Growth of the International New Venture (INV)

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Abstract

One of the dominant perceptions in the international business body of knowledge for long was that a viable participation in the international economic activity was found only in the domain of the multinational enterprise (MNE). The fundamental assumption in such perception was that international involvement requires large base of resource, knowledge and experience which can be acquired only after several years of operation in the domestic market. As the consequence small businesses and new ventures had been barely represented in international business research. However, in the last two decades, scholars have increasingly recognized the successful transnational business activities demonstrated by plenty of SMEs and international new ventures (INV) despite the liabilities of smallness and newness. The phenomenon triggered a new wave of research in international entrepreneurship causing a revision of earlier internationalization theories and the development of others new. And yet, the majority of the research in international new venture (INV) appeared to be much absorbed in the story of the early internationalization while less attention has been extended to the behavior of the INV after initial entry into the international market.

The current study took up the purpose of addressing this gap and provided contribution to earlier works by investigating the factors that determine and influence the international growth of the INV beyond initial entry. The study was guided by a deductive qualitative study approach. The review of previous literature led to the development of conceptual framework that was expected to guide in data collection and analysis. A case company was identified based on multiple criteria identified from the literature to examine the international expansion and growth. The analysis of the empirical findings has identified four generic factors that determined and influenced the international growth of the INV. The list included firm-specific factors, lifecycle specific factors, entrepreneur specific factors, and business strategy specific factors.

The lifecycle specific factor covers the stage of the industry on the lifecycle curve and the age of the INV at the time of internationalization. Positive relationship was identified with the performance of the INV when the industry is new and young. The firm-specific factors included technology capability, relationship capability, and governance structure. The firm’s capabilities to continuously modify, acquire, integrate, and recombine its know-how and interaction in the entire ecosystem is crucial for successful international growth. Under the rubrics of business strategy are found competitive strategy and business model. The choice of a certain competitive strategy dictates the firm's value proposition. But differential competitive advantage is achieved only when it is complemented by the right business model that maps out the entire value creation, delivery and reward capture architecture. The entrepreneur is also crucial in the international growth and success of the INV. The entrepreneur is the source of the idea of the firm in the first place and its commitment to the international market. Spotting the opportunities, setting a growth target and providing leadership are some of the qualities that are specific to the entrepreneur and the founding team that influence the expansion and growth of the INV.

Key Words: Internationalization, International New Venture, INV, born global, growth, capability
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List of Abbreviations

BG  Born global firm
INV  International New Venture
MNC  Multinational Corporation
MNE  Multinational Enterprise
OLI  Ownership, Location, Internalization
PLC  Product Life Cycle
TCE  Transaction Cost Economics
TNC  Transnational Corporation
1. Introduction

In this introductory chapter the background scene is first set before the final research question is generated. The order of presentation takes on as 1.1 Background, 1.2 Problem Discussion, 1.3 Research Purpose, 1.4 Research question.

1.1. Background

The last two decades have witnessed the occurrence of new and small firms that have manifested striking characteristics with regards to entry and expansion in the international market. Growing size of international business scholars have curiously noticed that some small and startup businesses have uniquely managed to expand across global markets so rapidly and intensively (Kudina, Yip & Barkema, 2008; Oviatt & McDougall, 1994). The scholarly interest was justified owing to the behaviors of these firms which quite departed from the existing traditional and dominant theories of internationalization; such as that of the Uppsala Model (Johanson & Vahlne, 1977) and international product life cycle (Vernon, 1966). The Uppsala Model and other similar theories of internationalization earlier postulated that a business first establishes a strong domestic market before it reaches out to international customers and also that it takes sequential phases and longer years (Mathews & Zander, 2007). Its assumption also relies on the proximity or psychic distance of the foreign market and the gradual adjustment of the risk-uncertainty variable through experiential learning before it eventually sets feet in the foreign market and build up its commitment (Johanson & Vahlne, 1977). Moreover, the stage model assumes that it takes considerably longer time for the firm to develop important resources, knowledge and capabilities for competing in the global market space (Chang, 1995). And as a result this deterministic model somehow sidelines startups and small businesses which are basically less experienced and resource strapped. However, the behavior of these rapidly internationalizing firms triggered a sizable academic inquiry from several fields of disciplines such as marketing, international entrepreneurship, and international business management (Gabrielsson & Kirpalani, 2012).

Scholarly inquiry in international business and cross border trade is quite old. As well noted by Mtigwe (2006), the scholarly investigation of cross-border trade can be traced back to the classical economic theories of absolute advantage by Adam Smith (1776) and of comparative advantage by David Ricardo (1817) (Maneschi, 1998). As the terms employed ("comparative advantage" versus "absolute advantage") would signal, there exist considerable differences between the two theories; however, there also exist commonality in that the least cost of production was considered as a competitive advantage and the basis of international trade exchange in both theories (Mtigwe, 2006). Furthermore, the "nation" is the unit of analysis in both theories, and exporting was the known mode of international trade.
In the second half of the 20th century the theory about the pattern of international expansion of business organizations has been much dominated by stage models (Johnsson & Vanhle, 1977). The term stage is intended to imply that business organizations are first and foremost established to serve the home market in which they are located; and through the passage of time businesses come to consider opportunities in foreign markets; and after accumulation of resource and experience they gradually and progressively commit to serving the foreign market - near and far.

At the dawn of the last century, as it is so referred by several authors, the recognition of small and global firms have gotten traction in academia following the reporting of McKinsey (1993, cited by Persinger, Civi, & Vostina, 2007). The McKinsey study reported that small firms have become intensively involved in the global market very early in the organizational life cycle. There is a plethora of academic articles since then in the researching of the new internationalization nature and pattern of small and medium sized firms. After two decades of researching, however, there still exists argument on whether the BG is a theory in its own right or if it is a special example of the traditional stage model internationalization theory (Fan & Phan, 2007).

McKinsey & Co.’s report in 1993 is regarded as the first to appear with the “born global” concept in the business literature studying the phenomenon of early internationalizing SMEs in Australia (Persinger et al., 2007). Researchers then after have picked up and employed several terms to explain this new behavior of internationalization. Terms such as born global (BG), new international venture (INV), born-again global, global startups, instant internationals, knowledge intensive firms, and etc. have surfaced in several articles to explain the same phenomenon (Gabrielsson & Kirpalani, 2012; Moen & Servais, 2002; Oviatt & McDougal 1994). Another seminal work frequently cited is that of Oviatt and McDougal (1994, p. 49) which define the phenomenon 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.”

1.2. Problem discussion

Even though fairly large stock of BG/INV literature has been produced in the last two decades, a unified and generally accepted framework is still lacking. Scholars from various schools of business and economics thoughts such as international entrepreneurship, international marketing, and international business have published research articles with each favoring a certain definition and perspective in accordance to their respective special interests (Gabrielsson & Kirpalani, 2012; Kiss, Danis, & Cavusgil, 2012). The disparity of interest affected the conduct of research and selection of empirical cases, which in turn resulted in considerable inconsistencies of characterization of the BG firms (Loustarnien & Gabrielsson, 2006). For example, there is an incongruity in the speed of internationalization or cutoff point (number of years elapsed from inception to internationalization) to regard a firm as BG. While some have been stringent in
imposing a three years' time after inception, others have relaxed it up to nine and ten years (Andersson, 2011; Hashai & Almor, 2004). Another contentious issue in the BG theory is the market scope, which is the geographic presence and the dispersion of the export market, leading to arguments of born-regional versus born-global conceptualizations (Oviatt & McDougall, 1994). Disparities in the pattern of geographic market expansion have led some researchers to argue on the "degree of globalness" of the BG firm (Crick, 2009; Kuivalainen, Sundqvist, & Sevrt, 2007; Oviatt & McDoual, 1994).

Market scale or export intensity is another area of inconsistency in the BG definition. The level of commitment or foreign market-depth is another area of inconsistency manifested in the definition of BGs. The BG literature shows significant variation in the marking of the export intensity. For example, Fan and Phan (2007) cite earlier works by Kandassami which had used 10% and 40% export sales in different studies. Loustarnien and Gabrielsson (2006) required 50% export revenue from a foreign "continent" in their empirical study of Finnish BG firms. In a bid to qualify some firms in the BG sample that have internationalized within nine years from inception, Hashai and Almor (2004) applied a 75% export intensity condition. However, according to the findings, the most widely used cutoff is 25% revenue from export activity (Gabrielsson & Kirpalani, 2004; Hashai & Almor, 2004; Knight & Cavusgil, 2004).

Andersson (2000) notes that international business research could take either of two dominant perspectives: the economic or the process view. From the review and discussion so far of the BG literature, it becomes clear that the BG research has largely focused on the “process” aspect of the international business operation, i.e. the speed, scope and intensity of participating in the international market. However, some authors have voiced their concern against the current trend of the BG research, criticizing its disproportionate focus to characteristics occurring at the inception, formation and early life of the international venture while showing scant interest to what matters even more in business economics of the international new venture - growth and survival attributes (Mudambi & Zahra, 2007).

A number of researchers have attributed the informal social network of the entrepreneur for the creation of the new international venture. And some empirical studies have also discovered “pure serendipity” (Crick, 2009; Spence and Crick, 2006) explaining the birth of the INV. Such explanations highlight the less strategic process of entry of the business in foreign markets. Even if the formation of the new firm and emergence into international market might be less elaborative with a simple entrepreneurial decision of an individual or a small founding team, nevertheless, survival and growth cannot be conceived of to result from serendipitous activities, and neither of “less-strategic” engagement. Mudambi and Zahra (2007) postulated that the choice of entry mode into the international market is a strategic activity (Andersson, 2000) in itself that determines the longevity and growth of the new venture and its becoming of an MNE. Furthermore, researches have also indicated that the INV could potentially differ from the traditional MNE in its pattern of growth and strategy; which, despite the fact, in the words of
Mathews and Zander (2007, p. 390), “has received much less conceptual and empirical attention.”

1.3. Research purpose

This study has the purpose of investigating the development and life of the new international venture beyond the birth and internationalization. Prior studies have identified the huge gap between the rate of birth and of survival in new ventures. That rate would be expected to be even higher in the international market where the new firm is besieged with compounded liabilities of newness and foreigners.

Knight and Cauvisgil (2005) noted that INVs represent a substantial portion of the export trade growth in some industrialized economies like those in Scandinavia and the US. At the same time, however, infant mortality is reported to be high in this group of firms (Bellone, Musso, Nesta, & Quere, 2008). The variables and relationships in the growth and survival of the INV are complex and researchers have encouraged more studies in the area (Mudambi & Zahra, 2007; Sapienza, Autio, George, & Zahra, 2006). There are relatively few studies on the fate of the international new venture and its organizational life cycle development after initial international entry. Sapienza, Autio, George, and Zahra (2006) critically commented on the salient gap observed in previous literature. They conclude that the convention among INV authors appears to have unduly narrow the research focus on the early events of the internationalization process. The focus of the research needs to be widened and address the life of the INV beyond initial entry so as to document much comprehensive knowledge that would meaningfully be at the service of policy makers and practitioners that strive to achieve long lasting economic benefit from foreign trade.

1.4. Research question

To accomplish its purpose, the study is guided by the following main research question.

What are the factors that determine and influence the international growth of the INV beyond initial entry?

NB. Reading throughout this paper, care needs to be taken in distinguishing between two terms that are here employed frequently and have phonetic as well as spelling resemblance which could possibly cause the reader confusion: internationalization and internalization. The first is concerned with the international operation of the business while the second is concerned with the control of value creating activity by the firm. Additionally, the terms international new venture (INV) and born global (BG) are employed interchangeably.
2. Literature Review

This chapter presents the literature review of internationalization in general and of the international new ventures (INV) in particular. It has five major sections. The first major section (2.1) is International operation: motives and modes. The second major section (2.2) is on Internationalization perspective: economic and process perspectives. Next to that takes on the international new venture (INV) (2.3), setting the agenda for the distinctiveness of the INV in the international market. The fourth section explores the factors to the successful performance and international growth of the INV (2.4). Finally, a synthesized framework of analysis is presented (2.5).

As well noted by Mtigwe (2006), scholarly inquiry of cross-border trade can be traced back to the classical theories of absolute advantage by Adam Smith (1776) and of comparative advantage by David Ricardo (1817) (Maneschi, 1998). The core tenet of Adam’s absolute advantage is that if one nation has efficiency advantage in producing one commodity and the reverse is true in producing a second commodity, then it is mutually beneficial for the two nations for each to specialize in producing the commodity which one have absolute advantage over the other and trade the commodities. Ricardo’s theory of comparative advantage was more plausible than Adam’s theory. Comparative advantage holds that economic exchange in international trade materializes when there is comparative difference in the cost of producing a given commodity between the two countries. This theory recognized the potential differences in skill or technological capability that would make up difference in comparative advantage for production. There exist considerable differences between the two theories, at least as the terms employed would signal. However, there also exist some commonalities. The first commonality is that the least cost of production was considered as the sole competitive advantage in international trade exchange in both theories (Mtigwe, 2006). The other common assumption in both is that the "nation" is the unit of analysis, and furthermore, that exporting was the known mode of international trade (Zang, 2008).

The academic research in international business as a body of knowledge resurged in the post-World War Two (WWII) years and reached the pick in the 1970 and 80s. The evidence is that a number of the still dominant theories in the field were initiated or consolidated during those decades, e.g. Vernon’s (1966) product cycle theory, the Uppsala model by Johanson and Vahlne (1977), the eclectic paradigm by Dunning (1981), and the internalization theory promoted by Buckley and Casson (1976). Recently in the last two decades, there appeared a new string of research in international business which is mostly referred as born global (BG) or the international new venture (INV) theory for which its promoters argue that previous theories of internationalization failed to sufficiently represent the phenomenon of the INV.

The international operation of the new venture can be conceived of to involve three components (Mathews & Zander, 2007). The first is the discovery of opportunity in the international market.
The second component is the internationalization and operational issue that deals with the deployment of resources and the pattern pursued in the exploitation of the identified international opportunity. It involves two fundamental decisions - market selection and market servicing mode. Some authors have raised questions about whether the market selection and market entry decisions are separate and distinct decisions elements or if they are rather integrated perspectives of the same decision (Buckley and Casson, 1998; Koch, 2001). The third component of the international business is the competition aspect in the foreign market, which is concerned with the issue of competitive strategy, sustainability and development. That can be summarized as the life of the new venture beyond the initial international entry. The first component is highly addressed in entrepreneurship literature and deals much with the individual entrepreneur and issues of opportunity creation or discovery. The second component is a core thesis in international business and marketing body of research. Themes in the third component largely appear in organization theory and strategic management literature.

