fit for minimum discrepancy (X^2/df =1.33) (Byrne, 1989). Therefore, unidimensionality is achieved.

Regarding the reliability assessment, both composite reliability and AVE are far beyond the cut off points, which are 0.70 (Bagozzi & Yi, 1988) and 0.5 (Fornell & Larcker, 1981) respectively. In brief, the results obtained from the performance measurement model show the achievement of unidimensionality, convergent validity and reliability.

TABLE 7.17 CFA Results– Measurement Model of Performance

Factor	Item	λ Items	Critical Ratio *(t-value) Items*	Composite Reliability	AVE	λ Factors	Critical Ratio *(t-value) Factors*
				$\frac{(\sum\lambda_i)^2}{(\sum\lambda_i)^2+(\sum SE_i)} > 0.7$	$\frac{\sum\lambda_i^2}{\sum\lambda_i^2+(\sum SE_i)} > 0.5$		
Efficiency	ROI	0.91[a]	---	0.97	0.92	0.87	4.82***
	EV_margin	0.92	4.95***				
	ROS	0.85	7.18***				
Adaptiveness	rev_newEVProd	0.85[a]	---	0.94	0.81	0.81	5.70***
	num_succ_newEVProd	0.77	7.24***				
	timeMkt_newEVProd	0.84	6.19***				
	resp_comp_expMkt	0.69	7.89***				
Effectiveness	mktSh_grow	0.74[a]	---	0.91	0.84	0.75	4.99***
	pos_change_mktSh	0.90	4.25***				

Goodness-of-Fit Indices

$\chi^2(24) = 32.02$; $\chi^2/df = 1.33$; TLI = 0.99; GFI = 0.96; CFI = 0.99; NFI = 0.97; RMSEA = 0.046
p = 0.127

***Significant at p<0.01
[a] Fixed parameter

It follows from this procedure that the revised performance measurement model affirms the three factor structure developed a priori, as the three dimensions pursued have adequate measurement properties.

According to this perspective, employing the final set of items belonging to a particular dimension, composite measures for the lower level factors have been constructed by calculating the mean values of the factors confirmed. These composite measures are applied in further analyses related to hypotheses testing.

7.4.7 SECOND ORDER MEASUREMENT MODEL: ENTREPRENEURIAL ORIENTATION

The current investigation proposes a multidimensional entrepreneurial orientation construct, which according to different authors includes autonomy (Hornsby et al., 2002), proactiveness and riskiness (Morgan & Strong, 2003).

The model to be tested postulates a priori that entrepreneurial orientation is a three factor structure. The components of the entrepreneurial orientation model are delineated in Figure 7.7 and explained as follows:

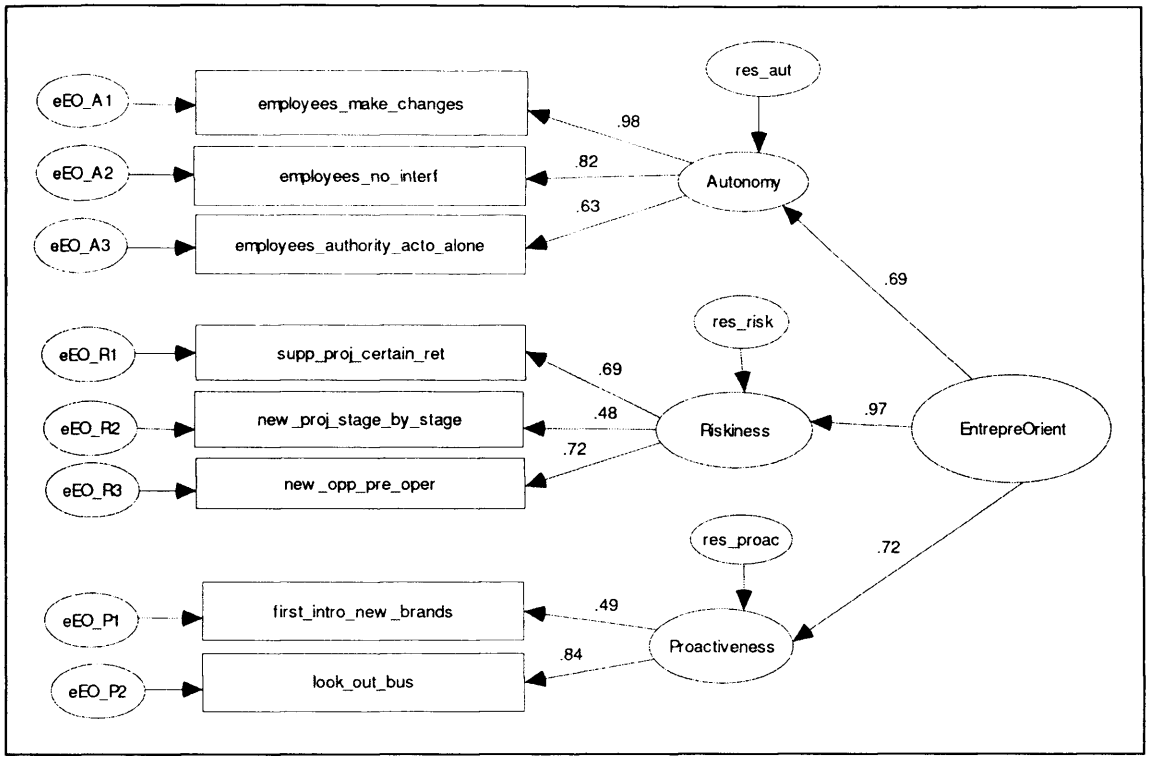
1. Responses to the entrepreneurial orientation construct could be explained by three first-order factors (Autonomy, Riskiness and Proactiveness) and one second-order factor (EntrepreOrient).

2. Each item has a non-zero loading on the first-order factor it was designed to measure, and zero loadings on the other two first-order factors.

3. Error terms associated with each item are uncorrelated (eEO_A1 – eEO_P2).

4. Covariation among the three first-order factors is explained by their regression on the second-order factor.

FIGURE 7.7 Measurement Model – Entrepreneurial Orientation



The CFA results of the entrepreneurial orientation construct that appear in Table 7.18 show that all item loadings display values of 0.48 and above, whereas factor loadings are 0.69 and higher. In addition, all critical ratios are significant at 0.01 level of significance, reaching the criteria for convergent validity (Anderson & Gerbing, 1988).

Even though the chi-square was significant (χ^2= 28.81; df =17; p≤0.036), as might be expected given the sensitivity of the test statistic to sample size (Bagozzi & Yi, 1988), the fit statistics suggest the proposed measurement model achieved a good fit (TLI=0.96; GFI=0.96; CFI=0.97; NFI=0.94; RMSEA=0.067; χ^2/df =1.7). Because of this, unidimensionality is achieved.

Reliability assessment is confirmed with the values of composite reliability and AVE above their limit values of 0.70 (Bagozzi & Yi, 1988) and 0.5 (Fornell & Larcker, 1981) respectively. In conclusion, the results obtained from the entrepreneurial orientation measurement model show the achievement of unidimensionality, convergent validity and reliability.

TABLE 7.18 CFA Results– Measurement Model of Entrepreneurial Orientation

Factor	Item	λ Items	Critical Ratio *(t-value) Items*	Composite Reliability	AVE	λ Factors	Critical Ratio *(t-value) Factors*
				$\frac{(\sum \lambda_i)^2}{(\sum \lambda_i)^2 + (\sum SE_i)} > 0.7$	$\frac{\sum \lambda_i^2}{\sum \lambda_i^2 + (\sum SE_i)} > 0.5$		
Autonomy	employees_make_changes	0.98[a]	4.30***	0.95	0.84	0.69	4.94***
	employees_no_interf	0.82	6.50***				
	employees_authority_acto_alone	0.63	8.41***				
Riskiness	supp_proj_certain_ret	0.69[a]	6.49***	0.86	0.68	0.97	5.82***
	new_proj_stage_by_stage	0.48	6.19***				
	new_opp_pre_oper	0.73	8.1***				
Proactiveness	first_intro_new_brands	0.49[a]	7.89***	0.74	0.60	0.73	6.50***
	look_out_bus	0.84	6.12***				
Goodness-of-Fit Indices							
χ^2 (17) = 28.81 ; χ^2/df = 1.7; TLI = 0.96; GFI = 0.96; CFI = 0.97; NFI = 0.94; RMSEA = 0.067 p = 0.036							

***Significant at p<0.001
[a] Fixed parameter

It comes as a logical consequence from this procedure that the revised entrepreneurial orientation measurement model sustains the three factor structure developed a priori, as the three dimensions pursued have adequate measurement properties.

According to this perspective, employing the final set of items belonging to a particular dimension, composite measures for the lower level factors have been constructed by

calculating the mean values of the factors confirmed. These composite measures are applied in further analyses related to hypotheses testing.

7.4.8 First Order Measurement Model: Ambidextrous Innovation Strategy

This model postulates a priori that ambidextrous innovation strategy is a two factor structure composed of exploitative and explorative strategies (Atuahene-Gima & Murray, 2007; Birkinshaw & Gibson, 2004; Gibson & Birkinshaw, 2004; Gupta et al., 2006; He & Wong, 2004; Jansen et al., 2005; Lubatkin et al., 2006). Before testing the ambidextrous innovation strategy model, shown in Figure 7.8, it is useful to dissect the model into its component parts as follows:

1. There are two ambidextrous innovation factors, as indicated by the two ellipses labelled Exploitative and Explorative.

2. The two factors are intercorrelated, as indicated by two-headed arrows.

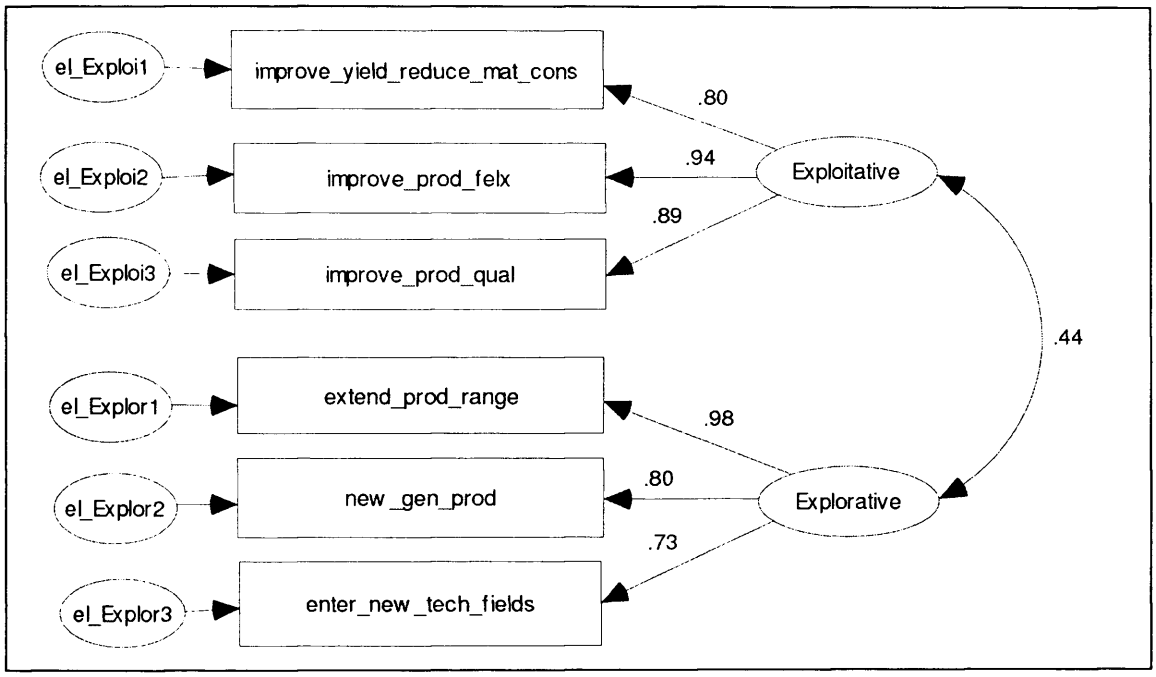
3. There are six observed variables, as indicated by the six rectangles (e.g. improve_yield_reduce_mat_cons – enter_new_tech_fields); they represent items from the Exploitative and Explorative subscales of the ambidextrous innovation construct.

4. The observed variables load on the factors in the following pattern: improve_yield_reduce_mat_cons, improve_prod_felx, improve_prod_qual load on Factor 1 (Exploitative); and new_gen_prod, extend_prod_range, enter_new_tech_fields load on Factor 2 (Explorative).

5. Each observed variable loads on one and only one factor.

6. Errors of measurement associated with each observed variable (eI_Exploi1 – eI_Explor3) are uncorrelated.

FIGURE 7.8 Measurement Model – Innovation



The CFA results of the ambidextrous innovation construct are shown in Table 7.19. All item loadings display values of 0.73 and above. Further, all critical ratios are significant at 0.01 level of significance, thus meeting the criteria for convergent validity (Anderson & Gerbing, 1988).

The fit indices suggest the proposed measurement model achieved a good fit (TLI=0.96; GFI=0.96; CFI=0.98; NFI=0.97; RMSEA=0.079; X^2/df=1.17). The chi-square was significant (X^2= 20.331; df=8; p≤0.009), as might be expected given the sensitivity of the

test statistic to sample size (Bagozzi & Yi, 1988). Consequently, unidimensionality is achieved.

Reliability assessment is confirmed as both composite reliability and average AVE are far beyond the cut off points, which are 0.70 (Bagozzi & Yi, 1988) and 0.5 (Fornell & Larcker, 1981) respectively. In conclusion, the results obtained from the innovation measurement model show the achievement of unidimensionality, convergent validity and reliability.

TABLE 7.19 CFA Results– Measurement Model of Innovation

Factor	Item	λ Items	Critical Ratio (*t-value*) *Items*	Composite Reliability	AVE
				$\frac{(\sum\lambda_i)^2}{(\sum\lambda_i)^2+(\sum SE_i)} > 0.7$	$\frac{\sum\lambda_i^2}{\sum\lambda_i^2+(\sum SE_i)} > 0.5$
Exploitative	improve_yield_reduce_mat_cons	0.80[a]	---	0.96	0.90
	improve_prod_felx	0.94	6.23***		
	improve_prod_qual	0.89	5.35***		
Explorative	extend_prod_range	0.98[a]	---	0.93	0.81
	new_gen_prod	0.80	6.74***		
	enter_new_tech_fields	0.73	7.76***		

Goodness-of-Fit Indices

$X^2(8) = 20.33$; $X^2/df = 1.17$; TLI = 0.96; GFI = 0.96; CFI = 0.98; NFI = 0.97; RMSEA = 0.079
p = 0.009

***Significant at p<0.01

[a] Fixed parameter

It can be concluded from this procedure that the revised innovation measurement model confirms the two factor structure developed a priori, as the two dimensions have adequate measurement properties. Therefore, using the final set of items belonging to a particular innovation dimension, composite measures for the lower level factors have been constructed by calculating the mean scores of the factors confirmed. These composite measures are employed in subsequent analyses of hypotheses testing.

7.1.1 DISCRIMINANT VALIDITY TEST

After unidimensionality and convergent validity were achieved in the preceding CFA procedures, the next step is to ascertain the discriminant validity of the measures (Bagozzi & Phillips, 1982). Even though the measurement model results and theory suggest a complex factor structure for resources, capabilities, competitive strategy, positional advantage, performance, ambidextrous innovation strategy and entrepreneurial orientation; it is in this study's best interest to examine whether the lower-level constituents of the seven constructs provide evidence of discriminant validity.

Although discriminant validity can be tested in various ways (Anderson & Gerbing, 1988; Fornell & Larcker, 1981), this study uses Fornell and Larcker's (1981) AVE test to test discriminant validity. Therefore, it is suggested that discriminant validity exists if the items share more common variance with their respective construct than any variance that construct shares with other constructs. Therefore the AVE for a construct should be higher than the squared correlation (R^2) between that construct and all other constructs (Koufteros, 1999). Table 7.20 demonstrates the results of comparing the square root of AVE with the correlation between constructs, which shows evidence that discriminant validity is approved. In summary, this author can confidently claim that all the construct components incorporated in the conceptual model are distinct.

TABLE 7.20 Correlation Matrix

Correlation of Latent Variables and sqrt(AVE)

Latent Var	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	X_{11}	X_{12}	X_{13}	X_{14}	X_{15}	X_{16}	X_{17}	X_{18}	X_{19}	X_{20}	X_{21}
Reputational (X_1)	**0.872**																				
Financial (X_2)	0.456	**0.815**																			
Human (X_3)	0.238	0.469	**0.896**																		
Distribution (X_4)	0.420	0.320	0.290	**0.808**																	
Communication (X_5)	0.380	0.570	0.420	0.371	**0.901**																
Service (X_6)	0.290	0.480	0.360	0.617	0.531	**0.852**															
Pricing (X_7)	0.380	0.650	0.480	0.583	0.491	0.702	**0.796**														
Delivery Differentiation (X_8)	0.240	0.390	0.190	0.360	0.410	0.550	0.390	**0.911**													
Mkting Differentiation (X_9)	0.430	0.650	0.430	0.370	0.730	0.670	0.600	0.633	**0.740**												
Cost Leadership (X_{10})	0.130	0.240	0.080	0.120	0.250	0.210	0.280	0.518	0.436	**0.792**											
Cost (X_{11})	0.360	0.480	0.240	0.320	0.400	0.400	0.460	0.530	0.490	0.560	**0.842**										
Promotion (X_{12})	0.500	0.560	0.260	0.310	0.520	0.540	0.530	0.510	0.620	0.360	0.595	**0.933**									
Marketing Product (X_{13})	0.320	0.650	0.390	0.360	0.470	0.550	0.660	0.600	0.650	0.430	0.738	0.753	**0.863**								
Efficiency (X_{14})	0.200	0.510	0.390	0.330	0.370	0.470	0.560	0.340	0.500	0.330	0.630	0.600	0.570	**0.864**							
Adaptiveness (X_{15})	0.220	0.500	0.280	0.340	0.410	0.500	0.540	0.430	0.590	0.440	0.540	0.580	0.560	0.716	**0.787**						
Effectiveness (X_{16})	0.210	0.710	0.340	0.410	0.340	0.410	0.540	0.310	0.470	0.290	0.600	0.420	0.570	0.663	0.606	**0.825**					
Autonomy(X_{17})	0.080	0.300	0.140	0.250	0.150	0.210	0.210	0.380	0.630	0.510	0.350	0.710	0.350	0.430	0.610	0.740	**0.737**				
Riskiness (X_{18})	0.210	0.390	0.250	0.380	0.240	0.410	0.530	0.610	0.510	0.340	0.250	0.740	0.520	0.580	0.530	0.520	0.672	**0.772**			
Proactiveness (X_{19})	0.060	0.310	0.190	0.240	0.330	0.450	0.250	0.230	0.450	0.540	0.710	0.500	0.460	0.540	0.550	0.650	0.460	0.557	**0.749**		
Exploitative (X_{20})	0.100	0.260	0.030	0.210	0.190	0.220	0.250	0.430	0.390	0.430	0.740	0.650	0.410	0.290	0.400	0.310	0.270	0.590	0.390	**0.876**	
Explorative(X_{21})	0.200	0.390	0.270	0.190	0.400	0.310	0.240	0.470	0.220	0.610	0.610	0.210	0.510	0.340	0.480	0.360	0.250	0.330	0.450	0.436	**0.841**

Note: * Bold diagonal elements are the square root of AVE. Off diagonal elements are the correlations at the dimensional level.
* AVE for a construct should be higher than the squared correlation (R^2) between that construct and all other constructs.

7.5 CONCLUDING COMMENTS

This chapter has presented the procedure followed in scale construction and validation as regards each of the seven latent constructs: resources, capabilities, competitive strategy, positional advantage, performance, ambidextrous innovation strategy and entrepreneurial orientation. The procedure started with data preparation and screening including: the treatment of missing data, detection of outliers, multicollinearity and normality. Additionally, item and scale purification was assessed on the basis of item analyses using principal components in each construct.

Moreover, the seven latent constructs were validated by CFA reaching the criteria of unidimensionality and convergent validity. Significant item loadings, critical ratios and chi-squares, in addition to fit statistics indices suggested good fit. Composite reliability and AVE tests documented that all constructs employed in the study have adequate measurement properties. Consequently, composite measures have been constructed to represent these factor scales in all statistical analyses conducted for the purpose of hypotheses testing. The findings of these tests are presented and discussed in the next chapter.

CHAPTER 8
ANALYSIS AND RESULTS: STRUCTURAL MODEL

8.1 INTRODUCTION

Having satisfied all the measurement requirements, the present chapter turns to assessing the path model previously exhibited in the theoretical framework (Figure 3.1) employing AMOS with ML estimation. The causal process is depicted by a series of structural equations and the hypothesised model is tested in a single step to establish its consistency with the data. To reduce the model complexity and ensure over five observations per estimated parameter, thereby rendering the findings more practical (Dhanaraj & Beamish, 2003; Li & Calantone, 1998), a parsimonious representation of the constructs was adopted. To this end, the results are presented and discussed in the framework of the twelve hypotheses developed, to state the expected relationships among the principal model variables.

8.2 MODELLING PROCEDURE

Models involving a large number of constructs and measures with finite observations may inevitably risk violating the 5:1 ratio of observations to estimated parameters (see Section 4.9.2 for discussion). One way of dealing with this situation is to split the overall conceptual model into smaller groups of related sets of variables. However, this approach is not ideal if the breakdown cannot be achieved logically and does not lend itself naturally to structural path modelling.

Another way of upholding the 5:1 ratio that does not involve splitting the full measurement model implies adopting a parsimonious estimation procedure (Bentler, 1995; Bollen, 1989a; Kenny, 1979; Settoon et al., 1996; Settoon & Mossholder, 2002). This approach entails averaging the indicators for each scale in turn to form manifest composites. The emphasis placed on parsimony in the SEM literature generally is seen to be in accord with the philosophy of science (Morgan & Hunt, 1994). Importantly, one can observe in the strategic management as well as in the international marketing literature, the development of parsimonious models drawing on the resource-based view (Dhanaraj & Beamish, 2003; Peteraf, 1993).

The present study contains seven main constructs, nineteen sub-constructs and 260 observations. In order to attain the 5 to 1 ratio of observations to estimated parameters for reliable parameter estimates, the parsimonious approach has been adopted to estimate the structural model for this investigation.

The parsimonious approach entails averaging the indicators for each construct to form manifest composites. By conducting such a procedure, the first-order construct is represented by one single indicator and the second order constructs are treated in the model as being first-order with composites of their dimensions (Morgan et al., 2004). Following such a procedure, ambidextrous innovation strategy, which is a first order construct, shows a path from the latent variable (AmbidextrousInnStrat) to the composite (AI). This path is set at the square root of the original scale's alpha coefficient and the manifest indicator's error term is set at one minus the relevant alpha value (Williams & Hazer, 1986). As explained in section 7.4.1, AI is a combined additive measure of exploitation and exploration for ambidexterity (Lubatkin et al., 2006). The second-order concepts

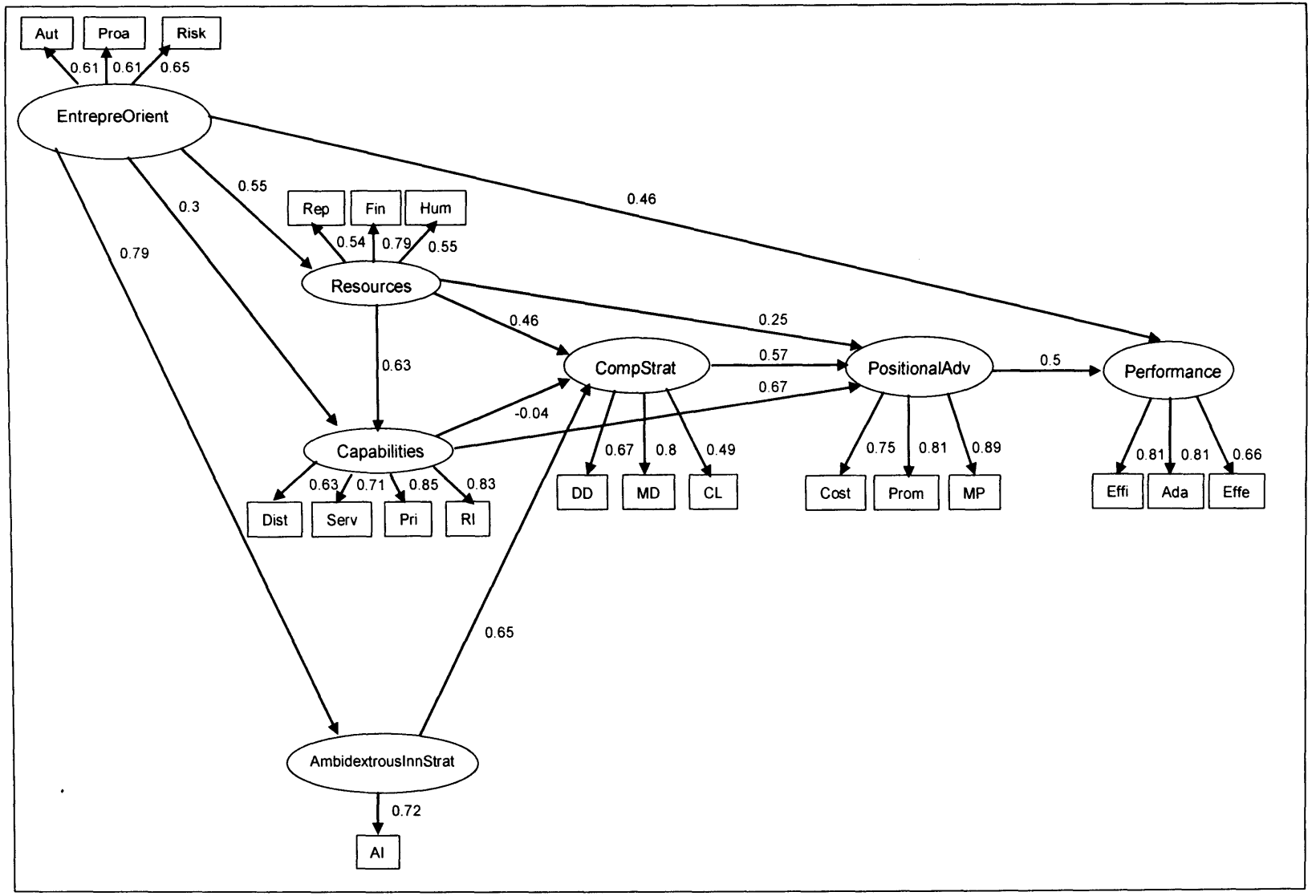
(resources, capabilities, competitive strategy, positional advantage, performance and EO) were presented in the model by composites of their dimensions.

