Aalto University
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The Growth Phases and Survival of Product Manufacturing B2B and B2C International New Ventures from Finland

International Business

Master's thesis

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ABSTRACT

The International New Venture phenomenon continues to spark academic inquiries and challenge traditional models of firm internationalization. The growth and survival of international new ventures, however, have not been extensively studied. The objective of the thesis is to substantiate the growth phases and survival of Finnish B2B and B2C international new ventures that manufacture physical goods (PMINV).

The study addresses growth along the dimensions of foreign expansion as well as firm size and stipulates that a PMINV must choose between the Born Global and Born International -paths of accelerated internationalization. It projects four phases of PMINV growth and constructs a framework as well as propositions concerning the impact the industry, physical product, resources, capabilities, entrepreneurial orientation, lateral rigidity and market orientation have on PMINV growth and survival.

A multiple-case study, based on four active and one inactive Finnish PMINV, is done to determine the influence these factors have on PMINV advancement along the projected (1) introductory, (2) commercial breakthrough and foreign growth, (3) global breakthrough and expansion as well as (4) global rationalization and maturity -growth phases. Growth is classified as firm advancement along the phases, and survival as remaining in business. The results are also contrasted between B2B and B2C case firms.

Research findings suggest that the commercial and global breakthrough of a PMINV is positively related to the industry growth rate, industry globalization drivers, the amount of firm resources and managerial experience, the existence of substantive dynamic, and networking capabilities, product scope optimization, product adaptation and a high-level of entrepreneurial orientation in decision making. The global rationalization of a PMINV, in turn, is found to be positively related to increased global seller concentration, the existence of networking capabilities, pressures for both resource alignment and product standardization as well as a lower level of both industry growth rate and entrepreneurial orientation in decision making.

The findings also imply that especially the early PMINV growth phases are often mediated by survival crises. Management of the crises sees the firm progress along the phases, while severe mismanagement leads to non-survival. Consequently, the survival of a PMINV is found to be positively related to the industry growth rate, the amount of resources and managerial experience, the existence of substantive and dynamic capabilities, high networking capabilities, product scope optimization, and a lower level of both product adaptation and entrepreneurial orientation in decision making.

In comparison, globalization drivers and the amount of marketing resources are found to be more influential for the growth and survival of B2C PMINVs than B2B PMINVs. Also, the growth of B2C PMINVs is found to be positively impacted by a brand-oriented approach and the growth of B2B PMINVs by a market-oriented approach.

Key words: International New Venture, Growth, Survival, B2B, B2C

TIIVISTELMÄ

International New Venture-ilmiö eli nuorten yritysten aikainen kansainvälistyminen haastaa perinteiset liiketalouden kansainvälistymisteoriat. Näiden yritysten kasvu ja selviytyminen ovat kuitenkin jääneet laajalti huomiotta. Tutkielman tavoite onkin havainnoida suomalaisten kuluttaja- (B2B) ja teollisuusmarkkinoilla (B2B) toimivien International New Venture-tuotevalmistajien (PMINV) kasvunvaiheita ja selviytymistä.

Tutkielma perehtyy kasvuun kansainvälistymisen sekä yrityksen koon näkökulmista, korostaen että PMINV:lla on valittavanaan ”syntymästään kansainvälinen” tai ”syntymästään globaali” kansainvälistymistie. Tutkielma myös luonnostelee neljä PMINV kasvunvaihetta, teoreettisen viitekehyksen ja väitelauselmia määritelläkseen toimialaan, resursseihin, kyvykkyyksiin, fyysiseen tuotteeseen, yrittäjyysorientaatioon, sivusuuntaisen jäykkyyteen ja markkinaorientaatioon liittyvien tekijöiden vaikutuksia PMINV:n kasvuun ja selviytymiseen.

Tekijöiden vaikutuksen määrittelemiseksi, PMINV:lle luonnosteltujen (1) alkuvaiheen, (2) kaupallisen läpimurron, (3) globaalin läpimurron sekä (4) globaalin toiminnan tehostamisen ja kypsyyden osalta, tutkielma nojaa neljässä aktiivisessa ja yhdessä inaktiivisessa suomalaisessa PMINV-yrityksessä toteutettuun tapaustutkimukseen. Kasvuksi tulkitaan yrityksen eteneminen vaiheiden välillä, ja selviytymiseksi toiminnan jatkuminen. Tuloksia myös vertaillaan B2B ja B2C tapausyritysten välisesti.

Tutkielman tulosten mukaan, toimialan kasvu, toimialan globalisaatiota edistävät tekijät, resurssien ja johdon kokemuksen määrä, substanssiiviset dynaamiset sekä verkostoitumiskyvykkyydet, tuotelaajuuden optimointi, tuoteadaptointi ja korostunut yrittäjyysorientaatio päätöksenteossa puoltavat PMINV:n kaupallista ja globaalia läpimurtoa. Toimialan kasvun taantuminen, verkostoitumiskyvykkyydet, globaalin kilpailun konsolidoituminen, ulkoiset paineet sekä tuotestandardoinnille että resurssikannan tehostamiselle ja verrattain alentunut yrittäjyysorientaatio päätöksenteossa, puolestaan puoltavat PMINV:n globaalin toiminnan tehostamista.

Tulosten mukaan etenkin PMINV:n aikaisten kasvuvaiheiden välillä esiintyy usein selviytymiskriisejä joiden aikana tehdyt hallinnolliset toimenpiteet, joko saattavat yrityksen seuraavaan kasvunvaiheeseen, tai, pahimmillaan, johtavat toiminnan loppumiseen. Näin ollen, toimialan kasvu, resurssien ja johdon kokemuksen määrä, substanssiivisten-, dynaamisten sekä verkostoitumiskyvykkyyksien olemassaolo, tuotetarjonnan laajuuden optimointi ja verrattain alentunut sekä yrittäjyysorientaatio päätöksenteossa että tuoteadaptaatio edistävät PMINV:n selviytymistä.

Tulokset myös korostavat, että toimialan globalisaatiota edistävät tekijät, ja markkinointiresurssien määrä vaikuttavat vahvemmin B2C- kuin B2B PMINV:n kasvuun ja selviytymiseen. Lisäksi, bändikeskeinen suuntautumisen todetaan edistävän B2C PMINV:n kasvua ja markkinakeskeinen suuntautuminen B2B PMINV:n kasvua.

Avainsanat: Syntymästään Globaali Yritys, Kasvu, Selviytyminen, B2B, B2C

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1 INTRODUCTION

Why do some firms internationalize like “rings in the water” gradually, in terms of country markets, foreign entry modes and product policy, while others make the jump to foreign countries as well as continents soon after inception? This question has been the motivation of many business scholars during the past few decades thereby greatly contributing to the emergence of the multi-disciplinary international entrepreneurship domain of research. (Madsen and Servais 1997). The focal point of the domain - the International New Venture (INV) - continues to spark academic inquiries. Research of the INV has mainly focused on the attributes that distinguish the firm from ones that adhere to a more traditional, gradual pattern of foreign expansion (e.g. Rialp et al., 2005) Yet, despite efforts to the contrary, scholars are yet to reach a consensus on the mere definition of an INV.

In INV research, the “what?” seems to have received more academic attention than the “how?”. In other words, while the debate surrounding the determinants of an INV has been rife academically, studies have largely failed to address how the firm develops from inception to maturity. This is not to say that the factors behind INVs have not been studied. On the contrary, during some two decades of enquiry, the entrepreneurial foundations (e.g. Knight and Cavusgil, 2004), resources and capabilities (e.g. Sapienza et al., 2006) as well as operating environments (e.g. Moen, 2002) of INVs have all received attention. Yet, the way in which they impact INV performance over a period of time has not been explicitly addressed (e.g. Sapienza et al., 2006; Mudambi and Zahra 2007). From the product perspective, some Finnish INVs have been noted for a propensity to achieve high international performance through a wide range of outputs such as services, products know-how and systems (e.g. Luostarinen and Gabrielsson, 2006), but the physical product manufacturing INVs (PMINV) exploits, in particular, are somewhat unaccounted for academically.

The following Master’s Thesis research aims to contribute for this gap in contemporary awareness and offer insight into how select antecedent factors impact the outcomes of INV growth and survival. The novelty of the research extends into its specific focus: the

physical product manufacturing international new venture (PMINV), which draws the majority of revenues from tangible products. To further address the specific growth and survival factors native to different product markets, the study builds on the differences between PMINVs that supply for the consumer (B2C) and industrial (B2B) markets. In doing so it takes a fresh approach as, to the writer's knowledge; such manufacturers specifically have received very little attention in international entrepreneurship research.

1.1 Background of the Study

Research has yet to significantly substantiate the growth phases and survival challenges an International New Venture experiences before reaching resource maturity. In theory, the organizational development of an INV is affected by a wealth of growth and survival factors (e.g. Gabrielsson and Kirpalani, 2004), yet very little is known regarding the nature and extent of their influence. Often the impact of such factors is studied in isolation (e.g. Mort and Weerawardeena, 2006; Mudambi and Zahra 2007) as opposed to studying organizational developments over a period of time. The lack of understanding is highlighted by the substantial academic interest garnered by the growth phases and survival challenges of the "conventional firm" or the Multinational Enterprise (MNE), topics that have received continued interest from scholars, as evidenced by the wealth of related conceptual models (see e.g. Greiner, 1972; Churchill and Lewis, 1983; Kazanjian and Drazin, 1990a). Despite addressing the organizational growth of the firm in length, these models are criticized for not taking into account situational variables, such as industry specifics, firm resources (Kazanjian and Drazin, 1990b) and the dynamics of internationalization (Gabrielsson and Gabrielsson, 2009).

The research project: "Born Globals: Growth Stages and Survival", administered by the Aalto University School of Economics together with the University of Vaasa seeks to contribute for this gap in awareness within the multi-disciplinary field of international entrepreneurship. Whilst underlining the Born Global – type of International New Venture, the project builds on the work of Oviatt and McDougall (1994, p.49), whereby an INV equals *"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". The definition is extended with performance attributes to provide a more coherent picture in-line with the views of many European scholars of international entrepreneurship, whom posit, that a global vision alone may not suffice (e.g. Gabrielsson and Gabrielsson 2009, pp.2-3). Hence, an INV whose foreign sales accumulate to 25% of the total sales within *three years* of *commercial operations* is considered a Born International, whereas an INV that accomplishes the same feat and *additionally*, is able to draw 25% of its sales revenue from outside the home continent within six years of commercial operations is considered a Born Global .

The ca. two-year research project, initiated in April 2009 under the leadership of Dr. Mika Gabrielsson and Dr. Peter Gabrielsson, aims to address:

"*How innovative Born Globals can grow to become truly global firms, while also surviving, taking into consideration their limited resources to address the global market opportunities and required holistic management of the process."*

The primary stakeholders of the project, whom include the Finnish National Technology Agency Tekes, Finnish Foreign Trade Association Finpro, a number of partner firms and Doctoral as well as Master's Thesis researchers, seek to understand:

"How Born Globals become adults and what factors impact their growth and survival?".

The Master's Thesis researchers contributing to the research each take a distinct perspective on INV growth and survival. The present study concentrates the empirical focus towards *the growth phases and survival challenges of select industrial and consumer market international new ventures that manufacture physical products*, in a bid to contribute for the gap in international business literature, discussed next.

1.2 Research Gap

The stream of literature concentrating on the International New Venture has only recently started to receive more widespread interest across different disciplines of

business research. However, much of the contemporary fieldwork is focused on describing, understanding and interpreting the reasons underpinning the emergence of firms internationalizing at an accelerated pace. Contemporary INV studies often depict the behaviors exhibited by these firms and the elements that determine their accelerated internationalization in a comparative context with traditional internationalization perspectives. (Rialp et al., 2005). This leaves little in the way of studies examining the distinctions *across different types of INVs.* The contrast instead is set between the INV and firms internationalizing according to the more theoretically established stage-wise pattern of foreign expansion (e.g. Johanson and Vahlne 1977; Luostarinen, 1979), described in more detail in the next section (see e.g. Madsen and Servais, 1997).

A significant amount of the current literature on INVs deals directly with high-tech businesses, usually considering the more critical globalization effects that are present in the type of sectors in which these firms compete. Relatively few researchers show a wider interest across sectors, without limiting themselves into studying high-technological international start-ups but by adopting an overall or even low-technological sector approach in their analysis (Rialp et al., 2005, pp.152). Also, industrial markets have been found to be more attractive for INVs, because they can generally be reached with more limited marketing budgets than business to consumer segments (e.g. Luostarinen & Gabrielsson, 2006).

Against this academic backdrop it is easy to fathom the lack of cohesive investigations into models focusing on the growth and survival of INVs overall, let alone ones concentrating on those INVs that manufacture tangible products for either the B2B or B2C market. As long as scholars are undecided on the basic metrics of the INV, such as whether a global vision from inception suffices to distinguish them from “traditionally internationalizing” companies, research into the specifics of their behavior is likely to remain rather exploratory (Rialp et al., 2005).

The present study, while exploratory, aims to extend the conceptual understanding of the INV by focusing on *growth* and *survival* as two important manifestations and outcomes of its behavior and thereby help build the foundations for descriptive research.

Despite concentrating on INVs supplying high-tech products, the empirical focus of the study is narrowed down to Finnish firms whose revenues are mainly comprised from the sales of tangible products as opposed intangible ones, services or know-how. Perhaps owing to the high-manufacturing costs associated with their domestic market these firms are few in number and a study of their exploits is largely unprecedented.

1.3 Research Problem and Objective(s)

To crystallize the empirical focus of the Master's Thesis, a research problem and objectives are comprised in-line with the goals of the "Born Globals: Growth Stages and Survival" - research project.