2.1. International operation: motive and modes

2.1.1. Motives

John Dunning, in his book Multinational Enterprises and The Global Economy (1993), put forward typologies of motives for international investment which have become highly regarded by other prominent authors in international business (Rugman, 2010). According to Dunning (2000), there are four types of international operation motives, especially to equity-based modes of entry or foreign direct investment (FDI). These categorical motives are market-seeking, resource-seeking, efficiency-seeking, and strategic asset-seeking. Dunning and Lundan (2008) note that some of the motives are aggressive in the sense that the firm is proactively engaged in advancing strategic objectives while in the other cases the motives are defensive in the sense of protecting competitive position. A given firm could be operating in multiple countries and may be pursuing multiple of these objectives.

Resource-seeking motivations for FDI may be in the search for natural resources, cheap labor, or expertise in management, marketing and organizational skill. Market-seeking investment is attracted by the market potential of the host country or regional countries. Previously, in most cases, these countries have been served through exporting before receiving increased commitment in the form of FDI. There are a number of reasons for market-seeking motives. The market size and the growth potential of the host country (or its adjacent) market, and the high need for local adaptation and customization of offerings are two of the primary triggers for market-seeking FDI. Dunning and Lundan (2008) note that as the trend in global strategy gets increasing it becomes important to have a “physical presence in the leading markets served by competitors” (p. 71).
Efficiency-seeking motives aim to generate advantages from a certain manner of governance structure to streamline geographically dispersed activities of the firm. Efficiency across multiple markets affords the firm benefits of economies of scope and scale; and also possibility to risk minimization. According to Dunning, an efficiency-seeking motivation becomes valid once after the resource-seeking and market-seeking investments have matured and that it has now become too important to warrant “rationalization” (p. 71). The motives for strategic-asset seeking is primarily involved in acquisitions of foreign based businesses usually in the interest of strengthening the acquirer’s technological competence from ownership advantage of a portfolio of competences and/or weaken those of competitors.

2.1.2. Modes

The issue of internationalization pertains to activities in foreign markets (Anderson & Gatignon, 1986). That involves two decisions: which foreign country to enter and how to control the activity there (Buckley and Casson, 1998). Selection of the appropriate foreign entry mode is a decision of control mechanism to the strategies and future direction of the firm in the foreign market. It is therefore at the heart of the international business on which growth and survival of the firm depends (Anderson & Gatignon, 1986; Hill, Hwang, & Kim, 1990; Koch, 2001).

Once the firm has identified an opportunity in a foreign market, there are a number of operating modes it may utilize in pursuit of exploiting international opportunities. There have been arguments on whether these decision components, i.e. market selection and entry mode selection are one and interdependent decision or rather distinct decision processes ((Buckley & Casson, 1998; Koch, 2001).

Researchers have identified a number of foreign market operation modes ranging from one end of an arms-length remote commitment of exporting to the other end of deeper commitment in the form of FDI (Buckley & Casson, 2009). For example, Buckley and Casson (1998) identified 17 modes and Anderson and Gatignon (1986) identified 12 modes. In general terms entry modes can be perceived as equity based and no-equity based (Dunning & Lundan, 2008). The modes vary in accordance to the level of risk expected and the level of control sought (Anderson & Gatignon, 1986; Koch, 2001). Dunning and Lundan (2008) also underlined that the choice of foreign market entry modes can be affected by the underlying motivation especially in cases of equity based entry.

2.2. Internationalization: Perspectives

Andersson (2000) notes that international business research could take either of two fundamental perspectives: the economic or the process view, which is to say that there are economic and process explanations for the initial internationalization and subsequent expansion of the business
entity. The review of the dominant theories and perspectives in international business is presented in the following sections.

### 2.2.1. Economic perspective - Eclectic theory (OLI)

Dunning in his series of publications stretching over three decades (1981, 1993, 2000, 2008) has established what has become known as the eclectic paradigm (or theory) of international operations. According to Dunning, the choice of business operation in a foreign country is influenced by three streams of advantages which he calls ownership advantage, location advantage, and internalization advantage (OLI).

**O advantages:** The ownership advantage is a firm specific advantage (FSA) built on the possession of asset power in the form, for example, of intangible assets, technological know-how and market knowledge (Buckley & Hashai, 2009). The asset power advantages stem from "proprietary ownership of specific assets vis-a-vis those possessed by other enterprises" (Verbeke & Yuan, 2010, p. 91).

**L advantage:** The location advantage is country advantage specific to the host country (CSA) (Rugman, 2010) and concerns with natural resource factors, market size, institutions, etc. (Lopes, 2010). According to Dunning and Lundan (2010), competitive advantages of firms vary in the type and distribution of resources, capabilities and institutions specific to the respective geographic location of the firms.

**I advantage:** The internalization advantage weighs whether the firm could collect above average rent by either internalizing or externalizing the firm specific advantages. Advantages reflect either the greater organizational efficiency or superior incentive structures of hierarchies, or the ability of (large) firms to exercise monopoly power over the assets under their possession (Dunning & Lundan, 2010).

With respect to the process of internationalization, the eclectic theory (OLI) generally appears to assume that the firm first develops its asset power and competitive capability at home market in forms of firm specific advantages before extending involvement in a foreign market. The selection of which specific country to invest and the mode of serving the market is in turn is influenced by the locational advantage of the host country and the internalization of the advantage (Dunning & Lundan, 2010; Rugman, 2010).

The OLI has been recognized as a prominent theoretical framework in international business (Cantwell, Dunning, & Lundan, 2010; Verbeke & Yuan, 2010); nonetheless, it has also been a subject of critical assessments. For example, Itaki (1991) commented that the OLI possess weak explanatory power in that the "ownership" advantage cannot be viewed in separation from the "location" advantage. He further argued that ownership advantage and internalization advantage are at the risk of double counting in the model. In a bid to reconcile the eclectic theory with the
internalization theory (another theory to be discussed shortly), Rugman (2010) concluded the separate consideration of the ownership advantage from the internalization advantage as needless and redundant. The argument is that if the firm has an ownership advantage then it follows that there is also an advantage in keeping it internal to the firm. Following this reasoning the discussion of internalization advantage becomes no more important and hence the OLI paradigm could be reduced to only ownership and location advantage (OL). The reduction of the OLI to OL helped Rugman (2010) to develop his thoughts and conceive of a matrix with firm-specific advantage (FSA) and country specific advantages (CSA) on separate axis to analyze Dunning's (1993) four motives of FDI. The analysis indirectly revealed that the level of any FSA becomes a relevant variable in the international operation mode choice only when the CSA of the host country is presumed favorable. We note that this finding would weaken other propositions that overemphasize the unique capability and the resource base of the firm, downplaying the market characteristics of the host country as an equally important determinant to explain the internationalization behavior, pattern and performance of the firm.

2.2.2. Economic perspective - Transaction cost economics (TCE)

Contemporary to Dunning's eclectic paradigm (OLI), Buckley and Casson have been pushing in a series of works (1976, 80, 81, cited in Buckley and Casson, 2009) another theory of international business rooted in transaction cost economics (TCE). Buckley and Casson promoted the Internalization theory to explain the firm's foreign market selection and international operation mode. The theory is a cost-based view that draws on earlier works of transaction cost economics by Coase (1937, cited in Buckley and Casson, 2011). It postulates that a firm coordinates economic activities in a contractual arrangement to achieve the least cost of controlling the activities. The cost of coordination and arrangement determines the boundaries of the organization and the boundaries of the geographic involvement which also predicts the degree of the internationalization of the firm (emphasis mine) (Buckley and Casson, 2011). Buckley and Casson (1998) recount that the research of foreign operation modes had historically regarded only of two alternatives - exporting and FDI. And with respect to the later the issue has been primarily on foreign investment for warehousing or sales stores with the setup of production plant coming only later.

Authors like Mtigwe (2006) dispute the usefulness of the internalization theory to explain the behavior of the internationalizing firm. One of the criticism falls on the positioning of the internationalization motive/objective to cost minimization, which according to Mtigwe (2006, p, 11) is oversimplification of "real world dynamics of the international business." However, Rugman (2010) argues that the choice of foreign market entry mode is better understood through transaction cost theory (Anderson & Gatignon, 1986) than in the eclectic theory, because the latter has inclined to the FDI mode of operation. Yet, others have counter argued for the eclectic theory over the transaction cost analysis for the prediction of foreign entry mode (Hill, Hwang, & Kim, 1990).
As noted by Rugman (2010), the eclectic theory and the internalization theory share some commonalities in their assumptions. For example, location advantage is an integral element in both theories. The difference is that the eclectic model bases its explanation of operation mode on the location advantages found in the host country while the internalization theory considers the advantages in the home country of the internationalizing firm. To leave a comment here, I do find the ground shaky on which border is drawn between the two theories based merely on whose country's advantage (home country or host country) is factored in the operation mode decision equation. I think the argument on host-vs-home country advantage is unnecessary in that at the end both theories are talking about the comparative advantages of the same two countries, be it from the home country perspective or host country specific. My argument here is that speaking of any advantage becomes valid only in terms of comparative economics (Itaki, 1991). In this line of argument, speaking of country advantage of either the home or the host is valid so long as it is explained comparatively against either of the one. An entity (firm/individual/country) may be endowed with a certain type and amount of a resource. One can assess this resource as an "advantage" only when it is viewed in comparison to that of another entity - big or small. Until it is put under such comparative assessment, the resource can only be better referred to as a potential or capacity, and not as an advantage. An analogy of weight balance scale can be thought of as an illustration where the respective country advantage is hanging on the opposite sides of the beam. Whatever is a plus (advantage) for the one is, comparatively speaking, a minus (disadvantage) for the other. Any advantage factor that lifts up one side of the beam (home or host country) ends lifting down the other side (home or host country); and therefore, I contend that treating of the OLI and the Internalization theory as separate corner stones in lone terms of location advantage, as indicated by Rugman (2010), is slack.

The internalization theory recognizes the firm specific advantages and the risks of its dissipation in the choice of foreign market entry mode (Rugman & Verbeke, 2003), a decision which becomes complex with the liabilities of foreignness (Denk, Kaufmann & Roesch, 2012; Gilbert, McDougall, & Audretsch, 2006). The theory has been forwarded to explain the creation of the firm in the first place and its later growth development. Buckley and Casson (2009) state that the decision of the entrepreneur to first establish the firm is a consequence of economic evaluation of the costs of externalizing or internalizing the value adding activity. Moreover, in its course of development, the firm keeps growing by internalizing activities until the limit where the cost of insourcing an activity outweighs the cost of buying it on the external market. The theory has a predictive potential of the firm's boundary, not only the organizational boundary as implied earlier, but also its geographic boundaries and product boundaries (or diversification).

Buckley and Casson (2009) posit that wherever there is stronger intellectual property protection regime, it has improved the performance of external market with respect to internal markets and thereby decreased the incentives for internalization. That led to the recent proliferation of modes of international business other than FDI and exporting, such as licensing and franchising. This
singed out perspective might lead to erroneous/conflicting logical conclusion that wherever there is weak IP regime the incentive for internalization (FDI) is high to the firm in a bid to secure an appropriation of its special knowledge, but in other cases and findings have shown that in those countries where there is a weak IP regime are usually the same countries where there is a high risk of expropriation which in turn provides lesser incentive for FDI (Buckley & Casson, 2009). Such consideration is important to understand the market selection decision and pattern or scope of commitment by a firm in a given foreign market.

Ownership advantage stemming from possession of essential assets is an integral variable in the OLI model for the internationalization firm. However, the international entrepreneurship literature has presented plenty of empirical case which contradicts to the condition of "possession" of assets in order for competitive capability as so posited in the OLI theory. OLI focuses on advantages of firm ownership, and ignores potential advantages from cooptation or network advantage or other unique excellence of coordinating/marshaling resources beyond possession. Authors like Mtigwe (2006) raised direct critics to the OLI for its ignoring of entrepreneurial behavior of firms that have built competitive advantages from assets and resources which they do not own per se.

The seminal work by Oviatt and McDougal (1994) towards the theory of new international venture (INV) was built on earlier constructs of the transaction cost economics. Oviatt and McDougal's model of the four "necessary and sufficient elements" for the INV appears to match with the eclectic theory except that it has corrected the gaps in the OLI with respect to "possession" of assets (Figure 1). Oviatt and McDougal has included the element of "alternative governance structure" as a necessary condition for international advantage particularly in the case of the new venture which may not be possessing essential resources like the large MNE. In the case of INV, internalization is minimal and INVs rather rely on alternative strategies (e.g. Social network, cooperation, etc.) to access and utilize vital assets which would normally have required huge expenditures.

Figure 1: Matching the OLI with Oviatt & McDougal (1994) (developed by the author)
2.2.3. Process perspective - International PLC

According to Buckley and Casson (1998), the process perspective or sequential modes of internationalization was first inducted in international business literature by Vernon’s International Product Life Cycle hypothesis (1966). Vernon drew its inspiration from the product life cycle model (introduction-growth-maturity-decline) to conceptualize movement patterns of international marketing and production activities over time. The cycle begins with the firm’s innovation of a new technology and product and to which the first target buyer is found at the domestic market. As the domestic market becomes gradually saturated through the passage of time, the firm incrementally builds export market to other advanced countries and later proceeds to setting up local production plant in the foreign country. Again with the passage of time, as the rate of product improvement decreases and the product becomes more standardized, the firm increasingly focuses on improving the production process to achieve low cost of operation. The IPLC envisages the internationalization of the firm, i.e. the selection of foreign market and the selection of entry modes, to be driven from initial market-seeking motives to eventual efficiency-seeking investments (Buckley & Casson, 1998; Dunning & Lundan, 2008).

2.2.4. Process perspective - Uppsala Model

The Uppsala internationalization theory is premised on the influence of "experiential learning" (Dunning & Lundan, 2008) and “risk and uncertainty” in the internationalization process of the firm. The Uppsala model, as a process theory postulates that successful internationalization takes a form of incremental commitment to foreign operation as the firm learn and develop knowledge about the foreign market. The stage model also accounts the "psychic distance" as an important explanatory variable for the choice of foreign market, entry mode and the level of commitment by the firm.

Risk reduction is one of the two core tenets of the stage model (Johansson & Vahlne, 1990). Its sister concept of “perception adjustment” through exposure and experience is also an element regarded in both stage and BG models. Here, again, the firm/entrepreneur is the subject of the risk reduction process that is expected to materialize as a result of experiential knowledge and perception adjustment. Dunning and Lundan (2008) criticized the Uppsala model that its explanatory power serves only in the case of market seeking internationalization and fails to address other motives such as resource-seeking or asset-seeking activities.

2.3. International new venture (INV)

The above discussed economic and process theories of internationalization were put to critical test following the increasing emergence of "new breeds" of firms in international business. Researchers have interchangeably employed the terms "international new venture" (INV) and "born global" (BG) to refer to this emerging phenomenon (Knight & Cavusgil, 2005).
At the fading of the last century, as it is so referred by several authors, the recognition of small and global firms have gotten traction in academia following the reporting of McKinsey (1993, cited by Persinger et al., 2007). The McKinsey study reported that small firms have become intensively involved in the global market very early in the organizational life cycle. There is a plethora of academic articles since then in the researching of the new internationalization venture or, as most referred in other terms, the born global firm. After two decades of researching, however, there still exists argument on whether the born global is a theory in its own right or if it is a special example of the traditional stage model Internationalization theory (Fan & Phan, 2007).