In addition, in modelling higher order constructs, it is crucial to check visually if the additional level satisfies the t-rule of identification, e.g. the number of data variances and co-variances equals or exceeds the number of parameters to be estimated (Byrne, 2001). This author checked through each construct and any structure requiring an additional constraint.

8.3 STRUCTURAL MODEL EVALUATION

This section explores the hypothesised relationships between INV performance and the other latent variables. The structural model is presented in Figure 8.1 and the error terms associated with observed and latent variables are omitted for clarity.

Figure 8.1 The Structural Model



Before discussing the results of the individual hypotheses, it is pertinent to consider the overall fit of the structural model to validate the whole set of causal relationships (Hair et al., 2006). Standardized parameter estimates, t-values, and significance levels for the structural paths are shown in Table 8.1. Overall, the fit statistics for the structural model (TLI=0.91; CFI=0.92; IFI=0.92 RMSEA=0.07) suggest satisfactory fit to the data. The incremental fit measures, CFI, TLI and IFI exceeded the traditional cut-off value 0.90. Additionally, RMSEA is suitably lower than the adequate fit limit 0.08 (Arbuckle, 2003; Kline, 2005). Given the relatively large sample, the significant chi-square is not surprising (χ^2=248.78; df=140; p≤0.001); nevertheless, all other diagnostics are supportive. The chi-square degrees of freedom ratio are acceptably low (χ^2/df=1.77) to also exhibit adequate model fit.

TABLE 8.1 Hypotheses Test of the Structural Model

Hypothesis	Hypothesised Relationship	Path Estimate	Critical Ratio *(t-value)*	Result
H_9	EntreprenOrient --> Resources	0.55 (+)	4.54***	Supported
H_{10}	EntreprenOrient --> Capabilities	0.3 (+)	2.66**	Supported
H_1	Resources --> Capabilities	0.63 (+)	4.62***	Supported
H_4	Resources --> CompStrat	0.46 (+)	2.42*	Supported
H_5	Capabilities --> CompStrat	0.04 (-)	0.22	Not Supported
H_6	CompStrat --> PositionalAdv	0.57 (+)	4.28***	Supported
H_{12}	PositionalAdv --> Performance	0.5 (+)	4.41***	Supported
H_2	Resources --> PositionalAdv	0.25 (+)	1.55	Not Supported
H_3	Capabilities --> PositionalAdv	0.67 (+)	2.37*	Supported
H_{11}	EntreprenOrient --> Performance	0.46 (+)	3.67***	Supported
H_7	EntreprenOrient --> Innovation	0.89 (+)	6.03***	Supported
H_8	Innovation --> CompStrat	0.65 (+)	4.28***	Supported

Goodness-of-Fit Indices

χ^2 (140) = 248.78 ; χ^2 /df = 1.77; TLI = 0.91; CFI = 0.92; IFI = 0.92; RMSEA = 0.07

***Significant at p≤0.001 (t > ± 3.29)

**Significant at p≤0.01 (t > ± 2.57)

*Significant at p≤0.05 (t > ± 1.96)

8.4 HYPOTHESES TESTING RESULTS AND DISCUSSION

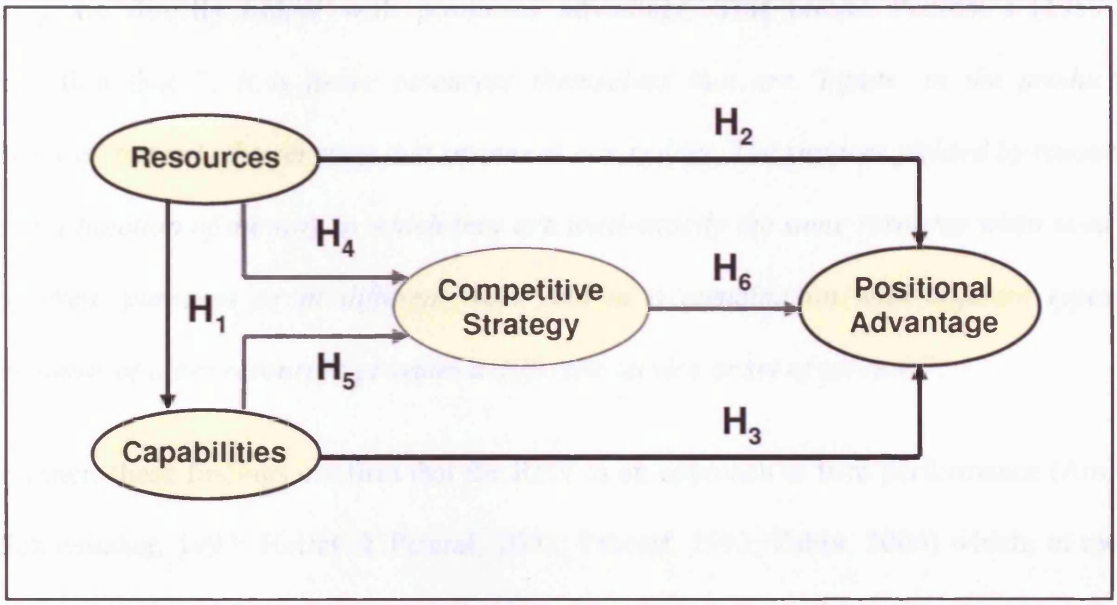
Turning to the evaluation of the hypothesised paths postulated in the structural model, this section provides an insight into each hypothesised relationship with the structural path estimate. The empirical assessment of key relationships predicted in the theoretical model (Figure 3.1) indicates support for ten of the twelve relationships examined (Table 8.1).

The discussion of the hypotheses results is organized by groups of constructs, starting with the link of resources and capabilities to positional advantage (H_1, H_2 and H_3) and the indirect effect of competitive strategy (H_4, H_5 and H_6). The following group of hypotheses (H_7, and H_8) analyse the connection between entrepreneurial orientation, ambidextrous innovation strategy and competitive strategy. Furthermore, the empirical assessment indicates that entrepreneurial orientation is directly related with resources and capabilities (H_9, and H_{10}). The last group of hypotheses (H_{11}, and H_{12}) is centred on how positional advantage and entrepreneurial orientation affect INV's performance.

8.4.1 HYPOTHESES ON RESOURCES, CAPABILITIES COMPETITIVE STRATEGY AND POSITIONAL ADVANTAGE

The present section provides an insight into Hypotheses H_1, H_2, H_3, H_4, H_5 and H_6. This group of hypotheses focuses on the relationship between resources, capabilities, competitive strategy and the positional advantage of INVs as shown in Figure 8.2.

FIGURE 8.2 Hypotheses on Resources, Capabilities, Competitive Strategy and Positional Advantage



The acceptance of H_1 (β=0.63, t=4.62, p≤0.001) verifies the theory that key resources engender more distribution, service, communication and pricing capabilities (see Table 8.2). This finding is consistent with the RBV literature which shows resources as inputs to the complementary capabilities. Therefore, available resources are combined and transformed into capabilities to create value offerings, which in turn have an indirect effect on positional advantage (Oliver, 1997; Teece et al., 1997).

While the present research reveals that capabilities are directly connected with positional advantage supported with H_3 (β=0.67, t=2.37, p≤0.05), interestingly, the data of this investigation do not support the predicted relationship among resources and positional advantage H_2 (β=0.25, t=1.55, p≤0.05). This shows that the distinction between the firm's resource endowments and the capabilities with which it develops, have different paths to positional advantage. When resources are transformed into distinct combinations or

composites to conform capabilities (Huges & Morgan, 2007; Madhavaram & Hunt, 2008), they are directly linked with positional advantage. This proves Penrose's (1959:25) assertion that *"...it is never resources themselves that are 'inputs' in the production process, but only the services that resources can render. The services yielded by resources are a function of the way in which they are used-exactly the same resource when used for different purposes or in different ways and in a combination with different types or amounts of other resources provides a different service or set of services"*.

Further, these findings confirm that the RBV is an approach to firm performance (Amit & Schoemaker, 1993; Helfat & Peteraf, 2003; Peteraf, 1993; Zahra, 2006) which, in recent theoretical contributions distinguishes between capabilities and other types of resources available to the firm (Makadok, 2001; Teece et al., 1997). Indeed, capabilities are the organizational processes by which available resources are developed, combined, and transformed into value offerings for the international venture market (Day, 1994). Firms sustain an advantage if rivals are unable to acquire and deploy a similar or substitute mix of capabilities (Dierickx & Cool, 1989; Kor & Mahoney, 2005; Mahoney & Pandian, 1992; Zou et al., 2003). Thus, the premise that INV's capabilities enhance INV's positional advantage and leads to better INV's performance is proved.

The results in Table 8.2 also show that in line with H_4 (β=0.46, t=2.42, $p \leq 0.05$) and H_6 (β=0.57, t=4.28, $p \leq 0.001$) resources exert a positive influence on competitive strategy, which in turn has a positive impact on positional advantage. The findings of H_4 and H_6 are not surprising, and even supported by the performance literature (Hunt, 2000b; Mudambi & Zahra, 2007).

Regarding the link among capabilities and competitive strategy, H_5 (β=0.04, t=0.22, $p \leq 0.01$) is not supported. This shows that the relationship between an INV's capabilities and competitive strategy is not substantive. In the strategy and international marketing literature very limited studies review this path, as most of the research does not differentiate between resources and capabilities (Bharadwaj et al., 1993; Hunt & Morgan, 1995). One exception is in Morgan and colleagues (2004) who suggest a positive relation between capabilities and competitive strategy; however, with a value of 0.28, the standardised coefficient they obtained is not as strong as their other loadings.

TABLE 8.2 Summarised Results for Hypotheses on Resources, Capabilities, Competitive Strategy and Positional Advantage

Hypothesis	Hypothesised Relationship	Path Estimate	Critical Ratio *(t-value)*	Result
H_1	Resources --> Capabilities	0.63 (+)	4.62***	Supported
H_2	Resources --> PositionalAdv	0.25 (+)	1.55	Not Supported
H_3	Capabilities --> PositionalAdv	0.67 (+)	2.37*	Supported
H_4	Resources --> Competitive Strategy	0.46 (+)	2.42*	Supported
H_5	Capabilities --> Competitive Strategy	0.04 (-)	0.22	Not Supported
H_6	Competitive Strategy --> PositionalAdv	0.57 (+)	4.28***	Supported

***Significant at $p \leq 0.001$ ($t > \pm 3.29$)

**Significant at $p \leq 0.01$ ($t > \pm 2.57$)

*Significant at $p \leq 0.05$ ($t > \pm 1.96$)

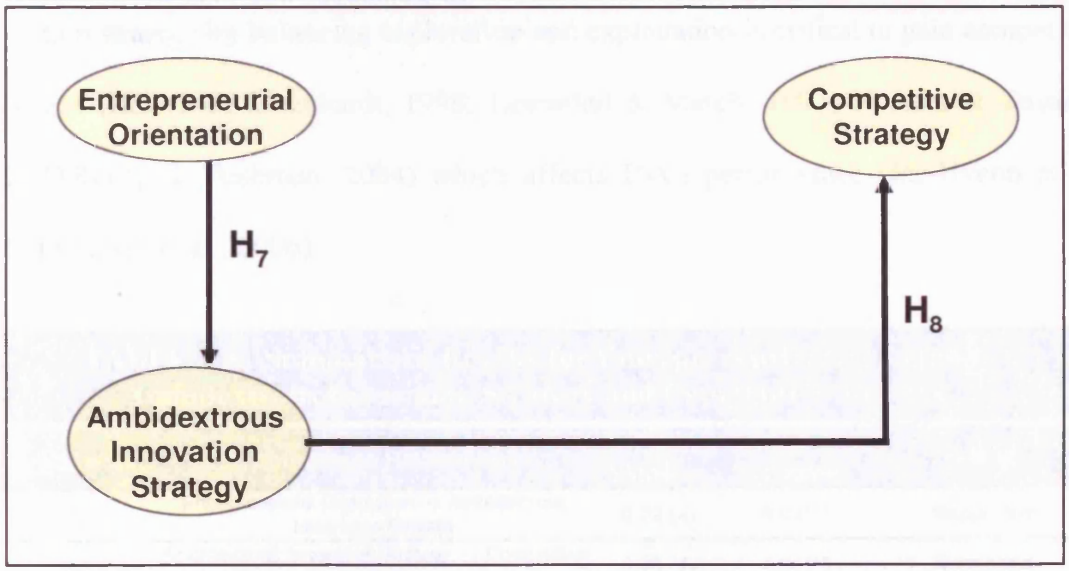
The result of the data regarding the path followed by resources and capabilities to positional advantage is an interesting empirical finding for the strategy and international marketing literature. The findings indicate that resources *per se* are not as strategically important as what the firm does with these resources (Ketchen et al., 2007; Zahra et al., 2003), and therefore, resources are indirectly linked to positional advantage either through competitive strategy or through capabilities.

Consequently, competitive strategy presents an indirect effect on the relationships between the INV's available resources and its positional advantage. Thus, the theoretical model posits that both the strategic choices about how the INV will compete for target customers and the capabilities to be deployed in the international market link those resources and the positional advantages achieved by the INV (Conner, 1991; Grant, 1991, 1996).

8.4.2 Hypotheses on Entrepreneurial Orientation, Ambidextrous Innovation Strategy and Competitive Strategy

With reference to the associations of entrepreneurial orientation, ambidextrous innovation strategy and competitive strategy of INVs, hypotheses H_7 and H_8 were developed, as detailed in Figure 8.3.

FIGURE 8.3 Hypotheses on Entrepreneurial Orientation, Ambidextrous Innovation Strategy and Competitive Strategy



The results suggest that, in line with H_7 (β=0.79, t=6.03, $p \leq 0.001$), entrepreneurial orientation exerts a positive influence on the ambidextrous innovation strategy of INVs, as exhibited in Table 8.3. Indeed, the results of this study support the recent strategy and related marketing literature, as they suggest that entrepreneurial orientation is an important antecedent to improve the balance to shape effective exploration and exploitation innovation strategies over small technological firms (Cegarra-Navarro & Dewhurst, 2007; He & Wong, 2004). In this regard, it is important to encourage INVs to seek for a balance between proactive and internal, as well as reactive and external innovation strategy.

Likewise, support for H_8 (β=0.65, t=4.28, $p \leq 0.001$), affirms the assertion that competitive strategy is strengthed by ambidextrous innovation strategy. There is consensus in the literature about the need to manage explorative and exploitative innovation simultaneously in a continuous perspective, beside a life cycle perspective, (Winter & Szulanski, 2001) in order to influence performance (He & Wong, 2004). Accordingly, an ambidextrous innovation strategy by balancing exploration and exploitation is critical to gain competitive advantage (Brown & Eisenhardt, 1998; Levinthal & March, 1993; Nonaka & Toyama, 2002; O'Reilly & Tushman, 2004) which affects INVs performance (Jae-Hyeon et al., 2006; Lubatkin et al., 2006).

TABLE 8.3 Summarised Results for Entrepreneurial Orientation, Ambidextrous Innovation Strategy and Competitive Strategy

Hypothesis	Hypothesised Relationship	Path Estimate	Critical Ratio *(t-value)*	Result
H_7	Entrepreneurial Orientation --> Ambidextrous Innovation Strategy	0.79 (+)	6.03***	Supported
H_8	Ambidextrous Innovation Strategy --> Competitive Strategy	0.65 (+)	4.28***	Supported

***Significant at $p \leq 0.001$ ($t > \pm 3.29$)

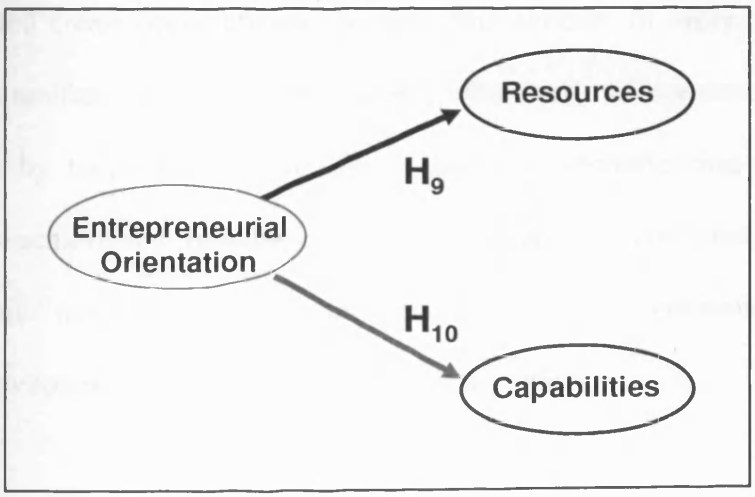
Moreover, the evidence of these findings extends the understanding of ambidexterity by examining the pivotal role of entrepreneurial orientation over INVs. In doing so, the findings not only suggest that it is essential to achieving an ambidextrous orientation in INVs, they also propose that the joint pursuit of a balance exploratory and exploitative orientation affects competitive strategy as an approach to firm's performance.

Encouraged by Lubatkin and colleagues (2006), the findings also demonstrate that an additive measure, modelled as the simple sum of both exploitation and exploration, represents the most interpretable measure, and the one that best fits the data.

8.4.3 Hypotheses on Entrepreneurial Orientation, Resources and Capabilities

The present section provides details of the results of Hypotheses H_9 and H_{10} which concern the relationship between entrepreneurial orientation and two constructs: resources and capabilities of INVs, as shown in Figure 8.4.

FIGURE 8.4 Hypotheses on Entrepreneurial Orientation, Resources and Capabilities



The results exhibited in Table 8.4 suggest that, in line with H_9 (β=0.55, t=4.54, $p \leq 0.001$) and H_{10} (β=0.3, t=2.663, $p \leq 0.01$), entrepreneurial orientation exerts a positive influence on both constructs: resources and capabilities of INVs. The empirical results of this study are consistent with previous studies investigating entrepreneurial orientation as a potential source of resources and capabilities (Jantunen et al., 2005; Wiklund & Shepherd, 2005a; Zahra & Covin, 1995).

TABLE 8.4 Summarised Results for Hypotheses on Entrepreneurial Orientation, Resources and Capabilities

Hypothesis	Hypothesised Relationship	Path Estimate	Critical Ratio *(t-value)*	Result
H_9	Entrepreneurial Orientation --> Resources	0.55 (+)	4.54***	Supported
H_{10}	Entrepreneurial Orientation --> Capabilities	0.3 (+)	2.66**	Supported

***Significant at $p \leq 0.001$ ($t > \pm 3.29$)

**Significant at $p \leq 0.01$ ($t > \pm 2.57$)

Therefore, the empirical findings of this study affirm that entrepreneurially oriented INVs recognize and create opportunities through their actions. In order to take advantage of these opportunities, they have to respond effectively to consumers, competitors and distributors by transforming their asset base and reconfiguring their processes and structures to achieve new valuable resource and capabilities combinations. Thus, the INVs' ability to build new resources and capabilities is crucial for sustaining competitiveness in changing environments, such as the international market.

8.4.4 Hypotheses on Entrepreneurial Orientation, Positional Advantage and Performance

The present section provides an insight into the last two hypotheses that lead to performance, H_{11} and H_{12}. The former concentrates on the association of entrepreneurial orientation and performance of INVs, while the latter centres on the relationship between positional advantage and performance of INVs. See Figure 8.5.

FIGURE 8.5 Hypotheses on Entrepreneurial Orientation, Positional Advantage and Performance

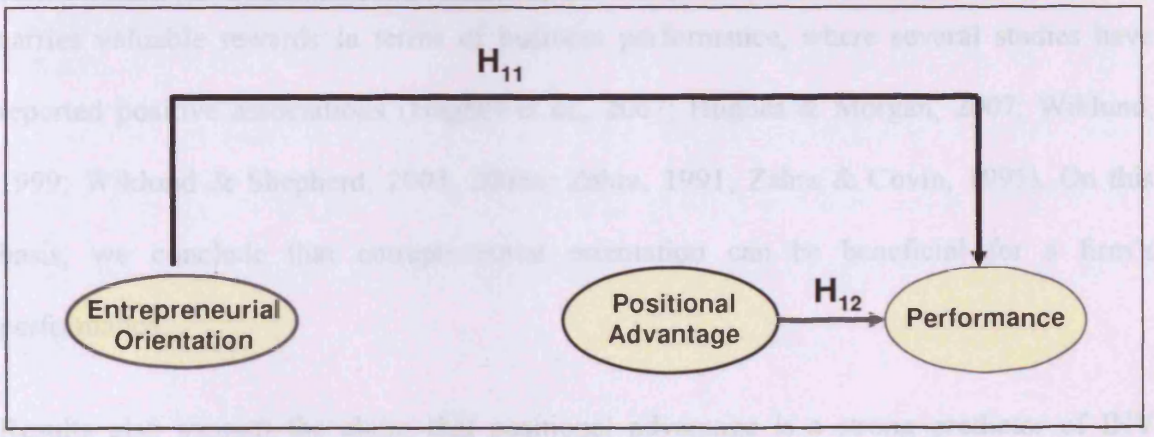


Table 8.5 shows the results of both hypotheses suggesting that the two final relationships examined for the purpose of this research were found to be significant positive associations. In line with H_{11} (β=0.46, t=3.67, p≤0.001) entrepreneurial orientation exerts a positive influence on performance of INVs. Additionally, it is also evident from the

findings that positional advantage was found to be in line with H_{12} (β=0.46, t=3.67, $p \leq 0.001$).

TABLE 8.5 Summarised Results for Hypotheses on Entrepreneurial Orientation and Performance

Hypothesis	Hypothesised Relationship	Path Estimate	Critical Ratio *(t-value)*	Result
H_{11}	Entrepreneurial Orientation --> Performance	0.46 (+)	3.67***	Supported
H_{12}	Positional Advantage --> Performance	0.5 (+)	4.41***	Supported

***Significant at $p \leq 0.001$ ($t > \pm 3.29$)

This section sought to ascertain whether entrepreneurial orientation explains INVs' performance. The acceptance of H_{11} verifies the theory that entrepreneurial orientation carries valuable rewards in terms of business performance, where several studies have reported positive associations (Hughes et al., 2007; Hughes & Morgan, 2007; Wiklund, 1999; Wiklund & Shepherd, 2003, 2005a; Zahra, 1991; Zahra & Covin, 1995). On this basis, we conclude that entrepreneurial orientation can be beneficial for a firm's performance.

Results also support the claim that positional advantage is a strong predictor of INV performance. This finding is in keeping with Henard and Symanzki (2001), Carbonell and Rodriguez (2006), as well as Morgan and colleagues (2004), who identified positional advantage as the most important driver of performance, because of the relative superiority of a venture's value offering as a determinant on target customers' buying behaviour. On this basis, there is no doubt that the hypotheses (H_{11} and H_{12}) are theoretically substantive.

8.5 CONCLUDING COMMENTS

This chapter has provided an account of the results pertaining to the testing of the hypotheses advanced in Chapter Three. To this end, twelve hypotheses were tested using structural equation modelling and the fit indices showed good fit to the data. The relevant results were presented and discussed in detail suggesting that ten hypotheses were supported and two rejected.

Drawing upon the evidence reported here, Chapter Nine will attempt to extract a number of general conclusions delineating the importance of this study and its contribution to existing knowledge. The implications of the empirical findings for INV practitioners will also be examined. Moreover, the limitations associated with the different stages of the study will be considered, in combination with important directions for future research in this area.

CHAPTER 9
CONCLUSIONS, LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

9.1 INTRODUCTION

This final chapter attempts to provide an account of some general conclusions that can be drawn from this study. It is noted that to date very limited research pertaining to the application of the RBV to INVs research with the intent to explain positional advantage leading to performance, has been conducted and reported. Therefore, it is believed that the findings of this research will contribute to the existing marketing and strategy literature. To the best of this author's knowledge, this research is the first empirical study which systematically and quantitatively analyses INVs in Mexico. It is hoped, therefore, that this research will make a valuable contribution to the research field. In addition, this chapter discusses the implications for theory development, business practitioners and public policy makers concerned with the firm's international development and success. This chapter concludes with a discussion of implications, limitations and suggestions for future research directions.

9.2 CONCLUSIONS OF THE STUDY

In order to clarify the context of each of the conclusions made, it is pertinent to revisit the research objectives and conceptualisation of this study prior to reflecting upon results. Building upon internationalisation theories and recent developments in the field of strategy and IE, an INV was defined in this study as a firm that from inception seeks to gain

substantial competitive advantage from the use of resources and the international sale of outputs. Therefore, unique resources were identified as the differentiator element and necessary condition of INVs. As resources and their deployment can be structural drivers of a superior market position, the primary objective of this research has been the broad-based integration of RBV with INVs with the intent to provide an explanatory framework for firms' positional advantage which leads to performance.