Research Problem

In contributing for the abovementioned gap in contemporary theoretical discourse, the present Master's Thesis aims to address:

"*How can international new ventures from the physical product market survive and grow to become truly global companies considering their limited resources to address global market opportunities?*"

Research Objective(s)

The research problem carries with it the assumption whereby international new ventures manufacturing physical products are subject to different factors of growth and survival than INVs in general, due to their output. Also, prior literature (e.g. Ford, 1980; Anderson and Narus, 2004; Gummeson and Polese, 2009) implies that because of the differences in consumer and business markets, the growth and survival factors for firms may vary, pending on which market they cater for. Hence, a twofold research objective is drawn from the research problem as follows:

(1)What factors impact the growth and survival of physical product manufacturing international new ventures on their way to adulthood and

(2)How are the pathways to adulthood different between physical product manufacturing B2B and B2C international new ventures?

For the benefit of reaching these objectives, it is useful to establish a solid foundation by defining some central terms as they are used in the context of the study, while the central limitations of the Master's thesis work also merit attention.

1.4 Definitions

To overcome inconsistencies inherent to international entrepreneurship terminology, the following explains some central concepts as they are utilized in the present study. Note that, some of the definitions are set or influenced by "Born Globals: Growth Stages and Survival" project (=*).

Born Global - *"A business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries* (Oviatt and McDougall 1994, p.49)", and whose share of foreign sales reaches 25% within the first three years of commercial operations* and whose share of sales from outside the home continent reaches 25% within the first six years of commercial operations*.

Born International - *"A business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries* (Oviatt and McDougall 1994, p.49)", and whose share of foreign sales reaches 25% within the first three years of commercial operations* and whose share of sales from outside the home continent does not reach 25% within the first six years of commercial operations (or is yet to do so, if the firm has been commercially active for less than six years)*.

Brand-driven Firm - a company that is brand-oriented (see below)

Brand Orientation - a market orientation that builds on brands as strategic resources. The processes of a brand oriented firm revolve around the creation, development and protection of brand identity in a continuous interaction with customers, with the aim of achieving lasting competitive advantages through brands (Urde 1999).

Customer Market - indicates whether a firm's target market is comprised of businesses (B2B) or consumers (B2C) or both.

Globalization Degree - the share of foreign sales from outside the home continent

Internationalization Degree - the share of foreign sales from within the domestic continent.

International New Venture - "*A business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries* (Oviatt and McDougall 1994, p.49)", and whose share of foreign sales reaches 25% within the first three years of commercial operations*.

Market-driven firm - a company that is market-oriented (see below)

Market Orientation - "the organization-wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organization-wide responsiveness to it (Hunt and Morgan and 1995, cited in Urde, 1999, p.120).

(Physical) Product Manufacturing International New Venture - An International New Venture whose *primary* source of revenue is the supply of physical/tangible goods, as opposed to know-how, services, systems or intangible products.

Product Scope / Product Offering - The range (number) of product lines supplied by a company

1.5 Research Limitations and Structure

Due to the limits of Master's Thesis work, the research scope is narrowed down from the holistic consensus of the International New Venture, shared by the "Born Globals: Growth Stages and Survival" research-project, to the Product Manufacturing International New Venture. Nonetheless, the study builds on a shared set of concepts whilst also adding to the collective research base.

Research Limitations

The study concentrates on PMINVs of Finnish origin. Finland, in turn, has been described as a comparatively small and open economy (SMOPEC). Prior research asserts that the smallness, openness and remote location of Finland "push" domestic firms to international markets, a dynamic enforced by the "pull" of large and open global markets. (Luostarinen, 1979; 1994). Accelerated internationalization, however, is an international phenomenon (see e.g. Rialp et al., 2005). Consequently, the starting grounds and operating environments of PMINVs may vary based on country of origin.

In the vein of Gabrielsson and Gabrielsson (2009), the growth and survival factors of PMINVs are studied along four projected organizational phases: (1) Introductory, (2) Commercial breakthrough and foreign growth, (3) Global breakthrough and expansion as well as (4) Global rationalization and maturity. The underlining rationale stems from the apparent lack of coherent INV growth frameworks overall and the attempt to build on a partly shared conceptual foundation with other research streams from the "Born Globals: Growth Phases and Survival" -project and thereby help ensure comparability of findings.

Building on the same rationale, of the plethora of factors that potentially influence the growth and survival of PMINVs, the study focuses on industry growth rate, industry

globalization drivers, resource amount, managerial experience, substantive capabilities, dynamic capabilities, resource fungibility, networking capability, entrepreneurial orientation and lateral rigidity, also in accordance with Gabrielsson and Gabrilesson (2009). Additionally, factors pertaining to product scope and product adaptation as well as factors conditional to the market orientation (brand/market-driven) of the firm are included to direct the empirical focus towards B2C and B2B PMINVs. Also, the reviews of prior research and literature concentrate on the works available on INVs overall, rather than focusing solely on the very limited academic insight on the PMINV. Thus, unless implied otherwise by the original author(s), conceptual findings related to the INV are also applied to the PMINV.

Document Structure

The study commences from the current academic understanding of the International New Venture and proceeds to discuss contemporary models of firm growth and survival, in the first part of the literature review. The difference between the outcomes of firm survival and non-survival remains rather explicit empirically. However, firm growth in today's globally integrated economy merits attention along at least two dimensions: organizational growth and expansion in international direction (e.g Gabrielsson and Gabrielsson, 2009). In the second part of the literature review, industry, firm and product factors that international business scholars have found to have an impact on firm performance in terms of growth and survival are discussed. The review is complete with a theoretical framework and propositions for empirical research. Following the literature review, the multiple-case study approach is discussed as the chosen method of data collection and structuring in the build up to the empirical analysis. The empirical analysis and research findings-section builds from five single-case descriptions based on as many Finnish PMINVs, which are followed by a cross cross-case analysis, underlining the empirical findings of the study. The section is complete after revisiting the research propositions and accounting for the differences between PMINVs that supply the industrial and consumer markets. The study concludes with a summary of the main findings, theoretical and managerial contributions as well as suggestions for further study.

2 LITERATURE REVIEW

The following review draws from two streams of literature. The first part of the review deals with firm growth, both in international direction and size, as well as firm survival. It builds on studies from the international business and strategic management arenas in order to forward a growth phases model for the benefit of empirically studying the growth and survival of product manufacturing international new ventures, since none of the contemporary models seem applicable. In doing so it lends from the International new venture growth phases and main paths introduced by Gabrielsson and Gabrielsson (2009, pp.4-7), whilst also extending it with elements conceptually specific to physical product manufacturers. The second part of the review discusses select firm, industry and product factors prior research has found to have an impact on firm growth and/or survival. The section is completed with a theoretical framework and propositions, grounded in the reviewed literature, and geared for empirical analysis of PMINV growth and survival.

2.1 Models of Firm Internationalization, Growth and Survival

The first part of the literature review discusses firm internationalization, while the second concentrates on organizational growth against the backdrop of survival. The division respects the views Garbrielsson and Gabrielsson (2009), whereby firm growth takes place in size as well as global direction size and survival is a constant consideration.

In addressing firm growth, taxonomies often make use of quantifiable performance metrics such as cumulative sales or number of employees (e.g. Coad and Hölzl 2009; Delmar et al., 2003). For instance, the European Commission uses the combination of amount of employees and firm turnover to classify firm size. According to the 2005 classification firms with zero to nine employees and less than 2M € are defined as micro-sized, 10-49 and less than 10M € are small, 50-250 and less than 50M € are medium-sized, while companies with more than 250 and over 50M € are considered large (Summaries of EU Legislation, 2007).

To provide a frame of reference for size-based metrics, expansion in foreign direction, can be measured by e.g. the level of internalized transactions, changes in governance structures, integration of resources across country borders (Oviatt & McDougall 1994), and sales from outside the home continent as well as foreign market commitment (e.g. Luostarinen & Gabrielsson 2006). These aspects are discussed in more detail next.

2.1.1 Traditional Models of Internationalization

Firm internationalization has been traditionally depicted through the emerging Multinational Enterprise (MNE) and the focus has inevitably been on large mature organizations. Empirical evidence has positioned the foundations of MNEs in large domestic corporations that have gradually developed their operations across countries and continents (e.g. Chandler, 1986). Subsequently, research streams originating from Scandinavia have also sought to substantiate the internationalization of firms as an incremental process ranging from no foreign market commitment(s) to establishing offshore production units via foreign direct investment (FDI).

In what is often termed as the Uppsala or U-model, Johanson and Vahlne (1977) focus on the firm's gradual acquirement, integration and utilization of knowledge about foreign markets as a pre-requisite for increasing commitment to foreign operations. They stipulate that since this knowledge is partially rooted in practice, it is often referred to as *experiential knowledge*, something that can only be accumulated through foreign market operations. The theory emphasizes the interdependence between foreign market commitment and experiential knowledge which leads to the firm internationalizing in a stage-oriented pattern where commitment, in the form of FDI, grows gradually.

In simplified terms of foreign market servicing, the Uppsala-model argues that a given firm begins from a state of no regular export to a specific foreign market. The second stage sees the firm establish a direct export operation via an intermediary (e.g. agent or distributor) to cater for increased foreign demand. As experiential knowledge from the foreign market accumulates, at the third stage the firm establishes a sales subsidiary to

e.g. offset the opportunistic behavior of middlemen. In the fourth stage, the firm has acquired enough experiential knowledge to comfortably establish a production unit in the foreign market. (Johanson and Vahlne 1977, pp.23-28).

In a study of Finnish firms, Luostarinen (1979) also found empirical evidence suggesting companies follow a gradual path in foreign market servicing. He states that an important reason for this is the *lateral rigidity* of decision makers, which refers to a managerial preference toward established patterns of action over experimental ones. He further asserts that the internationalization of the firm is dependent on knowledge gained through international operations and, and similarly to the Uppsala model, the stock of knowledge is enhanced through organizational learning from foreign operations. Thus, the larger the stock, the less likely it is for decision making to be laterally rigid, which means foreign operations further increase foreign commitment.

Luostarinen's model argues that when catering for initial interest from a foreign market, a firm will firstly establish non-investment marketing operations (NIMOS) i.e. export ties. After successful export operations, the firm is inclined to pursue direct-investment marketing operations (DIMOS) in the form of a foreign sales subsidiary. Following this early presence, the firm will move to establish non-investment production operations (NIPOS) i.e. one or a combination of licensing/franchising, subcontracting and contract manufacturing. The fourth and final phase, in turn, sees the firm establish direct-investment production operations (DIPOS), in the form of a foreign production facility. (Luostarinen, 1979).

The common nominator of these two "traditional" models of internationalization resides in how they view the process as a pattern with distinct phases dictated by experiential knowledge. They remain rather effective in depicting foreign expansion when the focus is a large manufacturer, often the focal-point of earlier research (e.g. Buckley and Casson 1976; Dunning 1981). Some more recent macro-economical phenomena, however, provide stern challenges to their universal applicability and have thereby greatly influenced the growing body of literature on the International New Venture.

2.1.2 The International New Venture - A Challenge for Traditional Models

The business landscape for the international entrepreneur has drastically changed during the past few decades, changing the entrepreneur in the process. Technological innovation, low-cost communications technologies and means of transport are among the main influences behind the changing foundations of the MNE. In addition to large established companies, foreign markets are increasingly within the grasp of SME's and start-ups who from inception view the world as their marketplace i.e. international new ventures. Hence, it is not uncommon for them to jump over some of the traditionally defined stages in becoming an MNE. (e.g. Oviatt and McDougall, 1994). This behavior is common for companies grounded in small and open economies (SMOPECS) such as Finland where, due to the small domestic market, the pressure to internationalize and/or globalize the business is often high (e.g. Luostarinen and Gabrielsson, 2006, cited in Gabrielsson and Gabrielsson, 2009, p.11).

Different streams of literature have come up with varying criteria regarding the determinants that characterize an INV. Oviatt and McDougall (1994, pp.49) define 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."* Here the allocation of resource and a global vision are the main determinants, whereas McKinsey (1993, cited in Gabrielsson and Gabrielsson, 2009 pp.3) calls for 75% export intensity within two years of inception, while Knight and Cavusgil (1996, cited in Gabrielsson and Gabrielsson, 2009, pp.3) advocate that 25% export from total production within this time frame suffices for the INV label. Many European-based researchers have demanded for extended follow-up periods in examining whether the INV has realized its potential (e.g. Gabrielsson and Gabrielsson, 2009, pp.3) but INV scholars have yet to reach a universal accord. However, some efforts have stood the test of time better than others while instigating a wealth of supportive research.

Oviatt and McDougall (1994) categorize a total of four different types of INVs: (1) Export / Import Start-ups specialize in the age-old practice of moving goods from where they are into a foreign market where there is a demand for them. Where an Export /

Import Start-up focuses on a few foreign markets, the (2) Multinational Trader caters for a wide range of countries and constantly screens the market for opportunities from where their networks exist or can be established swiftly. (3) Geographically Focused Start-ups build on advantages by catering for the *specialized* needs of a particular region of the world (e.g. Europe) by utilizing foreign resources. Finally, (4) the Global Start-up draws significant competitive advantage by leveraging organizational activities across the globe to respond to globalizing markets. It also anticipatorily acts on opportunities to acquire resources and sell outputs wherever they have the greatest value.

The Global Start Up-type of INV has attracted considerable interest from researchers and is consequently often referred to as the "Born Global" (e.g Rennie 1993; Madsen and Servais 1997). It should be noted that International Entrepreneurship terminology is inconsistent and the terms International New Venture, Born International (Majkgård and Sharma, 1999, cited in Luostarinen and Gabrielsson, 2006) and Born Global are sometimes used interchangeably. For the definitions used in the present study see 1.4.