In the definition of the born global firm, one that is far widely adopted in extant literature comes from Oviatt and McDougal (1994), which describes it 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" (p. 49).

Researchers have identified interesting behaviors in the BG and investigated a number of indicators to conclude the emergence of the new breed of small businesses in the international market. A number of terms appeared in literature to denote these rapidly internationalizing small firms; e.g. global startup, new international venture, high-tech startups, born-global (Moen & Servais, 2002). The BG is the widely applied term and we follow the trend here.

Speed, commitment level and commitment pattern of global expansion are amongst the widely used indicators (parameters) for the categorization of a firm as born global or not (Kuivalainen, Sundqvist, Saarenketo, & McNaughton, 2012). In fact, these are the fundamental dimensions against which the traditional stage theory has been severely criticized failing to explain the internationalization characteristics of the BG. Interestingly, as the three dimensions have been the basic characteristics which appear commonly agreed by BG researchers to make distinction against the internationalization behavior of the MNE (represented by Stage model theories), there still exists remarkable disagreement among the BG scholars in the employment of each dimension to qualifying a BG firm. Cutoff points have been mainly subjective and it is difficult to find objective criteria in extant literature that is amenable for universal application.

### 2.3.1. Commitment speed

Traditional internationalization theories such as the Uppsala Model (UM) had assumed that many years are elapsed before the firm sets feet in international markets (Johansen & Vahlne, 1977). According to the theory, the home market is the initial and a major market for the firm. International operation requires a good deal of resources and knowhow. And against this background, the stage model predicts that several years of operation first in the domestic market are elapsed before the firm progresses to become involved in foreign markets - only after building the required resources and important knowledge to compete in the foreign market.
Contrastingly, the BG firm is new and highly typified for the lack of tangible resources and experience. It follows that, in the framework of the UM, startups and SMEs are trapped in liabilities of newness and hence are not subjects for a successful internationalization story. In the past two decades, however, the results of several studies have challenged the precondition of long years of operational experience for accumulating resources and knowledge (Moen, 2002). Examples of such early internationalizing results were published by McKinsey (1993) which reported the internationalization success of small firms in Australia within two years from their inception (Persinger et al., 2007).

Some researchers have objected to the recognition of the BG as a new theory and they still support the validity of the stage model theory to the fast internationalization of SMEs. Fan and Phan (2007) posit that the BG is not an entirely different breed of international firm in the sense it leap frogs the stage process for accumulating required knowledge and experience in international marketing. The findings of several studies have associated the success of the BG to the entrepreneur's prior knowledge and experience in the international market (Madsen & Servais, 1997; Oviatt & McDougall, 1994). Scholars in this camp frequently insist that researchers should not merely look to the time period from inception to suggest the BG is a new phenomenon that requires new theory, but researchers also should study the time taken in preparation before the official launch of the business. However, Oviatt and McDougall (1994) argue that if definitional ambiguity must be resolved in the definition of the international new venture with respect to "time," then researchers should focus on the commitment of observable resources in the new venture and should avoid arguments about the time before the creation of the firm.

The BG literature is inconsistent in the cutoff point for judging the speed of internationalization - the number of years elapsed from inception to internationalization so as to regard a firm as BG. While some researchers have been stringent in observing maximum of three years’ time (Knight & Cavusgil, 1996; Rennie, 1993; Servais, Madsen, & Rasmussen cited in Gabrielsson, & Kirpalani, 2012), some others have relaxed the time variable (in some cases up to nine years) to select empirical cases in their research (Gabrielsson, Kirpalani, Dimitratos, Solberg, & Zucchellag, 2008; Hashai & Almor, 2004).

### 2.3.2. Commitment scale

The now challenged UM internationalization theory is premised on the “risk and uncertainty” factor in its theory of the incremental internationalization process of the firm. Accordingly, the internationalizing firm is guided by a risk minimizing instinct; and hence, the firm takes a progressive commitment in a foreign country as it gradually learns and stocks experiential knowledge about the foreign market (Johansen & Vahlne, 1977). The stage model also accounts the "psychic distance" as an important explanatory variable in the choice decision of which foreign market to enter into, for the entry mode as well as for the level of commitment.
(Andersson, 2011; Hasahi & Almor, 2004). Export and that particularly through intermediaries in the foreign market is the most common entry mode. The BG literature appears to have a similar stance on the mode of first entry to the stage model as export is the default entry mode assumed by the majority of BG researchers (Fan & Phan, 2007).

The level of commitment or foreign market-depth is another area of inconsistency manifested in the definition of BGs. As pointed out earlier, export is the variable favored to measure market commitment level. BG firms are often noted for their sizable foreign market ratio to their total market (which includes domestic market). The BG literature shows significant variation in the marking of the export intensity. For example, Fan and Phan (2007) cite earlier works by Kandassami which had used 10% and 40% export sales in different studies. Loustarnien and Gabrielsson (2006) required 50% export revenue from a foreign "continent" in their empirical study of Finnish BG firms. In a bid to qualify some firms in the BG sample that have internationalized within nine years from inception, Hashai and Almor (2004) applied a 75% export intensity condition. However; according to the findings, the most widely used cutoff is 25% revenue from export activity (Gabrielsson & Kirpalani, 2004; Hashai & Almor, 2004; Knight & Cavusgil, 2004).

2.3.3. Commitment scope

Yet another contentious issue in the BG definition is the market-breadth variable, which is simply the geographic market reach or in other terms the number and spatial distribution of foreign countries served. Disparities in the pattern of geographic market expansion have led some researchers to argue on the "degree of globalness" of the BG firm (Crick, 2009; Kuivalainen et al., 2007; Oviatt & McDougal, 1994).

America, Europe and Japan. However, the triad has been criticized as an obsolete economic map, especially following the shift in global economic balance corresponding to the emerging economic power houses like the BRICS and others in transition (Crick, 2009). The argument in the geographic reach and the expansion pattern resulted in the suggestion and the adoption of different terms other than "born global" (Gabrielsson & Kirpalani, 2012; Oviatt & McDougall, 1994). For example, earlier work by Oviatt and McDougall (1994) presented four typologies: export startup, multinational trader, geographically focused startup, and global startup. Other comparative concepts appear in Crick (2009) between INV vs. BG; Born international vs. born regional (Kuivalainen et al., 2012; Lopez, Kundu, & Ciravegna, 2009). Other researchers were very critical in concluding to the extreme that there is no truly "born-global" firm as such. However, the majorities of the works reviewed either seem not concerned about the geographic presence of the BG firm in their empirical study or seem satisfied that the firm is exporting to some multiple countries (Oviatt & McDougall, 1994).

2.4. The INV: beyond entry

There are relatively few studies on the fate of the international new venture and its organizational life cycle after initial entry. Sapienza et al. (2006) critically commented that the convention in INV research has become to limit the focus on early events of the internationalization. The research needs to be expanded and include the life of the INV beyond initial entry. Knight and Cauvisgil (2005) noted that the INV represent a substantial portion of the export trade growth in some industrialized economies like those in Scandinavia and the US. However, infant mortality is high in this group of firms (Bellone et al., 2008). The variables and relationships in the growth and mortality of the INV are complex and researchers have urged for more studies (Sapienza et al. 2006).

2.4.1. Growth and survival

The significances of growth are much plenty to the new international venture than it is to the established multinational enterprise (MNE) (Gilbert et al., 2006). First and for most, firm mortality is higher among new businesses and achieving survival and growth is like escaping the death row. Growth is crucial to the new venture to help it mitigate liabilities of smallness and newness. Increase in revenue is a lifeline to the usually cash strapped new firm in the international competition. Building up of financial resource base through growth is key for further investments in exploration and exploitation of opportunities (Zetting & Bonsen-Rea, 2008).

Second is the facilitation growth provides in the context of self-determination of the life of the business entity. Most entrepreneurs are unwilling to put on the line the future direction of their new firm in exchange for financial provision from external sources such as Venture capitalist. The fear of losing control of the business direction pressures the INV to compromise and restrain
its activities despite the business potential. Therefore, growth success provides strong motivation and reward for the entrepreneur to steer the venture in the entrepreneurial vision.

Thirdly, rapid growth is a proof for the business case. By quickly achieving growth, INVs maintain legitimacy in the industry and the market (Turcan, 2011; Zetting & Bonsen-Rea, 2008). That in effect would enhance the viability of the business especially in the case of INVs with high-tech and new innovative product. To the firm with a leading technology, growth and the consequent swell up in the customer base and specific market share (Gilbert et al., 2006) leads its innovation/product into becoming the dominant design (Utterback, 1996). According to Utterback (1996) the dominant design is the technological platform that has received higher level of acceptance by the market and that has been successfully diffused.

Furthermore, the definitive sources of competitive advantage, which is usually blurred during the birth and initial stage of the INV (Mathews & Zander, 2007), becomes much clearer as a consequence of the achievement of growth. INVs may rapidly internationalize for several reasons, which among others may include a simple serendipity (Crick, 2009) and other less strategic drives. However, the fate of the INV beyond initial entry (i.e. survival and growth) requires strategic clarity on the part of the firm (Li, 1995).

The terms "growth" and "survival" are not synonyms; however, they are very much interlinked and one can be employed to implicate the other. Growth is positively related to the survival of the INV (Chen, Zou, & Wang 2009), but the firm could still survive for significant period of time and not be growing (Lee, Kelly, Lee & Lee, 2012; Sapienza et al., 2006). However, survival without growth becomes extremely difficult for the INV considering the lack of buffer resource to withstand adverse situations for an extended period of time.

2.4.2. Growth: type and measurement

Organization growth can be achieved in either one or combination of two mechanisms. A firm can grow either organically as a result of increases in activities internal to the organization or grow inorganically through the acquisition of other businesses. Each growth mode entails different consequences and the favorability of which mode to follow depends much on specific circumstances internal to the firm and its strategic goals (Hitt, Ireland & Tuggle, 2006). For example, according to Hitt, Ireland and Tuggle (2006), if efficiency-seeking is the priority motive in the organization’s activity, then organic growth may present a challenge in the configuration of organizational structure.

Organic growth is considered by many authors as the hallmark of entrepreneurialism (Davidsson, Delmar & Wiklund, 2006; Kazanjian, Hess, & Drazin, 2006). Organic growth indicates the internal capability of the firm to continuously explore, innovate, and successfully exploit opportunities (Hitt et al., 2006). Acquisition leads to immediate growth. Growth in acquisition may become necessary when there is an urge for industry consolidation or to quickly build
market position (Rao, Rao, & Sivaramakrishna, 2008). However, acquisition may result in poor performance particularly when there is difficulty of integrating the newly acquired firm with existing system and routines. Acquisition is an external growth and competitive sustainability remains in shadow unless growth is strongly backed by internal achievements (Hitt et al, 2006). Acquisition is also considered as a strategy to enable the firm acquire technology different from what is at the core of the current portfolio and thereby achieve product diversification (Chen, Zou, & Wang 2009). Buckley and Casson (2007) comment that for the technology-intensive firm the success of sustainable growth is highly likely if diversification is in related technology and product than it is in unrelated diversification.

In a different perspective of growth types, Buckley and Casson (2007) identified, in the review of Edith Penrose's theory of the firm, three dimensions to the international growth of the firm. The growth dimensions are geographic diversification, product diversification, and integration along the value chain. Product diversification may include adding newer versions of existing products, the addition of new and different products that may complement or replace existing products. The vertical integration may be backward with the aim of controlling supply of inputs or forward intended to internalize downstream value adding activities. Geographic diversification occurs due to either of the resource-seeking, market-seeking, efficiency-seeking, or strategic asset-seeking FDI motives reported by Dunning and Lundan (2008).

The measurement of growth is heterogeneous and one of the complex issues in the INV literature (Delmar, Davidsson & Gartner, 2003; Kazanjian et al., 2006; Moreno & Casillas 2007). The lack of consistency and uniformity has caused a challenge for comparative analysis (Delmar et al, 2003). How do we measure the growth of the INV? What is the best indicator of growth and what metrics should be used?

The review of empirical literature by Moreno and Casillas (2007), reports that total sales and employee number are the two most adopted growth indicators. This choice is also shared by Delmar, Davidsson and Gartner (2003) who used annual turnover and change in employee size as the core variables in the study of organizational development of all firms in Sweden between 1987 and 1996. Total sales appears to be the most favored by entrepreneurs (Moreno & Casillas, 2007) due to its apparent strength in indicating the "demand" for the products of the firm (Delmar et al, 2003). That becomes even more meaningful for new ventures that have entered the market with the value proposition of new technology/product - the increase in total sales (or cumulative units sold) implies the increase in the diffusion of the new technology (Dockner & Jorgensen, 1988). It is often the case the number of employee grow corresponding to the growth of total sales. But in the past few decades the emergence of virtual organizations with highly integrated outsourcing of multiple layers of the value-adding chain created a form of rapid growth in total sales not accompanied by growth in total employee’s number (Delmar & Davidsson, 1998).
Profitability is stressed by some authors as the crucial measurement of growth because of its significance in depicting the sustainability of the company. Increase in profit maximizes shareholders' value and it also is a source of internal financing (Buckley & Casson, 2007).

In the taxonomy of the high-growth firm, Delmar and Davisson (1998) identified seven clusters of growers: steady absolute sales growers, acquisition growers, employment growers, one-shot growers, super growers, steady over-all growers, erratic sales growers. Of these clusters, it is interesting to note that the acquisition growers exhibited balanced growth in sales and employment while the super growers achieved absolute and relative growth in both metrics and the majority of employment was organic.

2.4.3. Growth factors

New venture growth factor, similar to that of growth measurement, is another area of complexity found in the INV literature (Wiklund, Patzelt, & Shepherd, 2009). The question for the growth factor is not a settled matter and there is no single answer for it. McKelvie and Chandler (2004) note that entrepreneurship researchers have focused on three levels to infer about the growth of the new venture. These levels are at the individual level, the firm level, and the environment level. At the individual level the focus of the explanatory factor is on the entrepreneur’s motivation, vision, and competency. At the firm level researchers are interested in the firm specific resources and advantages. The environmental level factors included the industry structure, dynamism and munificence of the environment. Gilbert et al (2006), referring to earlier works of Sandberg (1986) and of Chrisman, Bauerschmidt, and Hofer (1998), write that the list of factors that could influence the growth of the new venture includes the entrepreneur; the organizational resources, structures, process and systems; industry structure and organizational strategy. Some authors in international business and entrepreneurship have considered other factors such as the initial foreign market entry mode and the age of the firm at the time of internationalization to hypothesize about growth and survival attributes of the INV (Sapienza et al., 2006). Discussions of the factors that are in the interest of this paper are presented in the following sections.