This integration is based on the search for the factors that play an important role in the resource and capability deployment creating positional advantage in INVs and how/to what extent they are related to performance. In doing so, this study represents one of relatively few empirical attempts made in the business literature to apply the RBV and marketing theories to INVs in a NIC, by empirically testing the conceptual model (see Figure 3.1) to INV firms in Mexico.

The basic model of the RBV was extended for INVs identifying positional advantage antecedents, such as resources and capabilities with the inclusion of some additional constructs: first, competitive strategy pursued by the INV firm; second, EO and ambidextrous innovation strategy. These constructs represent the proactive response of the firm to the internal and external stimuli.

Drawing upon marketing, strategy and management literatures, the objectives of this study are sevenfold: 1) To empirically assess the interplay between resources and capabilities and how they are deployed to facilitate positional advantages in INVs; 2) To empirically assess the interplay between resources and capabilities and how they are deployed to facilitate competitive strategy in INVs. 3) To empirically examine how competitive strategy impacts positional advantage. 4) To empirically examine how EO affects

resources and capabilities of INVs. 5) To empirically assess how EO relates to ambidextrous innovation strategy, and how ambidextrous innovation strategy is linked to competitive strategy in INVs. 6) To empirically examine how EO and positional advantage have an effect upon the performance of INVs. 7) To further understand INVs in Mexico.

To achieve these research objectives, the following research questions have been formulated: 1) How/to what extent are the resources and capabilities deployed in creating positional advantage in INVs? 2) How/to what extent resources and capabilities form the basis to competitive strategy in INVs? 3) How/to what extent does competitive strategy impact on positional advantage in INVs? 4) What is the role of EO with regard to resources and capabilities in INVs? 5) What is the association between EO and ambidextrous innovation strategy and how/to what extent is ambidextrous innovation strategy related with competitive strategy in INVs? 6) How/to what extent is EO related to performance in INVs? 7) How/to what extent is positional advantage associated with performance in INVs?

During the critical literature review on IE and INVs it is interesting to observe how the operationalisation of the broad definition of INVs varies. From the discussion in the literature review, prior studies have mainly focused on the performance of INVs (Aspelund et al., 2007). Nevertheless, a few studies have focused on positional advantage as part of the determinants of INVs success and outcomes (Blesa et al., 2008). Additionally, a very limited amount of work has been done on the role of resources (Coviello & Cox, 2006), capabilities (Sapienza et al., 2006), competitive strategy (Mudambi & Zahra, 2007), EO (Frishammar & Andersson, 2009), and ambidextrous innovation strategy (Han & Celly, 2008) as antecedents of INVs positional advantage. The key premise is that the relation

among EO, resources, capabilities, ambidextrous innovation strategy and competitive strategy offer positional advantages in international markets of cost, promotion and marketing product.

More importantly, as discussed earlier, most of the empirical INVs studies have focused on developed countries. To fill the research gap created by such limited studies relating to INVs in NICs, this author has considered Mexico to be a suitable target for fieldwork.

9.2.1 SUMMARY OF THE CONCEPTUALISATION

Within the scope of the research objectives, it was deemed essential to conceptually define the various components of the research model within the specific context of the INV firms. For this purpose, the dimensions of the main constructs emerging from an extensive review of the literature and exploratory interviews with business practitioners were confirmed using a methodologically robust analytical technique namely SEM. These dimensions will be described subsequently in some detail.

The positional advantage of INVs was assigned a central role since it constitutes the superior marketplace position that captures the provision of superior customer value and the achievement of lower relative costs. Any consideration of INVs' performance should therefore emerge as a result of the achievement of a certain positional advantage in the target international market. According to the evidence reported in Chapter Three, three distinct dimensions were identified for positional advantage: cost, promotion and marketing product.

With reference to the sources of positional advantage, conceptual and empirical evidence was examined in order to generate a meaningful classificatory scheme for competitive strategy and capabilities residing within the INV firm. Competitive strategy is linked to positional advantage by determining how well available resources are matched with market requirements. Competitive strategy was categorised as pertaining to: cost leadership, marketing differentiation and delivery differentiation. Along the same lines, capabilities conceptualised as configurations of routines and resources that allow an organisation to achieve its goals, were classified as: distribution, service, communication, and pricing. In addition, the conceptualisation of resources identified three dimensions: reputational, financial and human.

Regarding the conceptualisation of ambidexterity, exploitative and explorative innovation strategies were examined in the particular context of INVs. In the search for the most interpretable approach for combining exploration and exploitation measures and following the procedures recommended by Edwards (1993) regarding the less significant loss of information, this author followed Lubatkin and colleagues'(2006) suggestion of the additive measure of ambidexterity.

The concept of EO changes as the firm evolves to better suit the strategic and market needs. For the conceptualisation of EO, riskiness, proactiveness and autonomy were the three dimensions captured.

As multidimensional measures of performance should be employed in the field of marketing, this construct was categorised as pertaining to: efficiency, adaptiveness and effectiveness.

The conceptual model has been developed around the positional advantage construct, its antecedents (resources, capabilities, competitive strategies, EO, and ambidextrous innovation strategy) and consequences (performance). Following an extensive literature review and exploratory interviews with managers from INV firms, measures have been developed and data have been collected from 260 INVs. The conceptual model has been empirically tested in the specific setting of INV firms in Mexico.

Besides, multi-dimensional and second-order concepts were conceptualised and empirically tested for resources, capabilities, competitive strategy, positional advantage and performance; ambidexterity was measured as an interpretable approach for combining exploration and exploitation measures.

9.2.2 MEASUREMENT MODEL CONCLUSIONS

Chapter Seven reported the results of testing for whether the constructs of interest had been adequately measured using multiple-item scales. In this regard, each of the seven constructs was subjected to principal components analysis with original rotation separately. Key questions concerning unidimensionality, reliability as well as convergent validity and discriminant validity were answered, primarily on the basis of CFA. Significant item loadings, critical rations and chi-squares, in addition to fit statistics indices suggested good fit. Composite reliability and AVE tests documented that all constructs employed in the study have adequate measurement properties. Composite measures have been constructed to represent these factor scales in statistical analyses conducted for the purpose of hypotheses testing.

9.2.3 STRUCTURAL MODEL CONCLUSIONS

Twelve hypotheses were formulated based on the conceptual model and the path analysis has been tested to examine the relationships among resources, capabilities, competitive strategy, positional advantage, performance, EO and ambidextrous innovation strategy. To this end, the twelve hypotheses were tested using SEM and the fit indices showed good fit to the data. From the twelve hypotheses, ten were supported and two have been rejected (as discussed in Chapter Eight). Table 9.1 summarizes the seven objectives of the present study, where the seven main research questions aimed to achieve the research objectives based on the results from measurement and structural models.

TABLE 9.1 Summary of the Study

Objective	Questions	Path Analysis and Measurement Model	Results
Objective 1	Question 1	H1, H2, H3 Measurement Models: resources, capabilities and positional advantage	H1, H3: Support H2: Reject
Objective 2	Question 2	H1, H4, H5 Measurement Models: resources, capabilities and competitive strategy	H4: Support H5: Reject
Objective 3	Question 3	H6 Measurement Models: Competitive strategy and positional advantage	H6: Support
Objective 4	Question 4	H9, H10 Measurement Models: entrepreneurial orientation, resources and capabilities	H9, H10: Support
Objective 5	Question 5	H7, H8 Measurement Models: entrepreneurial orientation, ambidextrous innovation strategy and competitive strategy	H7, H8: Support
Objective 6	Question 6 and 7	H11, H12 Measurement Models: entrepreneurial orientation, positional advantage and performance	H11, H12: Support
Objective 7	Empirical Fieldwork		

9.3 KEY FINDINGS, CONTRIBUTIONS AND IMPLICATIONS FOR THEORY DEVELOPMENT

It is imperative to note that the findings presented in the following are intended to be neither exhaustive nor absolute. Rather they are offered in an attempt to stimulate thought and discussion regarding research on explaining positional advantage through a RBV of INVs.

This study has contributed to the existing marketing, strategy and IE development literature by conceiving and quantitatively testing the conceptual model of positional advantage on INVs in several ways. Firstly, this study provides a broad-based integration of marketing theories and the RBV by examining the relationship between resources and capabilities in INVs. The findings indicate that positional advantage of INVs is strongly related to: 1) the availability of key resources combined and transformed into capabilities; and 2) the integration of key resources to generate competitive strategy choices.

In the strategy and marketing literature most of the research does not differentiate between resources and capabilities. The results show there is a distinction between the firm's resource endowments and the capabilities developed which follow different paths to positional advantage. Resources *per se* are not as strategically important as what the firm does with them. If actions are taken that capitalise on the resources, this creates a positional advantage, which in turn enhances performance. Therefore, they need to be transformed into capabilities or translated into a genuine competitive strategy in order to impact on a superior market place. This privileged position allows positional advantage to capture the provision of superior customer value in terms of promotion and marketing product, as well as the achievement of lower relative costs. The previously explained

findings support recent studies which have sought a greater understanding of the RBV by putting forward reasons why resources and performance are not directly related (Ketchen et al., 2007). Instead, realising the potential value of resources depends on those resources being exploited through a firm's strategic action.

By linking resource and capability heterogeneity with INV positional advantage, the present research provides empirical support for the RBV explanations of a firm's performance that have been adopted by an increasing number of marketing researchers (Hunt & Morgan, 1995; Madhavaram & Hunt, 2008). The central role of positional advantage as the meeting point of competitive strategy and capabilities empowers the explanation of resource transformation to reach performance.

The separation of the firm's resource endowments and the capabilities developed is an important theoretical distinction that is rarely applied in marketing theory. It helps to differentiate the abilities of the firm to perform a particular task or activity, from the capacities of the firm to purposefully create, extend or modify its resource base.

This investigation also extends traditional RBV explanations by supporting the emerging dynamic capabilities paradigm that links the organisational processes by which firms develop and deploy resources with business performance.

Therefore, an additional contribution regards the implementation of dynamic capabilities in the conceptual model as a complement to the RBV, based on three issues: 1) the cross-fertilisation of EO to resources, capabilities, ambidexterity and performance; 2) an ambidextrous innovation strategy, which enables the firm to integrate, build and reconfigure internal and external innovation strategies to address rapidly changing

environments; 3) and a robust theoretical model explaining INVs' positional advantage through a RBV as a process with identifiable stages and linkages between them. Each of the three issues is discussed below.

While resources and performance are not directly related, as previously mentioned, the results of this study also indicate that EO is strongly related to INVs' performance. The findings show that INVs are exemplary of highly entrepreneurial firms. The proactive, risk taking and autonomy posture of INVs carries valuable rewards in terms of INVs' performance. Therefore, INVs are more adaptable in responding to changing conditions and opportunities in the international market. INVs require effectiveness to respond quickly to the complex marketing activity requirements of unfamiliar markets with profitability efficiency. Hence, EO creates a fertile environment to create positive performance effects based on adaptiveness, efficiency, and effectiveness.

This study complements the RBV by emphasizing the positive impact of EO on resources and capabilities. The findings show that INVs may have fewer resources to compete with larger rivals, but are more alert to the possibilities of combining resources possessing an unusual constellation of capabilities. Accordingly, INVs are risk tolerant, proactive and autonomous entrepreneurial firms that instill flexibility, and grant individuals and teams the freedom to exercise their creativity and to champion promising ideas. The discovery of new opportunities for INVs is concerned with the process of identifying unobserved or latent combinations of resources and customer demand with the supply of already existing products and services. INVs have the propensity to anticipate future needs and changes in the operating environment.

The findings stress the INVs' capacity to purposefully create, extend or modify their resource base by proactively being able to pioneer the introduction of new brands in the market and by constantly searching for business that can be acquired. In addition, INVs distance themselves from rivals by absorbing the risk of devoting resources to projects that entail some possibility of success. Also, INVs take into account the independent action of employees to act and think without interference giving birth to an idea or a vision and then carrying it through to fruition.

Additionally, the findings suggest that the EO of INVs provides empirical support for the dynamic capability view of the firm. In order to be able to seize the opportunities that a dynamic operating environment opens up, INVs have to reconfigure their existing asset base and processes. It can therefore be seen that EO alters the resource base of the INV. EO injects dynamism into resources and capabilities generating a significant effect on competitive strategy. In this process, ambidextrous innovation strategy contributes to achieving higher performance by adapting to, and even benefiting from, changes beyond the control of INVs.

Thus, INVs need dynamic capabilities, that is processes and structures that enable them to sense and seize new opportunities and renew their existing asset base. Therefore, strong support is found for the importance of path dependency in shaping the strategic choice of INVs.

Competitive strategy, in turn constitutes a potential source of positional advantage leading to performance. The findings indicate that the competitive strategy of INVs leverage resources to achieve positional advantage through cost and/or differentiation in marketing or delivery. The results suggest that cost and differentiation are not mutually exclusive

when evaluating competitive strategies. This supports the view that firms successfully combining low costs and differentiation competitive strategies may create synergies, which in the case of INVs increments their adaptability.

Further, this study provides new empirical evidence of the favourable effect of ambidexterity in the context of the innovation strategy in INVs. The beneficial effect of balancing exploration and exploitation has been hypothesised in previous studies; nevertheless, little empirical evidence is provided in the literature. The findings of this study support the argument that INVs are firms that follow an ambidextrous innovation strategy. Thus, exploratory and exploitative processes are critical factors to strengthen strategic choices about how the INV will compete in the international market.

Therefore, given the growing importance of understanding the role of marketing in determining a firm's performance, the present research highlights the utility of integrating competitive strategy choices in the conceptual model. RBV theory identifies relationships between resources and capabilities as contributing to isolating mechanisms that inhibit competitive imitation, such as asset interconnectedness and social complexity. By specifying the relationships between the resources and capabilities of INVs as well as competitive strategy choices in the conceptual model of the present study, the potential of such isolated mechanisms increases even further. The present study has important implications for approaches that centre on the role of competitive strategy choices in determining a firm's performance. Researchers who investigate strategy-performance linkages should not assume that competitive strategy decisions are subsequently realised after transforming resources into competitive choices, but should consider the important

role of ambidexterity in determining the effective implementation of planned competitive strategy decisions.

Ambidexterity, triggered by EO, allows INVs to integrate, build and reconfigure internal and external competences. EO is a critical antecedent to improve the balance of exploration and exploitation in INVs encouraging a balanced approach to innovation. The findings offer a much more optimistic message from INVs' ambidexterity than the excluding message from prior research which suggests that firms are more likely to develop a natural tendency to focus on either exploitation or exploration, but not both. This problem can be resolved despite the INV firms' lack of resources. Consequently, firms that practice ambidexterity are rewarded for their efforts. In simple terms, ambidexterity may not be as difficult for INV firms to achieve as some in the literature believe. What may be required is to have an adequate combination of EO in terms of proactiveness, riskiness and autonomy to foster the integration of exploration and exploitation innovation strategies.

In this regard, the theoretical model and empirical results of this research indicate that particular attention should be paid to generate positional advantage in order to understand a firm's performance. The creation of positional advantage is twofold. The former suggests delineating and assessing capabilities dynamically influenced by EO. The latter is concerned with the competitive strategy developed from internal factors like resources and from dynamic capabilities such as EO and ambidexterity.

Thus, integrating the RBV with EO, ambidextrous innovation strategy and competitive strategy provides a stronger theoretical rationale for explaining positional advantage and performance over time.

The conceptual model integrates the RBV to explain how the resources and capabilities available to INVs relate to competitive strategy choices, EO and ambidextrous innovation strategy to determine positional advantage and performance. Overall, the empirical results provide broad support for the conceptual model of INVs. From the perspective of RBV theory perspective, support is particularly strong for the antecedents of positional advantage that have been identified in the present study.

9.4 IMPLICATIONS FOR MANAGERS AND POLICYMAKERS

Based on the empirical findings of the present study, the following have emerged as some of the most relevant implications for managers and policymakers. First, given the limitation international managers have in terms of managing external industry and market conditions through changes in market selection, this study indicates that resource-based theory provides a useful framework for understanding positional advantage and performance. Governmental organisations and other bodies involved in the design and implementation of internationalisation assistance programmes should benefit as well from the findings of this study.

The present research has provided enough evidence to show that positional advantage can be conceived as a superior market place position that captures the provision of superior customer value by the accomplishment of lower relative costs (Day & Wensley, 1988). Accordingly, the implications of this study suggest that such public policy programmes should place emphasis upon creating awareness of the centrality of the role of positional

advantage in the process of achieving superior performance in INVs. It would be beneficial for this notion be incorporated into the international entrepreneurs' mindset.

The aim of building and sustaining a positional advantage should also shape the way INVs perceive and strategically exploit factors residing within or controlled by the INV. Indeed, this study has shown that such factors should be viewed as sources of positional advantage and that INV firms' superiority in these areas is strongly associated with superiority in achieving a privileged position in the international market.

9.4.1 IMPLICATIONS FOR MANAGERS

A clear indication of the contribution of a research study to existing knowledge is the extent to which the findings of the study could be of interest to the researched population. Thus, this section is devoted to an assessment of the extent to which the present study could be of assistance to business practitioners.

The present study suggests that the main preoccupation of the INV aiming at superior performance should be the establishment of a positional advantage in the target international market: cost advantage; promotion advantage; and/or, marketing product advantage. Achievement of any type of advantage in the international market constitutes a decisive step towards superior performance. However, this statement was found to be more sustainable for the marketing product and the promotion advantage than for the cost advantage, which has been traditionally emphasised. International managers pursuing a cost advantage position should seriously consider the possibility of steering their competitive strategy towards a different competitive direction. This raises the issue of the

value and appropriateness of the resources and their deployment to which the discussion now turns.

This study has shown that the resources and capabilities residing within the firm carry substantial weight with regard to the achievement of a positional advantage. The present investigation utilised the RBV prescriptions to get managers to focus their efforts on acquiring, assessing, and deploying available key resources into capabilities. In particular, resources can impact upon the achievement of an advantageous position in the international market in two ways, through capabilities' generation or through the pursuit of an appropriate competitive strategy. However, it is the realised competitive strategy that should be used as a key criterion for the selective enhancement of appropriate company resources. This contention is based upon the very nature of the realised strategy which constitutes a surrogate of market forces' response to the firms' offering.

More specifically, INVs aimed at the achievement of a cost advantage position in the international market should invest in reputational resources. Therefore, particular attention should be given to the development of brand name awareness and brand image. In the highly competitive environments of today, INVs competing on a lower cost basis should be able to devise new ways of reducing cost and offering lower customer price on a continuous basis. This could also have an impact on employee selection for the implementation of a cost leadership strategy, such as experienced employees not being preferred to relatively inexperienced ones. Nonetheless, managers should pay particular attention to the fact that the pursuit of cost advantage position may not result in its successful realisation. This alludes to the compelling need for careful consideration of societal and country factors associated with the target international market, such as

exchange rate fluctuations. Suggested avenues towards addressing the above issue include: consultation of financial advisors in private and public sector organisations with the intent to obtain a sound description of the economic situation of the targeted country; and development of contingency plans to cover those cases where environmental changes are potentially imminent.

In those cases where achieving of the marketing product advantage in the international market has become a competitive goal of the INV, deployment of all types of resources will be important. The only exception are financial resources whose direct contribution to the above competitive goal is minimal. Most favourably for INVs suffering a shortage of financial resources available for investment, the possibility of attaining a marketing product advantage position in the international market in which they compete emerges as a promising competitive goal.

When the INVs' aim is to offer superior customer value through promotion advantage, this study suggests that all categories of resources can contribute. Therefore, managers of INVs can use this scheme in order to identify and leverage those resources residing in their company that appear to lead to a promotion advantage position in the international market in the most efficient way.

Furthermore, the conceptual model and empirical findings of this research indicate that managers should pay attention to cultivate the interrelationships between matching competitive strategy choices with available resources and capabilities as well as the needs and requirements of channel partners and customers in the target market. The data of this study point to the importance of managers' close monitoring and forecasting of competitors' independent strategy moves as well as their responses to competitive strategy

choices as key decision making input that may strengthen the link between competitive strategy choices and the achievement of positional advantage.

Another obvious managerial implication is the need for managers to become explicitly aware of managing explorative and exploitative innovation simultaneously, on a continuous basis, which could lead to the development of a synthesizing capability to create positional advantage out of conflicting forces. Furthermore, managers of INVs should take advantage of the ambidextrous innovation strategy influence on competitive strategy based on delivery differentiation, marketing differentiation and cost leadership. In order to do so, managers' incentives should be aligned with INV firm performance. For example, if a firm rewards its managers' performance according to firm growth metrics, managers would benefit by implementing a delivery differentiation strategy supported by an explorative innovation strategy. Conversely, if they receive compensation based on their efficient control of business operations, they should develop a low cost strategy with an exploitative innovation strategy. Marketing differentiation strategy strengthens both effective and efficient performance. Therefore, a versatile marketing differentiation strategy offers managers the best performance.

9.4.2 Implications for Policymakers

Regarding the public policy implications of this study, the importance of developing sources of positional advantage within an INV could possibly be viewed by policy makers as suggestive of the need to consider alternative, more personalised forms of internationalisation assistance. Although the provision of direct financial support is beyond the scope of most policymakers, the results indicate that other resources and capabilities

based on experience may be a useful area of focus. Traditional international promotion activities may indirectly aid the development of some aspects related to reputational and human resources available to INVs. For example, organising field-research trips for managers to particular foreign markets may help managers to learn from such experiences. These would directly benefit raising the levels of knowledge, quality, experience and skills of the export marketing personnel in terms of INVs' human resources, which could have an effect on the strength and distinctiveness of the brand image and other reputational resources.

Similarly, creating networks of noncompeting firms that are involved in selling in individual international markets and enabling cross-firm information sharing may also facilitate the development of relevant knowledge by enabling firms to learn from one another.

To aid the development of stronger communication capabilities, rather than just responding to specific international market information requests, appropriate international trade development assistance should also provide an update in training for managers in INV research and analysis.

On the other hand, if there is a possibility of investment funding, either from the government and/or private investors, it would be potentially effective, albeit substantially costly, to establish funded consulting bodies that will cooperate closely with interested INVs. These could identify and offer expert advice for the development of those sources of positional advantage in the international market. In this regard, it is important to consider the recent technology business accelerator programs implemented in the most innovative ecosystems in the world. These programs are assisted by governments in association with

foundations and investors with a common interest to search for technology based firms that could compete in the international market. INVs could be supported by these programs on the following issues: 1) to facilitate the interaction of these firms with international environments that could boost their accelerated growth by allowing them to generate sales, strategic alliances and funding attraction; 2) to reach more international markets; and 3) to position INVs as world technological providers and help them to become world class firms.

The success of the acceleration programs is centred in the quality of the firms supported. Therefore, a program that could speed up INVs may be a worthwhile development investment. This program could consider the acquisition of INV firms interested in being accelerated, as well as their selection, acceleration and maturation.

To ensure the quality of the INVs that could be part of an accelerator program the acquisition phase should start with an open call for firms that in the first two years from inception are exporting at least one quarter of their production in the high technology sector. Taking into account that INVs in Mexico did not even know that they were classified under this category before this study was conducted, this could be the case in other countries as well. Therefore, an open call like this will help identify INV firms prospective for the accelerator program.

The interested INVs should pass through different filters, such as specialised seminaries and interviews, before obtaining accelerator support. Subsequently, a selection committee formed of technology innovation experts and investors, which could be national or international, including the private sector and the government, would choose INVs with the highest success possibility in the international market. The selection process should include

a validation of the INV value offering as well as an exploration of their opportunities. The present research results offer vital information that could be used during the selection process. This study has provided enough evidence to show that resources and capabilities are structural drivers for positional advantages. Therefore, it would be useful to identify the key resources and capabilities of the interested INVs. In addition, this study underlines the factors needed to test interested INVs' competitive strategy, entrepreneurial orientation, ambidexterity, positional advantage and performance, in order to corroborate the INVs value offering.

Once the interest of the acceleration process is ratified with the selected INVs, these firms should be transferred to international offices supported by the accelerator programme following three objectives: 1) to initiate an interaction process with the client's prospects; 2) to build alliances; and 3) to search for venture capital. It is suggested that the number of years the INV is accelerated should be negotiated in each case.

During the acceleration and maturation process, the findings of this investigation will be extremely useful in terms of the possibilities of development in INVs. While the selection process is the snap-shot of the INV, the acceleration process is the continuous opportunity development of the selected INVs. The results of the present study will help INVs to acquire and grow key resources and capabilities for the target markets, as well as matching competitive strategy choices with an ambidextrous innovation strategy to create a positional advantage that will lead to performance.

Finally, with the experience of supporting firms already involved in international activities, it would be easier to develop assistance programmes and initiatives that should also target firms currently assessing their potential for becoming international (McAuley, 1993). More

specifically, some of this study's results could be used by the programmes to encourage the internationalisation of young high-tech SMEs.

To summarize this section, given the economic impact of trading in the international market, INV positional advantage is a significant area of interest for managers and policymakers whose major objective is to stimulate sustainable export activity among local firms. The RBV offers international managers the possibility to understand the performance of the firms by analysing internal factors. Managers and policy makers can benefit from the findings of this INV study by conceiving positional advantage as a superior market place position that captures the provision of superior customer value with lower relative costs. Therefore, it is worthwhile to support INVs in developing their positional advantage. One suggested way of doing so is by including INVs in the business accelerator programs. In particular, in Mexico there are several business accelerators created by different organisations such as private initiative or non-profit organizations assisted by the federal government in order to help innovative firms to compete internationally.