Despite their apparent differences, INVs and MNEs have many similarities. Both strive to create competitive advantages(s) over domestic rivals, overcome financial shortfalls by applying alternative governance structures and are in possession of unique assets to defend (Mudambi and Zahra, 2007, pp.335). However, typifying an INV solely based on the extent and nature of foreign market commitments is problematic because infrequently size in foreign direction can be strikingly unparallel with growth in turnover and employees. Some INVs execute global operations whilst still micro-sized, based on employee count and/or turnover. Thus, an attempt to project INV growth and survival should be mindful of alternative metrics, such as those ingrained in firm lifecycles (Gabrielsson and Gabrielsson, 2009).

2.1.3 Stage-wise Organizational Growth and the Dynamics of Survival

A potent stream of literature concerned with firm growth utilizes identifiable stages of organizational change within a firm as an underlining rationale. Obviously the nature and amount of stages varies between respective frameworks of organizational change,

but some similarities across them are also evident. Whether implicitly or explicitly, all stage of growth models have an underpinning rationale according to which organizations experience gradual transformations in their characteristics as a function of growth. These transformations, in turn, enable them to take on a fresh set of tasks or challenges elicited by growth. In depicting growth as a stage-wise process, these models introduce survival as a constant, albeit unstable variable. The dynamic nature of growth means that the nature of survival challenges varies greatly. Sever mismanagement of the challenges, in turn prompts the risk of non-survival. (e.g. Greiner, 1972; Scott and Bruce 1987; Kazanjian and Drazin 1990a).

Greiner (1972) argues that organizations grow through the phases of (1) *Creativity*, (2) *Direction*, (3) *Delegation*, (4) *Coordination* and (5) *Collaboration*. His model depicts growth via size as well as time and attributes each phase with a management crisis, which needs to be solved by modifying organizational practices accordingly to allow progress to the next phase. The crises are characterized as periods of "revolution" that mediate phases of stable growth or "evolution" and in failing to respond to organizational challenges, the firm risks regression to an earlier stage or non-survival. Churchill and Lewis (1983), in turn, address changes in SME structure that take place as the firm grows, which results in a framework of SME growth stages, labeled; (1) *Existence*, (2) *Survival*, (3) *Success-disengagement* / *Success-growth*, (4) *Take-off* and (5) *Resource maturity*. Each stage of growth varies along the dimensions of firm size, diversity and complexity and is described via factors of managerial style, organizational structure, extent of formal systems, strategic goals and the extent of owner involvement.

Scott and Bruce (1987) argue that SMEs encounters internal and external crises along the stages of (1) *Inception*, (2) *Survival*, (3) *Growth*, (4) *Expansion* and (5) *Maturity*. Their framework relies on a number of attributes in depicting the stage that a projected company is in at a given time. These include: nature of industry, key managerial concerns, the role of top management, organizational structure, the intensity of product/market research, the sophistication of systems/controls, the main source of financing, cash flow status (negative/positive), target of core investments as well as the state of the product-market. Kazanjian and Drazin (1990a), on the other hand, introduce

a model that relies on exemplifying stages in terms of a succession of problems that firms must resolve. The model consists of four stages: (1) *Conception*, (2) *Commercialization*, (3) *Growth* and (4) *Stability* all with defining problems. They stress, however, that the solution or the "fit" between structural features and the specific problems that define a given stage, only serves to forward a new set of problems

In addressing firm growth as both an outcome and a pre-requisite of management challenges the above frameworks rely on organizational metrics. However, as e.g. Gabrielsson and Gabrielsson (2009) argue, growth takes place also in the dimension of foreign expansion, as explained in the following.

2.1.4 Growth and Survival of the International New Venture

After the conceptual emergence of the INV, some more recent empirical work (e.g. Mudambi and Zahra, 2007) has sought to discuss the differences between incremental and accelerated internationalization in terms of a strategic choice. The argument is based on the understanding that the two approaches to internationalization are at the opposite ends of a strategic scale, centered on the choice of how a given firm chooses to tackle foreign markets and that the choice is based on the firm's resources and capabilities and is primarily internal as opposed to being a sum of external factors. In simplified terms; within the constraints of its inherent operating environment, a firm is free to choose whether to pursue accelerated or incremental internationalization.

When accelerated internationalization is viewed as a strategic choice, Gabrielsson and Gabrielsson (2009) find that an INV can pursue one of two growth strategies. (1) It can adhere to a Born Global strategy and target global markets from inception, also pursuing market opportunities outside the home continent or (2) it can choose to swiftly enter nearby markets without expanding to other continents, thereby leaning toward more of a Born International strategy (see e.g Kuivalainen et al., 2007). Of the typology of four kinds of INVs presented by Oviatt and McDougal (1994), these two strategic approaches adhere to a (4) Global Start-up or a (3) Geographically Focused Start-up respectively. While the growth and survival of (1) Export/Import Start-up and (2)

Multinational Trader-types of INVs from the typology are well documented in export and early internationalization research, born globals and born internationals have received less attention (Gabrielsson and Gabrielsson 2009, pp.2-3).

Gabrielsson et al. (2008) find that born globals develop in three respective phases: (1) *Introductory*, (2) *Growth and resource accumulation* and (3) *Break-out*. This model, however, falls short in depicting how the INV reaches maturity or MNE status. (Gabrielsson and Gabrielsson 2009, pp.4). Moreover, focusing solely on growth would be optimistic as evidenced by the emphasis on survival in stage-wise organizational growth models (2.1.3). Hence, the following discusses survival in the context of INVs.

International New Venture Survival

In the vein of Gabrielsson and Gabrielsson (2009), the present study aims to address liabilities and specific risks that potentially influence international new ventures. Following up on the earlier work of Oviatt and McDougall (1994), Zahra (2005, pp.23) points out that very little is known of the survival and operations of INVs after they are established. Previous studies indicate that at least three liabilities can be attributed to INVs relative to their more established competition. Also INVs seem to operate in inherently risky business landscape (Shrader et al., 2000).

Liability of Foreignness: Building on theory of MNE behavior, the time sensitive nature of some influencing factors and costs analysis Zaheer and Mosakowski, (1997) identify a liability of foreignness in a commodity industry. In simplified terms, the study concludes that foreign firms are faced with lower rates of survival than local firms due to the advantage(s) the latter hold for being native to the market. The liability was found to be time sensitive: After an initial period of ca. two years the exit rate of exampled foreign firms grew in relation to domestic ones, before returning to par after a time of 16 years. The study also differentiates between the impacts of different factors that influence the environment dictating the extent of the liability of foreignness. For example, during a time of heavy deregulation and globalization, the liability was found to decrease, due to a more “level playing field” for domestic and foreign firms.

These findings are interesting for the present study, because they provide an idea of how long an INV is liable from being foreign to a market. This is accentuated when one considers that it must stretch its limited resources (Oviatt and McDougall, 1994) along a variety of diverse national markets. Furthermore, the notion that deregulation of the marketplace decreases the liability of foreignness provides empirically-based reasoning as to why the why the widespread emergence of INVs has coincided with the relatively recent integration and globalization of world trade.

Liability of Newness: In studying how the society outside organizations influences the internal life of organizations Stinchcombe (1965) also informs the study of INVs. The finding that characterizes his work in the present context is based on the notion that young organizations are more prone to failure than established ones because of two underlining reasons. They need to learn new roles as social actors as well as create new organizational routines with matching roles at a time when scarce organizational resources are stretched to the limit (Clegg, 2006, pp.61). In the case of INVs this is perhaps emphasized as their foreign market commitments can take place in a variety of different environments. As new firms tend to be small, the liabilities of foreignness and newness are often applicable in unison.

Liability of Smallness: Aldrich and Auster, (1986, cited in Clegg, 2006 p.62) capture some reasons for why small businesses are more likely to fail than large ones in identifying the liability of smallness. These include; difficulties in finding external funding, meeting relatively high interest rates as well as recruiting and training a workforce. The liability of smallness is enforced by the fact that potential customers tend to favor larger organizations (Hannan and Freeman, 1984, cited in Clegg p.62). As the liability of smallness is related to size, it seems safe to assume, that growth offsets it.

Even with limited description of the different liabilities of INVs, it is evident that not only are these types of firms disadvantaged because of the range of liabilities but also because of their somewhat cumulative nature, evident in how the liabilities enforce each

other. For example, resource scarcity can accentuate the disparities present in foreign operations and extend the time it takes to get accustomed to the respective markets.

In addition to accounts of inherent organizational liabilities, the international business landscape for INVs also merits attention. Upon identifying a number of risks specific to INVs, Shrader et al. (2000) also stipulate how these risks are managed by international entrepreneurs. They assert that, devoid of large networks and an abundance of resources, INV managers have to rely on trade-offs between risks specific to; some foreign locations, entry mode commitments and foreign revenue exposure(s).

The actions a given INV can undertake in executing trade-offs can be limited to two broadly defined categories (1) financial and (2) strategic. The former entails purchasing insurance on property casualty as well as liability and the buying and selling of financial instruments, such as forward contracts. The latter can be divided into five generic types of strategic actions that define the available responses to international risks: (competitor) *imitation*, (risk) *avoidance*, (strategic) *flexibility*, *cooperation* (with other parties) and *control*. The role of the entrepreneur is highlighted in these actions as well as is his optimistic nature towards risks. In highlighting actual measures taken by INVs to manage risks the study provides proof that despite having to negotiate a variety of disadvantages in its operations an INV can rely on some inherent advantages, e.g. the experience of top management, high innovative capacity and a concentrated focus on a limited product line which decreases complexity of operations. (Shrader et al., 2000).

Survival is not synonymous with success when determining whether a global vision from inception came to fruition. Thus, a more thorough understanding of the growth phases of an international new venture is needed in order to conceptualize the developments that constitute a successful Born Global or Born International. (Gabrielsson and Gabrielsson, 2009, pp.4).

2.1.5 Growth Phases of a Product Manufacturing International New Venture

By synthesizing the discussed works of literature on firm growth, internationalization and the International New Venture a framework for the growth phases and interconnected survival challenges for the INV can be forwarded to help bridge the gap in theory. The hereafter projected phases are dubbed (1) *Introductory*, (2) *Commercial breakthrough & foreign growth*, (3) *Global breakthrough & expansion* and (4) *Global rationalization & maturity* in-line with Gabrielsson and Gabrielsson (2009, pp.4-7). Yet, in synthesizing earlier works, this study emphasizes the viewpoint of the Product Manufacturing International New Ventrue. Figure 1. illustrates the projected phases.

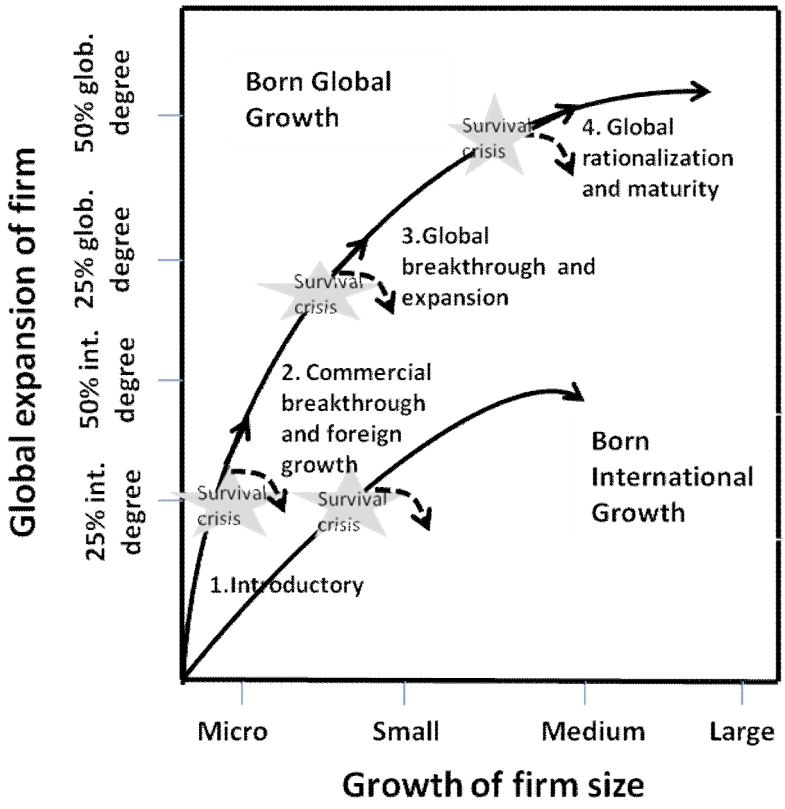

Figure 1. Phases and main paths of growth for PMINVs, modified from Gabrielsson and Gabrielsson (2009, pp.5)

1. The Introductory Phase

In a study of international French and Norwegian SME manufacturers, Moen (2002, pp.172) found that the "destiny" of the firms was often shaped already at introduction.

Thus, if a global vision is not taken from establishment, the PMINV is likely to remain a domestic operator, an aspect highlighted by the fact that the introductory phase is said to include very limited forward planning (Scott and Bruce, 1987, pp.49).

International new Ventures are often characterized by their entrepreneurial founders (Shrader et al., 2000, pp.1230). Thus, the notion that the main values driving an SME start-up are those of the founders' (Bridge et al., 1998, pp.199) is highlighted here. This means that management is done via direct supervision and the basic skills of the founder(s) will determine the functional emphasis of the firm. Greiner (1972, pp.42) identifies a common challenge in this setting. He argues that while the founder(s) are usually technologically oriented they may be burdened with the added managerial responsibilities infused by e.g. an increased number of employees. The solution he advocates is to install a business manager with administrative experience and knowledge of extended product runs.

At this stage of operations, there is very little organizational structure to speak of, due to the focus being in technical development, which emphasizes the central role of the founder(s) and overall, structure and formality are non-existent. (Kazanjian and Drazin, 1990a, pp.140). The operational focus is on creating a commercially viable product, developing a market for it and finding the required financing to fuel these activities. A single operating unit servicing a single (domestic) market is often the hub of all activities. (Scott and Bruce, 1987). Also, the company may have very limited, mainly export driven sales from abroad (Gabrielsson and Gabrielsson, 2009, pp.5). Finding the required financing calls for the ability to convince potential financiers, sometimes when the product is still in development (Kazanjian and Drazin, 1990a, pp.140), which can be highly challenging (Luostarinen and Gabrielsson, 2006). Therefore, expanding on any pilot customer base is crucial (Churchill and Lewis, 1983, pp.32).