2.4.3.1. Entrepreneur

The entrepreneur has been recognized by several authors as the center of the increasing phenomenon of going international at inception or early on the life of the new venture. The entrepreneur is highly regarded as the dreamer and realizer of the phenomenon. Loustarnien and Gabrielsson, 2006, note that the role of the entrepreneur in the accelerated internationalization and growth of the new venture is so crucial that there emerged a new research stream in the academia which is referred as "international entrepreneurship." The entrepreneur is the source of vision and direction for the internationalizing firm (Moen, 2002; Crick, 2009). In contrast to the fast internationalization of the INV against the traditional stage model theories, some researchers have raised the prior knowledge and experience of the entrepreneur before the inception of the
firm providing the leverage for the speedy process of going global (Gabrielsson, 2005; Moen & Servais, 2002). Andersson (2011) confirms the prior knowledge and skill of the entrepreneur in discovering international opportunity. Special capability and skill of the entrepreneur in identifying international opportunities and committing resources to international markets despite high risks of foreignness and smallness is a much discussed factor in the theory of the INV (Crick, 2009). With the entrepreneur at the forefront of the international success, his/her social ecosystem and personal international network are some of the key success factors identified by researchers (Andersson, 2011). Kuivalainen et al. (2007) also confirm that the entrepreneurial orientation is at influence in the internationalizing firm explaining the early and intensive commitment to global market opportunities (Wiklund et al., 2009).

2.4.3.2. Business strategy

Having an innovative technology does not necessarily guarantee market success and business growth. The firm needs also to develop or choose the most suitable business strategy – the competitive position or orientation in the market (Porter, 1980); and also a business model that is congruent to the business strategy (Teece, 2010). According to Teece (2010), business model is the architectural design of how the business creates value, delivers the value, and captures back the rent for the value rendered.

Teece (2010) further notes how an innovative business model is an integral element of the firm’s competitive advantage. According to Amit and Zott (2012), a business model has three core elements, which they call content, structure, and governance, and business model innovation could occur in any of the three elements. If a business can modify enough one or more of these elements, then it has changed the business model. The content of an economic system refers to the selection of activities to be performed in the creation and delivery of product/service. The structure of a value system describes how all the activities in the creation and delivery of value are interlinked. The third element, governance pertains to the relationship and interaction of the web of actors in the entire value chain - who performs which activities. Amit and Zott (2012) identified four major value drivers in a business model: novelty, lock-in, complementarities and efficiency. According to the analysis by Amit and Zott (2012), the lock-in is the effective value driver of the business model that has carried Apple Inc. on the breakneck growth track with the iPhone and iPad products. Apple Inc became the biggest company of the world in market capitalization (www.money.com) just within a period of barely a decade since the company entered the consumer electronics market breaking from its traditional computer segment. The report by the global investment research company Morningstar Inc. (www.financials.morningstar.com) indicates that Apple’s annual revenue between 2003 and 2012 grew by 2421% to arrive at 156 billions of dollars.
Business strategy or competitive orientation in either one of the generic forms - technological leadership (differentiation), cost leadership, niche focus (Porter, 1980) - has been recognized among INV researchers as a factor that influence the international entry and performance of the firm. For example, a number of authors have mentioned the increasing importance of the global niche as a factor motivating many small firms to go international (Fan & Pan, 2007; Kuivalainen et al., 2007; Rialp, Rialp, Urbano & Vaillant, 2005). According to Persinger, Civi, and Vostina (2007), the BG exhibits high commitment to serve small niche markets that are dispersed globally. Andersson (2011) and Crick (2009) also reported of a global niche market as a competitive advantage for the BG firm.

The research on the relationship between competitive strategy and the INV growth has reported mixed results. For example, Baum, Locke, and Smith (2001) identified positive relationship between differentiation strategy and international new venture growth while the relationship was negative with both focus and low-cost strategies. In an empirical research aimed at identifying the relationship between the international performance of the INV and the competitive advantage which the firm sustained, Knight and Cavusgil (2005) identified four clusters of strategies with varying performance outcomes. The first clusters of firms are named "Technology leaders." These INVs scored higher on international performance and are highly engaged in "differentiation" strategy (Porter, 1980) backed with strong entrepreneurial orientation. The firms in this cluster have also scored high in cost leadership and focus strategies. The second cluster, "High-tech Focusers," have scored high on focus strategy equal to Cluster-1 but lower on differentiation. There is a high degree of product adaptation to fit specific requirements in foreign markets. The high-tech focusers have scored the lowest in cost leadership from all clusters, yet, they are the second best on international performance. The third cluster “cost leadership” is the poorest in technological leadership and yet their international performance is as good as the high-tech focusers. The last cluster, "stuck-in-the-middle," lacks any emphasis in major strategies and firms in the cluster are poor international performers.

In another empirical study of international new technology based firms (NTBF), Coeurderoy, Cowling, Licht and Murray (2012) arrived at similar conclusion with Knight and Cavusgil (2005) about "the-stuck-in-the-middle" firms. These firms lack a clear strategy for their international business and consequently their survival is highly precarious. Although it has provided an insightful typology, the deficiency in generalizability of Knight and Cavusgil (2005) is that it considered "exporting" as the default entry mode and the analysis is based on export performance as the outcome indicator.

### 2.4.3.3. Firm specific factors

One of the dominant strategic management perspectives posit that the choice of a competitive strategy is largely contingent on factors that are internal and specific to the firm (Barney, 1991). The firm is envisioned as a bundle of “accumulated tangible and intangible resources stocks”
(Roth 1995, p. 200). According to Roth (1995), resource stocks are conceptualized as “firm-specific” because the accumulation of such is heavily dependent on the historical path followed in the development of the firm. Consistent to this line of perspective, researchers have suggested that the international growth research problem is better approached through the resource-based view and dynamic capability of the firm (Chen, Zou, & Wang 2009; Tan & Mahoney, 2005).

Ricart, Enright, Ghemawat, Hart, and Khanna (2004) noted that the current competing schools of thought in strategic management and international business research have each tended to play down the importance of one factor of growth and competitive advantage over others. Against this background, Ricart et al. (2004) propose a view of strategic factors which they call “ARK,” from which configuration and interaction the firm drives its competitive advantage and growth. The ARK is an acronym for those activities, resources, and knowledge which are specific to the firm. Knowledge based views of the international firm emphasize the superior ability of the firm in creation, mobilization and exploitation of knowledge across the international market (Buckley & Casson, 2009; Kogut & Zander, 1993; Pieris, Akooie & Sinha, 2012).

In the international market, the firm’s capability in configuring and coordinating value adding activities across multiple national borders is essential for successful performance (Ricart et al., 2004). The firm’s resource position and the excellence in resource combination result to a variety of growth trajectories (Chen et al, 2009). On similar line of discussion about the influence of resource base and its configuration on the firm’s growth performance, Sapienza et al. (2006) note that firms create new strategic value by continuously modifying the resource base “through acquiring, shedding, integrating, and recombining resources” (p. 914). This quality of resource alteration and reconfiguration in the development of new routines for value recreation is referred by many as dynamic capability of the firm (Dunning & Lundan, 2010; Sapienza et al., 2006).

Technological capability is a source of competitive advantage to the INV (Zahra & Bogner, 2000). Technological capability facilitates growth through the introduction of noble and breakthrough products (Chen et al, 2009). Zahra and Bogner (2000) define technology as the firm’s cumulative special knowledge and skill. It is no wonder the majority of empirical research on INV and born global phenomenon is filled with cases of high-tech firms (ref). Technological breakthrough and specialized product are reported as the primary success factors for the rapid internationalization and expansion of the INV. Zahra & Bogner (2000) identified five dimensions of technological strategy that would play significant role in the performance of the INV: “radicality, intensive product upgrades, R&D spending, the use of external sources, and the use of copyrights and other means of intellectual capital protection” (p. 139). Their work accentuated that Radicality, which is the introduction of technologies and products ahead of the competition, is a crucial success factor in highly uncertain and dynamic environment.

Relationship advantages are other firm specific advantages providing a unique edge for the formation and sustainability of the international new venture (Oviatt & McDougal, 1994).
Relationship capability, or in more formal term, networking capability (Chen et al. 2009; Dunning & Lundan, 2010), is not merely limited to that aspect of accessing resources through interpersonal relationship. But it extends to include broader areas in governance of interorganizational relationships across the value chain and in the business ecosystem (Dunning & Lundan, 2010; Hung, 2006; Oviatt & McDougal, 1994).

It is recalled that in the eclectic paradigm (OLI) of international operation one of the key element is the firm ownership advantage which is in other terms the stock of specialized advantages that are internal and specific to the firm. Oviatt and McDougal (1994) in their seminal work of the INV theory presented "governing structure" as one of the sufficient and necessary factors for the initial internationalization and later sustainability of the INV. It is interesting here to note that the “governance” structure redresses the allegation against the OLI paradigm. The OLI paradigm has so much focused on “ownership” of resources and consequently its application is limited mainly to the MNE, which is presumed to have larger resource base under possession. With the recognition of governance structure as INV advantage, i.e. advantage to accessing and utilizing resources which are not necessarily under the possession of the firm, the OLI can be extended and applied to that of the INV. Dunning and Lundan’s (2010) recent work appears to have addressed the issue of network structure on Dunning’s foundational OLI paradigm.

Authors have recognized that an innovative business model in and of itself is a competitive advantage (Amit & Zott, 2012; Teece, 2010). According to Amit and Zott’s position, governance structure is one of the three core elements of any business model. Its description, as presented in previous section, is about the relationship and interaction of the actors in the web of the value system. Again, it is interesting to notice that relationship advantage from special interaction in the network is brought as important factor to understand the internationalization and performance of the INV (Oviatt & McDougal, 1994).

2.4.3.4. Life cycle factor

Several authors have asserted that industry characteristic is a significant factor for the performance and growth of the new venture (Fernhaber, McDougal & Oviatt, 2007; Robinson, 1999; Porter, 1980). Robinson (1999) analyzed the performance of 199 high potential independent ventures based on four industry variables: stage of the lifecycle; industry concentration; entry barriers; and product differentiation. He reported that among the considered industry variables the life cycle stage of the industry had a statistically significant relationship; and also that ventures that have entered the industry at its introductory stage of the life cycle has achieved highest performance on a number of measurements compared to those that came at the maturity stage of the industry. Further, Robinson (1999) noted that new ventures were comfortable in industries where there is high product differentiation and fragmentation.

On similar study, Covin and Slevin (1990) found out that high level of performance exhibited by ventures that had entered an industry at the growth stage than those entered at the introductory
stage. Fernhaber, McDougal and Oviatt (2007) also note that an industry's growth stage can accommodate more strategic errors which a new venture may likely make due to the inherent lack of experience; consequently, the industry life stage is positively correlated to INV growth and survival.

Entirely new industries and industries under transitions provide more room for growth. Some highly innovative INVs with a potentially promising technology that could spearhead the creation of new industry or the transformation of one existing have exhibited significant growth. And for such companies achieving accelerated growth apparently was not only an end itself but also a means for even higher end. Attaining a technological and market leadership position to influence and shape the development of global technological or operational standards for the industry is valuable; and growth is the definite way to reaching that position. Growth for many high-tech firms has become the cause as well as the consequence of distinctive internationalization performance (Kudina et al., 2008; Oviatt & McDougal, 1994).

Research on how early in organizational life cycle the internationalization occurs and its relation to subsequent performance has resulted in contradicting conclusions. For long, in process theories of internationalization, international performance was understood to largely rely on accumulated resource and experience. Developing the required stock of experience and resource would definitely take longer time; and therefore, the conclusion was that the earlier the firm internationalized the more likely and shortly the failure comes about. The premises for predicting high failure rate to the INV lies on two tenets: newness and foreignness. INVs already suffer from liabilities of newness such as inefficient internal operation (Lee et al, 2012), underdeveloped systems and immature routines (Sapienza et al., 2006), etc. And adding to that, disadvantage of foreignness such as competing against experienced local firm will expedite the downfall of the INV in international market. The dispersion of the already thin resource by entering into several markets is expected to drain the momentum of the INV and risk the survival (Cieslik, Kaciak & Welsh 2010).

However, authors like Sapienza et al. (2006) are critical of the traditional understanding that favors delayed internationalization. They argue delayed participation may in fact result in lost opportunity, particularly with the case of high-tech innovations owing to the ever shorter lifecycle of technologies (Coeurderoy Cowling, Licht, & Murray, 2012). Early internationalization affords exposure that accelerates the development of new knowledge which can later enhance innovation and growth (Cieslik et al., 2010). The INV is positioned to exploit a "learning advantage of newness" better than an established MNE (Autio, Sapienza, & Alemida, 2000). A delay in the internationalization decision is a risk factor for developing inertia that would potentially preclude the development and exercise of dynamic capability in international competition (Sapienza et al., 2006; Zetting & Bonsen-Rea, 2008).
An empirical INV performance study by Knight and Cavusgil (2005) reports a result that supports the early internationalization advantage perspective. Based on the comparative analysis of performance on the variable of age at internationalization, their finding show that the firms that have internationalized earlier has ultimately achieved superior performance in foreign markets compared to late internationalizing firms. Autio, Sapienza and Alemida (2000) also found out positive relationship between youth at internationalization and speed in subsequent international growth.

Sapienza et al. (2006) note a contrasting objective between the stage model internationalization perspective and that of the INV or born global perspective. In the gradually internationalizing firm, survival is identified as the overriding objective while growth is the driving objective in the case of the born global.

2.5. Analytical framework

Figure 2: Factors that determine the international growth of the INV

Synthesizing on the extant literature reviewed in the previous sections, a comprehensive framework depicted in Figure-2 has been developed to provide guidance in the collection and analysis of data. As pointed out earlier, there appeared a new breed of new ventures in the international business arena which have triggered an interesting critique of earlier international business theories. The hallmarks of these new firms (INV) are found in the speed of internationalization, the commitment scope, and the commitment scale of their involvement in international market. Further, as has been noted earlier, the expansion and growth of the new international venture in the international market is affected by multiple factors acting directly and indirectly.
3. Research Method

This chapter presents the research method employed in this study. Discussions follow in the order: 3.1 Research approach, 3.2 Research methods, 3.3 Research strategy; 3.4 Data collection; and 3.5 Data Analysis

3.1. Research approach

One of the main tasks of any research study is to relate reality to theory. The most prominent approaches to deal with the relationship between theory and practice are induction and deduction (Bryman & Bell, 2007). A research that follows a deductive approach first decides on a working theory to study the reality; and from the choice of theory the researcher develops the hypothesis or a theoretical framework that would guide the study process starting from data collection through analysis and final arrival of conclusion (Bryman & Bell, 2007). Deductive approach is applied to control, test and possibly modify theories in the light of emerging findings (Saunders, Lewis & Thornhill, 2007). Induction on the other hand is used when the researcher starts with making the empirical observation having no or minimal theoretical framework to dictate the process. Such approach would usually end up with providing new ground or source for building theories from whatever has emerged from the findings (Graziano & Raulin, 2004).