9.5 Limitations and Directions for Future Research

There is always the issue of generalisability in social studies and this study is no exception. The limitations of the present investigation arise from the following trade-off decisions required for this research. The following section highlights several limitations to the study with a view to stimulating future research in this area.

Firstly, one of the main contributions of the present study has been the role of positional advantage and its antecedents in INVs' performance. Due to data limitations, the impact of explaining positional advantage through a RBV of INV was not investigated in long-term performance. The empirical results of this study represent only a snapshot view of INVs and the use of cross-sectional data does not allow strong conclusions about causal relationships to be drawn. To address this issue, future research would need to assemble longitudinal data over a sufficiently long period. It should be noted that this limitation has commonly been reported in recent literature review studies conducted within accelerated internationalisation (Freeman & Cavusgil, 2007). The empirical assessment of the conceptual model should be interpreted in light of several limitations resulting from trade-off choices in the research design. The absence of secondary data specialised in INVs and logistical constraints in primary data collection required this author to assess the conceptual model empirically using cross-sectional data. These precluded assessment on both the investment and learning effects on the resources and capabilities available to INVs and the sustainability of the performance observed.

Second, this research focuses on the antecedents of INVs' positional advantage as an area of key managerial and theoretical interest. The following discussion is based on the unit of analysis of this study, the export venture. This focus somewhat limits the theory applicability of this research at the firm level, which requires consideration of the factors that lead firms to select target international markets and to create export ventures. Further research that examines the internal resource and capability characteristics and external market characteristics would help extend this study to the firm level. In addition, the findings of this investigation raise the question of the extent to which the sharing of

resources and capabilities between export ventures contributes to the firm's level performance. In theory, firms that share resources and capabilities across a greater number of ventures (and other business units in the firm) than competitors should be able to invest to create superior resource and capability stocks. Subsequently, research that examines resource and capability sharing across ventures within the firm will allow for further adaptation of the theory presented in this study, thereby leading to a better understanding of INV performance at the firm level.

Third, the data for the present research were collected from the INVs of a single country, Mexico. Indeed, the sample of this investigation had a different geographical focus than that of most previous studies concerned with developed countries; thus this study complements prior research on INVs. However it may be suggested, that the present results are limited to this particular country's framework and one should be cautious in attempting to draw generalisations from this study. Even though, as Spender and Grant (1996) noted, a homogeneous culture reduces the likelihood of culturally induced variation in the perception of abstract constructs, the generalisability of the findings should be further tested. Hence, given INVs' massive geographic spread and diversity, a cross national study of the antecedents of positional advantage and their outcomes would be more than worthwhile.

Fourth, this study uses a single key informant technique. While attention was paid to following the rigorous methodological guidelines in locating appropriate informants, ensuring key informants, guaranteeing anonymity and maximizing respondent objectivity, there still exists the potential for information bias in the data set. Indeed, the "most-knowledgeable individual" within each participating INV was selected by the author with

utmost attention; it is possible that some degree of random informant bias was inevitable. Nonetheless, future studies might profit from seeking multiple informants for all variables to accurately measure the phenomenon at the organisational level.

Fifth, the fact that a single source is utilised for all measures may signify that the results reported in this study are attributable, in part, to common method variance between variables. Further studies using customer perceptions for the positional advantage construct and a sample of end-users for the performance construct could provide a more robust test of the hypotheses since the measures would be independent of one another. However, it should be acknowledge that such an endeavour, which also has methodological concerns, would be highly demanding in terms of time and availability of funds.

Sixth, as in the overwhelming majority of the extant studies, managerially perceived measures of the main constructs have been utilised. This measurement approach has largely been dictated by the research design choices made at an earlier stage of this empirical effort. Nonetheless, customer perceptions could also provide valuable insights into the conceptualisation and measurement of constructs such as positional advantage and performance. International marketing researchers could address this issue by conducting customer focused investigations among the INV firms' distributors overseas. Such studies would certainly contribute to the enhancement of extant theory and assist INV management practice.

Seventh, in this study no attention was given to the potentially important role which the external environment can play in the determination of export market venture performance. It has been suggested, for instance, that environmental factors such as competitive intensity and technological turbulence may be significant in influencing the market orientation-

business performance relationship (Jaworski & Kohli, 1993). In this framework, it may be proposed that such environmental considerations play an important role in moderating the relationship between positional advantage and performance. It would be enlightening if future research on the subject were to consider the relevance of such environmental factors and assess the extent to which they impact upon the relationships (between variables) modelling the performance process.

Eighth, with respect to the conceptualisation of sources of positional advantage, the classificatory scheme adopted in the context of this study was essentially relying upon the review of the extant literature and insights from the exploratory interviews with managers. The resulting categorisation of INVs produced satisfactory results in terms of internal consistency and dimensionality of the scales developed. However, a more rigorous taxonomy of sources of positional advantage may improve the fit of the overall model. To this end, further exploratory research on the underlying dimensions of the above construct is needed, in conjunction with the application of classification principles; this may enhance of the applicability of the RBV with the specific context of INVs.

Ninth, a final direction for future research would involve revisiting the role of ambidexterity over INV performance through competitive strategy. The results suggest that ambidexterity is an important driver of competitive strategy. Besides providing empirical evidence on the potential benefits of ambidexterity, there may be limits to ambidexterity, possibly due to the fact that the organisational tension inherent between exploitation and exploration may become unmanageable when both are pushed to extreme limits. These findings indicate the complexity and delicacy of managing the balance between exploitation and exploration. Furthermore, while the findings are limited to the specific

context of INVs, this author suggests that the methodological approach of this study could be adapted to test the ambidexterity hypothesis in other management research domains as well.

9.5.1 Concluding Comments

The final chapter of this thesis has dealt with the major issues pertaining to the evaluation of the study findings. First, general concluding remarks relating to the conceptualisation of the constructs comprising the research model and hypothesis testing results were considered. Second, an examination was made of the key findings, contributions and implications of the empirical findings for theory development. Third, this chapter has provided a discussion of the implications for business practitioners and public policy makers concerned with modelling resource and capability combinations for INVs' development. Finally, the limitations of the study were identified and discussed, in conjunction with suggestions for a future research agenda.

Despite the considerable theoretical and empirical attention to INVs as they are breaking the traditional paradigms of internationalisation, there is widespread concern about their sources of advantage. Viewing positional advantage as a dynamic process, this study proposes integrating recent theory antecedents in positional advantage and providing initial empirical support for many of the predicted relationships. Given the increasing importance of INVs, additional studies are needed to promote further understanding of INVs' performance. With its roots in established strategy, marketing and IE theories, and sufficient scope to incorporate the empirical findings into a cohesive body of knowledge,

the empirical model proposed and tested provides a strong foundation for knowledge development.

Finally, this author hopes that this study will encourage researchers to further examine the role of different strategic orientations applying the RBV to the context of INVs.

APPENDIX. THE QUESTIONNAIRE

A Study of Resources, Capabilities and Performance in International New Ventures

The purpose of this survey is to identify the favouring factors of the development of "born global" firms. These firms' incursion in the export market stems from a very young age. The favouring factors of born globals promote the development of pioneer products in new export markets, - "export ventures" – and the relationship among these factors with the performance of the firm.

Please choose the "export venture" that you feel you know well, independently from its degree of success. The concept "export venture" is defined in the first page of this questionnaire.

Your co-operation in completing this questionnaire is central to the success of this research project and should take only a short time (approximately 15 minutes). Please give each question a separate and independent judgement. Work at a fairly high speed through the questionnaire and do not worry or puzzle over individual items. It is your first impression, the immediate feelings about the questions that are of most value. There are no "right" or "wrong" answers to any of these questions. Please be assured that the information you provide is strictly confidential and it is intended for academic research only. Your cooperation is invaluable.

Thank you,

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About your Business

How many full time employees presently work in your business (*approximate number*)?
.....

Please state what type of industry sector best describes your business
.....

When was your company established?.....(year)

When did your company first start with international operations? .....years

Considering your company's international activities in general, which of the following statements best describes these activities? (Please tick one box only)

We export on regular basis ❑

We export occasionally ❑

Your organization focuses its efforts on, and allocates resources for its export operations to, certain carefully selected international markets (market concentration) ❑

Your organization's policy is to export to as many markets as possible, with no particular focus on specific overseas markets (market spreading) ❑

Export Venture Characteristics

THE EXPORT VENTURE

An export venture is a single product or product line exported to a specific export market (country). For example an export venture could be a line of shoes ("the venture product") exported to the US ("the export market").

Which country is this venture's export market? .....

Please describe briefly the export venture product: .....

What is an export venture? (An ..... exported to .....)

In which of the following categories would you mainly place this export venture product offering?

Industrial/Business-to-Business Good ❑ Consumer Good ❑

For how many years has this export venture been running for (approximately)? .....

Please indicate the approximate sales turn over of your firm in the last year: .....

Approximately, what percentage of your company's total sales is derived form its export sales? .....

In comparing this export venture with your home (domestic) market how different/ similar are they in terms of:

	Very Different (1)			About the Same (4)			Very Similar (7)
Culture (traditions, values, language, etc)	1	2	3	4	5	6	7
Accepted business practice	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Legal System	1	2	3	4	5	6	7
Communications infrastructure	1	2	3	4	5	6	7

Resources

Thinking about the specific export venture, please rate your firm's export marketing resources, *relative* to your major competitors (in this export market), in the following areas:

Reputational	Much Worse (1)			About the Same (4)			Much Better (7)
Brand name awareness	1	2	3	4	5	6	7
Distinctiveness of our brand image	1	2	3	4	5	6	7
Appeal of our brand 'personality'	1	2	3	4	5	6	7

Financial	Much Worse (1)			About the Same (4)			Much Better (7)
Level of financial resources available	1	2	3	4	5	6	7
Access to capital	1	2	3	4	5	6	7
Speed of acquiring and deploying financial resources	1	2	3	4	5	6	7
Size of financial resources devoted to this export venture	1	2	3	4	5	6	7

Human	Much Worse (1)			About the Same (4)			Much Better (7)
Knowledge of export marketing personnel	1	2	3	4	5	6	7
The quality of our export marketing people	1	2	3	4	5	6	7
Experience of our export marketing personnel	1	2	3	4	5	6	7
The skills of our export marketing people	1	2	3	4	5	6	7

Capabilities

Thinking about the specific export venture, please rate your firm's export marketing capabilities, *relative* to your major competitors (in this export market), in the following areas:

Distribution	Much Worse (1)			About the Same (4)			Much Better (7)
Adding value to distributors' businesses	1	2	3	4	5	6	7
Attracting and retaining the best distributors in the export venture market	1	2	3	4	5	6	7
Providing high levels of support to distributors	1	2	3	4	5	6	7
Closeness in working with distributors/retailers in this market	1	2	3	4	5	6	7

Service	Much Worse (1)			About the Same (4)			Much Better (7)
Delivering high quality after-sales service	1	2	3	4	5	6	7
Attracting and retaining after-sales service personnel	1	2	3	4	5	6	7
Training after-sales service personnel	1	2	3	4	5	6	7

Pricing	Much Worse (1)			About the Same (4)			Much Better (7)
Responding effectively to competitor's pricing tactics	1	2	3	4	5	6	7
Using our pricing skills to respond quickly to any customer changes	1	2	3	4	5	6	7
Communicating pricing structures and levels to customers	1	2	3	4	5	6	7

Communication	Much Worse (1)			About the Same (4)			Much Better (7)
Quality of our channel relationships in this export market	1	2	3	4	5	6	7
Knowledge of competitors in this market	1	2	3	4	5	6	7
Information related to doing business in this market	1	2	3	4	5	6	7
Number of customers with whom we already have a relationship	1	2	3	4	5	6	7

Competitive Strategy

To what extent is your current marketing strategy for this *export venture* to:

Delivery Differentiation	Not at all (1)			To some Extent (4)			To a great extent (7)
...guarantee delivery times?	1	2	3	4	5	6	7
...offer quick delivery and response to end-user customer orders?	1	2	3	4	5	6	7
...achieve quick delivery and response to distributor orders?	1	2	3	4	5	6	7

Marketing Differentiation	Not at all (1)			To some Extent (4)			To a great extent (7)
...invest in marketing communications to build awareness?	1	2	3	4	5	6	7
...develop new export venture product offerings?	1	2	3	4	5	6	7
...offer a highly differentiated export venture product(s)?	1	2	3	4	5	6	7

Cost Leadership	Not at all (1)			To some Extent (4)			To a great extent (7)
...be the lowest cost provider in this export market?	1	2	3	4	5	6	7
...provide export venture customers with lower prices than competitors?	1	2	3	4	5	6	7
...tightly control export venture selling and promotion expense?	1	2	3	4	5	6	7

Positional Advantage

Considering the specific *export venture*, please indicate how well your business compares to your major direct competitors (in this export market) in terms of:

Cost	Much Worse (1)			About the Same (4)			Much Better (7)
Unit production costs	1	2	3	4	5	6	7
Cost of goods sold	1	2	3	4	5	6	7
Actual selling price	1	2	3	4	5	6	7
Payment and credit terms	1	2	3	4	5	6	7

Promotion	Much Worse (1)			About the Same (4)			Much Better (7)
"Share of mind"	1	2	3	4	5	6	7
Brand personality	1	2	3	4	5	6	7
Brand image	1	2	3	4	5	6	7

Marketing Product	Much Worse (1)			About the Same (4)			Much Better (7)
Product availability for customers	1	2	3	4	5	6	7
Channel delivery speed to customers	1	2	3	4	5	6	7
Product design and style	1	2	3	4	5	6	7

Performance

Please evaluate your export venture performance over the past year, relative to your major competitors, in terms of:

Effectiveness	Much Worse (1)			About the Same (4)			Much Better (7)
Positive changes in market share	1	2	3	4	5	6	7
Market share growth	1	2	3	4	5	6	7
Acquiring new customers	1	2	3	4	5	6	7

Efficiency	Much Worse (1)			About the Same (4)			Much Better (7)
Return on Investment (ROI)	1	2	3	4	5	6	7
Return on Sales (ROS)	1	2	3	4	5	6	7
Export Venture margins	1	2	3	4	5	6	7

Adaptiveness	Much Worse (1)			About the Same (4)			Much Better (7)
Responding to competitors product changes in this export market	1	2	3	4	5	6	7
Time to market for new export venture products	1	2	3	4	5	6	7
Number of successful new export venture products	1	2	3	4	5	6	7
Revenue from new export venture products (less than 3 years old)	1	2	3	4	5	6	7

Entrepreneurial Orientation

Please evaluate the entrepreneurial orientation related to the *export venture* in terms of:

Proactiveness	Not at all (1)			To some Extent (4)			To a great extent (7)
We are usually the first ones to introduce new brands of products in the market	1	2	3	4	5	6	7
We are constantly on the look out for business that can be acquired	1	2	3	4	5	6	7

Riskiness	Not at all (1)			To some Extent (4)			To a great extent (7)
We are constantly seeking new opportunities related to present operations	1	2	3	4	5	6	7
New projects are approved on a "stage by stage" basis rather than with "blanket" approval	1	2	3	4	5	6	7
We have a tendency to support projects where the expected returns are certain	1	2	3	4	5	6	7

Autonomy	Not at all (1)			To some Extent (4)			To a great extent (7)
Employees are permitted to act and think without interference	1	2	3	4	5	6	7
Employees perform jobs that allow them to make and instigate changes in the way they perform their work tasks	1	2	3	4	5	6	7
Employees are given authority and responsibility to act alone if they think it to be in the best interests of the business	1	2	3	4	5	6	7

Ambidextrous Innovation Strategy

To what extent have the following objectives been important to you for undertaking innovation projects for the last 12 months:

Explorative Innovation Strategy	Not Important (1)						Very Important (7)
Introduce new generation of products	1	2	3	4	5	6	7
Extend product range	1	2	3	4	5	6	7
Enter new technology fields	1	2	3	4	5	6	7

Exploitative Innovation Strategy	Not Important (1)						Very Important (7)
Improve existing product quality	1	2	3	4	5	6	7
Improve production flexibility	1	2	3	4	5	6	7
Improve yield or reduce material consumption	1	2	3	4	5	6	7

Respondent Characteristics

What is your job title (*position*) ?.....

How many years of working experience do you have?.....

	Low (1)			Average(4)			High (7)
How would you rate your own knowledge of your export venture's marketing programs, strategies, resources and capabilities	1	2	3	4	5	6	7
How would you rate your own knowledge of your major competitor's marketing programs, strategies, resources and capabilities	1	2	3	4	5	6	7

To what extent do you feel you possess knowledge regarding the questions asked in this questionnaire?

No Knowledge (1)						***Knowledge (7)***
1	2	3	4	5	6	7

To what extent do you believe the responses given by you accurately reflect the 'realities' of your business' involvement in the facility within which you operate?

Not at all Accurate (1)						***Accurate (7)***
1	2	3	4	5	6	7

Thank you very much for your co-operation in this important study

All information provided in this questionnaire will remain absolutely confidential and only be used in aggregate form in combination with all other responses. Your questionnaire will only be seen by the academic researchers involved in this study.

Un Estudio de Recursos, Capacidades y Desempeño en Empresas Nacidas para Exportar

El propósito de esta encuesta es identificar los factores que han favorecido el desarrollo de empresas que desde una etapa muy temprana incursionan en el mercado de exportación, es decir, se trata de empresas nacidas para exportar ("born globals"). Estos factores promueven el desarrollo de productos pioneros en nuevos mercados de exportación, -"export ventures"-, ***en las empresas nacidas para exportar*** y la relación de estos factores con el desempeño del negocio.

Selecciona un "export venture" que sientas conocer bien, independientemente de su grado de éxito. El concepto de "export venture" se define en la primera página de este cuestionario.

Para lograr el éxito de este Proyecto de Investigación, la cooperación que brindes para contestar este cuestionario es muy importante. El cuestionario ha sido diseñado para ser contestado en un tiempo breve (15 min. Aprox). Se recomienda que cada pregunta sea considerada como un juicio separado e independiente. Resuelve el cuestionario a una velocidad rápida y no te detengas a indagar sobre términos individuales. Lo más valioso es tu primer impresión, es decir, los sentimientos inmediatos sobre las preguntas. No existe una respuesta "correcta " o "incorrecta" para cada una de las preguntas. La información proporcionada será manejada de forma estrictamente confidencial y estará orientada hacia fines de investigación académica únicamente. Tu cooperación es invaluable.

Muchas gracias,

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Acerca de tu Negocio

¿Cuantos empleados de tiempo completo trabajan actualmente en tu negocio (número aproximado)? .....

Por favor identifica el tipo de sector industrial que mejor describe a tu negocio .....

¿Cuando se estableció tu compañía?.....(año)

¿Cuando inicio tu compañía con exportaciones? .....(año)

¿Considerando las actividades de exportación de tu empresa en general, cual de los siguientes enunciados describe estas actividades?

Exportamos regularmente ❑

Nuestra organización enfoca sus esfuerzos en, y localiza los recursos para sus operaciones de exportación hacia, ciertos mercados de exportación cuidadosamente seleccionados (concentración en el mercado) ❑

Exportamos ocasionalmente ❑

La política de nuestra organización es exportar hacia los más mercados posibles, sin un foco particular en mercados extranjeros específicos (expandir mercados). ❑

Características del Export Venture

"THE EXPORT VENTURE"

Un "export venture" puede ser un producto único o una línea de productos que se exportan a un mercado específico, (país). Por ejemplo, un export venture puede ser una línea de zapatos ("product venture") exportado a EUA ("export market").

Hacia que país se esta exportando el "product venture"? .....

Por favor, describe brevemente el "product venture". .....
.....

Que es el Export Venture? (Un ..... exportado a .....)

En cual de las siguientes categorías colocarías el "product venture" de exportación que ofreces?

Industrial/Producto Negocio-a-Negocio ❑ Producto de Consumo ❑

Por cuantos años este "product venture" se ha exportado (aproximadamente)?.....

Indica la rotación de inventarios aproximada de tu empresa en el último año: .....

Aproximadamente, ¿que porcentaje de las ventas totales de tu empresa se deriva de las ventas por exportación?.....

Comparando este ""export venture"" con tu mercado doméstico, que tan diferentes o similares son los mercados en términos de:

	Muy Diferentes (1)			Algo Parecidos (4)			Muy Similares (7)
Cultura (tradiciones, valores, lenguaje, etc.)	1	2	3	4	5	6	7
"Business Practices" aceptadas	1	2	3	4	5	6	7
Ambiente Económico	1	2	3	4	5	6	7
Sistema Legal	1	2	3	4	5	6	7
Infraestructura de comunicaciones	1	2	3	4	5	6	7

Recursos

Con respecto al "export venture", mide los recursos de "export marketing" en relación a los de sus mayores competidores en el mercado de exportación, tomando en cuenta en las siguientes áreas:

Reputación	Mucho Peor (1)			Algo Parecidos (4)			Mucho Mejor (7)
Conciencia de la marca	1	2	3	4	5	6	7
Distintivo de la imagen de marca	1	2	3	4	5	6	7
Atracción de la personalidad de la marca	1	2	3	4	5	6	7

Financieros	Mucho Peor (1)			Algo Parecidos (4)			Mucho Mejor (7)
Nivel de los recursos financieros disponibles	1	2	3	4	5	6	7
Acceso al capital	1	2	3	4	5	6	7
Velocidad en adquirir y desplegar recursos financieros	1	2	3	4	5	6	7
Tamaño de los recursos financieros destinados a esta aventura de exportación	1	2	3	4	5	6	7

Humanos	Mucho Peor (1)			Algo Parecidos (4)			Mucho Mejor (7)
Conocimiento del personal en mercadotecnia de exportación	1	2	3	4	5	6	7
La calidad de las personas en mercadotecnia de exportación	1	2	3	4	5	6	7
Experiencia del personal en mercadotecnia de exportación	1	2	3	4	5	6	7
Las habilidades de las personas en mercadotecnia de exportación	1	2	3	4	5	6	7

Capacidades

Con respecto al "export venture", mide las capacidades de "export marketing" en relación a los de sus mayores competidores en el mercado de exportación, tomando en cuenta las siguientes áreas:

Distribución	Mucho Peor (1)			Algo Parecidos (4)			Mucho Mejor (7)
Añadir valor a los negocios de los distribuidores	1	2	3	4	5	6	7
Atraer y retener a los mejores distribuidores en el "export venture market"	1	2	3	4	5	6	7
Proveer altos niveles de soporte a los distribuidores	1	2	3	4	5	6	7
Cercanía en el trabajo con distribuidores/minoristas en este mercado	1	2	3	4	5	6	7

Servicio	Mucho Peor (1)			Algo Parecidos (4)			Mucho Mejor (7)
Envío de un servicio post venta de alta calidad	1	2	3	4	5	6	7
Atraer y retener personal de servicio post-venta	1	2	3	4	5	6	7
Entrenamiento de personal post-venta	1	2	3	4	5	6	7

Precio	Mucho Peor (1)			Algo Parecidos (4)			Mucho Mejor (7)
Responder efectivamente a las tácticas de precio de los competidores	1	2	3	4	5	6	7
Utilización de las habilidades de precio para responder rápidamente a cualquier cambio con algún cliente	1	2	3	4	5	6	7
Comunicación con los clientes de las estructuras y niveles de precios	1	2	3	4	5	6	7

Comunicación	Mucho Peor (1)			Algo Parecidos (4)			Mucho Mejor (7)
Calidad de las relaciones con los canales en este mercado de exportación	1	2	3	4	5	6	7
Conocimiento del cliente en este mercado de exportación	1	2	3	4	5	6	7
Información relacionada en hacer negocios en este mercado	1	2	3	4	5	6	7
Número de clientes con los que actualmente ya se tiene relación	1	2	3	4	5	6	7

Estrategia Competitiva

En que medida la estrategia de mercadotecnia utilizada para este "export venture" cumple con lo siguiente:

Diferenciación de Envió	Para nada (1)			En alguna medida (4)			En gran medida (7)
...garantía en los tiempos de entrega	1	2	3	4	5	6	7
...ofrecer envío y respuesta rápidos en las órdenes del usuario-cliente final	1	2	3	4	5	6	7
...lograr entrega y respuesta rápida a las órdenes de los distribuidores	1	2	3	4	5	6	7

Diferenciación de Mercadotecnia	Para nada (1)			En alguna medida (4)			En gran medida (7)
...invertir en comunicación mercadológica para construir conciencia	1	2	3	4	5	6	7
...desarrollar nuevas ofertas en el "product venture"	1	2	3	4	5	6	7
...ofrecer un "product venture" altamente diferenciado	1	2	3	4	5	6	7

Liderazgo en Costo	Para nada (1)			En alguna medida (4)			En gran medida (7)
...proveer de precios más bajos que los competidores a los clientes de las aventuras de exportación	1	2	3	4	5	6	7
...apretado control en los gastos de la venta y promoción del "export venture"	1	2	3	4	5	6	7

Ventaja Posicional

Considerando la "export venture" específica, por favor indica como se compara tu empresa con los competidores directos en este mercado de exportación en términos de:

Costo	Mucho Peor (1)			Algo Parecidos (4)			Mucho Mejor (7)
Costos unitarios de producción	1	2	3	4	5	6	7
Costo de los bienes vendidos	1	2	3	4	5	6	7
Precio de venta actual	1	2	3	4	5	6	7
Términos de pago y crédito	1	2	3	4	5	6	7

Promoción	Mucho Peor (1)			Algo Parecidos (4)			Mucho Mejor (7)
Conciencia de Marca ("Share of mind")	1	2	3	4	5	6	7
Personalidad de la Marca	1	2	3	4	5	6	7
Imagen de Marca	1	2	3	4	5	6	7

Mercadotecnia de Producto	Mucho Peor (1)			Algo Parecidos (4)			Mucho Mejor (7)
Disponibilidad del producto para los clientes	1	2	3	4	5	6	7
Velocidad de envío del canal hacia los clientes	1	2	3	4	5	6	7
Diseño del producto y estilo	1	2	3	4	5	6	7

Desempeño

Por favor evalúa el desempeño de tu aventura de exportación en el último año, en relación con tus competidores principales, en términos de:

Efectividad	Mucho Peor (1)			Algo Parecido (4)			Mucho Mejor (7)
Cambios positivos en el segmento de mercado	1	2	3	4	5	6	7
Crecimiento del segmento de mercado	1	2	3	4	5	6	7
Adquisición de clientes nuevos	1	2	3	4	5	6	7

Eficiencia	Mucho Peor (1)			Algo Parecido (4)			Mucho Mejor (7)
Retorno de Inversión (ROI)	1	2	3	4	5	6	7
Retorno de Ventas (ROS)	1	2	3	4	5	6	7
Márgenes por el "export venture"	1	2	3	4	5	6	7

Adaptabilidad	Mucho Peor (1)			Algo Parecido (4)			Mucho Mejor (7)
Respuesta a cambios en el producto de los competidores en este mercado de exportación	1	2	3	4	5	6	7
Lanzamiento para nuevos "export ventures"	1	2	3	4	5	6	7
Número de productos "export venture" exitosos	1	2	3	4	5	6	7
Utilidad de los nuevos productos "export venture"	1	2	3	4	5	6	7

Orientación Emprendedora

Por favor evalúa la orientación emprendedora de tu empresa relacionada con el "export venture" en términos de:

Proactividad	Para nada (1)			En alguna medida (4)			En gran medida (7)
Somos los primeros en introducir nuevas marcas de productos en el mercado	1	2	3	4	5	6	7
Estamos constantemente buscando nuevos negocios que se puedan adquirir	1	2	3	4	5	6	7

Riesgo	Para nada (1)			En alguna medida (4)			En gran medida (7)
Estamos constantemente buscando nuevas oportunidades relacionadas con las operaciones actuales	1	2	3	4	5	6	7
Nuevos proyectos son aprobados "fase por fase" en lugar de ser aprobados en su totalidad desde un inicio	1	2	3	4	5	6	7
Tenemos la tendencia de dar soporte a los proyectos donde los retornos esperados son seguros	1	2	3	4	5	6	7

Autonomía	Para nada (1)			En alguna medida (4)			En gran medida (7)
A los empleados se les permite actuar y pensar sin interferencias	1	2	3	4	5	6	7
Los empleados desempeñan empleos que les permiten hacer e instigar cambios en la forma en que desempeñan sus tareas de trabajo	1	2	3	4	5	6	7
A los empleados se les la autoridad y responsabilidad de actuar por si solos si se piensa que es para los mejores intereses del negocio	1	2	3	4	5	6	7

Estrategia Explotativa de Innovación/ Estrategia Explorativa de Innovación

En que medida han sido importantes para ti los siguientes objetivos en proyectos de innovación que se han llevado a cabo en los últimos 12 meses

Estrategia Explorativa de Innovación	Para nada (1)			En alguna medida (4)			En gran medida (7)
Introducir una nueva generación de productos	1	2	3	4	5	6	7
Extender el rango de productos	1	2	3	4	5	6	7
Entrar en nuevos campos tecnológicos	1	2	3	4	5	6	7

Estrategia Explotativa de Innovación	Para nada (1)			En alguna medida (4)			En gran medida (7)
Mejorar la calidad de los productos existentes	1	2	3	4	5	6	7
Mejorar la flexibilidad de producción	1	2	3	4	5	6	7
Mejorar la producción o reducir consumo de materiales	1	2	3	4	5	6	7

Características de los Encuestados

¿Que posición ocupas en la empresa?.....