An added concern for product manufacturers is finding the right channels to reach prospective customers (Moen, 2002, pp.5). Some creative channels utilized by Born Globals include: (1) contracting an MNE as a systems integrator, (2) contracting an MNE to act as distributor or licensee, (3) entering networks of supportive organizations

or business associates and (4) utilizing the Internet (sales/marketing) or a combination of these (Gabrielsson et al., 2008). Pending a failure in securing the required channels, managerial expertise, resources and capabilities, the survival of the INV is jeopardized. Successful management of the challenges, in turn, puts the firm on the verge of a commercial breakthrough. (Gabrielsson and Gabrielsson, 2009, pp.5).

2. The Commercial Breakthrough and Foreign Growth Phase

This phase is characterized by a number of successful foreign market entries which lead to the company operating in a (potentially) global industry (Gabrielsson et al., 2008, pp.396). Subsidiaries are established to better cater for different markets in addition to export activities to other countries (Gabrielsson and Gabrielsson, 2009, p.6). After securing preliminary financing and development of the product, the focus of the product manufacturer shifts to selling the first generation product in volumes (Kazanjian and Drazin, 1990a pp. 140). This obviously calls for attention in increasing production capacity (Scott & Bruce, 1989, pp.51).

The organizational structure is still perhaps hierarchically more informal than formal (Kazanjian and Drazin, 1990b, p.1492), but due to job descriptions becoming increasingly specialized, a more functional approach is imminent (Greiner, 1972, pp.42). Therefore, to maintain organizational performance, capable functional managers are needed, to take over some of the responsibilities of the founder(s) (Churchill and Lewis, 1983, pp.34). Sustained growth is likely to incur functional "shocks" and "crises" when challenged with creating a function-specific task system, meaning the firm is in an almost constant state of change (Kazanjian and Drazin, 1990a, p.140).

The focus here is on finding the closest match between the organizations current offering and foreign market conditions, so that minimal adaptation to the product strategy is required. The guiding principle is to broaden the geographic span of operations while avoiding major marketing or production costs. Securing adequate distribution channels remains a concern, while the company's limited experience abroad means that it will focus on leveraging skill and product-related assets internationally.

(Douglas and Craig, 1989, pp.51). In addressing related shortcomings, the INV may attempt to collaborate with an MNE as in the previous phase. Yet, in doing so it runs the risk of becoming overly dependent on the relationship (Gabrielsson et al., 2008).

There are also other options available. As a result of growing sales revenues and/or increased borrowing power, the firm is potentially in a position to invest a considerable amount of assets into fuelling growth. However, in case these investments fail to yield the desired results the company risks regression and in the worst case business survival is again jeopardized. Amid investments and resource endowments to fuel growth, making sure the basic business stays respectably profitable remains an operational priority. Additionally, specialist recruitment and manager development become key concerns). The company may also look to install systems to aid management, budgeting and planning and the realities of operating in a niche segment become evident as competitive pressures increase internationally. (Chruchill and Lewis, 1983, pp.34).

The strategic focus, (at least for the Born International), gradually swings from foreign opportunity assessment to further penetration of international markets. The underlying reason being a concern for more effective utilization of local operations i.e. marketing, production and distribution. (Douglas and Graig, 1989). Global high growth industries are often characterized by intense competition, which means INVs operating in these environments face considerable challenges in maintaining their competitive advantage. The INVs adhering to a Born Global strategy must look beyond regional markets irrespective of the resource demands and expand to other continents or entertain the idea of becoming Born Internationals. (Gabrielsson and Gabrielsson, 2009, p.6).

Irrespective of the geographic spread the key issues facing management in this phase relate to securing adequate financing for growth targets and maintaining control of operations. The increased strain on the organizational structure demands a move for a more decentralized format. This often marks a change from an entrepreneurial approach to a more professional one, which means that the founder(s) will have to relinquish some managerial power, which can be unpleasant. (Scott and Bruce, 1987, pp.50).

3. The Global Breakthrough and Expansion Phase

As the previous phase constitutes the watershed separating the Born International and Born Global, the subsequent phases concern mainly the latter. The combination of a sustained global vision and commitment spur the Born Global (Gabrielsson et al., 2008, pp.387) as there is a need to pursue growth from new continents. Many such companies operate in niche segments that are not sufficiently large regionally or internationally (Laanti et al., 2006). The structure of the organization is now decentralized and, to an extent, divisionalized, while funding remains a concern. Formalized accounting systems and regular management reports, an increasing interest toward processualizing management functions are common characteristics of this phase. (Scott and Bruce, 1987, pp.50-51). Despite an increase in functional expertise the company is still influenced by founder control. However, the executive expertise required for successful management measures in this phase, may call for a change in top management. (Churchill and Lewis, 1983, pp.40).

The Born Globals that have thus far combined forces with MNEs for market access need to break free of their dependency or risk losing independence and becoming a small satellite in a network centered at the MNE. This calls for resource development or accumulation for channel management purposes. (Gabrielsson et al., 2008, pp.397).

The operational focus is centered on market-specific product and strategy adaptations, which, once applied, will ideally broaden market bases and tap into new segments. Sustained independence means that scope economies as well as the ability to leverage assets and competencies become increasingly important in spreading administrative overheads across higher volumes market-specifically. Thus, efforts center on shared marketing expenses and a joint utilization of production and distribution facilities across product lines. (Douglas and Graig, 1989). If successful in these efforts the company will have more funds and resources available to pursue growth.

For the product manufacturer, maintaining a competitive advantage during increased competitive pressures requires a greater focus on customer needs and product adaptation

(Scott and Bruce, 1987, pp.51), which may prompt the company to develop product variants and consider product line and/or scope extensions (Douglas and Graig, 1989, pp. 55.). But, the main focus is on further market penetration and expansions. Success in these efforts means that a considerable amount of sales will be generated from outside the home continent, which can lead to a wide range of value chain activities being spread across several continents. (Gabrielsson and Gabrielsson, 2009, p.6.)

Despite consolidation, signs of inefficiencies from growth can begin to emerge (Churchill and Lewis,1983) in the form of duplicate market specific activities and costs. The potential emergence of global competition is an added concern. (Douglas and Graig, 1989) and therefore negotiating these challenges becomes a pre-requisite for growth and in some cases survival.

4. The Global Rationalization and Maturity Phase

Concerns over eliminating growth-based inefficiencies signal the Born Globals arrival to the fourth phase (Gabrielsson and Gabrielsson, 2009). Consequently, focus is placed on integrating strategy across different markets by implementing mechanisms for enhanced transnational coordination of operations with an eye on global synergies. In negotiating these challenges, the company begins addressing strategy on a global, rather than a national or product market scale. (Douglas & Craig, 1989, pp.55).

At this phase, structurally the company is ideally well-equipped for rationalization. Management is decentralized, well staffed and experienced, while systems are extensive and developed. Thus, the foundations for large-scale strategic maneuvers are in place and they are ideally enhanced by standard cost systems and budgeting tools. Individual and self-discipline prevail over formal controls in top management. (Greiner, 1972, pp.43). The founder(s) and business are now separate entities financially and operationally. Herein also lays a potential weakness since, despite increased organizational and operational complexity, the company needs to retain its entrepreneurial guile and responsiveness. (Churchill and Lewis, 1983, pp.40).

Upon arrival to this phase, the product manufacturer is focused on finalizing development of the second generation product and operational attention is set on its launch and release. Delivery efforts of the next generation product must not undermine efficient management of the 1st generation product line. (Kazanjian and Drazin, 1990a, pp.141). The challenge is accentuated as the product scope extension is distinctly different from previous produce (Kazanjian and Drazin, 1987), unlike country market adaptations and product line extensions of previous phases.

Reaching the projected final phase does not mean that the company necessarily stops growing. More indicative is how the number of sales from global markets seizes to increase relative to total sales. In conceptual terms, this means that in many cases the company has become a MNE and a significant network node, both internally and externally (Gabrielsson and Gabrielsson, 2009, pp.7). If the enterprise is successful in implementing global rationalization the potential benefits include: scope and scale economies from pooling activities, enhanced customer preferences (global availability), improved quality of outputs as well as increased competitive leverage. Yet, a failure in global integration puts the company at a disadvantage relative to global competitors and can threaten survival. (Yip, 1989).

The phases model summarized in table 1, deals with potential managerial concerns during a projected development cycle of a product manufacturing international new venture. While the watershed between a Born International and Born Global can be positioned between phase two and three, it is not in-line with the objectives of this study to construct a detailed path development based on earlier publications. Instead, the model serves as a starting point for further analysis. As e.g. Sapienza et al. (2006) advocate, an enquiry into INV performance needs to be appreciative of the factors that influence growth and survival, discussed in more detail in the next chapter.

Table 1. The Projected growth phases of a Product Manufacturing International New Venture, modified from Gabrielsson and Gabrielsson (2009, pp.7)

	1. Introductory	2. Commercial breakthrough and foreign growth	3. Global breakthrough and expansion	4. Global rationalization and maturity
Key strategic consideration(s) and operational focus	Development of a commercially viable product, securing enough financing and receiving first sales revenues.	Pursuit of additional foreign market entries and sale of products in volumes, which incur a large increase in production capacity and specialized job roles.	Expansion to new continents and penetration in established markets. Consolidation of sales/marketing and production internationally.	Alignment of global operations across countries to achieve synergies. Maintaining focus on "old " product while launching "new" to sustain CA.
Size and growth of the firm (sales / employees)	Micro-sized firm with a few employees and a priority in building on first sales.	Small/Medium-sized firm with high relative sales and employment growth.	Medium-sized firm with composed relative sales and employment growth.	Large firm with declining relative sales and employment growth.
Foreign expansion (markets, share)	Entry to foreign market(s), under 25% internationalization degree. Sales in fewer than six countries.	Increased expansion to foreign markets, 25%-50% internationalization degree, sales in at least six countries.	Expansion to other continents and growth in established country markets. Globalization degree 25%-50% with sales from at least three continents.	Global presence with globalization degree over 50% and sales from all major/triad continents.
Operational mode(s) (networks)	Export and establishment of relations with key channel members /MNEs via credible concept product.	Export and foreign sales subsidiaries. Distribution in high volumes via MNEs / key channel members/providers.	A variety of offshore operation modes. Independence from key channel providers and establishment of own channels.	Adherence to global integration and local responsiveness.
Products (range, adaptability)	Focus on single product with limited adaptability.	Focus on making single product slightly adaptable or choosing a product that requires only limited market specific-adaptations.	Focus on line extensions, considerable market-specific adaptations and development of the 2nd generation product.	Launch of 2nd generation product across markets.
Organizational structure	Founder centric, combined with direct supervision and informal communication.	Founder still central, but development calls for a more functional/de-centralized approach and formal communication.	Decentralized/Divisional with increasingly specialized job roles. Formal communication, planning and business processes supported by systems.	Decentralized with many experienced managers, highly developed processes and support systems.
Survival crisis in transition period preceding the following phase	Failure in developing a credible product and/or obtaining management expertise, network/channel partners, resources as well as capabilities.	Failure in increasing production capacity, professionalizing management, re-structuring the organization and safeguarding growth.	Failure to consolidate activities and avoid cost, inefficiencies, multiplication of efforts, inability to respond to competitors and global customers.	MNE specific challenges-outside the scope of this study.

2.2 Factors of Firm Growth and Survival

International business literature forwards a number of factors that reportedly influence firm growth and survival. Prior international new venture-research, has grouped them under industry factors and firm factors (Mudambi and Zahra, (2007, p.336). In the vein of Gabrielsson and Gabrielsson (2009) the industry factors assessed next include:

industry growth rate, industry penetration by foreign firms/seller concentration and industry globalization drivers, while firm factors include resources and capabilities as well as entrepreneurial orientation and lateral rigidity in decision making. To direct the focus towards PMINVs product scope and product adaptation are also discussed. Market orientation factors are also discussed to address how the growth paths of PMINVs differ in industrial and consumer markets.

2.2.1 Industry Factors

Building on earlier research, Gabrielsson and Gabrielsson (2009) stress that, the industry growth rate, the rate of industry penetration of foreign firms and global seller concentration within an industry as well as the extent the industry is globally integrated potentially have an impact on the growth and survival of an international new venture.

Industry Growth Rate

Vernon (1966, pp.197-201) finds that industry growth is related to the rate of firm internationalization, whereas Greiner (1972, pp.40), states that the pace at which a company experiences different phases of evolution is closely tied to the market environment of the industry it operates in. Recent studies have posted contradictory results over the matter.

Mudambi and Zahra, (2007, pp.343-347) conclude that industry growth increases the probability of INV survival. They also find evidence of technological competence in terms of R&D intensity, improving a company's survival prospects in a foreign market. However, in a statistical study of small business lifecycles, Headd and Kirchhoff (2009,) find no evidence of growth industries having a greater percentage of growing small firms. Hence, over-reliance on industry growth rate to offset the liabilities of smallness newness and foreignness (2.1.4) may be detrimental to the INV.

Industry Penetration by Foreign Firms and Seller Concentration

In a UK-based study, Driffield and Munday (2000) find that the penetration rate of foreign firms and seller agglomeration influence the comparative advantage of an industry. The comparative advantage of an industry, determines how firms within the industry are likely to perform well relative to firms in other industries. Mudambi and Zahra, (2007, pp.336) build on this understanding and state that the rate of industry penetration by foreign firms and seller concentration can greatly influence a firms survival in international markets, in that the entry of foreign competitors often increases rivalry in an industry (Porter, 1986, cited in Mudambi and Zahra, 2007, pp336) thereby reducing new foreign entrants' ability to acquire the required market share to survive.