The present study has followed a deductive approach which is more suitable to the research purpose. The research interest in the international new venture is assumed to be relatively new; although international business as a research field is quite old, the subject of theories and paradigms were concerned much to that of the multinational enterprise (MNE). However, in the past two decades or so authors have attempted to test, relate, and modify traditional international business theories in the light of the new breed of firm in the international market (eg. Oviatt & McDougal, 1994). Following a deductive approach, the task of developing the interview guide and deciding which data would be required has been highly influenced by the existing theories and constructs in international business as well as organizational theory. Having a theoretical framework as guidance was beneficial reckoning its facilitation of a structured investigation and insight into the study matter, allowing the researcher to collect more relevant empirical data. I recognize the drawback with the deductive approach, which is the rigidness and strictness of it, inhibiting alternative explanations (Saunders et al., 2007). To mitigate this effect, I have attempted to remain open to new findings and make changes in the theoretical framework, if need be.

As the case of the INV is a new subfield in the larger international business research area, it is expected that new findings may emerge which could possible call for adoption of new theories instead of relying on existing theories. But as several authors point out, it is not always a clean cut between the two approaches and that a single research project can contain elements of both approaches. The inductive and deductive approach should therefore be seen as tendencies rather
than hard-and-fast distinction (Bryman & Bell, 2007; Saunders et al., 2007). The objective of the discussion here on the two approaches is rather to point out that flexible considerations have been maintained in the course of the study; but not to get entangled in endless argument on where the line should be drawn between inductive and deductive approaches.

3.2. Research method – Qualitative

Bryman and Bell (2007) make distinction between quantitative and qualitative research pointing out that classification between the two methods is meaningful for a range of issues related to the practice of business research. According to Saunders, Lewis, and Thornhill (2007), the quantitative method is concerned with data collection and analysis procedures by a numerical measurement and quantification of aspects of variables, owing itself more to experimental studies. Qualitative method is more concerned with the use of words and text in describing several variables. It attempts to interpret or make sense of a phenomenon in terms of the meanings people attach to the variables. Qualitative method is most favored in descriptive and exploratory researches. We have adopted a qualitative method given the purpose of our study, which is to understand, describe and explain the driving factors that shape companies’ climate responses as well as their typologies. The qualitative method also helps to obtain more in depth understanding of the matter by studying more variables from fewer participants. We believe the complexity of the research problem favors for qualitative setting so that the study fulfills its purpose by generating insight to how businesses give meaning to the various forces prevalent in carbon strategy development and how they respond to it.

Another reason for the choice of this method is that qualitative method can, according to Merriam (2009), be suitable when an existing theory is sparse and fails to adequately explain a phenomenon. We recognize that the corporate climate response problem is relatively a new research area and the available theories are fragmented and incomprehensive. These reasons call for the examination of the dynamics of the subject matter with creative and flexible approaches so as to capture emerging concepts during the process. Such flexibility and creativity can better be achieved with qualitative methods than structured quantitative methods (Darlington & Scott, 2002; Bryman & Bell, 2007).

3.3. Research strategy

Yin (2009) presents five common qualitative research strategies that can be used depending on the aim or nature of the research: surveys, experiments, case study, archival analyses and histories. Case study permits investigation and understanding of the characteristics and dynamics of events in their natural setting (Yin, 2009). Archival research uses data “archives”, which are data sets that have already been collected by someone, and experimental method calls for controlling events in the study. Histories are the preferred methodology when there is virtually no access to the study phenomenon and the focus is on historical events. Case studies are
preferred in examining contemporary events and do not involve manipulating events. Moreover, case studies can have additional sources of evidence from archives as well. This makes the case study method appropriate choice for our research.

The selection of case company was dictated by purposive sampling techniques. Purposive sampling provides the qualitative researcher the freedom to select participants that will best help understand the problem and answer the research question (Gray, 2004; Merriam, 2009). Pursuant this sampling technique, a criterion was developed stating out what sort of company would qualify to service the objective of the study. From the framing of the research question in the first chapter and later in the review of literature, it was indicated that the purpose of the current study is answering the international growth question in the context of the international new venture (INV). The study was not interested in multinational established corporations (MNE) nor was it so in their subsidiaries or spinoffs. For the recognition of the distinct characteristics of the INV in international business, the study has already identified three dimensions (cf. section 2.3.1 – 2.3.3). The case company must have exhibited high level of commitment to the international market right after inception or significantly early in the life. It must also have presence in multiple countries found in multiple continents; and finally its international market should contribute more than 75% of the corporate revenue.

Following the criterion, a total number of five candidate companies were approached and contact was established with the companies at different times. Similar description of the purpose of the study and fairly similar interview guide was sent to all the companies. In the progress of time, one of the companies (SoleRebels) declined to provide any sort of reply despite having received consent to participate and despite a series of follow-up email and telephone call. Another two companies (Absolent AB and Allard AB) participated in the interview over Skype but after reviewing the data feed it was decided to eliminate them from the study because they have failed on one or more of the purposive sampling criteria. The fourth company (namely, HMS AB) qualified along all three dimensions and the data collected was found sufficient for doing the analysis. The fifth company (namely, AXIS AB) was in similar fashion with the fourth company. However, there occurred a time lag in the access and compilation of the empirical data; and consequently it proved difficult to include it in the reporting of this thesis. As a result, this research report is prepared based on a single case analysis.

3.4. Data collection

The present study used data gathered from three primary sources and other secondary sources. Initial contact was first established with the company through the arrangement of Professor Svante to attend a meeting to be held at the Head Quarter (HQ) of the case company (HMS). During the meeting, two managerial staff of the company gave a presentation to the attendees providing explanation on the situation of the industry, the core technology and capability of HMS in the industry, its achievement and growth anticipation, and future direction, etc. At the
end of the meeting, I established a personal contact with one of the presenters whose position is
the Corporate Communication Manager. After discussing at the spot on my research interest and
the possibility of the company’s participation in the study, the communication manager later
facilitated the contact with the relevant manager handling thesis works in the company. In the
process, I kept corresponding with the research coordinating manager.

The original intention was to have a semi-structured interview session with top level managers
and particularly with the CEO. I submitted my Interview Guide after receiving request for that
from the staff manager coordinating thesis works. The purpose of submitting the interview guide
early was to get the best result from the interview session by helping assigning the right
personnel for the interview and get them well prepared. One week after submitting my interview
guide I received an unfortunate email from the company about the difficulty of arranging the
senior management for the interview. The reason was that, as explained by the staff and as I also
became aware of during my participation in the meeting at the company office, during those
weeks the management team is on tight schedule and highly occupied following the acquisition
of the German IXXAT company that was concluded just recently. Nonetheless, I was then
informed that I can access and refer to the official periodic corporate reports. These corporate
reports have been the primary sources of data. The publications provided on a detailed manner
the company’s overall business activities, market performance, financial performance and status
in the stock market, data related with employees, management team and board of directors, etc.

The other primary source from which data has been used is two video files accessed from HMS
channel on You Tube (http://www.youtube.com/watch?v=Um6oodOp9mj0 and
http://www.youtube.com/watch?v=6A_yi9_t2OU). The video is of the interview the current
CEO Mr Staffan Dhalström gave on the situation of the company and the industry. Secondary
information on the historical background and current state of the industry was collected from
freely available information on the Internet from several websites.

3.5. Data Analysis

The analysis of the empirical data involved two steps. The first round was filtering and
organizing the volume of data gathered. The accessed corporate reports were hundreds of pages
of information covering several years of operation. The data was cumbersome and was not ready
for the consumption of the current study. Therefore, it required carefully reading through the
pages and sorting out what is relevant and what is not for the current need. On the outcome of
the process, data that is presumed relevant and in the interest of the current study was selected
and arranged, and discussion presented under six headings (cf. Chapter 4).
The next step was to analyze the empirical findings. A qualitative content analysis approach was adopted with an over guiding principle of a deductive approach to relate empirical findings to theory. Content analysis is a common method applied for the analysis of data in social since both in qualitative and quantitative settings (Elo & Kyngäs, 2007; Neuendrof, 2002). It is applicable in examining documentary sources (Bryman & Bell, 2007). The approach requires sensitivity to the contents and contexts of communicative statements and the characteristics of the source (Kolbe & Burnett, 1991). According to Elo and Kyngäs (2007), content analysis is concerned with "meanings, intentions, consequences and context" (p. 109). It affords the researcher the flexibility to derive meanings and interpretation out from the data into categories of qualified constructs (Kolbe & Burnett, 1991; White & Marsh, 2006). Accordingly, statements from the empirical section with keywords and thoughts that were judged by the researcher to qualify in relation to and correspondence with constructs of the framework of analysis that was built earlier (Figure 2) were pulled out and analytical discussion was rendered around there.
4. Empirical Findings

Data collected in the research process is summarized and presented in this chapter.
4.1 HMS Networks AB, 4.2 Internationalization and Expansion, 4.3 Technology and Product portfolio, 4.4 Business strategy, 4.5 Marketing and distribution, 4.6 R&D and production, 4.7 Industrial automation and communication.

4.1. HMS Networks AB (HMS)

HMS Networks AB (HMS) is a Sweden-based technology company operating in the sector of communication technology for industrial automation. HMS is engaged in the development, production, and marketing of communication technology to connect industrial devices to networks and products enabling interconnection between different industrial networks and equipment's. HMS was founded in 1988 by Nicolas Hassbjer (HMS=Hassbjer MicroSystems) based on an extension of idea originally started as a student project for measuring paper thickness. In 1994, HMS came up with a breakthrough proprietary technology which it named as Anybus to enable communication between any industrial equipment to any industrial network and between any two networks. The internationalization followed soon after the development of Anybus and since then its international operation has been expanding and growing at an overwhelming rate. HMS consolidated the position of market leadership for third party supply of industrial communication technology. HMS has received several accolades from a number of organizations for its technological and market success. In 2006 it was listed on Europe's 500 fastest growing companies. In 2008 HMS won the prestigious prize for "Export Company of the Year" from His Majesty the King of Sweden and it was in the list of Sweden's fastest growing companies for six consecutive years before the award. Today HMS employees 350 people in its seven offices located around the world. It has three major business areas with several versions of products under each group: Anybus Embedded, Anybus Gateway, and Netbiter. As of 2013, HMS has become a company with a market capitalization of 1.34 billion kroner with an annual turnover of 500 million SEK. Since 2007 HMS is a publicly traded company listed on the Nasdaq OMX Stockholm Small Cap list, in the Information Technology sector with total number of shares amounted to 11,322,400.

4.2. Internationalization and expansion

HMS was established in 1988 by the entrepreneur Nicolas Hassbjer as an extension of his research in university project at Halmstad University. Nonetheless, the period before 1994, i.e. the year HMS has developed its iconic technology of Anybus module, is not so much referred to in the annals of the organizational. HMS operation in those early years was minimal limited to consultancy services and other activities. Consequently, the year 1994 can be regarded as the definite starting point of HMS organizational life as we know it today. In 1995, soon after the
announcement of the innovative Anybus, HMS received its major order for installation of
Anybus in three factories of General Motor (GM - one of the largest automotive manufacturing
appanies in the world). In 1997 HMS partnered with external parties to invest for joint
ownershop of a company named Netbiter. Entering the US industrial automation and
communication market with General Motors, HMS has recognized the huge market potential of
the country for its products. Afterwards within three year time, HMS organically established its
first international sales office in the US (1998) increasing its commitment consistent to the
identified opportunities there. Due to the strong need of financial resources to support its growth
potential, HMS received investment from SEB Företagsinvest and Industrial Development &
Investment in 1999. Between 1998 and 2000 the company invested heavily by providing extra
resources for sales, marketing, development, manufacturing and an expansion of the Group’s
organization.

In 2000, HMS became the first Swedish company to receive the ISO 9001:2000 certification
from the International Organization for Standardization after having fulfilled the requirements
for a quality management system. With increasing recognition by end users HMS continued its
international expansion. In 2000 it established its own sales office in Japan and in the same year
it set up sales office in Germany by acquiring a local company named Vcom GmbH. It was the
same year HMS finally received its patent registration in the US which was important in
legitimizing and protecting its proprietary technology in potentially the biggest market.

Figure 3: Sales (in millions SEK) evolution 2001-2012

In 2001 and 2002 HMS successively released new products in the networking area: Anybus-
Communicator, and Anybus X-gateway. The same year the accumulated number of Anybus
shipped since 1995 clocked at 100,000 units. In the consecutive years the number of Anybus
shipped increased by many folds and in 2007 the cumulative shipment reached 700,000 units.
During this Phase a number of new products had been developed and released and more than three patent applications have been filed. The years 2005 and 2006 marked the establishment of HMS own sales office in China, Italy, and France making the total number of foreign subsidiaries reach to 6. The company completed a similar expansion of the Group’s business in 2007 strengthening the R&D department, production capacity and administration.

In 2007 the company became publicly traded on Nasdaq OMX Stockholm Small Cap list. The public offering provided much needed capital and improved HMS financial position to support its growth in the international market. HMS was awarded by His Majesty Carl XVI Gustaf the King of Sweden with the national prestigious prize for "Export Company of the Year" in 2008. 2009 seen another crucial milestone in the organizational life of HMS when the founder and CEO Nicolas Hassbjer resigned from the top position. He handed over the helm to Staffan Dahlström, a partner since the establishment of the company. It was also a year for another milestone when HMS has shipped the one millionth Anybus network interface since the start. Within only the following two years HMS has shipped another one million Anybus taking the total accumulated to two million units.