¿Cuantos años de experiencia de trabajo tienes? .....

	Bajo (1)			Promedio(4)			Alto (7)
Como podrías medir tu propio conocimiento de las aventuras de exportación con respecto de los programas de mercadotecnia, estrategias, recursos y capacidades	1	2	3	4	5	6	7
Como mides tu conocimiento de tus competidores principales con respecto a sus programas de mercadotecnia, estrategias, recursos y capacidades	1	2	3	4	5	6	7

¿En que medida sientes que posees conocimiento con respecto de las preguntas realizadas en este cuestrionario?

Sin Conocimiento (1)						*Con Conocimiento (7)*
1	2	3	4	5	6	7

¿En que medida crees que tus respuestas reflejan las 'realidades' de tu involucramiento en tus negocios y la facilidad en que los operas?

No Muy Preciso (1)						*Muy Preciso (7)*
1	2	3	4	5	6	7

Muchas gracias por tu cooperación en este importante estudio

Toda la información obtenida en este cuestionario permanecerá absolutamente confidencial y solamente será utilizada en forma agregada en combinación de todas las demás respuestas. Este cuestionario solamente será analizado por investigadores académicos relacionados con el presente estudio.

REFERENCES.

Aaby, N., & Slater, S. (1989). Managerial Influences on Export Performance: A Review of the Empirical Literature. *International Marketing Review, 6*(4), 53-68.

Aaker, D., Kumar, V., & Day, G. (2007). *Marketing Research* (9th ed.): Wiley.

Acedo, F., & Florin, J. (2006). An entrepreneurial cognition perspective on the internationalization of SMEs. *Journal of International Entrepreneurship, 4*, 49-67.

Adler, N. (1983). A typology of Management Studies Involving Culture. *Journal of International Business Studies, 14*(2), 29-48.

Agarwal, S. (2003). The art of scale development. *Marketing Research, 15*(3), 10-12.

Aharoni, Y. (1966). *The Foreign Investment Decision Process*. Boston, MA: Harvard Business School.

Aldrich, H. E. (1999). *Organizations evolving*. Newbury Park, CA: Sage.

Alvarez, S. A., & Busenitz, L. W. (2001). The entrepreneurship of resource-based theory. *Journal of Management, 27*(6), 755-775.

Allport, C., & Kerler, W. (2003). A Research Note Regarding the Development of the Consensus on Appropriation Scale. *Information Systems Research, 14*(4).

AMAI. (2008). *Código de Ética para la Investigación de Mercados y Opinión Pública en México*

[Ethics Code for Market Research and Public Opinion in Mexico]. Mexico City: Asociación Mexicana de Agencias de Investigación, AMAI.

Ambler, T., Styles, C., & Xiucum, W. (1999). The effect of channel relationships and Guanxi on the performance of interprovince export ventures in the People's Republic of China. *International Journal of Research in Marketing, 16*(1), 75-87.

Ambrosini, V., & Bowman, C. (2009). What are dynamic capabilities and are they a useful construct in strategic management? *International Journal of Management Reviews, 11*(1), 9-28.

Ames, B. C., & Hlavacek, J. D. (1990). Vital Truths About Managing Your Costs. *Harvard Business Review, 68*(January-February), 140-147.

Amit, R., & Schoemaker, P. (1993). Strategic Assets and Organizational Rents. *Strategic Management Journal, 14*(1), 33-46.

Anastasi, A., & Urbina, S. (1997). *Psychological testing* (7th ed.). London Prentice-Hall International.

Ancona, D. G., Goodman, P. S., Lawrence, B. S., & Tushman, M. (2001). Time: A new research lens. *Academy of Management Review, 26*, 645-663.

Andersen, O. (1993). On the Internationalization Process of Firms: A Critical Analysis. *Journal of International Business Studies, 24*(2), 209-231.

Anderson, E., & Coughlan, A. T. (1987). International Market and Expansion via Independent or Integrated Channels of Distribution. *Journal of Marketing, 51*(January), 71-82.

Anderson, E., Fornell, C., & Lehmann, D. (1994). Customer Satisfaction, Market Share, and Profitability: Findings from Sweden. *Journal of Marketing, 58*(July), 53-66.

Anderson, J., & Gerbing, D. (1984). The effects of sampling error on convergence, improper solutions and goodness-of-fit indices for maximum likelihood confirmatory factor analysis. *Psychometrika, 49*, 155-173.

Anderson, J., & Gerbing, D. (1988). Structural equation modeling in practice: a review and recommended two-step approach. *Psychology Bulletin, 103*(March), 411-423.

Arbuckle, J. (1996). Full Information Estimation in the Presence of Incomplete Data. In G. A. Marcoulides & R. E. Schumacher (Eds.), *Advanced Structural Equation Modeling: Issues and Techniques*. Mahwah, NJ: LEA.

Arbuckle, J. (2003). *Amos 5.0 Update to the Amos User's Guide*. Chicago, IL: Smallwaters Corporation.

Arbuckle, J., & Wothke, W. (1999). *Amos 4.0 User's Guide*. Chicago, ILL: Marketing Department, SPSS Inc. SmallWaters Corporation.

Ariño, A. (2003). Measures of strategic alliance performance: An analysis of construct validity. *Journal of International Business Studies, 34*(1), 66-79.

Aspelund, A., Madsen, T., & Moen, O. (2006). A review of the foundation, international marketing strategies, and performance of international new ventures. *European Journal of Marketing, 41*(11/12), 1423-1448.

Aspelund, A., Madsen, T., & Moen, O. (2007). A review of the foundation, international marketing strategies, and performance of international new ventures. *European Journal of Marketing, 41*(11/12), 1423-1448.

Aspelund, A., & Moen, O. (2001). A generation perspective on small firms' internationalization from traditional exporters and flexible specialists to born globals. In C. N. Axinn & P. Matthyssens (Eds.), *Reassessing the internationalization of the firm* (pp. 197-225). Amsterdam: JAI/Elsevier Inc.

Assael, H., & Keon, J. (1982). Non Sampling VS. Sampling Errors in Sampling Research. *Journal of Marketing, 46*(Spring), 114-123.

Atuahene-Gima, K., & Murray, J. (2007). Exploratory and Exploitative Learning in New Product Development: A Social Capital Perspective on New Technology Ventures in China. *Journal of International Marketing, 15*(2), 1-29.

Aulakh, P., Kotabe, M., & Teengen, H. (2000). Export Strategies and Performance of Firms from Emerging Economies: Evidence from Brazil, Chile and Mexico. *Academy of Management Journal, 43*(3), 342-361.

Aulakh, P. S., Kotabe, M., & Teegen, H. (2000). Export strategies and performance of firms from emerging economies: evidence from Brazil, Chile, and Mexico. *Academy of Management Journal, 43*(3), 342-361.

Autio, E. (2005). Creative tension: the significance of Ben Oviatt's and Patricia McDougall's article 'toward a theory of international new ventures'. *Journal of International Business Studies, 36*(1), 9-19.

Autio, E., & Sapienza, H. (2000). Comparing process and born global perspectives in the international growth of technology-based new firms. *Frontiers of Entrepreneurship Research. Center for Entrepreneurial Studies, Babson College*, 413-424.

Autio, E., Sapienza, H., & Almeida, J. (2000). Effects of the age at entry, knowledge-intensity, and imitability on international growth. *Academy of Management Journal, 43*(5), 909-924.

Autio, E., & Yli-Renko, H. (1998). New Technology-based firms in small open economies: An analysis based on the Finnish experience. *Research Policy, 26*(9), 973-987.

Axinn, C. N., & Matthyssens, P. (2002). Limits of internationalisation theories in an unlimited world. *International Marketing Review, 19*(5), 439-449.

Bacon, D. (1995). Composite Reliability in Structural Equations Modeling. *Educational and Psychological Measurements, 55*(June), 394-406.

Baer, W. (1972). Import Substitution and Industrialization in Latin America: Experiences and Interpretations. *Latin American Research Review 7*(Spring), 95-122.

Baggozzi, R. P., & Foxall, G. R. (1996). Construct validation of a measure of adaptive-innovative cognitive styles in consumption. *International Journal of Research in Marketing, 13*, 201-213.

Bagozzi, R. P. (1984). A Prospectus for Theory Construction in Marketing. *Journal of Marketing, 48*(Winter), 11-29.

Bagozzi, R. P., & Phillips, L. W. (1982). Representing and Testing Organizational Theories: A Holistic Construal. *Administrative Science Quarterly, 27*(3), 459-489.

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science, 16*(1), 74-94.

Bagozzi, R. P., Yi, Y., & Phillips, L. (1991). Assessing construct validity in organizational research. *Administrative Science Quarterly, 36*, 421-458.

Bailey, K. D. (1987). *Methods of Social Research*. London: The Free Press.

Baker, C., Nancarrow, C., & Tinson, J. (2005). The mind versus market share guide to brand equity. *International Journal of Market Research, 47*(525-42).

Barkema, H., & Vermeulen, F. (1998). International expansion through start-up or acquisition: a learning perspective. *Academy of Management Journal, 41*(1), 7-26.

Barney, J. (1986). Strategic factor markets: expectations, luck, and business strategy. *Management Science, 32*(10), 1231-1241.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*(1), 99-120.

Barney, J. (1997). *Gaining and Sustaining Competitive Advantage*. Reading, MA: Addison Wesley.

Barney, J., & Delwyn, C. (2007). *Resource-Based Theory: Creating and Sustaining Competitive Advantage*. USA: Oxford University Press.

Barney, J., & Wright, P. M. (1998). On becoming a Strategic Partner: The Role of Human Resources in gaining Competitive Advantage. *Human Resource Management, 37*, 31-46.

Bartlett, C., & Ghoshal, S. (2002). *Managing Across Borders: The Transnational Solution*. Boston, MA: Harvard Business School Press.

Beckman, C. (2006). The influence of founding team company affiliations on firm behaviour. *Academy of Management Journal, 49*(4), 741-758.

Bell, J. (1995). The internationalization of small computer software firms. A further challenge to "stage" theories. *European Journal of Marketing, 29*(8), 60-75.

Bell, J., & McNaughton, R. (2000). *Born global firms: a challenge to public policy and support of internationalization.* Paper presented at the Marketing in a Global Economy Buenos Aires, Argentina.

Benner, M. J., & Tushman, M. (2003). Exploitation, exploration, and process management: The productivity dilemma revisited. *The Academy of Management Review, 28*(2), 238-256.

Bentler, P. (1992). *EQS: Structural Equations Programme Manual.* Los Angeles, CA.: BMDP Statistical Software.

Bentler, P. (1995). *EQS Structural Equations Program Manual.* California: Multivariate Software.

Bentler, P., & Chou, C. (1987). Practical Issues in Structural Modeling. *Sociological Methods and Research, 16*(1), 78-117.

Bharadwaj, S. G., Varadarajan, P. R., & Fahy, J. (1993). Sustainable Competitive Advantage in Service Industries: A Conceptual Model and Research Propositions. *Journal of Marketing, 57*(October), 83-99.

Bilkey, W. J., & Tesar, G. (1977). The export behaviour of smaller-sized Wisconsin manufacturing firms. *Journal of International Business Studies, 8*(2), 33-62.

Birkinshaw, J., & Gibson, C. (2004). Building Ambidexterity into an Organization. *MIT Sloan Management Review, 45*(4), 47-55.

Bishop, G., Tuchfarber, A. J., & Oldendick, R. (1986). Opinions on Fictitious Issues: The Pressure to answer survey questions. *Public Opinion Quarterly, Summer*(240-50).

Blair, J., & Presser, S. (1992). An Experimental Comparison of Alternative Pretest Techniques: A Note on Preliminary Findings. *Journal of Advertising Research, 32*(2), RC-2 to RC-5.

Blesa, A., Monferrer, D., Nauwelaerts, Y., & Ripolles, M. (2008). The effect of early international commitment on international positional advantages in Spanish and Belgian international new ventures. *Journal of International Entrepreneurship, 6*(4), 168-188.

Bloodgood, J., Sapienza, H., & Almeida, J. (1996). The internationalization of new high-potential U.S. ventures: Antecedents and Outcomes. *Entrepreneurship Theory and Practice, 20*(4), 61-76.

Bollen, K. (1987). Outliers and improper solutions: A Confirmatory Factor Analysis Example. *Sociological Methods and Research, 15*, 375-384.

Bollen, K. (1989a). A new incremental fit index for general structural models. *Sociological Methods and Research, 17*, 303-316.

Bollen, K. (1989b). *Structural Equations with Latent Variables*. New York: Free Press.

Bollen, K., & Long, J. (1993). *Testing Structural Equation Models*. Newbury Park: Sage.

Bouzas, R. (2007). The "New Regionalism" and the Negotiation of a Free Trade Area of the Americas. *International Negotiation, 12*(3), 333-345.

Bowerman, B., & O'Connell, R. T. (1997). *Applied Statistics*. Chicago: Irwin.

Bowman, C., & Ambrosini, V. (2007). Identifying Valuable Resources. *European Management Journal, 25*(4), 320-329.

Boxall, P., & Steeneveld, M. (1999). Human resource strategy and competitive advantage: A longitudinal study of engineering consultancies. *The Journal of Management Studies, 36*(4), 443-463.

Bozyk, P. (2006). *Globalization and the Transformation of Foreign Economic Policy*. Aldershot, England: Ashgate Publishing, Ltd

Bradley, N. (2006). *Marketing Research: Tools & Techniques*. Oxford: Oxford University Press.

Brady, A. (1995). Small Business: Small is as Small does. *Journal of Business Strategy, 16*(2), 44-52.

Braithwaite, R. (1955). *Scientific Explanation*. Cambridge: Cambridge University Press.

Breckler, S. (1990). Application of covariance structure in psychology: cause for concern? *Psychological Bulletin, 107*, 260-273.

Brock, D. M. (2003). Autonomy of individuals and organizations: Towards a Strategy Research Agenda. *International Journal of Business and Economics, 2*, 57-73.

Brown, S. L., & Eisenhardt, M. (1998). *Competing on the Edge: Strategy as Structured Chaos*. Boston, MA: Harvard Business School Press.

Browne, M., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. Bollen & J. Long (Eds.), *Testing structural equation models* (pp. 445-455). Newbury Park, CA: Sage.

Bryman, A., & Bell, E. (2003). *Business Research Methods*. Oxford: Oxford University Press.

Burgel, O., & Murray, G. (1998). Why has the investment performance of technology-specialist, European venture capital funds been so poor? . *Research Policy, 27*(9), 947-976.

Burgel, O., & Murray, G. (2000). The international market entry choices of start-up companies in high-technology industries. *Journal of International Marketing, 8*(2), 33-62.

Burrell, G., & Morgan, G. (1979). *Sociological Paradigms and Organizational analysis*. London: Heinemann Educational Books.

Burrell, G., & Morgan, G. (1985). *Sociological Paradigms and Organizational Analysis: Elements of the Sociology of Corporate Life*. Aldershot UK: Gower.

Buzzel, R. D., & Gale, B. T. (1987). *The PIMS Principles*. New York, NY.: Free Press.

Buzzel, R. D., & Wiersema, F. D. (1981). Successful share building strategies. *Harvard Business Review, 59*(1), 135-144.

Byrne, B. M. (1989). *A premier of LISREL: Basic applications and programming for confirmatory factor analytic models*. New York: Springer-Verlag.

Byrne, B. M. (2001). *Structural Equation Modeling with AMOS*. Mahwah New Jersey; London: Lawrence Erlbaum Associates, Publishers.

Cadogan, J., Diamantopoulos, A., & Siguaw, J. A. (2002). Export market-oriented activities: Their antecedents and performance consequences. *Journal of International Business Studies, 33*(3), 615-626.

Calantone, R., Kim, D., Schmidt, J., & Cavusgil, S. (2006). The influence of internal and external firm factors on international product adaptation strategy and export performance: A three-country comparison. *Journal of Business Research, 59*(2), 176-185.

Calof, J. L., & Viviers, W. (1995). Internationalization Behavior of Small and Medium-Sized South African Enterprises. *Journal of Small Business Management, 33*, 71-79.

Campbell, C. (1989). Change agents in the new economy: Business incubators and economic development. *Economic Development Review, 7*, 56-59.

Cannon, T., & Willis, M. (1981). The smaller firm in international trade. *European Small Business Journal, 1*(3), 45-55.

Carbonell, P., & Rodriguez, A. (2006). The impact of market characteristics and innovation speed on perceptions of positional advantage and new product performance. *International Journal of Research in Marketing, 23*(1), 1-12.

Castanias, R., & Helfat, C. (1991). Managerial Resources and Rents. *Journal of Management, 17*(1), 155-171.

Cavusgil, S. T. (1980). On the internationalization process of firms. *European Research, 8*(6), 273-281.

Cavusgil, S. T. (1998). Perspectives: knowledge development in international marketing. *Journal of International Marketing, 6*(2), 103-112.

Cavusgil, S. T., & Zou, S. (1994). Marketing strategy-performance relationship: An investigation of the empirical link in export market ventures. *Journal of Marketing, 58*(1), 1-21.

Cegarra-Navarro, J., & Dewhurst, F. (2007). Linking organizational learning and customer capital through an ambidexterity context: an empirical investigation in SMEs *The International Journal of Human Resource Management, 18*(10), 1720-1735.

Cliff, N. (1988). The Eigenvalues-Greater-Than-One Rule and the Reliability of Components. *Psychological Bulletin, 103*(2), 276-279.

Collis, D. (1994). Research note: How valuable are organizational capabilities? *Strategic Management Journal 15*(Special Issue-Winter), 143-153.

Collis, D. (1995). The Resource-Based View of the Firm and the Importance of Factor Markets. *Harvard Business School, Working Paper #95-070.*

Collis, D., & Montgomery, C. (2008). Competing on resources. *Harvard Business Review, 86*(7/8), 140-150.

Conner, K. (1991). A Historical Comparison of Resource-based Theory and Five Schools of Thought within Industrial Organization Economics: Do we have a new theory of the firm? *Journal of Management, 17*(1), 121-154.

Cooper, S., & Park, J. (2008). The Impact of 'Incubator' Organizations on Opportunity Recognition and Technology Innovation in New, Entrepreneurial High-technology Ventures. *International Small Business Journal, 26*(1), 27-56.

Coviello, N. (2006). The network dynamics of International New Ventures. *Journal of International Business Studies, 37*(5), 713-731.

Coviello, N., & Cox, M. (2006). The resource dynamics of international new venture networks. *Journal of International Entrepreneurship, 4*(2/3).

Coviello, N., & Jones, M. V. (2004). Methodological Issues in international entrepreneurship research. *Journal of Business Venturing, 19*, 485-508.

Coviello, N., & McAuley, A. (1999). Internationalization and the Smaller Firm: A review of Contemporary Empirical Research. *Management International Review, 39*(3), 223-256.

Coviello, N., & Munro, H. (1995). Growing the entrepreneurial firm. Networking for international market development. *European Journal of Marketing, 29*(7), 49-61.

Covin, J., & Covin, T. (1990). Competitive aggresiveness, environmental context, and small firm performance. *Entrepreneurship Theory and Practice, Summer*, 35-50.

Covin, J., & Slevin, D. (1989). Strategic Management of Small Firms in Hostile and Benign Environments. *Strategic Management Journal, 10*(January), 75-87.

Covin, J., & Slevin, D. P. (1988). The Influence of Organization Structure on the Utility of an Entrepreneurial Top Management Style. *Journal of Management Studies, 25*(3), 217-234.

Covin, J. G., Green, K. M., & Slevin, D. P. (2006). Strategic process effects on the entrerpeneurial orientation-sales growth rate relationship. *Entrepreneurship Theory and Practice, 30*(1), 57-81.

Craig, S., & Douglas, S. (2005). *International Marketing Research* (3d ed.). Chichester, UK: John Wiley & Sons.

Cronbach, L. J. (1951). Coefficient Alpha and the Internal Structure of Tests. *Psychometrika, 31*, 93-96.

Cudeck, R. (1989). Analysis of Correlation Matrices Using Covariance Structure Models. *Psychological Methods, 6*, 352-370.

Cyert, R. M., & March, J. G. (1963). *A Behavioral Theory of the Firm*. Englewood Cliffs, NJ: Prentice Hall.

Chandra, Y., Chris, S., & Wilkinson, I. (2009). The recognition of first time international entrepreneurial opportunities. *International Marketing Review, 26*(1), 30-61.

Chatfield, C. (1986). Exploratory Data Analysis. *European Journal of Operational Research., 23*(1), 5-13.

Cheng, Y. T., & VanDeVen. (1996). Learning the innovation journey: Order out of chaos? *Organization Science, 7*, 593-614.

Choi, T. Y., & Hartley, J. L. (1996). An exploration of supplier selection practices across the supply chain. *Journal of Operations Management, 14*(4), 333-343.

Choi, Y. R., & Shepherd, D. (2004). Entrepreneurs' Decisions to Exploit Opportunities. *Journal of Management, 30*(3), 377-395.

Christensen, P. R. (1991). The small and medium-sized exporters' squeeze: empirical evidence and model reflections. *Entrepreneurship and & Regional Development, 3*, 49-65.

Churchill, G. (1979). A Paradigm for Developing Better Measures of Marketing Constructs. *Journal of Marketing Research, 16*(February), 64-73.

Churchill, G. (1991). *Marketing Research: Methodological Foundations* (5th ed.). Chicago: Dryden Press.

Churchill, G., & Iacobucci, D. (2005). *Marketing Research*. Mason,Ohio: South-Western.

Daft, R., & Lewin, A. (1990). Can organisations studies begin to break out of the normal science straightjacket? *Organization Science, 1*, 1-11.

Daily, C., Certo, S., & Dalton, D. (2000). International experience in the executive suite: The path to prosperity? *Strategic Management Journal, 21*(4), 515-523.

Day, G. S. (1984). *Strategic Market Planning: The Pursuit of Competitive Advantage*. St. Paul, Minn: West.