Industry concentration (agglomeration), on the other hand, can limit new entrants´ ability to penetrate foreign markets (Porter 1980, cited in Mudambi and Zahra, 2007, pp.336) and therefore reduce their odds of survival. This is due to the notion that, in a highly concentrated industry, foreign entrants have to acquire market share from more established and resource-laden companies (Scherer, 1984, cited in Mudambi and Zahra, 2007, pp.336), which possibly reduces the odds for survival. In simplified terms, a low level of industry concentration and penetration of foreign competitors have a positive impact on the survival of the International New Venture.

The studies underline the complex relationship between firm growth and survival by showing that the outcomes are not synonymous, yet many of the factors impacting survival in a positive manner can be expected to have a similar influence on growth (Gabrielsson and Gabrielsson, 2009). This is accentuated by some macro-economical industry factors.

Industry Globalization Drivers

Yip, (1989) argues that industry globalization drivers, such as homogenous customer needs, global customers and channels, transferable marketing practices, favorable trade policies, compatible technical standards as well as common marketing regulations can

have an enabling influence on firm growth. Luostarinen (1994, pp.166-171) echoes the idea and exemplifies from the perspective of small, open and peripheral economies. Based on analysis of Finnish firms, he advocates that, the removal and liberalization of trade barriers, common market regulations and technical standards inaugurate the global market for competition in many industries and thus enable the existence of INVs. He also states that, the peripheral location, smallness and openness of the home market constitute a domestic market "push", prompting firms to globalize. The motion is enforced by the "pull" of large and open global markets.

While the mentioned industry factors are useful in examining how the competitive dynamic between suppliers influences PMINV growth and survival, an additional group of factors needs to be considered when assessing the impact of the customer market. Market orientation (e.g. Day, 1994) is an effective way to contrast between consumer and industrial markets, as further explained in the following.

2.2.2 Market Orientation Factors

Literature recognizes a number of differences between industrial and consumer markets. When discussing these differences, the present study builds on the views of Anderson and Narus (2004, pp. 12) in elaborating on marketing processes to make a distinction, because they seem to cut across other functional areas and thereby provide an idea on the specifics of B2C and B2B markets as growth and survival platforms.

The Industrial Market

Industrial markets are characterized by buyer-seller interdependencies. The operations of a B2B supplier build on buyer relationships which are frequently close, complex and long-term. They are further defined by the product and process technologies of the two parties as well as the surrounding market structures, which dictate the availability of alternative buyers and sellers. Thus, producers try to develop close relationships rather than play the market with a view on opportunistic short-term gain. Instead, benefits stem from tailoring resources to dealings with a buyer. (Ford 1980, pp.339-340).

Adaptations to the relationship require resource investments from both buyer and seller. By definition the value of the resulting output is less in other transactions than in the specific use it was intended for. Thus adaptations mark a commitment to the relationship by a company and can be seen in e.g. a supplier's development of a specific product for a customer or a buyer's adjustment of a production process to accommodate the seller's product. (Ford 1980, pp.339-340). In general, the business market is more internationally integrated, meaning that customers from country markets in different regions such as the Americas, Asia and Europe are essentially after the same product functionality and performance (Anderson and Narus, 2004, pp.15).

A B2B manufacturer cannot cater for the market by manipulating a generalized marketing mix and hope to generate large country-specific segments (Lipson and Darling, 1971). The industrial market must therefore be analyzed according to the different requirements of buyers and the market as a network of relationships. Each current and potential relationship must be assessed according to inherent opportunities and development possibilities. Hence, allocating resources across different relationships according to likely return is important. Also, the B2B supplier's customer approach should be appreciative of the requirements of the end-user, who is often different from the buyer. (Håkansson & Snehota, 2000, pp.45). The B2B manufacturer must question whether the needed product adaptations are outweighed by the potential revenues from a relationship (Ford 1980, pp.339-340). Some authors (e.g Anderson and Narus, 2004, pp.7) refer to such a relationship management focus as a *market-driven* approach.

On the operational level a B2B vendor emphasizes on *personal selling* rather than advertising to reach buyers, as promotion is done via e.g. *trade journals* or *direct mails.* Because of the tailored nature of the product, price is often negotiated customer-specifically. The industrial vendor's product often includes a *service component.* Direct distribution to larger customers is usual as it can strengthen respective relationships, while smaller customers can be serviced via intermediaries. The organizational buying process often involves many individuals, which means the B2B supplier should understand the organizational buying process and the people involved. If the B2B supplier becomes an important partner in the value creation activities of the buyer via

information sharing, joint planning, shared technology and benefits; the joint focus shifts from price to value and from goods to solutions. (Hutt and Speh, 2007, pp.15-17).

Marketing communications literature sometimes refers to the B2B supplier as more inclined to utilize “push” promotion than B2C suppliers. This means that personal/direct selling is relied upon in each stage of the value delivery process to “push” the product forward i.e. manufacturers sell to wholesalers who sell to retailers who sell to consumers. (Webster, 2000). Hence, the channel member who owns the product at a given also assumes the main responsibility in marketing it downstream in the channel.

The Consumer Market

In contrast to the relationship driven character of the B2B market, the B2C market is often characterized by its more product-driven nature. Based on information over consumer needs, a product idea is developed and pitted against customer perceptions and purchase decisions. (Von Hippel, 1978, pp.40). The B2C acronym itself indicates that the marketing function for producers operating on the marker is essentially supplier centric. In comparison to the relationship-driven industrial, customers in the consumer market take a more passive than participatory role in the production process. (Gummesson and Polese, 2009).

Because the aesthetics and tastes of consumers tend to differ from one country to another, B2C suppliers are generally less inclined to do business across borders than their B2B counterparts (Anderson and Narus, 2004, pp.15). Here, at least in academic principal, customers are approached by manipulating a generic marketing mix (Ford, 1980), and by carving out and serving for a specific consumer segment or segments. Note that, this generalization lends from the roots of consumer marketing literature, reaching back to the United States of 1950s and 1960s (see e.g. Grönroos, 1994, pp.323) and is used here for reasons of conceptualization rather than detail. The contents of the marketing mix have been widely contested, but can include elements of product, distribution, communication and terms of sale decisions (Lipson and Darling, 1971).

On the operational level a B2C supplier must recognize the importance of *retailers* and their relatively high channel power. As such retailers can be regarded by the B2C suppliers as customers and as buying agents of the consumer, rather than just distribution points. In contrast to the industrial market, here the importance of manufacturer *brands* and *own labels* are accentuated both in dealing with consumers as well as retailers. The end-user associates the manufacturer brand with the product, while the retailer provides the access point to the market. (Jenkins and Knox, 1994, pp.15-16). When the suppliers emphasizes a brand or brands in market dealings it can be seen to assume a *brand-driven* approach as opposed market-driven one (see Urde, 1999). In addition to the pull of proprietary brands, consumer buying behavior is influenced increasingly by retailer loyalty (King, 1991, cited in Jenkins and Knox, 1994, pp.119). The relatively higher volume of targeted customers is reflected in B2C promotion. Mass media is utilized more often as a promotional channel whilst pricing tends to be more fixed and market specific than flexible (Hutt and Speh, 2007, pp.15-17).

As opposed to the B2B supplier's preference toward push promotion, a B2C supplier is sometimes quoted for a preference toward "pull" promotion. Here the marketing mix makes extensive use of mass communication (e.g. television and print) in a bid to create product awareness and consumer demand. The objective of promotion is for the end-user to pull the product through the channel. Thus, the B2C supplier is more accountable for getting the product through the channel than the B2B supplier and sometimes has to execute both push and pull promotion. (Webster, 2000). Table 2 summarizes the discussed differences between B2B and B2C markets

Table 2. Differences between industrial and consumer markets, adopted from Lipson and Darling (1971); Ford (1980); Jenkins and Knox (1994); Webster, (2000); Anderson and Narus (2004); Hutt and Speh (2007) as well as Gummesson and Polese (2009).

	Business to Business Markets	Business to Consumer Markets
Sales Channel Character	Relationship-driven; based on resource commitments of both buyer and seller.	Supplier-driven; based on functionality & price of product and/or brand value
Marketing Communications	Mostly "Push" oriented, personal selling with an additional service element	"Push" toward re-sellers via personal selling & Create "Pull" among end-users via (mass) marketing mix manipulation
Product Pricing and Adaptation	Customer specific	Market/Segment specific
Level of International Integration between Markets	High, due to the standardized nature of ingredient products	Varied, due to the diverse nature of demand across country markets and consumer groups.
Partnering	Value-driven	Price and/or brand-driven
Distribution	Direct to Large Customers Indirect to Small Customers	Predominantly Indirect

After generic difference between consumer and industrial markets have been established, the following discusses them on the grounds of market orientation

Market Orientation

A useful way of elaborating on how the customer market influences a firm's delivery of products is to consider the role of the brand, whereby the mentioned set of core differences summarized in table 2 can be used without the risk of oversimplification. However, it is neither within the interest nor scope of the present research to study the marketing and branding efforts of product manufacturing international new ventures in-detail and go in-depth as to how they differ from more established companies etc. Due to the very limited amount of prior works contrasting INVs based on customer market, a focus on the differing role of branding is a choice of necessity as much as practicality. In-line with Webster (2000), the following discusses the manufacturer brand as a key facet of the relationship between reseller and customer. See figure 2.

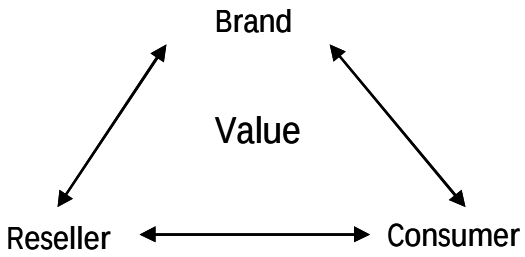

Figure 2. Relationships among brands, consumers and re-sellers, adopted from Webster (2000).

As mentioned above, B2B suppliers can be seen to adhere to *market-driven* approach and B2C suppliers to a *brand-driven* approach. The following discusses what the respective approaches mean, in terms of market orientation.

Brand orientation is defined by Urde (1999) as a market approach that builds on brands as strategic resources. He stresses that the processes of a brand oriented organization revolve around the creation, development and protection of brand identity in a continuous interaction with customers, with the aim of achieving lasting competitive advantages through brands. Thus, brand building is seen as an interaction via symbols between the firm and its customers, which somewhat echoes with Webster (2003), as evidence by Figure 2. For reasons of conceptual clarity it should be noted that the present study uses the terms brand-oriented firm and *brand-driven* firm synonymously

A company adheres to a brand-driven approach if brand identity represents a starting point and the strategic platform. This affects the use and interpretation of market intelligence. In principle, the brand is made superior to the wants and needs of the customer. This does not mean that the needs of customers are ignored, but they are not allowed to unilaterally steer brand development and determine brand identity. On the contrary, the brand combined with other assets and competencies within the company can be braided together into a brand identity via a process of value and meaning creation. Ideally, customers attribute the resulting brand identity as valuable and unique, and it becomes difficult for competitors to imitate. As a potential result, the brand becomes a competitive advantage and an expression of intent, difficult for competitors to imitate. Thus, brand orientation shifts firm focus from external market factors, into internal ones. (Urde, 1999).

Market orientation is defined as "the organization-wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organization-wide responsiveness to it (Hunt and Morgan and 1995, cited in Urde, 1999, p.120). Thus, it assumes a mainly external focus on customers and competitors and brand questions are reduced to secondary issues or deemed unimportant. In generic terms, the brand is viewed as an unconditional response to customer's needs and wants and the focus shifts to a deeper understanding of the customer and the overall goal of satisfying the needs and wants of the customer by e.g. product development, segmentation and positioning. (Urde, 1999, pp.120). For reasons of conceptual clarity it should be noted that the present study uses the terms market-oriented firm and *market-driven* firm synonymously (see e.g. Day, 1994)

Based on the discussed differences consumer market firms seem more likely to adopt a brand-oriented approach, while industrial market firms a market-oriented approach. Figure 3 exemplifies by synthesizing the discussed differences of brand and market orientation, channel intermediaries and primary customer market

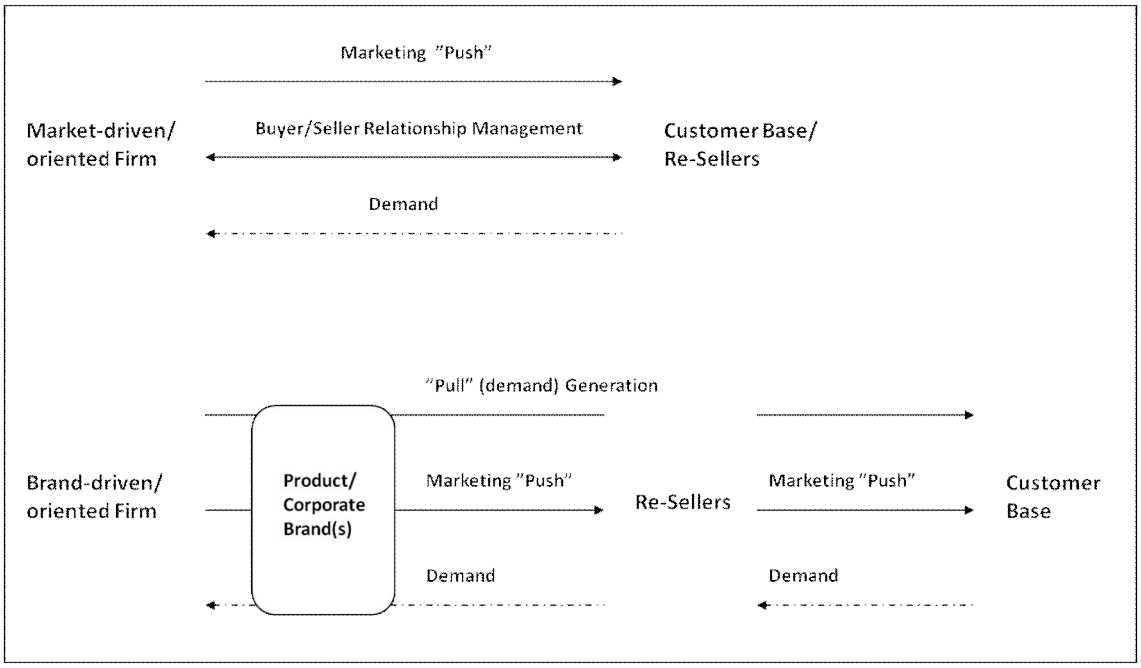

Figure 3. Market and brand orientation conditional to customer market, adopted from Day (1994); Urde (1999) and Webster (2000).