Table 1: Summary of performance across selected indicators

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013 (start)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of International subsidiary</td>
<td>3</td>
<td>4</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>7</td>
<td>7</td>
<td>9</td>
<td>10</td>
<td>(start)</td>
</tr>
<tr>
<td>International Distributor</td>
<td></td>
<td>30</td>
<td>30</td>
<td>44</td>
<td>45</td>
<td>50</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual Sales (million SEK)</td>
<td>150</td>
<td>179</td>
<td>235</td>
<td>269.5</td>
<td>316.5</td>
<td>244.5</td>
<td>345</td>
<td>383.6</td>
<td>382</td>
<td>(start)</td>
</tr>
<tr>
<td>Annual Profit (million SEK)</td>
<td>30</td>
<td>43.5</td>
<td>51</td>
<td>55</td>
<td>58.8</td>
<td>20.6</td>
<td>61.6</td>
<td>53.9</td>
<td>64</td>
<td>(start)</td>
</tr>
<tr>
<td>Total Asset (million SEK)</td>
<td>329</td>
<td>351</td>
<td>390</td>
<td>338</td>
<td>392</td>
<td>391</td>
<td>417</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee count</td>
<td>100</td>
<td>119</td>
<td>144</td>
<td>167</td>
<td>163</td>
<td>190</td>
<td>240</td>
<td>265</td>
<td>350</td>
<td>(start)</td>
</tr>
<tr>
<td>R&amp;D employee</td>
<td>44</td>
<td>44</td>
<td>64</td>
<td>64</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R&amp;D cost-to-sales ratio</td>
<td>10%</td>
<td>10%</td>
<td>14%</td>
<td>12%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cumulative Anybus shipment in 1000 units</td>
<td>300</td>
<td>450</td>
<td>600</td>
<td>700</td>
<td>850</td>
<td>1000</td>
<td>1300</td>
<td>1600</td>
<td>2000</td>
<td>(start)</td>
</tr>
</tbody>
</table>

During this period HMS has opened new sales offices in India, UK, and Denmark making the total foreign located sales offices nine. In 2011 HMS bought and took over full control of Netbiter AB making it part of the HMS family. At the start of the year 2013, HMS accomplished acquisition of a second company in Germany, IXXAT Automation, which has more than two decades of experience in provision of high-tech solution for industrial automation. The acquisition supplements HMS Anybus products and reinforces HMS position in the German market.
As asked about the strength and success of the company, the CEO replied that because of the broader technology base of HMS and the fact that it internationalized early in the industry have helped the company build a larger customer base than any of its competitors in the market.

4.3. Technology and product portfolio

The current CEO, Staffan Dahlström, who has been a partner of the entrepreneur (Hassbjer) since the beginning, proclaims: “we are a technology company...we provide a specialized technology used in critical applications.” According to the CEO, the industry is “conservative” and that the company’s success is the quality and reliability of its technology, working at a margin of error of one in 50 million.

HMS offers more than 1000 product items in three product groups - Embedded network, Gateway network, and Remote Management.

The first product line is embedded communication. In 1994, HMS developed its proprietary industrial communication technology which it named Anybus. Embedded Anybus was developed in response to the problem of interoperability limitation prevalent in industrial communication. The problem was a headache for industrial operators entailing significant cost as the result of plant inefficiency and the high cost of developing in-house solution to bridge different networks. HMS brought Anybus to the market as a customizable solution offering a technological capability to bridge the gap and connect any machine to any network which was once unable to communicate due to the variation in network architecture and program languages between the devices. Since its first launch there have been a number of technological updates and versions for the embedded network and at the present there are above 100 types of it.

Embedded networks are integrated in the design of the automation device, and the business decision for the component comes early in the value chain. As a result the project for embedded Anybus network is usually custom work. Most HMS embedded Anybus works are based on contractual agreement with automation equipment manufacturer (or OEM) which enables the OEM to use Anybus network cards for specified period of time and HMS promises to supply the specified Anybus module. According to HMS term, the project agreement is referred as "design-win" where engineers from HMS would work together with the client's engineers on the design of the network card in the context of the subject automation device. The standard lifecycle for any Anybus module is about 7 to 10 years and upon the completion of which the production of same phases out. Currently HMS has more than 910 active design-wins.

Gateway network is the second product group where HMS is competing. Because embedded Anybus provides connection between equipment and network, it can be perceived as a vertical connection. In this vein, Gateway network can be conceived as a horizontal connection because
it establishes communication between two networks. HMS released its first gateway product
Anybus X-gateway in 2002. HMS currently offers several gateway types for more than 300
network protocol combinations. Both the Gateway and Embedded product lines are based on the
same basic microprocessor technology.

The third product group is a remote management product branded as Netbiter. The technology is
applied for remote control and monitoring of devices and their functions in infrastructure and
critical systems. The Netbiter consists of a specially adapted gateway to provide network contact
via internet or mobile network. It collects and sends report monitoring and processing a real time
data based on user defined parameters. Its application is sought much wherever there is a need
for 24/7 monitoring of a system due to its criticality or for safety reason and/or where
accessibility of remote facilities is costly and prohibitive, etc. Netbiter became a completely
owned brand under HMS umbrella in 2011 after the acquisition of Intellicom AB. The market for
remote monitoring and control of industrial machinery and systems (also called M2M –
Machine-to-Machine) is young and fragmented, which makes it difficult to assess. However,
several important driving forces indicate that the market is growing. HMS is currently investing
in greater market recognition of the Netbiter brand and the unique Netbiter solution.

By 2012 HMS corporate revenue was generated 68% from embedded network, 25% from
gateways, 4% from Netbiter, and the rest coming from customization and other accessory sales.
Notably for HMS, the revenue share of the gateway product group is increasing; for example, in
2007 it was 22% and embedded network was 74%.

4.4. Business strategy

HMS competes in the specialized segment of the big industrial automation industry (estimate
around 200 billion dollars). HMS Anybus communication solutions are niche players in
industrial network communication. Yet the specific industry segment is big enough with overall
market size of more than 16 billion SEK per annum. There are two major groups of competitors.
The first is made up of OEMs, i.e. manufacturers of automation equipment. These may choose to
develop their own solutions for network communication, through an in-house development
department or with the help of consultants and then produce the network interface cards for
themselves. That would indirectly make them a competitor against HMS. The second group of
competitors is made up of external vendors that develop and produce solutions for network
communication. This later businesses are in essence and form a direct competitors.

HMS takes a minimal share (3%) of this market. The majority of the market (>90%) is served by
by the automation device manufacturers developing in-house solution. The remaining share is
served by other independent external suppliers like HMS. However, from this external supplier
market worth about 2 billion SEK, HMS takes the market leading position at 36%. HMS Anybus
products are appealing to a much broader customer base than its competitors. HMS has a
portfolio of hundreds of models offering connection between larger set of variety of fieldbuses and networks than its competitors which usually compete with few product models and highly expensive customized equipment.

For the competition, HMS proposes of two selling points or competitive edges. The first is the proposition against direct competitors (independent vendors); which is that HMS products are technologically superior and highly flexible providing connectivity to wider range of field bus and network type the customer may have a need for. The second business proposition is for the competition against the end customer themselves which are developing the network solution internally. The business value proposition on this front is that HMS is able to supply the required solution at much cheaper cost than these companies could develop internally, which according to HMS claim is 70% cheaper than the cost of in-house manufacturing.

The CEO, explaining about the threats to the company’s business strategies above, said that the threat is when the industry moves to consolidation. However, he is optimistic the industry remains fragmented and grows in complexity which provides more demand for HMS products. The CEO also added that the focus in the industrial market is technology, and as a result HMS is interested in acquiring interesting technological companies in the US, Germany and Asia. At the start of the year, it has just finalized the acquisition of a German technological company named IXXAT. HMS also had earlier acquired a technology company called Netbiter AB. However, the CEO stress that organic growth is the primary strategy.

4.5. Marketing and distribution

Since its first major project with General motors in 1995, HMS through the following years has established a base of more than 1000 customers ranging from the small businesses to large scale customers such as ABB, Panasonic, Mitsubishi, Rockwell Automation, Atlas Copco, Bosch and Schneider Electric, etc. HMS adopted differentiated marketing and distribution strategy for the three product groups owing to differences in the target customer involved.

An embedded Anybus network card requires extensive and close work with the customer and involves a contractual agreement (design-win). The design-win has a longer product lifecycle reaching up to ten years for the design, supply and use of the specific Anybus module. Consequently, marketing and sales for the embedded network is executed at the head office level in Sweden and through own sales subsidiaries located in nine major international markets. At the end of 2012 the company has 909 active design-wins, out which 112 are added in the current fiscal period. The company assures its investors that the increasing number of design-wins provide an extended customer base and the leverage for future growth.

HMS offers a standardized embedded network and also customized cards which constitute about 40% of the embedded business. For certain larger customers HMS sometimes license out its proprietary technology so that the customer can manufacture the network interface cards.
Owing to the nature of connectivity solution the gateway network provides, which is not integrated in automation devices unlike the case of embedded cards, its marketing and distribution strategy is approached separately at HMS. Anybus Gateways are sold as independent communication ports and manufacturing is based on customer orders. They are sold via a network of distributors approximately in 50 countries, either directly to the end user or to system integrators, installers or machine engineers who integrate networks and build communication solutions for industry.

The Netbiter Remote Management is a new product group for HMS AB. Netbiter is primarily sold as independent communication ports which include gateways and software for information management.

For the gateway and remote management products (which both have a short business cycle), HMS has instituted a strategy of partnership program within its network of distributors. The HMS Partner Program aims at increasing the level of cooperation with system integrators, who are an important link to end-users in the industry. The program was launched in 2010 and offers closer cooperation with system integrators via product training, technical support and sales support. The partnership program has system members on two tiers: Gold certified and Silver certified.

In the past two years, HMS has been using a catchy phrase to advertise its success and promote the Anybus technology. The catchy statement used with the Anybus logo reads “One million devices can’t be wrong.” And more recently, after supplying the two millionth unit of the Anybus module, it has rephrased the statement to read “millions of devices can’t be wrong.”

### 4.6. R&D and Production

HMS keeps internally intact the research and development of its microprocessors and software. It has registered in Europe and the US for the protection of its proprietary technology and brand. A large portion of product development work particularly in design-win is carried out jointly with customers, typically in an international network that provides new perspectives and personalized skill development. HMS licenses its technology in special cases when the business case justifies it.

HMS provides high-quality turnkey solutions that are easy to install and use. This requires full control over the entire chain of value-adding operations, i.e. from product development, components supply, manufacturing and distribution, to training and after-sales service.

HMS uses its business management system (BMS) to ensure quality and continually improve its operations. HMS maintains an in-house low-volume production of Anybus products in Halmstad. Volume production takes place in close partnership with subcontractors in Europe and Asia in order to achieve flexible costs and to make use of economies of scale. The production of
prototypes, small series, certain customized products, quality control and final assembly takes place at HMS's own facilities in Halmstad, in close proximity to the development department. For several years already, HMS and its strategic suppliers have been certified according to the ISO 9001 quality management standard.

4.7. Industrial automation and communication

To get the right view of HMS, particularly its technologies and products, it becomes essential to have a foundational overview of the industry in which the company belongs to. The industry is referred as industrial automation and communication. Industrial automation is at the heart of large process and discrete manufacturing found in such industries as automobile, electronic and electrical, chemicals and steel industries. It concerns with automating activities at the factory and enabling communication between machineries and systems of production at manufacturing plant and also with control systems at enterprise level. Industrial automation refers to automated manufacturing, automated transport of pieces and materials, and using computer technologies at all the stages of a product from its design to the manufacture and the quality control.

The early and mid-80s were a very remarkable period in the emergence of innovative network and communication technologies in the industrial automation sector, a period which is parallel to other technological milestones happening in the Personal Computer industry during same period. Although automation has started earlier and there were different networking approaches, the breakthrough occurred with the use of fieldbus technology starting early 1980s. Fieldbus is a generic name for a number of industrial digital networks. It is commonly a network for connecting field devices such as sensors, actuators, field controllers, regulators, drive controllers, etc., and man-machine interfaces for a better plant efficiency or a lower unit cost of production. In the beginning of the 80s several projects were going in different automation companies in US, Europe, and Japan. These projects resulted in the development and application of several different fieldbuses in the industry. The fieldbus produced by the electrical and automation companies had a variety of architecture and each was operable on specific network protocol. These companies have realized the strategic importance and great potential of the emerging market with the fieldbus and each have pushed to have their product as the standard for the industry. For example, in Japan, the industry preference is Mitsubishi's network technology, CC-Link, which is also available in a new Ethernet-based version, CC-Link IE. In Germany, however, the preference is for Siemen's Profibus and ProfiNet. These have also been available for quite some time as Ethernet-based systems. In USA the highest demand is for Rockwell-related networks, such as DeviceNet and Ethernetbased Ethernet/IP.

There have emerged literally hundreds of fieldbus and Ethernet types developed and promoted by different companies and organizations all over the world. Despite discussions going on since the 80s between a number of national, regional and global organizations for technology standardization on several levels, agreement has been so far achieved only partially and there
still remains complexity and fragmentation as the number and type of new industrial network keeps increasing.

After nearly three decades, the market for industrial networking is still strong according to a new report from the prestigious research and consultancy company - IMS Research. According to IMS, an estimated 31 million new fieldbus and Ethernet nodes were installed worldwide in 2011; this number is forecast to grow by an average of 10% a year, to just over 45 million new connected nodes in 2015. While shipment growth is a key factor, IMS Research is also seeing a steady increase in the percentage of drives that are network-enabled and connected. The current focus on improving energy efficiency in factories is largely due to the potential reduction in running costs it offers; this may also be legislated in the coming years. Networked drives offer an effective means of improving overall factory efficiency. The number of new networked drives will likely increase by a substantial amount if such legislation is introduced.

Growth on the industrial network market can be measured by the growth in the number of network nodes, which are the connection points an automation device must have for connection to a network. A network interface card represents a node, while a gateway, an interconnection of two network interface cards, represents two nodes.

![Figure 4: Evolution of the industrial network market](image)

The complexity and fragmentation has created a problem for end users hindering efficiency and synchronization in their factory due to limited connection and compatibility between several devices and operational networks. To resolve this problem, some large end users and OEM manufacturers of industrial automation equipment have been developing internally their own communication network solution for their industrial integration needs. Other companies which were unable to develop the network cards in-house due to the resource requirement or strategic choice purchased the solution from external suppliers like from HMS.
In the industrial network communication sector there are two areas of products - embedded and gateways. Embedded products are network cards integrated in the design and manufacture of the automation device. They come at the early stage of the value chain. The need for Gateways relatively comes at much later stage of the value chain. Gateways are not integrated in the design and manufacture of the automation device. Gateways are usually used to provide network interface so that two industrial networks and already existing automation equipment can interoperate. However, the basic technology and technical functionality is similar for both product types.

By 2011, the market for industrial network interface cards was estimated to be worth 7.5 Billion SEK and the market for external sourcing shares about 1.5 billion SEK of the total. It was projected then that the total market will keep growing at the tune of 10% per annum in the coming years. On the other hand the market for Gateways was estimated at 3 billion SEK with an annual growth rate of 15%.
5. Analysis

This chapter presents the investigation and interpretation of the empirical findings in the view of the conceptual framework that was built from the review of literature. The first section investigates the existence of growth in the case company. It is then followed by presentation of the analyses under each of the four factors identified to determine the growth of the INV.

5.1. Internationalization and growth

The issue of growth has more significance to the international new venture (INV) than it is to the established multinational enterprise (MNE) (Gilbert et al., 2006). Rapid growth is a proof for the business case. By quickly achieving growth, INVs maintain legitimacy in the industry and the market (Turcan, 2011; Zetting & Bonsen-Rea, 2008). To the firm with a leading technology, growth and the consequent swell up in the customer base and specific market share (Gilbert et al., 2006) leads its innovation/product into becoming the dominant design.