Day, G. S. (1992). Marketing's Contribution to the Strategy Dialogue. *Journal of the Academy of Marketing Science, 20*(4), 323-329.

Day, G. S. (1994). The capabilities of market-driven organizations. *Journal of Marketing, 58*(4), 37-52.

Day, G. S. (2001). Managing Market Relationships. *Journal of the Academy of Marketing Science, 28*(1), 24-30.

Day, G. S., & Reibstein, D. (1997). *Dynamic Competitive Strategy*. New York: John Wiley & Sons Inc.

Day, G. S., & Wensley, R. (1988). Assessing Advantage: A Framework for Diagnosing Competitive Superiority. *Journal of Marketing, 52*(April), 1-20.

De Clerq, D., Sapienza, H., & Crijns, H. (2005). The Internationalization of Small and Medium-Sized Firms. *Small Business Economics, 24*, 409-419.

De Vaus, D. (2001). *Research Design in Social Research*. London: Sage.

Delios, A., & Beamish, P. W. (2001). Survival and profitability: the roles of experience and intangible assets in foreign subsidiary performance *Academy of Management Journal, 44*, 1028-1038.

Denrell, J., Fang, C., & Winter, S. G. (2003). The Economics of Strategic Opportunity. *Strategic Management Journal, 24*(10), 977-990.

Desphande, R. (1983). Paradigms lost: On theory and method in research in marketing. *Journal of Marketing, 47*, 101-110.

Dess, G., & Davis, P. (1984). Porter's (1980) Generic Strategies as Determinants of Strategic Group Membership and Organizational Performance. *Academy of Management Journal, 27*, 467-488.

Dess, G., Lumpkin, G., & Covin, J. (1997). Entrepreneurial Strategy Marketing and Firm Performance: Tests of Contingency and Configuration Models. *Strategic Management Journal, 18*(1), 2-23.

Dess, G., & Robinson, R. (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*, 265-273.

Dhanaraj, C., & Beamish, P. (2003). A Resource-Based Approach to the Study of Export Performance. *Journal of Small Business Management, 41*(3), 242-261.

Diamantopoulos, A. (1994). Modeling with LISREL; a guide for the uninitiated. *Journal of Marketing Management, 10*, 105-136.

Diamantopoulos, A., Reynolds, N. L., & Simintiras, A. C. (2006). The impact of response styles on the stability of cross-national comparisons. *Journal of Business Research, 59*(8), 925-935.

Dicksen, P. R. (1992). Toward a General Theory of Competitive Rationality. *Journal of Marketing, 56*(January), 69-83.

Dickson, P. (1992). Toward a General Theory of Competitive Rationality. *Journal of Marketing, 56*(January), 69-83.

Dickson, P. (1996). The static and dynamic mechanics of competition: A comment on Hunt and Morgan's comparative advantage theory. *Journal of Marketing, 60*(4), 102-107.

Dierickx, I., & Cool, K. (1989). Asset Stock Accumulation and Sustainability of Competitive Advantage. *Management Science, 35*(12), 1504-1515.

Dillon, R. W., Kumar, A., & Mulani, N. (1987). Offending estimates in covariance structural analysis: Comments on the causes and solutions to Heywood Cases. *Psychological Bulletin, 101*, 126-135.

Dillon, W., Thomas, M., & Neil, F. (1990). *Marketing Research in a Marketing Environment* (2 ed.). Homewood, IL: Richard D. Irwin, Inc.

Dimantopoulos, A., & Schlegelmilch, B. (1994). Linking export manpower to export performance: A canonical regression analysis of European and US data. In T. Cavusgil & C. N. Axinn (Eds.), *Advances in international marketing* (Vol. 6, pp. 161-181). New York: JAI Press.

Dimitratos, P., & Jones, M. V. (2005). Future Directions for International Entrepreneurship Research. *International Business Review, 14*, 119-128.

Dimitratos, P., Lioukas, S., & Carter, S. (2004). The relationship between Entrepreneurship and International Performance: The Importance of Domestic Environment. *International Business Review, 13*(1), 19-41.

Douglas, S., & Craig, S. (2007). Collaborative and Iterative Translation: An Alternative Approach to back Translation. *Journal of International Marketing, 15*(1), 30-43.

Douglas, S., Craig, S., & Keegan, W. J. (1982). Approaches to assessing international marketing opportunities for small and medium-sized companies. *Columbia Journal of World Business, 17*(3), 26-32.

Douglas, S., & Wind, Y. (1987). The Myth Of Globalization. *Columbia Journal of World Business, 22*(4), 19-31.

Dowling, G. R. (2006). How good corporate reputations create corporate value. *Corporate Reputation Review, 9*(2), 134-143.

Duncan, R. (1976). The ambidextrous organization: Designing dual structures for innovation. In R. H. Killman, L. R. Pondy & D. Sleven (Eds.), *The management of organization* (pp. 167-188). New York: North Holland.

Duncan, T., & Moriarty, S. (1998). A Communication-Based Marketing Model for Managing Relationships. *Journal of Marketing, 62*(April), 1-13.

Dutta, S., Zbaracki, M., & Bergen, M. (2003). Pricing Process as a Capability: A Resource-Based Perspective. *Strategic Management Journal, 24*(7), 615-630.

Economist. (2007, October 9). Seeing double brewing,

Edwards, J. R. (1993). Problems with the use of profile similarity indices in the study of congruence in organizational research. *Personnel Psychology, 46*, 641-665.

Edwards, J. R., & Parry, M. E. (1993). On the use of polynomial regression equations as an alternative to differences scores in organizational research. *Academy of Management Journal, 36*, 1577-1613.

Eisenhardt, K. M. (1989a). Building theories from case study research. *Academy of Management Executive, 14*(4), 532-550.

Eisenhardt, K. M. (1989b). Making Fast Strategic Decisions in High-Velocity Environments. *Academy of Management Journal, 32*(3), 543-576.

Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic Capabilities: What are they? *Strategic Management Journal, 21*(10/11), 1105-1121.

ElFinanciero. (2005). Incursionan en el Mercado Exportador 2,250 PYMES [Incursion of 2250 SMEs in the Export Market]. *El Financiero*,

Etemad, H. (2004). International Entrepreneurship as a Dynamic Adaptive System: Towards a Grounded Theory. *Journal of International Entrepreneurship, 2*, 5-59.

Etzkowitza, H., Carvalho, J. M., & Almeida, M. (2005). Towards "meta-innovation" in Brazil: The evolution of the incubator and the emergence of a triple helix. *Research Policy, 34*(4), 411-424.

EuropeanCommissionDirective. (2003/361/EC). Definition of micro, small and medium-sized enterprises. *Official Journal of the European Union, L124-20/05/2003*, 36-41.

Fan, T., & Phan, P. (2007). International new ventures: revisiting the influences behind the 'born-global' firm. *Journal of International Business Studies, 38*, 1113-1131.

Fernhaber, S., Gilbert, B., & McDougall, P. (2008). International Entrepreneurship and geographic location: an empirical examination on new venture internationalization. *Journal of International Business Studies, 39*(2), 267-290.

Fernhaber, S., & McDougall-Covin, P. (2009). Venture Capitalists as Catalysts to New Venture Internationalization: The Impact of Their Knowledge and Reputation Resources. *Entrepreneurship Theory and Practice, 33*(1), 277-295.

Fernhaber, S., & McDougall, P. (2009). Venture Capitalists as Catalysts to New Venture Internationalization: The Impact of Their Knowledge and Reputation Resources. *Entrepreneurship Theory and Practice, 33*(1), 227-295.

Fernhaber, S., McDougall, P. P., & Oviatt, B. M. (2007). Exploring the Role of Industry Structure in New Venture Internationalization. *Entrepreneurship Theory and Practice, 31*(4), 517-542.

Fillis, I. (2001). Small firm internationalisation: an investigative survey and future research directions. *Management Decision, 39*(9), 767-783.

Fiorito, S. S., & LaForge, R. W. (1986). A marketing survey analysis of small retailers. *American Journal of Small Business, 10*(4), 7-17.

Floyd, S., & Lane, P. (2000). Strategy throughout the organization: Managing role conflict in strategic renewal. *Academy of Management Review, 25*, 154-177.

Fombrun, C. J., & Shanley, M. (1990). What's in a name? Reputation building and corporate strategy. *Academy of Management Journal, 33*, 233-258.

Fontes, M., & Coombs, R. (1997). The coincidence of technology and market objectives in the internationalisation of new technology-based firms. *International Small Business Journal, 15*(4), 14-22.

Fornell, C. (1982). *A second generation of multivariate analysis.* (Vol. 1: Methods). New York: Praeger.

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with observable variables and measurement error. *Journal of Marketing Research, 18*(February), 39-50.

Foss, N. (1999). Edith Penrose, economics and strategic management. *Contributions to Political Economy, 18*(1), 87-104.

Francis, J., & Collins-Dodd, C. (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.

Fraser, J., & Oppenheim, J. (1997). What's new about globalization? *The McKinsey Quarterly, 2*, 168-179.

Freeman, S., & Cavusgil, S. (2007). Toward a Typology of Commitment States Among Managers of Born-Global Firms: A Study of Accelerated Internationalization. *Journal of International Marketing, 15*(4), 1-40.

Freeman, S., Edwards, R., & Schroder, B. (2006). How Smaller Born-Global Firms Use Networks and Alliances to Overcome Constraints to Rapid Internationalization. *Journal of International Marketing, 14*(3), 33-63.

Frey, T., & Oishi. (1995). *How to Conduct Interviews by Telephone and in Person.* Thousand Oaks, CA: Sage.

Friedman, H. (1988). The effects of positive and negative wording on responses to a Likert scale. *Applied Marketing Research, 28*(2), 17-22.

Frishammar, J., & Andersson, S. (2009). The overestimated role of strategic orientations for international performance in smaller firms. *Journal of International Entrepreneurship, 7*(1), 57-77.

Furrer, O., Thomas, H., & Alexandre, M. A. (2008). Resource configurations, generic strategies, and firm performance; Exploring the parallels between resource-based and competitive strategy theories in a new industry. *Journal of Strategy and Management, 1*(1), 15-40.

Gabrielsson, M., & Al-Obaidi, Z. (2004). Pricing Strategies of Born Globals. In F. McDonald, M. Mayer & T. Buck (Eds.), *International Business: Does Location Still Matter?* (Vol. 11): Palgrave.

Gabrielsson, M., Sasi, V., & Darling, J. (2004). Finance strategies of rapidly-growing Finnish SMEs: Born Internationals and Born Globals. *European Business Review, 16*(6), 590-604.

Ganitsky, J. (1989). Strategies for innate and adoptive exporters: lessons from Israel's case. *International Marketing Review, 6*(5), 50-65.

Garver, M., & Mentzer, J. (1991). Logistics research methods: Employing structural equation modeling to test for construct validity. *Journal of Business Logistics, 20*(1), 33-58.

George, J., & Torger, R. (1982). The Reliability and Validity of Key Informant Data from Dyadic Relationships in Marketing Channels. *Journal of Marketing Research, 19*(November), 517-524.

Gerbing, D., & Anderson, J. (1988). An Updated Paradigm for Scale Development Incorporating Unidimensionality and its Assessment. *Journal of Marketing Research, 25*(2), 186-192.

Gerbing, D., & Hamilton, J. (1996). Validity of Exploratory Factor Analysis as a precursor to Confirmatory Factor Analysis. *Structural Equation Modeling, 3*, 62-72.

Ghemawat, P., & Pisano, G. (2001). Building and sustaining success. In P. Ghemawat (Ed.), *Strategy and the Business Landscape* (pp. 111-134). Englewood Cliffs, NJ: Prentice Hall.

Ghemawat, P., & Ricart i Costa, J. E. (1993). The organizational tension between static and dynamic efficiency. *Strategic Management Journal, 14* (Winter Special Issue), 59-73.

Giamartino, G. A., McDougall, P. P., & Bird, B. J. (1993). International entrepreneurship: the state of the field. *Entrepreneurship Theory and Practice, 18*(1), 37-42.

Gibson, C., & Birkinshaw, J. (2004). The Antecedents, Consequences, and Mediating Role of Organizational Ambidexterity. *Academy Management Journal, 47*(2), 209-226.

Glaser, B., & Strauss, A. (1967). *The Discovery of Grounded Theory*. Chicago: Aldine.

Gomez-Mejia, L. (1988). The role of human resources strategy in export performance: A longitudinal study. *Strategic Management Journal, 9*, 494-505.

Grant, R. M. (1991). The resource-based theory of competitive advantage: Implications for strategy formulation. *California Management Review, 33*(Spring), 114-135.

Grant, R. M. (1995). *Contemporary Strategy Analysis*. Cambridge, MA: Blackwell.

Grant, R. M. (1996). Prospering in dynamically-competitive environments: Organizational capability as knowledge integration. *Organization Science, 7*(4), 375-389.

Gray, S., & Cuevas, T. J. (2005). Regulatory, Cognitive and Normative Factors affecting Small Business Development in Northern Mexico. *International Journal of Entrepreneurship, 9*, 91-100.

Grobler, A. (2007). A dynamic view on strategic resources and capabilities applied to an example from the manufacturing strategy literature. *Journal of Manufacturing Technology Management, 18*(3), 250-266.

Guba, E. G. (1990). *The Paradigm Dialog*. Newbury Park: Sage.

Guba, E. G., & Lincoln, Y. S. (1998). Competing Paradigms in Qualitative Research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Landscape of Qualitative Research.* London: Sage.

Guilhon, A. (1996). Apprentissage organisationnel et PME. *Economie et Sociétés-Sciences de Gestion, SG22*(10), 207-232.

Gundlach, G. T., & Cadotte, E. R. (1994). Exchange Interdependence and Interfirm Interaction: Research in a Simulated Channel Setting. *Journal of Marketing Research, 29*(November), 516-532.

Gupta, A., Smith, K., & Shalley, C. (2006). The Interplay between Exploration and Exploitation. *Academy of Management Journal, 49*(4), 693-706.

Hair, J., Black, W., Babin, B., Anderson, R., & Tatham, R. (2006). *Multivariate Data Analysis* (6th ed.). New Jersey: Pearson-Prentice Hall.

Hair, J., Bush, R. P., & Ortinau, D. J. (2006a). *Marketing Research: Within a Changing Information Environment* (3rd ed.): McGraw-Hill: Irwin.

Hall, R. (1992). The strategic analysis of intangible resources. *Strategic Management Journal, 13*(135-44).

Hall, R. (1993). A framework linking intangible resources and capabilities to sustainable competitive advantage. *Strategic Management Journal, 14*, 607-618.

Hall, W. K. (1983). Survival strategies in a hostile environment. In R. G. Hammermesh (Ed.), *Strategic Management.* New York, NY: John Wiley & Sons.

Hambrick, D. C. (1981). Strategic awareness within top management teams. *Strategic Management Journal, 2*(2), 263-279.

Hambrick, D. C. (1982). Environmental scanning and organizational strategy. *Strategic Management Journal, 3*(1), 159-174.

Hamel, G., & Prahalad, C. K. (1994). *Competing for the Future.* Cambridge, MA: Harvard Business School Press.

Han, M. (2007). Achieving Superior Internationalization through Strategic Ambidexterity. *Journal of Enterprising Culture, 15*(1), 43-77.

Han, M., & Celly, N. (2008). Strategic ambidexterity and performance in international new ventures. *Canadian Journal of Administrative Sciences, 25*(4), 335-349.

Hawes, J. M., & Crittendon, W. F. (1984). A taxonomy of competitive retailing strategies. *Strategic Management Journal, 5*(2), 275-287.

He, W., & Nie, M. (2008). The Impact of Innovation and Competitive Intensity on Positional Advantage and Firm Performance *Journal of American Academy of Business 14*(1), 205-210.

He, Z., & Wong, P. (2004). Exploration vs. Exploitation: An Empirical Test of the Ambidexterity Hypothesis. *Organization Science, 15*(4), 481-494.

Heide, J. B., & John, G. (1992). Do Norms matter in Marketing Relationships? *Journal of Marketing, 56*(April), 32-44.

Helfat, C., Finkelstein, S., Mitchell, W., Peteraf, M., Singh, H., Teece, D., et al. (2007). *Dynamic Capabilities: Understanding Strategic Change in Organizations*. MA, Oxford, Australia: Blackwell.

Helfat, C., & Peteraf, M. (2003). The Dynamic Resource-Based View: Capability LifeCycles. *Strategic Management Journal, 24*(Oct 2003), 997-1010.

Henard, D. H., & Szymanski, D. M. (2001). Why some new products are more successful than others. *Journal of Marketing Research 38*, 362-375.

Henderson, A. D. (1999). Firm strategy and age dependance: A contingent view of the liabilities of newness, adolescence, and obsolescence. *Administrative Science Quarterly, 44*, 281-314.

Henderson, R. M., & Clark, K. B. (1990). Architectural innovation: The reconfiguration of existing product technologies and the failure of established firms. *Administrative Science Quarterly, 35*, 9-30.

Henisz, W. J. (2003). The power of the Buckley and Casson thesis: The ability to manage institutional idiosyncrasies. *Journal of International Business Studies, 34*, 173-184.

Henley, A., Shook, C., & Peterson, M. (2006). The Presence of Equivalent Models in Strategic Management Research Using Structural Equation Modeling. *Organizational Research Methods, 9*(4), 516-535.

Hill, C. (1988). Differentiation vs. Low Cost or Differentiation and Low Cost: A Contingency Framework. *Academy of Management Review, 13*(3), 401-412.

Hill, D. (2002). Latin America: High-Tech manufacturing on the Rise, but Outpaced by East Asia. *InfoBrief - National Science Foundation*, 2-9.

Hitt, M., Bierman, L., Uhlenbruck, K., & Shimizu, K. (2006). The importance of resources in the internationalization of professional service firms: The good, the bad and the ugly. *Academy of Management Journal, 40*, 767-798.

Hitt, M., Ireland, D., & Hoskisson, R. (1997). *Strategic Management: Competitiveness and Globalization*. St. Paul, MN: West Publishing.

Hitt, M., Ireland, D., Michael Camp, S., & Sexton, D. (2001). Guest editors' introduction to the special issue Strategic Entrepreneurship: Entrerpeneurial Strategies for wealth creation. *Strategic Management Journal, 22*(6/7), 479-491.

Hochstim, J. R. (1967). A Critical Comparison of the Three Strategies of Collecting Data from Households. *Journal of the American Statistical Association, 62*(September), 976-989.

Holmqvist, M. (2004). Experiential learning process of exploration and exploitation within and between organizations: An empirical study of product development. *Organization Science, 15*, 70-81.

Hooley, G., & Greenley, G. (2005). The resource underpinnings of competitive positions. *Journal of Strategic Marketing, 13*(2), 93-116.

Hooley, G. J., Lynch, J. E., & Shepherd. (1990). The Marketing Concept: Putting the Theory into Practice. *European Journal of Marketing, 24*(9), 7-24.

Hordes, M. W., Clancy, J. A., & Baddaley, J. (1995). A primer for global start-ups. *Academy of Management Executive, 9*(2), 7-11.

Hornick, J., Zaig, T., & Shadmon, D. (1991). Reducing Refusals in Telephone Surveys on Sensitive Topics. *Journal of Advertising Research, 31*, 49-56.

Hornsby, J. S., Kuratko, D. F., & Zahra, S. A. (2002). Middle managers' perception of the internal environment for corporate entrepreneurship: Assessing and measurement scale. *Journal of Business Venturing, 17*, 253-273.

Hoskisson, R., Eden, L., & Lau, C. M. (2000). Strategy in Emerging Economies. *Academy of Management Journal, 43*(3), 249-267.

Howard, G. (1995). Improving Validation: Process VS. Product. *Marketing Research, 7*(1), 48-49.

Howell, D. (2007). *Statistical Methods for Psychology*. Belmont, Calif: Thomson Wadsworth.

Hoyle, R. H. (1995). *Structural Equation Modeling: Concepts, Issues, and Applications*. Thousand Oaks, CA: Sage.

Huber, G., & Power, D. (1985). Retrospective Reports of strategic-level managers: Guidelines for increasing their accurancy. *Strategic Management Journal, 6*, 171-180.

Hughes, M., Hughes, P., & Morgan, R. E. (2007). Exploitative Learning and Entrepreneurial Orientation Alignment in Emerging Young Firms: Implications for Market and Response Performance. *British Journal of Management, 18*(4), 359-375.

Hughes, P., & Morgan, R. E. (2007). A resource-advantage perspective of product-market strategy performance & strategic capital in high technology firms. *Industrial Marketing Management, 36*(4), 503-517.

Hult, G. T., Ketchen, D., Griffith, D. A., Chabowski, B., Hamman, M., Johnson-Dykes, B., et al. (2008). An assessment of the measurement of performance in international business research. *Journal of International Business Studies, 39*, 1064-1080.

Hult, G. T., & Ketchen, D. J. (2001). Does market orientation matter?: A test of the relationship between positional advantage and performance. *Strategic Management Journal, 22*(9), 899-906.

Hunt, S. D. (2000b). *A General Theory of Competition*. Thousand Oaks, CA: Sage.

Hunt, S. D. (2000c). *Foundations of Marketing Theory: Toward a General Theory of Marketing*. New York: M.E. Sharpe.

Hunt, S. D., & Morgan, R. M. (1995). The comparative advantage theory of competition. *Journal of Marketing, 59*(April), 1-15.

Hunt, S. D., & Morgan, R. M. (1996). The Resource-Advantage Theory of Competition: Dynamics, Path Dependencies, and Evolutionary Dimensions. *Journal of Marketing, 60*(October), 107-114.

Huselid, M., Jackson, S., & Schuler, R. (1997). Technical and strategic human resource management effectiveness as determinants of firm performance. *Academy of Management Journal, 40*(1), 171-189.

INTECH. (2000). *Innovation Systems and Technological Specialization in Latin America and the Caribbean*: United Nations University/Institute for New Technologies.

Ireland, D., Hitt, M., & Sirmon, D. (2003). A model of strategic entrepreneurship: The construct and its dimensions. *Journal of Management, 29*, 963-989.

Jackson, K., & Trochim, W. (2002). Concept mapping as an alternative approach for the analysis of open-ended survey responses. *Organizational Research Methods, 5*(4), 307-337.

Jae-Hyeon, A., Dong-Joo, L., & Sang-Youn, L. (2006). Balancing Business Performance and Knowledge Performance of New Product Development. *Long Range Planning, 39*, 525-542.

Jain, S. (2006). *Emerging economies and the transformation of international business:Brazil, Russia, India and China (BRICs)*. Cheltenham, UK ; Northampton, MA: Edward Elgar.

Jansen, J., VanDenBosch, F., & Volberda, H. (2005). Exploratory Innovation, Exploitative Innovation and Ambidexterity: The Impact of Environmental and Organizational Antecedents. *Schmalenbach Business Review, 57*(4), 351-363.

Jantunen, A., Puumalainen, K., Saarenketo, S., & Kylaheiko, K. (2005). Entrepreneurial Orientation, Dynamic Capabilities and International Performance. *Journal of International Entrepreneurship, 3*, 223-243.

Jaworski, B. T., & Kohli, A. K. (1993). Market orientation: Antecedents and consequences. *Journal of Marketing, 57*(3), 53-70.

Jobber, D. (2004). *Principles and practice of marketing* London: Boston, MA: McGraw-Hill Education.

Johanson, J., & Vahlne, J.-E. (1977). The internationalisation process of the firm: a model of knowledge development and increasing foreign market commitment. *Journal of International Business Studies, 8*(1), 23-32.

Johanson, J., & Vahlne, J.-E. (1990). The mechanism of internationalization. *International Marketing Review, 7*(4), 11-24.

Johnson, J. (2004). Factors Influencing the Early Internationalization of High Technology Start-ups: US and UK Evidence. *Journal of International Entrepreneurship, 2*(3), 139-154.

Johnson, P., & Duberley, J. (2000). *Understanding Management Research*. London: Sage.

Johnson, R. A., & Wichern, D. W. (2002). *Applied Multivariate Statistical Analysis* (5th ed.). Upper Saddle River, NJ: Prentice Hall.

Jolly, V., Alahuhta, M., & Jeannet, J. (1992). Challenging the incumbents: how high technology start-ups compete globally. *Journal of Strategic Change, 1*, 71-82.

Jones, M. V. (1999a). The Internationalization of Small High-Technology Firms. *Journal of International Marketing, 7*(4), 15-41.

Jones, M. V. (1999b). The internationalization process of small high-technology firms. *Journal of Marketing Management, 7*(4), 15-41.

Jones, M. V. (2001). First steps in internationalisation: Concepts and evidence from a sample of small high-technology firms. *Journal of International Management, 7*, 191-210.

Jones, M. V., & Coviello, N. (2005). Internationalisation: conceptualising an entrepreneurial process of behaviour in time. *Journal of International Business Studies, 36*, 284-303.

Jones, M. V., & Crick, D. (2000). Small High-Technology Firms and International High-Technology Markets. *Journal of International Marketing, 8*(2), 63-85.

Jones, M. V., & Crick, D. (2001). High-technology firms' perceptions of their international competitiveness. *Strategic Change, 10*(3), 129-138.

Joreskog, K., & Sorbom, D. (1993). *LISREL 8:Structural Equation Modelling with SIMPLIS Command Language*. Mooresville, IL: Scientific Software.

Joreskog, K., & Sorbom, D. (1996). *LISREL 8: User's Reference Guide*. Chicago, IL: Scientific Software International.

Kaleka, A. (2002). Resources and capabilities driving competitive advantage in export markets: Guidelines for industrial exporters. *Industrial Marketing Management, 31*(3), 273.