Luostarinen and Gabrielsson (2006) find that born globals from Finland tend to focus on a global niche segment, as large customer segments are exceedingly difficult to reach due to resource constraints. They conclude that resource constraints make the B2B market more appealing for these INVs. Indeed, it seems reasonable to assume that mass media communications, common to pull promotion is relatively resource consuming, especially when one considers the demand for country market promotional adaptations.

The Market-driven B2B Product Manufacturing International New Venture

Luostarinen and Gabrielsson (2006, pp.786-791) find that B2B born globals from Finland tend to build on private label or original equipment manufacturer brands (OEM), while efforts to build on an "own" brand and marketing mix manipulation are uncommon. This highlights the importance of, key customers, OEM channels or other large channel members as well as customer relationship management efforts. In a preceding study contrasting the branding strategies of B2B and B2C born globals, Gabrielsson (2005, pp.216) found that the former tend to have very varied and even customer-specific branding strategies. Thus, there are multiple brands and less focus on creating a standard manufacturer brand across markets. Additionally he finds that B2B born globals prefer the push approach in marketing.

Building on the differentiation by Urde (1999), B2B PMINVs seem better equipped for growth and survival through a market-oriented approach, where individual customer relationships and synergies in value are considered over the manufacturer brand. As mentioned, the industrial market is inherently more internationally integrated and sales based on relationship with a few, rather than many customers. Thus, resources can be dedicated into developing those relationships and pushing products through the channel

The Brand-driven B2C Product Manufacturing International New Venture

Luostarinen and Gabrielsson (2006) find that Finnish B2C born globals tend to build on a manufacturer brand from establishment, in contrast with the diverse and more inconsistent branding efforts of their B2B counterparts. They also discover that B2C

born globals are inclined to utilize a combination of push and pull promotional efforts to assist the re-seller in sales efforts, since channel middlemen can be unwilling to invest enough into marketing the novel and often unknown products of these firms. Again building on the differentiation by Urde (1999) B2C PMINVs seem better equipped when subscribing to a predominantly brand-oriented approach. If the brand is made the epitome of the relationship between reseller and consumer, the firm can better focus its promotional efforts and direct them to brand management instead of solely focusing on "pushing" the product to a fixed number of key customers. This is not to say that the key channel providers: resellers/retailers are not central in marketing efforts. Yet, while focusing solely on them via a market-driven approach might get the product to the shelves of the re-seller, it will do little in terms of generating pull among the consumers.

Whether examined on a micro-economical, macro-economical or the customer market level, the industry factors that seemingly impact the growth and survival of PMINVs cover a broad range. Yet, a holistic model examining the phenomenon would not be complete without an account of some of the firm factors involved (Gabrielsson and Gabrielsson, 2009).

2.2.3 Physical Product Factors

Physical product factors are essential in differentiating the focal points of this study from international new ventures with a different output. In discussing the growth and survival of product manufacturing international new ventures, product scope and product adaptation merit attention based on prior discoveries (Boter and Holmquist, 1996; Calantone et al., 2004). For the following, it is important to distinguish between the width of the product scope and the length of a product line. In the present study, the width of the scope refers to the number of product lines supplied by a firm. Products within a line, in turn, are closely related in terms of e.g. functionality, customer group, sales outlets and/or price, while products between lines are not (e.g. Kotler 2003).

Product Scope

Based on a multiple case study, Boter and Holmquist (1996) find that a narrow *product scope* is positively related to high international business performance in innovative small product manufacturers. The firms were found to have a very concentrated and well-defined product scope, in which alterations over time could accommodate new designs, colors and materials with relatively modest resource commitments. Maintaining a very limited product scope enabled these companies to gain efficiency in all functions of their respective value chains and carve a niche from global markets. In addition, a narrow product offering enabled a functional business management structure. In the case of these studied innovative small companies, this meant that research and development, the flow of organization of the production, marketing etc. consisted of separate functions with separate personnel, management and equipment. A clear distinction between business functions resulting in a functional management structure became an important facilitator of high international business performance. Maintaining a narrow product scope was also found to be a pre-requisite for the ability to re-construct business activities in R&D, production, marketing etc. abroad.

Based on the above findings, it could be argued that while the PMINV's resources remain relatively scarce and it adheres to an SME stature, it will benefit from having a narrow product scope. However, as the company grows and competitive pressures increase, it may have to start considering extensions to the offering in the form of new products to offset the increasing pressures (see Douglas and Craig, 1989). Kazanjian and Drazin (1990a, pp.141), advocate that as a firm reaches maturity it needs to launch a 2^{nd} generation product to alleviate dependence on the 1^{st} generation offering. Yet, owing to the resource poverty associated with PMINVs (e.g Oviatt and McDougall, pp.1994) it seems doubtful that they can branch out to entirely unrelated product and/or service domains whilst also negotiating the challenges of accelerated internationalization. Thus, it seems probable that extensions to the product offering come in the form of related products and/or services.

Product Adaptation

Calantone et al. (2004) stress that whilst the standardization-adaptation debate has lasted for over three decades there has been insufficient empirical inquiry into the specific area of *product adaptation*, and attempt to fill this void in their study aimed at the relationship between international business performance and product adaptation. Targeted at large Korean and US exporters, the study considers the product as a stand-alone element of the marketing mix adaptation as a special case of product line extension to foreign markets, since adapting a physical product to an international market often equals an extension to the product line. Country-market adaptation is perceived risky, as it is done to expand into a new unfamiliar country market as opposed to penetrating an existing familiar market further (Hisrich and Peters, 1991, cited in Calantone et al., 2004, pp.188).

Some studies imply that firm growth in size and international direction is conditional to country-market product adaptation. In a study of large U.S exporters Cavusgil and Zou (1994) found that product adaptation was positively related to high export market performance. Also, in a study focused on experimental, active and committed exporters (depending on the amount of sales derived from the export markets), Cavusgil, (1984) concludes that the active exporters relied more on product adaptations than the more reserved ones. Calantone et al. (2004) also provide evidence of a similar trend.

Luostarinen and Gabrielsson (2006, pp.791) stress that born globals should make modular products from the outset, to ensure future adaptations are less resource consuming. Indeed, country specific product adaptations can prove costly despite flexible manufacturing systems, rapid prototyping and just-in-time methods (Calantone et al., 2004, pp.198). However, as the INV starts to expand to foreign markets also a higher level of adaptation may be called for, to answer increasingly diverse product/country market demands. Douglas and Graig (1989) stress that with increased stature and resources, a firm is indeed better equipped to answer these demands.

Furthermore, upon arriving to a stage of resource maturity, opportunities for the rationalization of production, sourcing and logistical systems are enhanced by product *standardization* and (Douglas and Craig, 1989). Table 3 illustrates how product scope and product adaptation can be expected to feature in the projected PMINV growth phases (2.1.5), while accounting for the notion whereby consumer market products, require less country-market adaptation in general (Anderson and Narus, 2004, pp.15).

Table 3. Projected developments in product scope and product adaptation

		1. Introductory	2. Commercial breakthrough and foreign growth	3. Global breakthrough and expansion	4. Global rationalization and maturity
Country-market product adaptation(s) *	B2C	few	several	many	few
	B2B	few	few	several	few
Width of product scope**		tiny	small	intermediate	diverse (but related)

*Scale: few → several → many | **Scale: tiny→small → intermediate → diverse

Following an emphasis on industry, market orientation and product factors, the study concerns itself with resources and capabilities as determinants of growth and survival.

2.2.4 Firm Resources

The academic field of business strategy is dominated by two distinct schools of thought. The *industrial organization* perspective (e.g. Porter, 1981) suggests that the "fit" between company strategy and the environment it operates in, has significant implications for performance. Here, the focus is firmly on external industry factors as the determinants of performance. The other substantial school of thought is the *resource-based view of the firm* (RBV), which sees the differential endowment of strategic resources as the determinant of performance. (Akoorie and Scott-Kennel, 2005). Grant (1991, pp.116) argues that, not only do firm resources and capabilities provide the underlying direction for firm strategy; they also constitute the primary source of profit for the firm. Therefore, when discussing the factors internal to the firm that impact growth and survival, the RBV offers insight. In the vein of Gabrielsson and Gabrielsson (2009), the impact the amount of resources, governmental support,

managerial experience and resource fungibility have on the outcomes of INV growth and survival is considered important also for the present study.

Resource Amount and Governmental Support

Wernerfelt (1984, pp.172) defines a resource as anything that constitutes a strength or a weakness for a firm. He further specifies that a firm's resources at a given moment can be defined as those tangible and intangible assets which are tied semi-permanently to the firm, e.g. in-house knowledge of technology, brand names, employment of skilled personnel, trade contracts, machinery, efficient processes and capital. Thus, resources can be broadly grouped into e.g. physical, human, intangible and financial by nature.

The debate between resource abundance and resource scarcity as a determinant of growth and survival has largely characterized resource based research to-date (Gabrielsson and Gabrielsson, 2009, pp.9). Some researchers argue that resource abundance can be a disadvantage by diluting focus (Sapienza et al., 2006 pp.916), while others name it as a pre-requisite for growth and survival (Laanti et al., 2006, pp.9-10).

The amount of resources a given firm can build on when negotiating the challenges of accelerated internationalization is potentially influenced by the degree of financial and operational assistance made available by government(s) and policy makers. Wren (1996, cited in Mudambi and Zahra, 2007, pp.337) and Mudambi (1998, cited in Mudambi and Zahra, 2007, pp.337) assert that the extent of governmental support received by the INV mediates the survival challenge presented by foreign markets. Hence, INVs that receive subsidies and other types of governmental assistance seem better positioned than their competitors to overcome liabilities (2.1.4) and thereby increase their chances of survival on foreign markets (Mudambi, 1998, cited in Mudambi and Zahra, 2007, pp.337).

Resource Fungibility and Managerial Experience

Barney (1991, pp.105-112) argues that in order for a resource to hold the potential of building sustained competitive advantage, it must meet four conditions. (1) It must be valuable, meaning that it neutralizes threats and/or exploits opportunities in the firms operating environment. (2) It has to be rare in the context of the firm's current and potential competitors. (3) It cannot be fully imitated by the competition. (4) It must be unique, in the sense that there is no strategically equivalent substitute for it. Consequently, the extent to which a resource can be relied on to be a source of sustained competitive advantage can be addressed as to how well it adheres to these criteria.

Hannan (1998, cited in Gabrielsson and Gabrielsson 2009, pp.10) stipulates that because of the volatility of the international business environment resources must be continuously enhanced and re-deployed for them to retain their worth for the organization. On a related note, Sapienza et al. (2006, pp.924-925) argue that resource fungibility (the extent to which resources can be deployed into alternate uses cost effectively) moderates the effects of initiation of internationalization activity on new firm survival and growth. In other words, it is not essential as to how much resources an INV has at its disposal, but what ultimately determines growth and survival relates to how interchangeable key resources are between alternate uses. They further assert that resource fungibility (1) increases the adaptability of INV strategies and reduces the impact of failed trial attempts as well as (2) provides the flexibility to create new capabilities with existing resources.

Madsen and Servais (1997, pp.577) as well as Laanti et al. (2006, pp.4) emphasize the managerial experience of the entrepreneur(s) and the founding team as a central resource in the case of international new ventures. Reuber and Fischer (1999) examine the impact managerial experience has on success and further divide it into *stock* and *stream* experience. The former refers to the experience the founder or manager holds when establishing/entering the company, while the latter refers to the experience that ensues from post-establishment/entry activities and thereby benefits the firm. The

breadth and depth of experience is further captured under concept of *variety* (Eriksson et al., 2000) which explains the unique nature of individual managerial experience.

In the context of INVs, it is interesting to examine the above-stated findings from the perspective of early international business researches who stipulate that knowledge can be extended across markets (e.g. Johanson & Vahlne 1977; Luostarinen, 1979). Eriksson et al. (2000) build on this understanding by introducing the concept of internationalization knowledge or business knowledge i.e. knowledge specific to a certain market. In other words, the process of internationalization carries with it certain challenges, whose level of demand decrease as the amount of internationalization experience increases. This implies that internationalization knowledge can be a key resource factor for INV growth and survival.

Despite resources sometimes being conceptually used almost interchangeably with capabilities (see e.g. Barney, 1991), there is a growing body of literature which sees the two concepts as distinct and to a certain extent complimentary.

2.2.5 Firm Capabilities

In accordance with Gabrielsson and Gabrielsson (2009), the impact (substantive) marketing, technological as well as management capabilities, networking capability and dynamic capabilities have on the outcomes of international new venture growth and survival is considered important also for the present study.

Verona (1999, pp.133) builds on earlier RBV research when advocating that: "capabilities aim at deploying and coordinating resources". This is based on the foundation whereby capabilities reside in intangible routines and are composed of knowledge. Barney (1991, pp.99), on the other hand, finds that sustained competitive advantage relies on the capabilities of the firm to implement strategies that utilize internal strengths by responding to external opportunities, while simultaneously neutralizing external threats and avoiding internal weaknesses. In other words, firm performance is based on its inherent capabilities to strategically endow its unique set of

resources within the constraints of the operating environment. Zahra et al. (2006, pp.918), in turn, characterize dynamic capabilities as the abilities to reconfigure a firms resources and routines in the manner envisioned and deemed appropriate by its primary decision maker(s). As such they are near synonymous with resource fungibilitiy (2.2.4), but different from substantive capabilities, as explained next.