The review of literature has identified three major areas - speed, scope, and scale - for the recognition of the INV distinct from the MNE (Kuivalainen et al., 2012). The findings indicate that the case company in the current study fulfill all the three indicators and hence qualify to be considered as INV. The recognition of these indicators is very essential to set the valid ground for investigating the factors that determine the growth performance of the firm as a truly international new venture.

The speed indicator was considered important against the assumed liabilities of newness (Ripolles & Bela, 2012). Researchers have used a variety of cut points in the organizational life for the first internationalization had happened so that a candidate firm should be included in their sample of INV/BG firms. Some researchers have been stringent in observing maximum of three years’ time (Knight & Cavusgil, 1996; Rennie, 1993; Servais et al. cited in Gabrielsson, & Kirpalani, 2004), while some others have relaxed the time variable (in some cases up to nine years) to select empirical cases in their research (Gabrielsson et al. 2008; Hashai & Almor, 2004). HMS has targeted the international market since quite early in the organization life and has been expanding at a superb speed. Although HMS was first established in 1988, the period before 1994, i.e. the year HMS has developed its iconic Anybus technology, is not so much referred to in the annals of the company. It has its first international sales in 1995, just immediately after the development of the breakthrough Anybus technology in 1994.

The other two INV/BG indicators, besides to the speed of internationalization, are concerned with the commitment level of the firm in the international market (Andersson, 2011; Hasahi &
Almor, 2004). Again, the fulfillment of these variables is essential for the validity of any
investigation and conclusion about INV growth. Market scale or international commitment is one
of the firm behaviors identified in the literature review to assert and recognize the distinction of
the INV. Loustarnien and Gabriellsson (2006) required 50% export revenue from a foreign
"continent" while Hashai and Almor (2004) applied a 75% export intensity condition and while
still others used cutoff is 25% revenue from export activity (Gabrielsson & Kirpalani, 2004;
Knight & Cavusgil, 2004). The case company in the current study, measured on the variable of
market scale, is highly export intensive company with above 90% of its revenue coming from its
activities abroad. In 2008 it has received an award for the best Swedish export company.

The dimension of market scope indicates the level of geographic dispersion (Crick, 2009;
Kuivalainen, et al., 2007) of the activity or commitment of the international new venture, and
more specifically the born global firm. Authors have argued to what extent actually the firm is
multinational or global. Some followed a simplistic definition of more than two countries (Oviatt
& McDougall, 1994), while others insisted on a commitment in the "triads" of the world,
referring to presence in the US, Europe and Japan (Ohmae cited in Crick, 2009). Whatever are
the criteria with regards to the market scope, the empirical findings in this study indicate the case
company is truly a global firm with economic activities ongoing in 50 foreign countries spread
across continents.

Before proceeding to the analysis of the growth factors, it is necessary to investigate the
existence of growth phenomenon in the first place. Different authors have shown different
interest for a variety of indicators and have opted for a variety of growth measurement
approaches. Each growth mode entails different consequences and the favorability of which
mode to follow depends much on specific circumstances internal to the firm and its strategic
goals (Hitt et al., 2006). Yet, the review of literature has detected the total sales and employee
size as the most commonly used growth metrics (Delmar et al., 2003; Moreno & Casillas, 2007).

The empirical findings in this study reveal how the case company has been growing since its first
internationalization. When we look at the total revenue performance of HMS, we observe how
the revenue has been growing at a staggering rate. Zahra (1996) and Peters and Brush (1996) had
used three years cut point to measure the growth pattern while other authors such as Dunne and
Hughes (1996) and Merz and Sauber (1995) used five years interval. Taking 1994 as the base
year, HMS has been growing at an average rate of nearly 30% year on year. The revenue has
been doubling every 2.5 years since the first internationalization with Anybus product. On the
other front, the size of employee has been growing as well year over year; however, the rate of
employee growth is outpaced by revenue growth. In the last seven years annual revenue was
growing on average at 15% while employee was growing closely at 13%. This yet indicates the
increase in employee per head productivity.
The growth of the case company is also evident in the volume of output - particularly the number of cumulative Anybus units installed in the industry. I think more than the size of total revenue or employee, the number of cumulative units that were bought by the industry provides strategically much important implication. In an emerging and high-tech industry where quality and reliability is a critical issue, and in a fragmented industry where there are several suppliers controlling each a small share of the market, and again in a new industry at which lacks a dominant design, there the number of units (output) metrics perfectly reflects the acceptance of the technology of the subject firm. The higher the acceptance, that is, as reflected by the total number of installed units, then the higher the likelihood for this product to become the dominant design. Because the company with the dominant design is not necessarily the one that has the highest total revenue, but the one that has the highest market share particularly measured in the units of products sold (Utterback, 1996).

In fact, our case company seems deliberate in narrating its growth story in terms of the output metrics. HMS purposefully emphasized the output message in its advertisement using a catchy statement that "millions of devices can't be wrong." This ushers insight into the strategic relevance of output growth. To the company, as a small player in the larger market output growth (accumulated units in service) is an evidence on the quality and reliability of the Anybus technology as it is increasingly diffusing (being adopted) in the industry. Putting growth measurement in that perspective would promote and reinforce the legitimacy for the technology and serve higher strategic objective (Hitt et al., 2006).

As it become clear from the analysis presented above, the super performance and the steady growth of the case company would make the present study reassuring in the investigation of the factors that determine the growth of the international new venture. The major factors that have been identified to determine the INV growth are presented in the following sections.

5.2. Lifecycle specific factors

The review of literature had identified some lifecycle specific factors as key determinants for the international expansion and growth of the new venture (Fernhaber et al, 2007; Porter, 1980; Robinson, 1999). The stage of the industry on the lifecycle curve and the age of the firm at the time of internationalization were the two important lifecycle factors in the growth and survival of the INV that emerged from the review of literature (Covin & Slevin, 1990; Robison, 1999). The findings of the current study have shown results consistent to the literature.

The first lifecycle factor identified pertains to the life stage of the industry (industrial automation and communication) when the case company (HMS) entered into it. By the time HMS was established in 1988 and found its definite identity in 1994, businesses in large process and discrete manufacturing were just witnessing the emergence of various task automation solutions. A number of breakthrough automation solutions made it possible to replace human labor in
several activities such as in process control systems at the factory level. Moreover the automation optimized the productivity and quality of operation beyond what was used to be possible with human labor. But not long after, the industry was facing newer constriction with respect to automation communication. This problem that emerged early in the industrial automation industry was communication disability between different machineries manufactured by different OEMs which had different communication protocols. The variety of protocols and the complexity of networks created a new set of problem at the manufacturing plant. The major problem was incompatibility between machineries from different suppliers creating inefficiency and poor synchronization which limited productivity. This situation triggered a new demand for communication solutions. That is the moment when the industry for automation communication started. And it was this problem - rather opportunity - HMS identified and entered the industry with a proposition of an innovative communication solution.

The international birth and growth of HMS against this empirical background of the industry life cycle agrees to the extant literature on the relationship between industry age and new venture growth. Covin and Slevin (1990) reported that INVs and bornglobal companies, despite the supposed disadvantages of newness and foreignness, were able to withstand competition from large MNE and local incumbents and grow better when the industry is new. One of the reasons for the positive relationship between industry age and INV growth is that everyone could be experimenting for a variety of solutions and there is room for strategic errors (Fernhaber et al., 2007). At this early stage of the industry the fluidity of the situation is high and flexibility and small scale production are prevalent (Albernathy & Utterback, 1988) favorable for the small and new venture; while no one has yet come out with the dominant design () at which the competition for economies of scale get way. The statement by the CEO of HMS concurs to this positive growth relationship of the venture to the still formative stage of the industry. He explained how the complexity of protocols in the industry is increasing and the need for communication solution is growing, customers are increasingly looking for external specialized solution providers. That is the market for HMS and its rivals.

At the early stage of the industry lifecycle, the main concern is on the performance quality and reliability of the proposed solution (Albernathy & Utterback, 1988) and the order winner is product (technology) innovation (Porter, 1980); and whoever has the best solution (product) is likely to become the leader. For a new venture, the challenges are lesser and opportunities for growth are higher at the early stage of the industry than later lifecycle stage (Fernhaber et al., 2007; Porter, 1980), during which the market would become more cost sensitive and during which economies of scale becomes the competitive edge (Albernathy & Utterback, 1988; Porter, 1980). International new ventures, being new and small, lack that edge of economies of scale (Gabrielson & Gabrielson, 2004). It is to this economy of scale advantage that some researchers have attributed to the decline and exit of the INV from the international market. When the industry is still young, there is more room for anyone to enter and take a chance in the growing market.
The other lifecycle specific factor that became relevant in the study for a successful growth is that of the firm's age at the time of internationalization. Some authors have commented on the negative consequences of going international at early stage of the organization. The main assumption for such comment is that growing into several markets quickly and early in the organization life would risk the survival of the INV as a consequence to over-dispersion of the already thin resource base of the INV (Cieslik et al., 2010). Contrary to this view, researchers like Sapienza et al. (2006), reported a positive relationship between internationalization at early stage of the organization life and a successful international performance. Innovation absorptive capacity, learning advantages of newness, absence of inertia, and flexibility are some of the advantages reported by the latter group of authors to have positive contribution to the growth of the INV (Cohen & Levinthal 1990; Sapienza et al., 2006). The findings of the present study confirm to position of this group of works which hypothesized the possibility for the INV to successfully grow quickly in several markets while young and still survive. The CEO's statement directly matches to this postulation when he recounted how HMS' early internationalization contributed to its current large customer base and market leadership. HMS since after its first internationalization in 1995 has been growing at a fast speed - 30% per year on average. The case company have been quickly spreading its activities across continents and today it operates in 10 countries through own subsidiaries and in 50 countries through indirect distributors.

The double situation in which both the international venture is young and at the same time the industry is young creates the perfect opportunity for the INV to quickly grow and take market leadership position. In such scenario, not a single firm has a commanding say on where the industry should be going and consequently it appears there is ample space for anyone to try out their strategy (Fernhaber et al., 2007; Porter, 1980); everyone is fairly on equal feet to displaying their respective innovative proposition (technology and product).

Nonetheless, the empirical findings do not entirely rule out the limiting effects of resource shortage to the firm’s growth potential. The empirical finding shows that HMS became a publicly listed company in 2007 and raised capital for financing its growth, for investments in the expansion of its foreign located sales subsidiaries and the operation at the head quarter. However, it is obvious that the company had been growing consistently even before the acquisition of additional public finance from the stock market.

### 5.3. Business strategy

The other factor that is identified in the literature to influence the international performance and growth of the INV was specific to business strategy. Previous researches on the link between the choice of alternative competitive strategy and INV performance have reported mixed results. For example, Baum et al (2001) reported that low-cost strategies lead to poor international performance. On the other hand, Knight and Cavusgil (2005) observed that the international performance of the firms that pursued cost leadership strategy was as strong as those in high-tech
focusers. Others, such as Persinger et al. (2007) have noted that most international new ventures were successful in global niche or focus strategy.

The empirical analysis in the current study has identified a mix of strategy pursued by the case company. The competitive strategy of HMS can be looked at having two-pronged approach. The company considers its competition in two fronts. The first competition is a direct competition with external industrial automation communication suppliers similar like itself (HMS). The market currently served by external suppliers is about 3% (worth 2 billion SEK); and from this share HMS commands leadership at 36%. With respect to the specific direct competition, HMS describes itself as a technological leader and therefore pursuing a differentiation strategy (Porter, 1980). According to the empirical data, HMS is keen on putting the perspective that distinction and leadership in the market is drawn upon its technological superiority and the range of products in its portfolio. As the CEO emphasized, the end users of the industry are large companies which have a need for critical application. Therefore, the business case is won mostly based on who can reliably provide the required quality product. Besides to that, HMS boasts of its portfolio even unmatched by the nearest competitor. HMS Anybus can provide communication solution between plenty of network types with about 1000 product items.

Although the company is enjoying an enviable leadership through technological differentiation strategy in the external supplier market, the junk of the market (nearly 97%) for the automation communication solution is served internally by the end users of the value chain. HMS (together with similar external suppliers) is indirectly competing, so to say, with the internal R&D and production of the end user themselves. And here is where we find the other prong of HMS competitive strategy - cost leadership. According to what the findings indicate, HMS aims to penetrate into this huge share of the market - worth 66.6 billion SEK - by putting on the table a proposition primarily of cost advantage (Porter, 1980). HMS is trying to lure those end users that are manufacturing the communication solution in-house by promising the company can provide the required solution at a cost cheaper by 70% than what costs these companies to manufacture in-house. Therefore, we clearly find here in the indirect competition a strategy of cost leadership.

From the above discussion it is now clearly traceable that, as pointed earlier, the company pursues a mix of strategies: technology leadership as well as cost leadership. But the activation and implementation of which appropriate strategy depends on which front of the competition is under consideration. The company's strategy is to win the junk market by competing against the end users themselves on the propositions of cost efficiency. At the same time, the company is directly competing with similar suppliers on the basis of technological leadership.

Under the general rubric of business strategy, Teece (2010) argued for the business model as element of business strategy and one that provides a competitive advantage. From the empirical findings, it became clear that the case company has two business models to create and deliver
value, and also to collect rent from the value rendered (Teece, 2010). The two business models - one for the Embedded network business and another for Gateway and remote management - were designed to fit the specific situation of each business. For the embedded network, business is based on framework of agreements which are called “design-wins.” The business model for network embedded network, i.e., how value is created and income is generated (Teece, 2010), highly involves participation of the end customer from early in the value chain. It starts from product design stage with a close collaboration between engineers of HMS and the customer. The process of design and product development takes longer period which extends from 12-18 months. Once the design stage is completed and prototype developed, then HMS is guaranteed steady streams of revenue from the design-win for many years coming. The product life cycle of the design-win reaches between 7 to 10 years. According to the policy of the company, the design-win product is predetermined to have a product life cycle (PLC) of seven to ten years, and up on the end of it, the need for another design is activated. This is evidently an innovative business model which creates a lock-in effect to its design-win customers assuring the company long lasting streams of revenue. This business model, particularly the lock-in effect is exactly what Amit and Zott (2012) noted as an innovative business model and value driver in Apple Inc’s rise to become one of the biggest global companies at a breakneck growth speed. HMS is well aware of the value of the lock-in business model. In its regular communication to investors the company highlights its performance success using the number of design-wins reasserting the essentiality of the business model for the company's sustainable growth. By the end of the 2012 fiscal year, the company has 900 design active wins and from which 112 were added in the current period.

The second business model, that is, for the Gateway network and remote management businesses is different from the Embedded business. With the shorter life cycle of the products compared to the embedded business, manufacturing is based on customer orders and sales are executed through intermediaries. The company's business strategy and marketing efforts target the intermediaries - distributors, system integrators, etc. - that have a considerable influence in the purchase decision by the end user. For this purpose, HMS has established a specialized and differential relationship strategy called HMS Partnership program. Partners are certified in the sale and support of Anybus technology. Further they are provided with differential treatment based on a partnership level categorized as Gold Partnership and Silver Partnership.