Kamakura, W. A., & Wendel, M. (2000). Factor analysis and missing data. *Journal of Marketing Research, 37*(November), 490-498.

Kanter, R. M., North, J., Bernstein, A. P., & Williams, A. (1990). Engines of progress: Designing and running entrepreneurial vehicles in established companies. *Journal of Business Venturing, 5*, 415-430.

Karmarkar, U. S. (1993). Manufacturing lead times: Logistics of Production and Inventory. In S. C. Graves, A. H. G. RinnoyKan & P. H. Zipkin (Eds.), *Handbook in Operations Research and Management Science* (Vol. 4). Amsterdam, The Netherlands: Elsevier Science Publishers B.V.

Katila, R., & Ahuja, G. (2002). Something old, something new: A longitudinal study of search behavior and new product introduction. *Academy of Management Journal, 45*, 1183-1194.

Katsikeas, C., Paparoidamis, N., & Katsikea, E. (2004). Supply source selection criteria: The impact of supplier performance on distributor performance. *Industrial Marketing Management, 33*, 755-764.

Keeble, D., Lawson, C., Smith, H., Moore, B., & Wilkinson, F. (1998). Internationalisation Processes, Networking and Local Embeddedness in Technology-Intensive Small Firms. *Small Business Economics, 11*(4), 327-342.

Keegan, W. (1984). *Multinational Marketing Management*. Englewood Cliffs, NJ: Prentice Hall.

Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing, 57*(1), 1-22.

Kenny, D. A. (1979). *Correlation and Causality*. New York: Wiley.

Ketchen, D., Hult, T., & Slater, S. (2007). Toward Greater Understanding of Market Orientation and the Resource-Based View. *Strategic Management Journal, 28*, 961-964.

Khanna, T. (2007). China + India: the power of two. *Harvard Business Review, 85*(12), 60-70.

Khanna, T., & Palepu, K. (1997). Why focused strategies may be wrong for emerging markets. *Harvard Business Review, 75*(4), 41-51.

Kim, D., Cavusgil, S. T., & Calantone, R. (2006). Information System Innovations and Supply Chain Management: Channel Relationships and Firm Performance. *Academy of Marketing Science, 34*(1), 40-55.

Kim, S. K., & Hsieh, P. (2003). Interdependence and its Consequences in Distributor-Supplier Relationships: A Distributor Perspective Through Response Surface Approach. *Journal of Marketing Research, 40*(February).

Kirpalani, V., & MacIntosh, N. (1980). International Marketing Effectiveness of Technology-Oriented Small Firms. *Journal of International Business Studies, 11*(Winter), 81-90.

Kirzner, I. M. (1997). Entrerpeneurial Discovery and the Competitive Market Process: An Australian Approach. *Journal of Economic Literature, 35*(1), 60-85.

Klecka, W. R., & Tuchfarber, A. J. (1978). Random Digit Dialing: A Comparison to Personal Surveys. *Public Opinion Quarterly, 42*(Spring), 105-114.

Kline, R. (2005). *Principles and Practice of Structural Equation Modeling*. New York: Guilford Press.

Knight, G. (1997). *Emerging paradigm for international marketing; the born global firm.* Michigan State University, East Lansing, MI.

Knight, G. (2000). Entrepreneurship and Marketing Strategy: The SME under Globalization. *Journal of International Marketing, 8*(2), 12-32.

Knight, G. (2001). Entrepreneurship and Strategy in the International SME. *Journal of International Management, 7*, 155-171.

Knight, G., & Cavusgil, S. (1996). The born global firm: a challenge to traditional internationalization theory. In S. Cavusgil & T. Madsen (Eds.), *Advances in International Marketing* (Vol. 8). Greenwich, CT: JAI Press.

Knight, G., & Cavusgil, S. (2004). Innovation, organizational capabilities, and the born-global firm. *Journal of International Business Studies, 35*, 124-141.

Knight, G., & Cavusgil, S. (2005). A Taxonomy of Born-global Firms. *Management International Review, 45*(2005/3), 15-35.

Knight, G., Madsen, T., & Servais, P. (2004). An inquiry into born-global firms in Europe and the USA. *Industrial Marketing Review, 21*(6), 645-665.

Knight, G., Madsen, T., Servais, P., & Rasmussan, E. (2000). *The born global firm: description and empirical investigation in Europe and the United States.* Paper presented at the American Marketing Association, Chicago.

Knox, S. (2004). Positioning and branding your organisation. *Journal of Product & Brand Management, 13*(2), 105-115.

Kolakowski, L. (1972). *Positivist Philosophy*. London: Heinemann.

Kor, Y., & Mahoney, J. (2005). How dynamics, management, and governance of resource deployments influence firm-level performance. *Strategic Management Journal, 26*(5), 489-498.

Kor, Y. Y., & Mahoney, J. T. (2005). How dynamics, management, and governance of resource deployments influence firm-level performance. *Strategic Management Journal, 26*(489-96).

Kotha, S., & Nair, A. (1995). Strategy and Environment as Determinants of Performance: Evidence from the Japanese Machine Tool Industry. *Strategic Management Journal, 16*(4), 497-518.

Koufteros, X. (1999). Testing a model of pull production: a paradigm for manufacturing research using structural equation modeling. *Journal of Operations Management, 17*(4), 467-488.

Kraatz, M. S., & Zajac, E. J. (2001). How organizational resources affect strategic change and performance in turbulent environments: theory and evidence *Organization Science, 12*, 632-657.

Kropp, F., Lindsay, N., & Shoham, A. (2008). Entrepreneurial Orientation and International Entrepreneurial business venture startup. *International Journal of Entrepreneurial Behaviour & Research, 14*(2), 102-117.

Kuhn, T. S. (1962). *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press.

Kumar, N., Stern, L., & Anderson, J. (1993). Conducting Interorganizational Research Using Key Informants. *Academy of Management Journal, 36*(6), 1663-1649.

Lado, A., & Wilson, M. (1994). Human resource systems and sustained competitive advantage: A competency-based perspective. *The Academy of Management Review, 19*(4), 699-728.

Lado, A. A., Boyd, N. G., & Wright, P. (1992). A Competency-based Model of Sustainable Competitive Advantage: Toward a Conceptual Integration. *Journal of Management, 18*(1), 77-91.

Lages, L. F., Jap, S. D., & Griffith, D. A. (2008). The role of past performance in export ventures: a short-termreactive approach. *Journal of International Business Studies 39*, 304-332.

Lalkaka, R. (2002). Technology business incubators to help build an innovation-based economy. *Journal of Change Management, 3*(2), 167-176.

Lalkaka, R. (2003). Business incubators in developing countries: Characteristics and performance. *International Journal of Entrepreneurship and Innovation Management, 3*(1,2), 4.

Langerak, F. (2003). The effect of market orientation on positional advantage and organizational performance. *Journal of Strategic Marketing, 11*(2), 93-115.

LatinFinance. (1996). Foreign Trade & Industry; includes interview with Jaime Zabludovsky of the Minitry of Commerce and Industrial Development. *Latin Finance, 1996,* M43.

Lee, C., Lee, K., & Penning, J. (2001). Internal Capabilities, External Networks, and Performance: A Study on Technology-Based Ventures. *Strategic Management Journal, 22*(6/7), 615-640.

Leonard-Barton, D. (1992). Core capabilities and core rigidities: A paradox in managing new product development. *Strategic Management Journal, 13*, 111-125.

Leonidou, L., & Kaleka, A. (1998). Behavioral aspects of buyer-seller relationships: Their association with export involvement. *International Marketing Review, 15*(5), 373-397.

Leonidou, L., & Katsikeas, C. (1996). The export development process: an integrative review of empirical models. *Journal of International Business Studies, 27*(3), 517-551.

Leonidou, L., Katsikeas, C., Palihawadana, D., & Spyropoulou, S. (2007). An analytical review of the factors stimulating smaller firms to export: Implications for policy-makers. *International Marketing Review, 24*(6), 735-770.

Levinthal, D. A. (1997). Adaptation on rugged landscapes *Management Science, 43*, 934-950.

Levinthal, D. A., & March, J. G. (1993). The Myopia of Learning. *Strategic Management Journal, 14*, 95-112.

Levit. (1983). The globalization of markets. *Harvard Business Review, May-June*, 92-102.

Li, L., & Lee, Y. (1994). Pricing and delivery-time performance in a competitive environment. *Management Science, 40*(5), 633-646.

Li, T., & Calantone, R. (1998). The Impact of Market Knowledge Competence on New Product Advantage: Conceptualisation and Empirical Examination. *Journal of Marketing, 62*(October), 13-29.

Lieberman, M., & Montgomery, D. (1988). First-mover advantages. *Strategic Management Journal, 9*(Special Issue), 41-58.

Liesch, P., & Knight, G. (1999). Information internationalization and hurdle rates in small and medium enterprise internationalization. *Journal of International Business Studies, 30*(2), 383-394.

Lilien, G. (1979). Advisor 2: Modeling the Marketing Mix Decision for Industrial Products. *Management Science, 25*(2), 191-204.

Lim, J., Sharkey, T., & Heinrichs, J. (2006). Strategic Impact of New Product Development on Export Involvement. *European Journal of Marketing 40*(1/2), 44-60.

Little, R., & Rubin, D. (2002). *Statistical Analysis with Missing Data* (2nd ed.). New York: Wiley.

Lockett, A., Thompson, S., & Morgenstern, U. (2009). The development of the resource-based view of the firm: A critical appraisal. *International Journal of Management Reviews, 11*(1), 9-28.

Loehlin, J. (2004). *Latent Variable Models: An Introduction to Factor, Path, and Structural Equation Analysis* (4th ed.). Mahwah, NJ: Lawrence Erlbaum Associates.

Lu, J. W., & Beamish, P. W. (2001a). The internationalization of born globals: an evolutionary process? *International Business Review, 6*(6), 561-583.

Lu, J. W., & Beamish, P. W. (2001b). The Internationalization and Performance of SMEs. *Strategic Management Journal, 22*(6/7), 565-586.

Lubatkin, M., Simsek, Z., Ling, Y., & Veiga, J. (2006). Ambidexterity and Performance in Small-To-Medium-Sized Firms: The Pivotal Role of Top Managament Team Behavioral Integration. *Journal of Management, 32*(5), 646-672.

Lumpkin, G., Cogliser, C., & Schneider, D. (2009). Understanding and Measuring Autonomy: An Entrepreneurial Orientation Perspective. *Entrepreneurship Theory and Practice, 33*(1), 47-69.

Lumpkin, G., & Dess, G. (1996). Clarifying the Entrepreneurial Orientation Construct and Linking it to Performance. *Academy of Management Review, 21*(1), 135-172.

Luo, Y., & Peng, M. (1999). Learning to compete in a transitional economy: Experience, environment and performance. *Journal of International Business Studies, 30*, 269-295.

Luo, Y., Shenkar, O., & Nyaw, M. (2001). A dual parent perspective on control and performance in international joint ventures: Lessons from a developing economy. *Journal of International Business Studies, 32*(1), 41-58.

Luostarinen, R., & Gabrielsson, M. (2001). *Born Globals of SMOPECS: What, where, when, why, and how.* Paper presented at the Annual Conference of European International Business Academy, Paris.

Luostarinen, R., & Gabrielsson, M. (2004). Finnish perspectives of international entrepreneurship. In L. P. Dana (Ed.), *Handbook of Research on International Entrepreneurship* (pp. 383-403): Cheltenham: Edward Elgar.

Lusting, N. (1994). NAFTA: Doing Well by doing Good. *Brookings Review, 12*(1), 47.

Lyon, D. W., Lumpkin, G., & Dess, G. (2000). Enhacing Entrepreneurial Orientation Research: Operationalizing and Measuring a Key Strategic Decision Making Process. *Journal of Management, 26*(5), 1055-1085.

MacCallum, R. (2003). Working with Imperfect Models. *Multivariate Behavioral Research, 38*(1), 113-139.

MacCallum, R., Browne, M., & Sugwara, H. (1996). Power Analysis and Determination of Sample Size for Covariance Structure Modeling. *Psychological Methods, 1*(2), 130-149.

MacCallum, R., Widaman, K., Preacher, K., & Hong, S. (2001). Sample Size in Factor Analysis: The Role of Model Error. *Multivariate Behavioral Research, 36*(4), 611-637.

Madhavaram, S., & Hunt, S. D. (2008). The service-dominant logic and a hierarchy of operant resources: developing masterful operant resources and implications for marketing strategy. *Academy of Marketing Science, 36*(1), 67-82.

Madsen, T., Rasmussan, E., & Servais, P. (2000). Differences and similarities between born globals and other types of exporters. In A. Yaprak & J. Tutek (Eds.), *Globalization, the multinational firm, and emerging economies (Advances in International Marketing)* (Vol. 10, pp. 247-265). Amsterdam: JAI/Elsevier Inc.

Madsen, T., & Servais, P. (1997). The Internationalization of Born Globals: An Evolutionary Process? *International Business Review, 6*(2), 561-583.

Mahoney, J., & Pandian, R. (1992). The Resource-Based View within the Conversation of Strategic Management. *Strategic Management Journal, 13*(5).

Makadok, R. (2001). Toward a Synthesis of the Resource-Based and Dynamic Capability Views of Rent Creation. *Strategic Management Journal, 22*(5), 387-401.

Malhotra, N. (1987). Analyzing Marketing Research Data with Incomplete Information on the Dependent Variables. *Journal of Marketing Research, 24*, 74-84.

Malhotra, N., & Birks, D. (2007). *Marketing research: an applied approach* Harlow Financial Times Prentice Hal.

March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science, 10*, 553-550.

March, J. G., & Sutton, R. (1997). Organizational Performance as Dependent Variable. *Organization Science, 8*(6), 698-706.

Mathews, J., & Zander, I. (2007). The international entrerpeneurship dynamics of accelerated internationalisation. *Journal of International Business Studies, 38*(3), 387-404.

Matsuno, K., & Mentzer, J. (2000). The Effects of Strategy Type on the Market Orientation-Performance Relationship. *Journal of Marketing, 64*(October), 1-16.

McAuley. (1993). The Perceived Usefulness of Export Information Sources. *European Journal of Marketing, 27*(10), 52-64.

McAuley, A. (1999). Entrepreneurial instant exporters in the Scottish arts and crafts sector. *Journal of International Marketing, 7*(4), 67-82.

McDaniel, C., & Gates, R. (1999). *Contemporary Marketing Research* (4th ed.). Cincinnati: South-Western College Publishing.

McDaniel, C., & Gates, R. (2007). *Marketing Research* (7th ed.). Hoboken, N.J.: John Wiley.

McDougall, P. P. (1989). International versus domestic entrepreneurship: new venture strategic behavior and industry structure. *Journal of Business Venturing, 4*(6), 387-400.

McDougall, P. P., & Oviatt, B. M. (1996). New Venture Internationalization, Strategic Change, and Performance: A Follow-up study. *Journal of Business Venturing, 11*, 23-40.

McDougall, P. P., & Oviatt, B. M. (2000). International entrepreneurship: the intersection of two search paths. *Academy of Management Journal, 43*(5), 902-906.

McDougall, P. P., Oviatt, B. M., & Shrader, R. (2003). A Comparison of International and Domestic Ventures. *Journal of International Entrepreneurship, 1*(1), 59-82.

McDougall, P. P., Shane, S., & Oviatt, B. M. (1994). Explaining the Formation of International New Ventures: the Limits of Theories from International Business Research. *Journal of Business Venturing, 9*(6), 469-487.

McGahan, A. M., & Porter, M. E. (1997). How much does industry matter really? *Strategic Management Journal, 18*(Summer Special Issue), 15-30.

McGill, M. E., Slocum, J. W., & Lei, D. (1992). Management practices in learning organisations. *Organization Dynamics, 21*(1), 5-17.

McGrath, R. (2001). Exploratory learning, innovative capacity, and managerial oversight. *Academy of Management Journal, 44*, 118-131.

McGrath, R., & MacMillan, I. (2000). *The Entrerpeneurial Mindset*. Boston: Harvard Business School Press.

Menguc, B., Auh, S., & Shih, E. (2007). Transformational leadership and market orientation: Implications for the implementation of competitive strategies and business unit performance. *Journal of Business Research, 60*, 314-321.

Menguc, B., & Seigyoung, A. (2008). The asymetric moderatio role of market orientation on the abidexterity-firm performance relationship for prospectors and defenders. *Industrial Marketing Management, 37*, 455-470.

Miesenbock, K. (1987). Small Business and Exporting: A Literature Review. *International Small Business Journal, 6*(2), 42-61.

Miles, R., & Snow, C. (1978). *Organizational Strategy, Structure and Process*. New York: McGraw-Hill.

Miller, D. (1983). The Correlates of Entrepreneurship in Three Types of Firms. *Management Science, 29*, 770-779.

Miner, A. S., Bassoff, P., & Moorman, C. (2001). Organizational Improvisation and Learning: A Field of Study. *Administrative Science Quarterly, 46*, 304-337.

Mir, R., & Watson, A. (2001). Critical Realism and Constructivism in Strategy Research: Toward a Synthesis. *Strategic Management Journal, 22*(12), 1169-1173.

Mitchell, R., Smith, B., Seawright, K., & Morse, E. (2000). Cross-cultural cognitions and the venture creation decision. *Academy of Management Journal, 43*(5), 974-993.

Mitroff, I., & Mason, R. (1982). Business Policy and Metaphysics: Some Philosophical Considerations *Academy of Management Review, 7*, 361-371.

Moen, O. (2002). The Born Globals: A new generation of small European Exporters. *International Marketing Review, 19*(2), 156-175.

Moen, O., & Servais, P. (2002). Born Global or Gradual Global? Examining the Export Behavior of Small and Medium-Sized Enterprises. *Journal of International Marketing, 10*(3), 49-72.

Moran, P., & Ghoshal, S. (1999). Markets, Firms, and the Process of Economic Development. *Academy of Management Review, 24*(3), 390-412.

Morgan, G., Vorhies, D., & Schlegelmilch, B. (2006). Resource-Performance Relationships in Industrial Export Ventures: The role of Resource Inimitability and Substitutability. *Industrial Marketing Management, 35*(5), 621.

Morgan, N. A., Kaleka, A., & Katsikeas, C. (2004). Antecedents of Export Venture Performance: A Theoretical Model and Epirical Assessment. *Journal of Marketing, 68*(January), 90-108.

Morgan, N. A., Vorhies, D., & Schlegelmilch, B. (2006). Resource-performance relationships in industrial export ventures: The role of resource inimitability and sustituability *Industial Marketing Management, 35*(5), 621-633.

Morgan, N. A., Zou, S. V., Vorhies, D. W., & Katsikeas, C. S. (2003). Experiential and informational knowledge, architectural marketing capabilities, and the adaptive performance of export ventures. *Decision Sciences, 34*(2), 287-321.

Morgan, R. E. (2003). Market-based organizational learning. In S. Hart (Ed.), *Marketing Changes* (First ed., pp. 69-96). London: Thompson.

Morgan, R. E., & Hughes, M. (2006). *Born Globals: How and Why they Succeed.* Paper presented at the The Chatered Institute of Marketing, Technium, Swansea.

Morgan, R. E., & Hughes, P. (2007). Deconstructing the relationship between entrepreneurial orientation and business performance at the embryonic stage of firm growth. *Industial Marketing Management, 36*(5), 651-661.

Morgan, R. E., & Strong, C. A. (2003). Business performance and dimensions of strategic orientation. *Journal of Business Research, 56*(3), 163-176.

Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing, 58*(3), 20-38.

Mort, G. S., & Waeerawardena, J. (2006). Networking capability and international entrepreneurship: How networks function in Australian born global firms. *International Marketing Review, 23*(5), 549-572.

Mudambi, R., & Zahra, S. A. (2007). The survival of international new ventures. *Journal of International Business Studies, 38*(2), 333-353.

Murphy, K., & Myors, B. (2004). *Statistical Power Analysis: a simple and general model for traditional and modern hypothesis tests* (2nd ed.). Mahwah Erlbaum.

Murray, A. I. (1988). A contingency view of Porter's "generic strategies". *Academy of Management Review, 13*(3), 390-400.

Naman, J. L., & Slevin, D. P. (1993). Entrepreneurship and the Concept of Fit: A Model and Empirical Tests. *Strategic Management Journal, 14*(2), 137-154.

Nath, P., & Mahajan, V. (2008). Cheif Marketing Officers: A Study of their presence in firm's Top Management Teams. *Journal of Marketing, 72*(January), 65-81.

Newbert, S. (2007). Empirical Research on the Resource-Based View of the Firm: An Assesment and Suggestions for Future Research. *Strategic Management Journal, 28*, 121-146.

Nica, M., Swaidan, Z., & Grayson, M. (2006). The Impact of NAFTA on the Mexican-American Trade. *International Journal of Commerce & Management, 16*(3/4), 222-234.

Nonaka, I., & Toyama, R. (2002). A firm as a Dialectical being: Towards a Dynamic Theory of a Firm. *Industrial Corporate Change, 11*, 995-1009.

Notimex. (2006, October 23). México será una de las cinco economías emergentes con más futuro

[Mexico will be one of the five emerging economies with more future]. *El Universal,*

Nunnally, J. (1978). *Psychometric Theory* (2nd ed.). New York: McGraw-Hill.

Nunnally, J., & Bernstein, I. (1994). *Psychometric Theory* (3rd ed.). New York: McGraw Hill.

O'Neill, J. (2003). Dreaming with BRICs. *Goldman Sachs Global Economics Paper, 99.*

O'Neill, J. (2006). How Solid Are the BRICs? *Goldman Sachs Global Economics Paper, 134.*

O'Reilly, C., & Tushman, M. (2004). The Ambidextrous Organization. *Harvard Business Review, 82*(4), 74-81.

O'Reilly, C., & Tushman, M. (2008). Ambidexterity as a dynamic capability: resolving the innovator's dilemma. *Research in Organizational Behavior, 28*, 185.

OECD. (1997). *Globalization and Small and Medium Enterprises*. Paris: Organization for Economic Co-operation and Development.

Olinsky, A., Chen, S., & Harlow, L. (2003). The comparative efficacy of imputation methods for missing data in structural equation modeling. *European Journal of Operational Research, 151*, 53-79.

Oliver, C. (1997). Sustainable Competitive Advantage: Combining Institutional and Resource-Based Views. *Strategic Management Journal, 18*(10), 697-713.

Olsson, U. H., Foss, T., & Breivik, E. (2004). Two Equivalent Discrepancy Functions for Maximum Likelihood Estimation: Do their Test Statistics follow a Noncentral CM-square Distribution Under Model Misspecification? *Sociological Methods and Research, 32*(May), 453-510.

Olsson, U. H., Foss, T., Troye, S. V., & Howell, R. (2000). The Performance of ML, GLS and WLS Estimation in Structural Equation Modeling Under Conditions of Misspecification and Nonnormality. *Structural Equations Modeling, 7*, 557-595.

Oviatt, B. M., & McDougall, P. P. (2005c). Retrospective: The internationalization of entrepreneurship. *Journal of International Business Studies, 36*(1), 2-8.

Oviatt, B. M., & McDougall, P. P. (1994). Toward a theory of International New Ventures. *Journal of International Business Studies, 25*(1), 45-64.

Oviatt, B. M., & McDougall, P. P. (1995). Global start-ups: Entrepreneurs on a worldwide stage. *Academy of Management Executive, 9*(2), 30-44.

Oviatt, B. M., & McDougall, P. P. (1997). Challenges for internationalization process theory: The case of International New Ventures. *Management International Review*(Special Issue 1997/2), 85-99.

Oviatt, B. M., & McDougall, P. P. (1999). A framework for understanding accelerated international entrepreneurship. In R. Wright (Ed.), *Research in global strategic management*. Stamford, CT: JAI Press.

Oviatt, B. M., & McDougall, P. P. (2005). Toward a Theory of International New Ventures. 2004 Decade Award Winning Article. *Journal of International Business Studies, 36*(1), 29-41.

Oviatt, B. M., & McDougall, P. P. (2005b). Defining international entrepreneurship and modeling the speed of internationalization. *Entrepreneurship Theory and Practice, 29*(2), 537-553.

Pacheco-Lopez, P. (2005a). Foreign Direct Investment, Exports and Imports in Mexico. *The World Economy, 28*(8), 1057-1196.

Pacheco-Lopez, P. (2005b). The effect of trade liberalization on exports, imports, the balance of trade, and growth: the case of Mexico. *Journal of Post Keynesian Economics, 27*(4), 595-619.

Pallant, J. (2005). *SPSS Survival Manual.* Chicago: Mc-Graw Hill.

Parmar, A. (2003). Tailor Techniques to each audience in the Latin market. *Marketing News, 37*(3), 4-6.

Parnell, J. A. (1997). New evidence in the generic strategy and business performance debate: a research note. *British Journal of Management, 8*(175-81).

Parnell, J. A. (2006). Generic strategies after two decades: a reconceptualization of competitive strategy. *Management Decision, 44*(8), 1139-1154.

Payne, S. (1951). *The Art of Asking Questions.* Princeton, NJ: Princeton University Press.

Peng, M. (2001). The Resource-Based View and International Business. *Journal of Management, 27*(6), 803-829.

Peng, M., Hill, C., & Wang, D. (2000). Schumpeterian dynamics versus Williamsonian considerations: A test of Export intermediary performance. *Journal of Management Studies, 37*(2), 167-184.

Peng, M., & York, A. (2001). Behind Intermediary Performance in Export Trade: Transactions, Agents, and Resources. *Journal of International Business Studies, 32*(2), 327-346.

Penrose, E. T. (1959). *The Theory of the Growth of the Firm.* London: Basil Blackwell and Mott.