Substantive and Dynamic Capabilities

The present study builds on earlier research (Gabrielsson and Gabrielsson, 2009, in separating dynamic capabilities from substantive capabilities. Substantive or "ordinary" capabilities are more apt in solving a specific problem or achieving an outcome (Winter, 2003, pp.992), whereas dynamic capabilities oversee the rate of change of ordinary capabilities (Collis, 1994, cited in Winter, 2003, pp.992) The difference can be exemplified as follows: A novel routine for product development represents a substantive capability, but the ability to renew and re-assign organizational proficiencies across a variety of business requirements constitutes dynamic capability (Winter, 2003).

A categorization by Verona, (1999, pp.135) supplements the above-stated: Substantive capabilities can include: (A) technological capabilities, e.g. R&D (product development expertise), manufacturing (process innovation), design, technological knowledge, (B) marketing capabilities, e.g. market research, strategic marketing management, product launch knowledge, and (C) management capabilities, e.g. managerial processes (communication, socialization) as well as managerial systems expertise (training, rewarding, brainstorming, employee empowerment). Dynamic capabilities, on the other hand, translate into the firm's ability to renew competences and achieve congruence with the changing environment (Winter, 2003). This involves strategic management in appropriately adapting, integrating and reconfiguring internal and external organizational skills, resources, and functional competences (i.e. substantive capabilities) to match the requirements of a changing business environment. (Teece et al., 1997, pp.515).

Zott (2003) argues that firm-specific differences in dynamic capabilities are the reason why firms in the same industry experience differences in performance. He further advocates that despite having similar dynamic capabilities, firms may still perform to varying degrees. This is due to the firm-specific costs associated with dynamic capabilities as well as the differential timing in which they are utilized. His research also suggests that dynamic capabilities are central as a firm adapts to environmental (market) differences and that the costs associated with imitative and experimental adaptation promote the sustainability of differential intra-industry firm performance. In other words, adaptation to a business environment via dynamic capabilities incurs costs and coordinated investments can help create and sustain a competitive advantage.

Some prior studies have outlined that the existence of capabilities has an impact on INV performance (e.g. Knight and Cavusgil, 2004), while others have noted the same on part of networking capability in particular (e.g. Mort and Weerawardena, 2006).

Networking Capability

For resource impoverished firms, an alternative to ownership based asset control is developing relationships with international network actors and through collaborative efforts exploiting and enhancing the firm's own resource base as well as the resources of other network members (Ford et al., 1998, p.46). Business relationships consist of three different layers of substance: activity, resource and actor. Such a relationship is built on joint activities and inherently links together different activities. Consequently, as it develops, it connects various resource elements needed and controlled by the parties which results in resource ties between them. A result of this is a joint pool of resources or a "new resource". An added result of the development of the relationship is the growing connectedness of the two actors. The resulting actor bonds have an impact on how the actors perceive, evaluate and treat each other. (Håkansson and Snehota, 1995). Thus, network embedded business relationships can provide added leverage for the INV for growing and globalizing its activities (e.g. Gabrielsson and Gabrielsson, 2009), provided of course that the firm has the required networking capability (Mort and Weerawardena, 2006) to navigate these relationships.

Building on the understanding that INVs suffer from resource poverty and strive to reach foreign markets swiftly (e.g. Oviatt and McDougall, 1994), Gabrielsson and Kirpalani (2004, pp.562) find that born globals must often engage in networks with more established companies. Because of resource shortages, INVs are unable to rely on wealth of assets through direct ownership and thus must utilize alternative modes of controlling many important assets (Oviatt and McDougall, 1994 pp.54). Oviatt and McDougall (2005) also define networks and knowledge as important factors in determining the speed of internationalization and characterize the networks' capacity to moderate accelerated internationalization as a function of network size, network density and the strength of the ties between the actors.

The present study stresses that B2B PMINVs benefit from a market-driven approach, whereas B2C PMINVs from a brand-driven approach, when it comes to growth and survival (see 2.2.2). To establish a conceptual difference between the two approaches, it is useful to assess the capabilities prior research has attributed to them.

Capabilities Conditional to Market Orientation

Day (1994) identifies *market sensing* and *customer-linking* as distinctive capabilities and key performance drivers of market-oriented organizations whereas Urde (1999) argues that the underpinning performance driver for brand-oriented companies resides in *brand competence.* These concepts can be further supplemented from prior studies, for reasons of compatibility with the resource-based view of the firm.

According to Day (1994, pp.43), market sensing captures the essence of market orientation and as defined by Kohli and Jaworski (1990, cited in Day, 1994, pp.43) is "*the organization-wide generation of market intelligence dissemination of its intelligence across departments, and organization-wide responsiveness to it.*" Additionally, it carries three behavioral components: customer orientation - the firm's comprehension of the of the target market; competitor orientation - the firm's understanding of the long-term capabilities of present and potential competitors; and

inter-functional coordination - the coordinated utilization of company resources to create greater customer value. (Narver and Slater, 1990 cited in Day, 1994 pp.43).

Day defines customer linking (1994, pp.44-45) as the capability to create and manage close customer relationships. He explains that these relationships take a collaborative form based on a high level of coordination, participation in joint programs, and close communication links and are defined by their objective of joint problem solving.

Urde (1999) argues that brand competence is the reflection of a brand-driven approach to the market and as such is related to the organization's ability to create, develop and protect brands. He further stresses that, brand competence is reflected in how working with brands is an ongoing process of the creation of value and meaning for the firm. He concludes that it measures how the corporate brand expresses strategic intent and how well long-term resource development is aimed at strengthening brand identity and gaining brand equity. A prior study on global brand leaders has identified the capability of *brand supportive dominant logic* (Beverland et al., 2007) which effectively encompasses the notion of brand competence. The study concludes that brand supportive dominant logic is linked to a tendency to use a strong corporate brand, instead of a single or product brands

Brand supportive dominant logic means focusing the firm's culture and structures around the corporate brand. These structures enable subtle adaptation and reinforcement of the brand and protect it from internal cost cutting and abuse. Central to this logic is to promote internal ownership of the brand, by e.g. aligning reward, training and hiring policies with the brand's desired positioning, providing continuous ongoing communications about the brand and its customers and creating systems to ensure consistency in representation. (Beverland et al., 2007).

In addition to the discussed firm factors, entrepreneurial orientation should also be assessed for its reported impact on growth and survival (Knight and Cavusgil, 2004)

2.2.6 Entrepreneurial Orientation and Lateral Rigidity in Decision Making

Gabrielsson and Gabrielsson (2009) underline the trade-off between entrepreneurial orientation and lateral rigidity in decision making or the entrepreneurial "agility" for its potential impact on INV growth and survival. Thus, it also merits attention in the present study. Knight and Cavusgil (2004) posit that the growth and survival of an International New Venture is closely related to the *entrepreneurial orientation* of the firm. The key firm-level characteristics that constitute entrepreneurial orientation include autonomy, innovativeness, risk taking, pro-activeness and competitive aggressiveness. How these traits influence firm performance through organizational practices, process and decision making activities is dependent on a variety of organizational factors as well as industry factors. (Lumpkin and Dess, 1996). Thus, the extent a firm is entrepreneurially oriented is dependent on its environmental context and individual characteristics.

Vaivio (1963) characterizes lateral rigidity as a company's inherent knack of "sticking to the original plan". When faced with a shock or impulse firms tend to make only minor adjustments to their behavior. Luostarinen (1979) expands and argues that a firm's internationalization efforts are characterized by lateral rigidity toward new alternatives, but forward elasticity towards known alternatives. Thus, lateral rigidity should increase the probability of INV survival through risk aversion, but eventually decreases growth in foreign direction due to a lack of commitment toward internationalization (Gabrielsson and Gabrielsson, 2009, pp.11).

In a study examining the relationship between entrepreneurial orientation and export performance, Kuivalainen et al. (2007, pp. 263) find that, within the domain of entrepreneurial orientation, a higher degree of competitive aggressiveness was the only factor separating Born Global and Born International firms. Furthernore, INV entrepreneurs may be less laterally rigid in decision making due to their previous international experience and/or innovativeness which entail a more entrepreneurial orientation towards foreign markets. Therefore, the younger a company is at the stage of

its first international entry, the more entrepreneurial its orientation and “agile” its decision making. This translates into higher growth prospects but also increases the risk of non-survival. (Gabrielsson and Gabrielsson, 2009, pp.12).

Autio et al. (2000, pp.919) find that the earlier in their development firms enter international competition, the more rapidly they expand internationally. They label the trait; “the learning advantage of newness”, referring to the notion whereby young organizations adopt more original approaches to internationalization. They conclude that this relative flexibility over more established firms enables them to rapidly learn the competencies needed for sustained international expansion, albeit “the learning advantage of newness” loses its novelty as the firm ages. This is due to the learning impediments the firm develops when aging, which hamper the ability to successfully grow in new environments. Conceptually this behavior seems to resemble the laterally rigid decision making of more established firms, explained earlier. Thus, the learning advantage of newness has a tendency to “wear off “ with age.

Lateral rigidity is a central concept in the traditional models of internationalization (2.1.1), and its mention brings the second part of the literature review into a conclusion near the starting point of the first. The next chapter introduces a theoretical framework, which synthesizes the discussed conceptual works for the benefit of empirical research.

2.3 Theoretical Framework and Propositions

While a conceptual tool for contrasting the growth phases and survival of consumer as well as industrial market product manufacturing international new ventures does not yet exist, prior findings and literature can be geared for this purpose. In the following, a theoretical framework and propositions, grounded in the reviewed literature, are forwarded to assist in the collection, structuring and analysis of empirical data.

2.3.1 Theoretical Framework

The theoretical framework of the study consists of antecedent factors and the outcomes of PMINV growth as well as survival i.e. the dependent factors, as depicted by Figure 4.

Prior research has found the outcomes of growth and survival to be conceptually distinct, identified their relationship as complex (e.g. Sapienza et al., 2006; Delmar et al., 2003; Romanelli, 1989), whilst recognizing a number of factors that potentially mediate a firm's performance toward either outcome. The discussed growth and survival factors can be divided under industry factors (group 1 in Figure 4) and firm factors (groups 2, 3 and 4) in Figure 4. For reasons of comparability between different studies within the "Born Globals: Growth Stages and Survival"-research project (see 1.1), factors from groups 1 to 3 and their division draw from a shared conceptual base (see Gabrielsson and Gabrielsson, 2009, pp.8) Additionally, as the present study aims to supplement the research project from the perspective of product manufacturing international new ventures, a set of additional performance factors is included under group (4) in Figure 4. These include product factors, exclusive to INVs manufacturing physical products as opposed to services or intangibles, and market orientation factors to assess the potential differences between product manufacturing international new ventures from B2B and B2C markets.

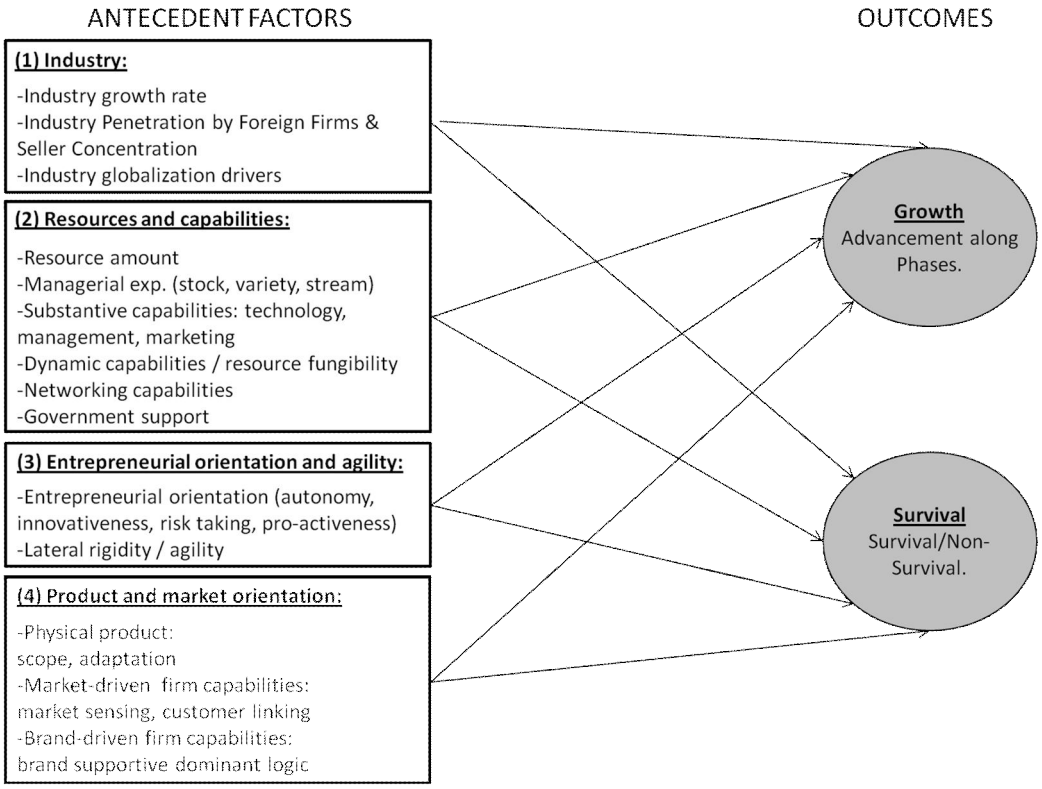

Figure 4. Framework for the growth and survival factors of PMINVs, modified from Gabrielsson and Gabrielsson (2009, pp.8).