### 5.4. Firm-specific factors

Roth (1995) conceptualized the firm as a stock of intangible and tangible resources. The resource based view of strategic management and entrepreneurship research similarly posit that the firm's competitive position and growth trajectory is heavily dependent to factors specific to the firm, or resources of the firm (Barney, 1991; Chen et al., 2009; Tan & Mahoney 2005). Technological
capability is one of the firm specific factors that is considered to facilitate and foster the international growth of the firm (Chen et al., 2009; Zahra & Bogner, 2000). HMS is a technological company operating in the tech-intensive sector of industrial automation and communication. HMS as an international company is built around a proprietary know-how and its products are built on a proprietary technology called Anybus module. As the CEO explained it, the superiority of its technology particularly that quality of both specialization and rich diversity, are the key capabilities providing a reliable solution for communication between large numbers of platforms. This technological capability is the pillar for its international market success (Zahra & Bogner, 2000). Even though there are other external suppliers for similar communication solutions, their technology is applied for a narrower needs and no one competitor matches to HMS' portfolio of technology. This capability positioned HMS at the leadership of the market at 36%. As Knight and Cavusgil (1996) noted, INV's were able to internationalize early and register superb results due to the specialization and superiority of their technologies. Knight and Cavusgil (2005) also reported above average performance of those companies with technological leadership.

Zahra and Bogner (2000) commented that technological capability is the spring board from which companies launches a series of noble and breakthrough products. HMS technological capability is evident in the series of first to the market products it launched. In an industry which is so much complex, fragmented and divergent, and again a situation where the first order players have shown strong resistance to converge their technologies due to the huge cost involved in shifting their respective core technology, HMS' Anybus technology has found the sweet spot building the third party bridge for the convergence and synchronization of the industry.

Against the background that resources are essential and primary factors for the international competitiveness and growth of the firm, Sapienza et al. (2006) noted that firms create continuous strategic value by modifying the resource base. And they indicated acquisition is one way of modifying and building firm resource base and more particularly technology capital. The CEO's statement is consistent to this when he explained the importance of acquiring technological companies. HMS acquired a German technology company which is expected to bolster the technological portfolio of HMS AB and its market position in the top important German market. The acquisition of Netbiter AB is another example for the importance of building technological capability of HMS. The CEO is hopeful these companies and the technologies they bring in would deliver future growth for HMS.

An advantage based on relationship capability (Chen et al. 2009), or which in its more formal term referred as network capability (Dunning & Lundan, 2010), is a factor very specific to the subject firm. This capability covers a broad area of advantages the firm derives from activities, resources, and knowledge (Ricart et al., 2004). This firm specific advantage from the capacity to forge advantageous relationship by interacting with other external parties in the value chain is
regarded as the necessary capability for the INV growth (Oviatt & McDougal, 1994). Oviatt and McDougal (1994) call this aspect of advantage as a governing structure and the required ingredient for the successful internationalization of the new venture. The empirical finding from the case of HMS confirms to the valuableness of these factors for the international expansion and growth of the firm. HMS has understood the advantages of unique relationship with various members of the industry - end users and intermediaries. For distributing and marketing its Gateway products, HMS has instituted a differentiated relationship with distributors and system integrators who provide influential link to the end user. HMS calls this special relationship as partnership, a term which signifies the value of the relationship. The company established HMS Academy to provide training and e-learning activities for its network members. To the emphasis of relationship value, HMS has devised a way of making differentiation between members of the network on the level of Gold partnership and Silver partnership. This "HMS certified" strategy creates a unique image for its partners in the industry and would make other non-members to be a part of this relationship, which in turn would enhance the network link of the company, which again in turn would foster the expansion and growth of the company.

HMS also became successful from the network of end users it has built through the marketing of Embedded Anybus network cards. The concept of the "design win" triggers higher level interdependence between HMS and the customer from the initial stage of product design to later production. The relationship is assumed to last longer even after the end of the product life cycle of the design-win, which normally stays 7-10 years. This firm-specific and specialized capability of creating a network of partners, suppliers, distributors, and end customers is reported by other studies as important factor in the success and growth of the INV (Crick, 2009).

5.5. Entrepreneur specific

The entrepreneur is crucial in the formation and development of the international new venture. The vision, knowledge, and orientation of the entrepreneur and the capacity to identify opportunities are crucial to any new venture (Lopes, 2010). It became obvious in our case company that Mr. Nicolas Hassbjer as an entrepreneur had been the driving force behind the early internationalization and global expansion of HMS. He is the behind the invention of the Anybus technological solution. Later he had served as the CEO of the firm and lead the company though its growth and becoming global leader in the specific segment. In 2008, Hassbjer transferred the leadership position to Mr Staffan Dhalström, a friend and a partner since the early years of the company. Dhalström, the current CEO, is also strongly related to the success and growth of HMS because, even if he is not the original visionary of HMS, he has been a partner with Hassbjer in supporting and contributing to the internationalization and growth of the firm. While Hassbjer was serving as the CEO, Dhalström was in charge of the global sales operation and oversaw the global expansion.
Hassbjer, as the visionary and leader during his time as the CEO of the firm had been very optimistic and was used to setting a growth target of 20% for the company, which he has achieved. In the same footstep, Dhalström is optimistic about the future of the company and is targeting to double the size of the company within the next two years’ time. The footprint of the two persons as entrepreneur and the "founding team" or "management team" is boldly traceable in the international growth of HMS. But we are able to make only a general analysis and not make a deeper elaboration of the entrepreneurial factor here due to the limited amount of information that became available on the specific matter.
6. Conclusion

This chapter presents the conclusion of the complete study. 6.1 Answering the research question, 6.2 Implications, and 6.3 Limitation

6.1. Answering the research question

Throughout the history of the international business field of research, there have emerged plenty of issues, research problems, theories, and perspectives. As it has been noted at the outset of this paper, in the past two decades there appeared a phenomenon which is regarded quite new in international business. That is when an increasing number of successful small and new ventures took considerable space in the international market from the time of their inception or soon after that. This attracted a great deal of researchers and we now find extensive body of literature treating the internationalization of the INV. The present study, however, identified a research gap by underscoring that much of the existing research has been largely limited to the circumstances and process at the initial entry to the international market and less has been found about the subsequent growth and survival of the INV (Mathews & Zander, 2007; Mudambi & Zahra, 2007; Sapienza et al., 2006). Consequently, a research question was presented which was to help understand the factors that determine and influence the growth of the INV beyond initial entry.

There are several factors involved determining and influencing the international growth of the INV. The results of the study pointed to four major factors: lifecycle specific factors, firm-specific factors, entrepreneur specific factors, and business strategy.

The lifecycle specific factor includes the age of the INV at the time of internationalization (Covin & Slevin, 1990) and the stage of the industry on the lifecycle curve (Fernhaber et al, 2007; Porter, 1980; Robinson, 1999). The results of this study lead to the conclusion that the INV was able to achieve high expansion and growth performance because it has internationalized early in its life (Sapienza et al., 2006). As was revealed so in the review of literature and also supported by the empirical findings, a decision to engage in international market early on the organizational life cycle, the INV can exploit advantages of newness which are flexibility, absorptive capacity of innovation and learning advantages due to the absence of inertia (Cohen & Levinthal, 1990; Sapienza et al., 2006).

A positive relationship has also been identified with the performance of the INV when the industry is new and young. When the industry is new and young, the INV is better protected from disadvantages of economies of scale which are prevalent at the latter stage of an industry than at early stage (Porter, 1980). At the early stage of the industry lifecycle the situation is more fluid and the interest of the market is on performance reliability of products, and hence product innovation is the order winner (Albernathy & Utterback, 1988). This lifecycle stage
accommodates small scale experimentation and there is more room for strategic errors which may result from lack of experience and resources. This makes it conducive for the INV to survive and grow withstanding competition from large and established incumbents (Porter, 1980).

The firm specific factors that were identified to determine the growth of the INV are technology capability, relationship capability, and governance structure. Technological capability and proprietary resource facilitate and foster the international growth of the firm (Zahra, 1996). It is the springboard from which companies’ launches a series of noble and breakthrough products seizing the opportunity in the fluid state of the industry. INVs create new and sustainable strategic value by continuously modifying the technology base through acquiring, integrating, and recombining know-how (Zahra & Bogner, 2000). An advantage based on relationship capability is a factor very specific to the subject firm. This capability covers a broad area of advantages the firm derives from activities, resources, and knowledge by interacting with several actors (Ricart et al., 2004). The capacity to forge advantageous relationship and establish a unique governance structure between members of the value system would ensure the sustainability of the expansion and growth of the company.

The choice of business strategy is one of the factors that determine the growth of the INV. The choices of the competitive strategy together with the architecture of the business model constitute the business strategy of the INV. The form of the competitive strategy pursued shapes the value proposition the INV put on the table. The findings also indicate that having an innovative value proposition does not necessarily guarantee the success and growth of the firm. There must be a permitting business model to make sure the INV creates the highest value from its activities, resources and relationship with other actors (Teece, 2010). Moreover, the business model provides a competitive edge from the special design of the way value is delivered and how a return is captured building a solid customer base to provide growth for so many years to come (Amit & Zott, 2012).

The entrepreneur is also crucial in the growth success of the INV. The entrepreneur is the source of the idea of the firm in the first place and its later commitment to the international market. Spotting the opportunities, setting a growth target and providing leadership are some of the qualities that are specific to the entrepreneur and the founding team that influences the expansion and growth of the INV (Lopes, 2010). Wiklund, Patzelt, and Shepherd (2009) made a proposition that the managing team by developing the entrepreneurial orientation has independent and strong influence on the growth of the firm. The current study conclusion is in conformity to their proposition but fail to establish or implicate the strength of the entrepreneurial orientation over other possible growth factors. One of the probable cause for this as was alluded to earlier (cf. 5.5) is found in the limitation of the empirical data became accessible.

The significance of the contribution of the present study and specifically the schema developed mapping out the factors that influence growth of the INV (Figure-2) can be seen at least in its
resemblance to an earlier diagram by Wiklund et al. (2009). Wiklund et al. (2009, p. 359) presented an integrative model for small business growth. Consistent to the results of the current study, their diagram also included the age of the firm, firm specific resources, industry, the entrepreneur, and several other factors which have not clearly materialized in the current paper. However, when we compare the two diagrams, the current schema appears more helpful to the reader in its illustration of the research issue than Wiklund et al. (2009). The latter model puts 14 constructs together to depict about the growth of the firm. Compared to the only four constructs portrayed in the current model, Wiklund et al. is complex and susceptible to confusion.

Furthermore, Wiklund et al (2009) is different in that it conducted statistical measurement of the strength of each factor and the direction of relationship within the network of the model. The current research on the contrary was a qualitative study in its design and deriving a causal relationship from qualitative empirical is a serious handicap if not impossible at all (Maxwel, 2009). Despite that limitation, it was yet possible to notice some factors emerging thicker (and also emphasized by the company communication itself) in the empirical than the others; which can lead to preliminary conclusion of these factors superior strength over the others influencing the INV growth. The accessed corporate reports and the CEO’s statement during the interview tend to shed light over the most important actors for the future growth of the company; which are technology prowess (technological capability), the specialized “business model,” and the stage of the industry. However, it requires a quantitative study approach to arrive at robust correlational and causal conclusions on this matter. That is an opportunity for future research.

6.2. Implications

The present study resulted with identification of important factors that determine and influence the growth of the INV. The result promises to offer important implications to practitioners as well as researchers. Managers should become aware of the factors that impact the fate of the INV as the firm strives to survive and achieve growth beyond meager internationalization. The entrepreneur or the management team must have the right orientation for growth and demonstrate tangible commitment by setting and communicating growth targets. The firm must stay dynamic by continuously renewing its capability viz-a-viz developments in the industry. Firm capabilities relate to the capacity to create, acquire and govern unique knowledge and technology. Besides to these the firm must also demonstrate dynamic capability in building and exploiting advantageous relationship and a unique governance structure with the network of actors in the business ecosystem.

One of the issues that surfaced in the analysis of the empirical data was one related to growth measurement. The review of extant theory suggested the availability of several growth metrics. It also revealed the limitation posed in comparative studies due to the wide inconsistency observed
between different researcher’s approaches in measuring firm growth. Previous authors generally appear to favor the total sales and the employee size as the most meaningful growth indicators.

Despite this expectation, in the current study it became clear that the total output (cumulative units of installed Anybus) is the favored metrics used and one that is the most visible in the organizational communication. The analysis ushered an insight into the strategic significance of perceiving growth in the perspective of the cumulative volume of outputs rather than employee size or anything other. Managers should not take for granted the received knowledge of measuring growth in terms of total sales or finance or employee size. Managers must be first aware of what sort of growth indicator best serves which strategic objectives and then should emphasize that indicator in every organizational communication of success story.

Reflecting on the findings of the current study in the specific context of the case company, that is, a new venture with an innovative technology striving to have its product become widely adopted, it has emerged that the cumulative units of output presenting much weight and significance than any the other growth measurements. I think this presents a challenge to the knowledge that seems conventional in the literature. And yet, it also presents a promising ground for future research. INV and firm growth researchers should take an intuitive investigation of the factors, for example, in light of the industry life cycle stage. Based on lesson from the current study, for example, in emerging and growing industries with quite sizable fragmentation and the verdict for the dominant design is not yet given, it is perhaps important to look the growth (success) of the firm better in the number of units accepted by the industry. And further, if the product involved has a long service life, then it might even be relevant to look to the cumulative units already installed. That would point not only to the historical growth of the firm but also its future potential with respect to becoming the dominant design of the industry.

This background sets up a new perspective inviting firm growth researchers to investigate which growth indicator is valid to which industry lifecycle stage, and to what type of industry, and etc. The other research ground is that the current study has adopted a qualitative study strategy and the findings were less amenable for establishing causal relationship; and therefore, it was strictly constricted in its potential to conclude which factors are more important than the others. Arriving at such inference requires a statistical analysis and that is an invitation for future research.

6.3. Limitations

One of the limitations of this study could be that it has used only a single case for the empirical analysis. I believe having a multiple case study would provide much larger set of data and could lead to more insights. Moreover, multiple cases would have improved the generalizability of any results. Yet the findings of the current study are definitely useful and are consistent to a host of previous researches refereed in the review of literature.
Another part of the work that can be raised as limitation is the entrepreneur as one of the determining factors. The review of literature identified some Entrepreneur specific factors as key determinants for the international growth of the INV; and as a result the Entrepreneur as a factor was incorporated in the conceptual framework. But due to the limited amount of data that became available in the data collection, analysis was made possible only on general level and there lacks an elaboration. I believe, if the founding entrepreneurs or the "founding management" were accessible for the interview - as was the assumption at the start of the study, the analysis would have been enhanced and more useful insights would have come out.
7. References