Peter, J. P. (1979). Reliability: A Review of Psychometric Basics and Recent Marketing Practices. *Journal of Marketing Research, 16*(February), 6-17.

Peteraf, M. (1993). The Cornerstones of Competitive Advantage: A Resource-Based View. *Strategic Management Journal, 14*(3), 179-191.

Pfeffer, J. (1995). Mortality, reproducibility and the persistence of styles of theory. *Organisation Science, 6*(6), 681-693.

Philip, G. (2008). Industrialized Country. *Harvard International Review, 30*(3), 84.

Phillips, L. (1981). Assessing Measurement Error in Key Informant Reports: A Methodological Note on Organizational Analysis in Marketing. *Journal of Marketing Research, 18*(November), 395-415.

Phillips, L. W., Chang, D. R., & Buzell, R. D. (1983). Product quality, cost position, and business performance: a test of some key hypothesis. *Journal of Marketing, 47*(2), 26-43.

Piercy, N., Kaleka, A., & Katsikeas, C. (1998). Sources of Competitive Advantage in High Performing Export Companies. *Journal of World Business, 33*(4), 378-393.

Pla-Barber, J., & Escribá-Esteve, A. (2006). Accelerated internationalisation: evidence from a late investor country. *International Marketing Review, 23*(3), 255-278.

Poole, M. S., & Van de Ven, A. H. (1989). *Towards a metatheory of innovation process.* Paper presented at the 49th Annual Meeting. Academy of Management.

Popper, K. R. (1959). *The Logic of Scientific Discovery*. New York: Basic Books.

Porter, M. E. (1980). *Competitive Strategy*. New York, NY: The Free Press.

Porter, M. E. (1985). *Competitive Advantage*. New York, NY: The Free Press.

Porter, M. E. (1986). Changing Patterns of International Competition. *California Management Review, 27*(Winter), 9-40.

Porter, M. E. (1990). *The Competitive Advantage of Nations*. New York: Free Press.

Porter, M. E. (1991). Towards a Dynamic Theory of Strategy. *Strategic Management Journal 12*(Special Issue), 95-117.

Powell, T. (2001). Competitive Advantage: logical and philosophical considerations. *Strategic Management Journal, 22*(9), 875-888.

Preece, S., Miles, G., & Baetz, M. (1999). Explaining the International Intensity and Global Diversity of Early-Stage Technology-Based Firms. *Journal of Business Venturing, 14*(3), 259-281.

Priem, R. L., & Butler, J. E. (2001a). Is the Resource-Based View a useful perspective for the strategic management research? *The Academy of Management Review, 26*(1), 22-40.

Proff, H. (2000). Hybrid strategies as a strategic challenge: the case of the German automotive industry. *Omega, 28*(5), 541.

Quick, J. (1992). Crafting an Organizational Culture: Herb's Hand at Southwest Airlines. *Organization Dynamics, 21*(2), 45-57.

Raisch, S., & Birkinshaw, J. (2008). Organizational Ambidexterity: Antecendents, Outcomes, and Moderators. *Journal of Management, 34*(3), 375-409.

Rao, A., Bergen, M., & Davis, S. (2000). How to fight a price war. *Harvard Business Review 78*(2), 107-116.

Rao, V. (1984). Pricing research in marketing: the state of the art. *Journal of Business, 57*(1), S39-S60.

Rasmussan, E., Madsen, T. K., & Evangelista, F. (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.

Rauch, A., Wiklund, J., Frese, M., & Lumpkin, G. (2004). Entrepreneurial orientation and business performance: Cumulative empirical evidence. In W. D. Bygrave, C. G. Brush, M. L. P. Davidson, G. D. Meyer, J. Fiet, J. Sohl, A. Green, A. Zacharakis & R. T. Harrison (Eds.), *Frontiers of entrepreneurship research*. Wellesley, MA: Babson College.

Ray, S., & Jewkes, E. M. (2004). Customer lead time management when both demand and price are lead time sensitive. *European Journal of Operational Research, 153*(3), 769-781.

Reid, S. D. (1981). The decision-maker and export entry and expansion. *Journal of International Business Studies, 12*(2), 101-112.

Reid, S. D. (1983). Firm internationalization, transaction costs and strategy choice. *International Marketing Review, 1*(2), 44-56.

Rennie, W. R. (1993). Global Competitiveness: Born Global. *The McKinsey Quarterly*(4), 45-52.

Rentz, O. J., Shepherd, C. D., Tashchian, A., Dabholkar, P. A., & Ladd, R. T. (2002). A measure of selling skill: Scale development and validation. *Journal of Personal Selling and Sales Management, 22*(1), 13-21.

Reuber, R., & Fischer, E. (1997). The influence of the management team's international experience on the internationalization behaviors of SMEs. *Journal of International Business Studies, 28*(4), 807-825.

Reynolds, N. L., Simintiras, A. C., & Dimantopoulos, A. (2003). Theoretical justification of sampling choices in international marketing research: key issues and guidelines. *Journal of International Business Studies, 34*(1), 80-89.

Rialp, A., & Rialp, J. (2001). Conceptual frameworks on SMEs' internationalization: past, present, and future trends of research. In C. N. Axinn & P. Matthyssens (Eds.), *Reassessing the internationalization of the firm, (Advances in International Marketing 11)* (pp. 49-78). Amsterdam: JAI/Elsevier Inc.

Rialp, A., Rialp, J., Urbano, D., & Vaillant, Y. (2005). The Born-Global Phenomenon: A comparative Case Study Research. *Journal of International Entrepreneurship 3*, 133-171.

Riordan, C. M., & Vandenberg, R. J. (1994). A central question in cross-cultural research: Do employees of different cultures interpret work-related measures in an equivalent manner? *Journal of Management, 20*, 643-671.

Ritter, T., & Walter, A. (2003). Relationship specific antecedents of customer involvement in new product development. *International Journal of Technology Management, 25*(5-6), 482-501.

Roberts, E., & Senturia, T. (1996). Globalizing the emerging high technology company. *Industrial Marketing Management, 25*(6), 491-506.

Robertson, C., & Chetty, S. K. (2000). A contingency-based approach to understanding export performance. *International Business Review, 9*, 211-235.

Robinson, J. P., Shaver, P. R., & Wrightsman, L. S. (1991). *Measures of Personality and Social Psychological Attitudes*. San Diego, CA: Academic Press.

Robinson, J. P., Shaver, P. R., & Wrightsman, L. S. (1991a). Criteria for Scale Selection and Evaluation. In J. P. Robinson, P. R. Shaver & L. S. Wrightsman (Eds.), *Measures of Personality and Social Psychological Attitudes*. San Diego, CA.

Robinson, K. C. (2001). Entry Barrirs and New Venture Performance: A Comparison of Universal and Contingency Approaches. *Strategic Management Journal, 22*(6-7), 659-685.

Roth, K., & Morrison, A. (1992). Business-Level Competitive Strategy: A Contingency Link to Internationalization. *Journal of Management, 18*(3), 473-487.

Roth, M. S. (1995). The effects of culture and socioeconomics on the performance of global brand image studies. *Journal of Marketing Research, 32*(May), 163-175.

Roth, P. L. (1994). Missing data: A conceptual review for applied psychologists. *Personnel Psychology, 47*, 537-560.

Rouse, M., & Daellenbach, U. (1999). Rethinking research methods for the resource-based perspective: Isolating sources of sustainable competitive advantage. *Strategic Management Journal, 20*(5), 307-320.

Rouse, M., & Daellenbach, U. (2002). More thinking on research methods for the resource-based perspective. *Strategic Management Journal, 23*(10), 963-967.

Rubin, P. H. (1973). The expansion of firms. *Journal of Political Economy, 84*, 936-949.

Rumelt, R. P. (1984). Towards a strategic theory of the firm. In R. Lamb (Ed.), *Competitive Strategic Management* (pp. 556-570). Englewood Cliffs, NJ: Prentice-Hall.

Rumelt, R. P., Schendel, D., & Teece, D. (1994). *Fundamental Issues in Strategy.* Cambridge, M.A.: Harvard Business School Press.

Salvo, A. (2007). Cemex: making global markets. In D. Spulberg (Ed.), *Global Competitive Strategy*. Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, Sao Paulo: Cambridge University Press.

Samiee, S., & Roth, K. (1992). The Influence of Global Marketing Standardization on Performance. *Journal of Marketing, 56*(April), 1-17.

Sapienza, H., Autio, E., George, G., & Zahara, S. (2006). A Capabilities Perspective on the Effects of Early Internationalization on Firm Survival and Growth. *Academy of Management Review, 31*(4), 914-933.

Sapsford, R., & Jupp, V. (1996). *Data Collection and Analysis.* London: Sage.

Saunders, M., Lewis, P., & Thornhill, A. (2007). *Research methods for business students.* Harlow Financial Times Prentice Hall.

Schafer, J. L., & Graham, J. W. (2002). Missing data: Our view of the State of the Art. *Psychological Methods, 7*(2), 147-177.

Schminke, M., & Wells, D. (1999). Group processes and performance and their effects on individuals' ethical frameworks. *Journal of Business Ethics, 18*(4), 367-382.

Schumpeter, J. A. (1934). *The theory of economic development.* Cambridge, MA: Harvard University Press.

Schwandt, T. A. (1998). Constructivist, Interpretivist Approaches to Human Inquiry. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Landscape of Qualitative Research.* London: Sage.

Sekaran, U. (1983). Methodological and Theoretical Issues and Advancements in Cross-cultural Research. *Journal of International Business Studies, 14*(Fall), 61-73.

Sekaran, U. (2003). *Research methods for business : a skill-building approach* (4th ed.). New York: Wiley.

Serra, J. (1991). *Hacia un Tratado de Libre Comercio en América del Norte [Toward a Free Trade Agreement in North America]*. Mexico City: M.A. Porrúa.

Servais, P., & Rasmussan, E. S. (2000). *Different types of international new ventures.* Paper presented at the Academy of International Business (AIB) Annual Meeting

Settoon, R., Bennett, N., & Liden, R. (1996). Social exchange in organizations: Perceived organizational support, leader-member exchange, and employee reciprocity. *Journal of Applied Psychology, 81*(3), 219-228.

Settoon, R., & Mossholder, K. (2002). Relationship quality and relationship context as antecedents of person- and task-focused interpersonal citizenship behavior. *Journal of Applied Psychology, 87*(2), 255-267.

Shane, S., & Venkataraman, S. (2001). Entrerpeneurship as a Field of Research: A Response to Zahra and Dess, Singh and Erickson. *Academy of Management Review, 26*(1), 13-16.

Sharma, S. (1996). *Applied Multivariate Techniques.* New York: John Wiley and Sons Inc.

Sharma, V., & Erramilli, M. K. (2004). Resource-Based Explanation of Entry Mode. *Journal of Marketing Theory and Practice, 12*(1), 1-17.

Sheatsley, P. (1969). *Questionnaire Design and Wording.* Chicago: National Opinion Research Corporation.

Shook, C., Ketchen, D., Hult, T., & Kacmar, M. (2004). An Assessment of use of Structural Equation Modeling in Strategic Management Research *Strategic Management Journal, 25*, 397-404.

Shrader, R., Oviatt, B. M., & McDougall, P. P. (2000). How new ventures exploit trade-offs among international risk factors: lessons for the accelerated internationalization of the 21st century. *Academy of Management Journal, 43*(6), 1227-1247.

Slater, S., & Narver, J. (2000). The Positive Effect of Market Orientation on Business Profitability: A Balanced Replication. *Journal of Business Research, 48*, 69-73.

Slotegraff, R. J., Moorman, C., & J.J., I. (2003). The role of firm resources in returns to market deployment. *Journal of Marketing Research, 40*(August), 295-309.

So, K. (2000). Price and time competition for service delivery. *Manufaturing and Service Operations Management, 2*(4), 392-409.

So, K., & Song, J. (1998). Price, delivery time guarantees and capacity selection. *European Journal of Operational Research, 111*(1), 28-49.

Song, M., Podoynitsyna, K., VanDerBij, H., & Halman, J. (2008). Success Factors in New Ventures: A Meta-analysis. *The Journal of Product Innovation Management, 25*(1).

Soriano, M., & Foxall, G. (2002). A Spanish Translation of Mehrabian and Russell's Emotionality Scales for Environmental Consumer Psychology. *Journal of Consumer Behavior, 2*(1), 23-36.

Spanos, Y. E., & Lioukas, S. (2001). An examination into the causal logic of rent generation: contrasting Porter's competitive strategy framework and the resource-based perspective. *Strategic Management Journal, 22*(10), 907-934.

Spender, J., & Grant, R. M. (1996). Knowledge and the Firm: Overview. *Strategic Management Journal, 17*, 5-9.

Spoden, S., & Teas, R. (1999). An examination of question sequence effects on measures of attitude and related variables. *Journal of Professional Services Marketing, 19*(2), 23.

Spulberg, D. (2007). Lenovo: entering global competition. In D. Spulberg (Ed.), *Global Competitive Strategy*. Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, Sao Paulo: Cambridge University Press.

Srivastava, R. K., Fahey, L., & Christensen, H. K. (2001). The resource-based view and marketing: The role of market-based assets in gaining competitive advantage. *Journal of Management, 27*(6), 777-803.

Stalk, G., & Hout, T. M. (1990). *Competing against Time: How Time-Based Competition is Reshaping Global Markets*. NY: The Free Press.

Steenkamp, J. B., Batra, R., & Alden, D. L. (2003). How perceived brand globalness creates brand value. *Journal of International Business Studies, 34*(1), 53-65.

Steiger, J., & Lind, J. (1980, June). *Statistically based tests for the number of common factors.* Paper presented at the Psychometric Society Annual Meeting, Iowa City, IA.

Stevens, J. (1996). *Applied Multivariate Statistics for the Social Sciences* (3rd ed.). Mahwah, N.J.: Lawrence Erlbaum Associates.

Stevens, S. (1968). Measurement, Statistics and the Schemapiric View. *Science, 161*, 894-856.

Stewart, D. (1981). The Application and Misapplication of factor Analysis in Marketing Research *Journal of Marketing Research, 18*(February), 51-62.

Strandskov, J. (1993). Towards a new approach for studying the internationalization process of Firms. In P. J. Buckley & P. Ghauri (Eds.), *The Internationalization of the firm; a reader* (pp. 201-216). London: Academic Press Ltd.

Strauss, A., & Corbin, J. (1990). *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. Newbury Park, CA: Sage.

Styles, C., & Ambler, T. (1994). Successful Export Practice: The UK Experience. *International Marketing Review, 11*(6), 23-47.

Styles, C., & Genua, T. (2008). The rapid internationalization of high technology firms created through the commercialization of academic research. *Journal of World Business, 43*(2), 146-157.

Styles, C., & Seymour, R. (2006). Opportunities for marketing researchers in international entrepreneurship. *International Marketing Review, 23*(2).

Sudman, S. (1976). *Applied Sampling*. New York: Academic Press.

Sullivan, D., & Bauerschmidt, A. (1990). Incremental Internationalization: A test of Johanson and Vahlne's thesis. *Management International Review, 30*(1), 19-30.

Sullivan, D., & Bauerschmidt, A. (1991). The Basic Concepts of International Business Strategy: A Review and Reconsideration *Management International Review, 31*(Special Issue), 111-124.

Summers, G. F. (1970). *Attitude Measurement*. Chicago, IL: Rand McNally.

Suppe, F. (1977). *The Structure of Scientific Theories*. Urbana, IL: University of Illinois Press.

Tabachnick, B., & Fidell, L. (2001). *Using Multivariate Statistics* Boston, MA; London: Allyn and Bacon.

Tanaka, J. (1993). Multifaceted Conceptions of Fit in Structural Equation Models. In K. Bollen & J. Long (Eds.), *Testing Structural Equation Models*. Newbury Park, CA: Sage.

Teece, D. (2000). *Managing Intellectual Capital: Organizational, Strategic, and Policy Dimensions*. Oxford: Oxford University Press.

Teece, D. (2003). Explicating Dynamic Capabilities: Asset Selection, Coordination, and Entrepreneurship in Strategic Management Theory. *University of California, Berkeley Business and Public Policy Working Paper BPP-98*.

Teece, D., Pisano, G., & Shuen, A. (1997). Dynamic Capabilities and Strategic Management. *Strategic Management Journal, 18*(7), 509-535.

Thomas, M. D. (1988). Innovation and Technology Strategy: Competitive New-Technology Firms and Industries. In M. Giaoutzi, P. Nijkamp & D. J. Storey (Eds.), *Small and Medium-Sized Enterprises and Regional Development* (pp. 44-70). London: Routledge.

Thompson, B. (2004). *Exploratory and confirmatory factor analysis: understanding concepts and applications*. Washington, DC American Psychological Association.

Thompson, S. (2002). *Sampling*. New York: Wiley.

Tucker, L., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. *Psychometrika, 38*, 1-10.

Tushman, M. (1997). Winning through innovation. *Strategy & Leadership, 25*(4), 14-19.

Tushman, M., & O'Reilly, C. (1996). Ambidextrous Organizations: Managing evolutionary and revolutionary change. *California Managament Review, 38*, 8-30.

Tyzoon, T. (1979). Telephone Survey Methods: The State of the Art. *Journal of Marketing, 43*(Summer), 68-78.

U.S.SmallBusinessAdministration. (1992). *The state of small business*. Washington, DC: U.S. Government Printing Office.

VandeVen, A. H. (1992). Suggestions for Studying Strategy Process: A Research Note. *Strategic Management Journal, 13*(Special Issue), 169-188.

Varadarajan, P. R., & Cunningham, M. H. (1995). Strategic Alliances: A synthesis of Conceptual Foundations. *Journal of the Academy of Marketing Science, 23*(4), 282-296.

Volberda, H., & Lewin, A. (2003). Co-evolutionary dynamics within and between firms: From evolution to coevolution. *Journal of Management Studies, 40*, 2111-2136.

Vorhies, D., & Morgan, N. (2003). A Configuration Theory Assessment of Marketing Organization Fit with Business Strategy and Its Relationship with Marketing Performance. *Journal of Marketing, 67*(January), 100-115.

Walker, B., Kirchmann, W., & Conant, J. (1987). A Method to Improve Response to Industrial Mail Surveys. *Industrial Marketing Management, 16*(4), 305-314.

Walker, O., & Ruekert, R. (1987). Marketing's Role in the Implementation of Business Strategies: A Critical review and Conceptual Framework. *Journal of Marketing, 51*(July), 15-33.

Wang, C. (2008). Entrepreneurial Orientation, Learning Orientation, and Firm Performance. *Entrepreneurship Theory and Practice, 32*(4), 635-657.

Wang, C., & Ahmed, P. K. (2007). Dynamic capabilites: a review and research agenda. *International Journal of Management Reviews, 9*(31-51).

Wang, C., & Rafiq, M. (2009). Organizational diversity and shared vision: Resolving the paradox of exploratory and exploitative learning. *European Journal of Innovation Management, 12*(1), 86-101.

Weber, M. (1949). *The Methodology of Social Sciences*. Glencoe, IL: The Free Press.

Weick, K. E. (1995). *Sensemaking in Organizations*. London: Sage.

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal, 5*(2), 171-180.

West, S. G., Finch, J. F., & Curran, P. J. (1995). Structural Equation Models with nonnormal variables. In R. H. Hoyle (Ed.), *Structural Equation Modeling: Concepts, Issues, and Applications* (pp. 56-75). Thousand Oaks: Sage Publications.

Westhead, P., Wright, M., & Ucsbasaran, D. (2001). The internationalization of new and small firms: A resource-based view. *Journal of Business Venturing, 16*, 333-358.

White, R. E. (1986). Generic business strategies, organizational context and performance: an empirical investigation. *Strategic Management Journal, 7*(2), 217-231.

Wickramasekera, R., & Bamberry, G. (2001). *Born globals within the Australian wine industry: an exploratory study.* Wagga Wagga: Charles Sturt University.

Wiklund, J. (1999). The sustainability of the entrepreneurial orientation-performance relationship. *Entrepreneurship Theory and Practice, 24*(1), 37-48.

Wiklund, J., & Shepherd, D. (2003). Knowledge-Based Resources, Entrepreneurial Orientation, and Performance of Small and Medium-Sized Business. *Strategic Management Journal, 24*(13), 1307-1314.

Wiklund, J., & Shepherd, D. (2005a). Entrepreneurial Orientation and small business performance: A configuration approach. *Journal of Business Research, 33*, 143-151.

Wiklund, J., & Shepherd, D. (2005b). Entrepreneurial Orientation and Small Business Performance: A Configuration Approach. *Journal of Business Venturing, 20*(1), 71-91.

Wilson, J. (1994). The relative importance of supplier selection criteria: A review and update. *International Journal of Purchasing and Materials Management, 30*, 35-41.

Williams, K. C., & Hazer, J. T. (1986). Antecedents and Consequences of Satisfaction and Commitment in Turnover Models: A Reanalysis Using Latent variable Structural Equation Methods. *Journal of Applied Psychology, 71*(2), 219-231.

Winter, S. G. (2003). Understanding Dynamic Capabilities. *Strategic Management Journal, 24*(10), 991-995.

Winter, S. G., & Szulanski, G. (2001). Replication as Strategy. *Organization Science, 12*, 730-743.

WorldBank. (2007). *Data & Statistics: Country Groups*. Washington, DC.

Wright, M. (2007). Venture Capital in China: A view from Europe. *Asia Pacific Journal of Management, 24*(3), 269-282.

Wright, P. (1987). A refinement of Porter's strategies. *Strategic Management Journal, 8*(1), 93-101.

Wright, P., Dunford, B., & Snell, S. (2001). Human resources and the resource based view of the firm. *Journal of Management, 27*(6), 701.

Wright, R. W., & Ricks, D. A. (1994). Trends in international business research: twenty-five years later. *Journal of International Business Studies, 25*(4), 687-701.

WTO. (2001). *International Trade Statistics*. Geneva: World Trade Orgaization.

Yamakawa, Y., Peng, M., & Deeds, D. (2008). What drives new ventures to internationalize from developed economies? *Entrepreneurship Theory and Practice, 32*(1), 59-82.

Yaprak, A. (1985). An empirical study of the differences between small exporting and non-exporting US firms. *International Marketing Review, 2*(2), 72-83.

Yin, R. (1989). *Case Study Research, Design and Methods.*, Beverly Hills, CA: Sage.

Zahra, S. A. (1991). Predictors and financial outcomes of corporate entrepreneurship: An explorative study. *Journal of Business Venturing, 6*, 259-285.

Zahra, S. A. (2005). A Theory on International New Ventures: a decade of research. *Journal of International Business Studies, 36*(1), 20-28.

Zahra, S. A. (2006). Entrepreneurship and Dynamic Capabilities: A Review, Model and Research Agenda. *Journal of Management Studies, 43*(4), 917-955.

Zahra, S. A., Brett, P. M., & Carleton, J. M. (2003). Techonological Resource Leveraging and the Internationalisation of New Ventures. *Journal of International Entrepreneurship, 1*(2), 163-186.

Zahra, S. A., & Covin, J. (1995). Contextual influence on the corporate entrepreneurship-performance relationship: A longitudinal analysis. *Journal of Business Venturing, 10*, 43-58.

Zahra, S. A., & Covin, J. (1995). Contextual influences on the corporate entrepreneurship-performance relationship: A longitudinal analysis. *Journal of Business Venturing, 10*, 43-58.

Zahra, S. A., & Das, S., R. (1993). Innovation strategy and financial performance in manufacturing companies: An empirical analysis. *Production Operations Management, 2*, 15-37.

Zahra, S. A., & Dess, G. (2001). Entrerpeneurship as a Field of Research: Encouraging Dialogue and Debate. *Academy of Management Review, 26*(1), 8-10.

Zahra, S. A., & Garvis, D. M. (2000). International Corporate Entrepreneurship and Firm Performance: The Moderating Effect of International Environment Hostility. *Journal of Business Venturing, 15*(5/6), 469-492.

Zahra, S. A., & George, G. (2002). International entrepreneurship: the current status of the field and future research agenda. In M. Hitt, R. Ireland, M. Camp & D. Sexton (Eds.), *Strategic leadership: creating a new mindset* (pp. 255-288). London, UK: Blackwell.

Zahra, S. A., & Hayton, J. C. (2008). The effect of international venturing on firm performance: The moderating influence of absorptive capacity. *Journal of Business Venturing, 48*(2), 227-254.

Zahra, S. A., Ireland, R., & Hitt, M. (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.

Zajac, E. J., Kraatz, M. S., & Bresser, K. F. (2000). Modeling the dynamic of strategic fit: a normative approach to strategic change. *Strategic Management Journal, 21*(429-53).

Zaltman, G., LeMasters, K., & Heffring, M. (1982). *Theory Construction in Marketing: Some Thoughts on Thinking*. New York, NY.: John Wiley & Sons.

Zaltman, G., Pinson, C. R. A., & Anglemar, R. (1973). *Metatheory and Consumer Research*. New York, NY: Holt.

Zikmund, W. (2003). *Business Research Methods*. Mason, Ohio: Thomson South-Western.

Zou, S., & Cavusgil, S. (2002). The GMS: A Broad Conceptualization of Global Marketing Strategy and Its Effect on Firm Performance. *Journal of Marketing, 66*(October), 40-56.

Zou, S., Fang, E., & Zhao, S. (2003). The Effect of Export Marketing Capabilities on Export Performance: An Investigation of Chinese Exporters. *Journal of International Marketing, 11*(4), 32-55.

Zou, S., & Stan, S. (1998). The Determinants of Export Performance: A Review of the Empirical Literature Between 1987 and 1997. *International Marketing Review, 15*(5), 333-356.