It should be noted that the anteceding factors are not expected to impact growth and survival to an equal extent, because of the complex relationship of the two outcomes (e.g. Sapienza et al., 2006; Delmar et al., 2003; Romanelli, 1989). Firm growth is synonymous with advancement along the projected PMINV growth phases (2.1.5) and survival with remaining in business. The following revisits the antecedent factors.

(1) *Industry factors* (2.2.1) outline how aspects external to the firm such as industry growth (Vernon, 1966), industry penetration by foreign firms and seller concentration (Driffield and Munday, 2000) can be expected to influence the survival of a PMINV (Mudambi and Zahra, 2007, p.337). Additionally, the extent the industry is globally integrated as well the existence of global business enablers can be expected to have a positive influence on opportunities for global growth (Oviatt and McDougall, 1994; Shrader et al., 2000; Yip, 1989). They may also have a positive impact on survival (Mudambi and Zahra, 2007).

(2) Previous studies indicate that firm *resources and capabilities* (2.2.4; 2.2.5) may influence the survival and growth of PMINVs. They include: age at initiation of foreign business (Autio et al., 2000), managerial experience (Reuber and Fischer, 1999; Eriksson et al., 2000), resource fungibility (Sapienza et al., 2006) and different substantive as well as dynamic capabilities (Winter, 2003; Teece et al., 1997). Network embedded business relationships (Ford et al., 1998), in turn, provide means for a PMINV to overcome some of its relative resource shortcomings when expanding internationally (Gabrielsson and Gabrielsson, 2009, pp.11), albeit not without the required networking capability (Mort and Weerawardena, 2006). Finally, government support has also been noted for a potentially positive influence on survival (Mudambi and Zahra, 2007) and the same has been asserted of the relationship between the amount of firm resources and growth (Laanti et al., 2006).

(3) The trade-off between *entrepreneurial orientation* (Lumpkin and Dess, 1996) and *lateral rigidity* (e.g. Vaivio, 1963; Luostarinen, 1979) as a growth and survival factor (2.2.6) also merits attention due to prior discoveries. Knight and Cavusgil (2004) find

that entrepreneurial orientation is an enabler of internationalization and high business performance. Autio et al., (2000, pp.919) conclude that the organizational flexibility of new firms enables them to rapidly learn the competencies needed for sustained growth in international direction. Thus, the younger a company is at the stage of its first international entry, the more entrepreneurial its orientation and "agile" its decision making. A high level of entrepreneurial orientation might translate into higher growth prospects but it can also increase the risk of non-survival, owing to an elevated willingness to take risks, whereas increased lateral rigidity can raise survival chances at the expense of growth prospects. (Gabrielsson and Gabrielsson, 2009, pp.12).

(4) In reference to *physical product factors* (2.2.3), country market product adaptation has been credited with a positive influence on firm growth in international markets (Calantone et al., 2004) whereas product scope optimization has been found to have a positive impact on innovative small manufacturer survival and growth (Boter and Holmquist, 1996). Regarding *market orientation factors* (2.2.2) in prior research, B2B INVs have exhibited traits attributable to market-oriented firms whereas B2C INV have exhibited traits attributable to a brand-oriented firms (Luostarinen and Gabrielsson, 2006). Thus, capabilities inherent to market-oriented organizations i.e. market sensing and customer linking (Day, 1994) potentially influence growth and survival of B2B PMINVs positively. Moreover, brand supportive dominant logic (Beverland et al., 2007), attributable to brand-oriented firms (Urde, 1999) potentially influences growth and survival of B2C PMINVs positively.

2.3.2 Propositions for Empirical Study

The synthesis of prior works that is synonymous with the study thus far serves as a platform for making propositions that are expected to emerge from the empirical research to follow. Propositions one to three are based on those of Gabrielsson and Gabrielsson (2009, pp.12-14) and the novelty of the present study is in concentrating the empirical focus of the propositions toward product manufacturing international new ventures. Proposition four, in-turn, specifically builds on how earlier research reflects

the growth and survival of PMINVS. All four should prove a useful base for contrasting empirical data between PMINVs from consumer and industrial markets.

Product Manufacturing International New Venture Growth

Prior works seem to be fairly unanimous in stressing that (PM)INVs are disadvantaged due to resource limitations (e.g. Oviatt and McDougall, 1994). Therefore, the amount of resources (Laanti, 2006), their interchangeability (fungibility) between alternate uses/environments (Sapienza et al., 2006) as well as stock and stream managerial experience (Reuber and Fischer 1999) and their variety (Eriksson et al., 2000) are in demand. It should be noted that, resources in themselves do not provide growth for the (PM)INV, unless it possesses the capabilities for deploying and coordinating them (Verona, 1999). Earlier research stipulates that long-term growth can be obtained only if these capabilities are of substantive (technology, marketing, management) and dynamic nature (Zahra et al., 2006). Also, the firm should be entrepreneurially oriented (Knight and Cavusgil, 2004) and have a sufficient amount of managerial experience to shun lateral rigidity in decision making (Luostarinen, 1979), which can limit the search for novel growth opportunities and refer the firm towards known alternatives.

If the firm internationalizes early on, it may benefit from the learning advantage of newness and straightforward decision making, smooth information flow and novel approaches to foreign expansion (Autio et al., 2000). Industries characterized by high growth and a relatively high level of globalization drivers are expected to offer greater opportunities for the (PM)INV (Yip, 1989; Oviatt and McDougall, 1994). These industry and firm factors are expected to be crucial mediators of the commercial and global breakthrough (2.1.5). They can also be expected to prompt the start of global rationalization (2.1.5), but in a reverse manner. In other words, as industry growth decreases, the need for firms to rationalize activities globally is enhanced. Additionally, global rationalization is also driven by the growing needs for resource alignment (Douglas and Graig, 1989) and greater global seller concentration (Driffield and Munday, 2000). Consequently, the following may be postulated:

Proposition 1a: The commercial and global breakthrough of a Product Manufacturing International New Venture is positively related to the industry growth rate, the globalizing enablers in the industry, the amount of resources and managerial experience, the existence of substantive and dynamic capabilities and a high level of entrepreneurial orientation in decision making (Adopted from Gabrielsson and Gabrielsson, 2009, pp.13).

Proposition 1b: The global rationalization of a Product Manufacturing International New Venture is positively related to higher global seller concentration in the industry, pressures for resource alignment, and a low level of both industry growth rate and entrepreneurial orientation in decision making (Adopted from Gabrielsson and Gabrielsson, 2009, pp.13).

Product Manufacturing International New Venture Survival

Upon entering foreign markets, the (PM)INV needs to adapt (Sapienza et al., 2006) this calls for substantial resource commitments (Zott, 2003). These investments are likely to be particularly high for (PM)INVs, because of the liabilities of newness (Stinchcombe, 1965) and foreignness (Zaheer and Mosakowski, 1997). Sapienza et al. (2006) advocate, that for INVs, internationalization decreases the probability of survival after international market entry. Resource and Capabilities are also crucial for survival. For instance, in the short-term, international new ventures can secure survival if they have the capabilities needed to obtain financing such as venture capital (Gabrielsson et al., 2004) or other outlays from e.g. the government (Mudambi and Zahra, 2007). In the long-term, however, accelerated internationalization involves substantial risks of a diverse nature (Shrader et al., 2000). This is in-line with how the traditional internationalization models depict foreign expansion (Johanson and Vahlne, 1977; Luostarinen, 1979). Consequently, it is less risky to follow an incremental path to multinational operations than to jump over the advocated stages and internationalize with an accelerated pace.

It also seems reasonable to assert that with regards to the (PM)INV, the lower the entrepreneurial orientation (Lumpkin and Dess, 1996) and the more lateral rigidity (Luostarinen, 1979) influences decision making, the higher the probability of survival. The impact aging has in changing decision making, noted by Autio et al. (2000) suggests that lateral rigidity increases with age and thus international new ventures face the greatest risk of failure in their initial internationalization efforts (Scott and Bruce, 1987). Also, Mudambi and Zahra (2007) suggest that a positive relation exists between industry growth rate and the survival of (PM)INVs. Thus, the following is proposed:

Proposition 2: The survival of a Product Manufacturing International New Venture is positively related to the industry growth rate, the amount of resources and managerial experience, the existence of substantive and dynamic capabilities, and a lower level of entrepreneurial orientation (Adopted from Gabrielsson and Gabrielsson, 2009, pp.13).

Product Manufacturing International New Venture Survival and Growth

Judging by propositions one and two it seems difficult to determine under what conditions do (PM)INVs have the highest probability of both rapid growth and survival, since the two ends seem to require different means, in terms of decision making. Prior research notes the central role of capabilities in this regard and in particular that of networking capability (Mort and Weerawardena, 2006). Networks have been found to enhance the growth rate of international new ventures by accentuating opportunities and helping them establish credibility, which can lead to strategic alliances and other co-operative strategies (Oviatt and McDougall, 2005). Moreover, INVs are better able to globalize their activities without making substantial endowments and facing unnecessary risk, by utilizing their activity links, resource ties and actor bonds (e.g. Håkanson and Snehota, 1995, pp.26). Thus, for the INV, networking capability is integral in exploiting as well as enhancing its own set of resources (Ford et al., 1998 pp. 46; Gabrielsson and Kirpalani, 2004). Not only has networking been underlined for its importance to the INV along various stages (Laanti et al., 2006), but also for more established MNEs where, in addition to external networks, networks within the firm exist (Andersson et al., 2007). Thus, it seems reasonable to postulate:

Proposition 3: The commercial breakthrough, global breakthrough, global rationalization and survival of a Product Manufacturing International New Venture are positively related to high networking capabilities (Adopted from Gabrielsson and Gabrielsson, 2009, pp.14).

Boter and Holmquist (1996) conclude that a narrow product scope facilitates the high performance of innovative SME manufacturers that operate internationally. They assert that, a niche focus enables e.g. a functional management structure, as well as the re-construction of production in more cost-efficient locations when required. On the other hand, according to e.g. Kazanjian and Drazin (1990a, pp.141) a firm must diversify its product offering as it approaches resource maturity in order to offset increasingly global competition. Yet, owing to the resource constraints of an INV (e.g. Oviatt and McDougall, 1994), it is doubtful that a PMINV could diversify its product offering to entirely unrelated product or service domains whilst negotiating the challenges of accelerated internationalization. This leads the present study to postulate:

Proposition 4a: A Product Manufacturing International New Venture provides a narrow product offering during the early phases of growth and a wider but related product offering during the latter phases of growth.

Calantone et al. (2004) find evidence that the level of product adaptation has a positive impact on international business performance for small and medium-sized organizations, whereas Douglas and Craig (1989) argue that as the company reaches resource maturity, excess product adaptations become a hindrance, mainly due to increased costs from duplicate country-market functions. A generic division between B2B and B2C markets draws from the idea whereby the former calls for predominantly customer-specific product adaptations and the former predominantly country market-specific adaptations (e.g. Anderson and Narus, 2004). While the tastes and preferences of consumers vary across countries, the country of origin of an industrial customer has little bearing on the extent of required product adaptation. Instead, product adaptations

in industrial markets are made in response to the differences in manufacturing processes across buyers (Ford 1980, 339-340). Thus, the following can be proposed:

Proposition 4b: A B2C Product Manufacturing International New Venture does considerable country market product adaptation during early growth phases, but offers more standardized products in latter stages, whereas a B2B Product Manufacturing International New Venture does less country market product adaptation throughout.

Finally, due to the inherent differences of industrial and consumer markets (e.g. Anderson and Narus, 2004; Ford, 1980; Gummeson and Polese, 2009; Von Hippel, 1978), a brand-driven market orientation for consumer market PMINVs can be expected to yield a positive influence on growth and survival for whereas a market-driven market orientation on part of industrial market PMINVs can be expected to hold the same outcome (Urde, 1999). Consequently, for B2B PMINVs market sensing and customer linking constitute central capabilities (Day, 1994). For B2C PMINVs in turn, brand supportive dominant logic (Beverland et al., 2007) is an important capability. As a result, the following can be proposed:

Proposition 4c: The growth and survival of a B2B Product Manufacturing International New Venture are positively influenced by a predominantly market-driven approach, while the growth and survival of a B2C Product Manufacturing International New Venture are positively influenced by a predominantly brand-driven approach.

3 RESEARCH METHODOLOGY

The build up to the empirical part of the study suggests that theory itself is something that guides and influences the collection of data i.e. research is geared to answer questions that are posed by theoretical considerations. In this type of inquiry the investigator deduces hypotheses or propositions from existing works of literature, and subjects them to empirical scrutiny in a process often referred to as *deduction*. (Ghauri and Gronhaug, 2005, pp.16). Deductive theory represents the most common understanding of the relationship between research and theory. Alternatively, one can view theory as something that occurs after the collection of data associated with a given research problem. A thought process where theory is the outcome of research is often referred to as *induction*. Despite their apparent polarity induction and deduction are not mutually exclusive. In fact, research in social sciences can benefit from a consensus of inductive and deductive thinking (Bryman and Bell 2003, pp.11-12), which is precisely what the present study aims for.

The following section outlines the rationale behind the choice of a qualitative multiple-case study approach as the most opportune method of research. The assessment firstly argues the methodological approach by contrasting the contemporary relationship between research and theory in the relevant realm of research. This leads to the selection of the multiple-case study method for data collection. The section is complete with an account of the sources used to draw empirical data and the quality of research.

3.1 Research Design

Qualitative methods enable study of issues in depth and detail. More importantly, considering the objectives of the present research (see 1.3), they are useful in examining a phenomenon about which little is known. (Marcshan-Piekkari and Welch, 2004). An inquiry into an emergent field of study where few definitive hypotheses exist and little is known about the nature of the phenomenon, is often considered *exploratory research* and it is generally argued that qualitative methods are most useful for this type of inquiry (Ghauri and Kronhaug, 2005, pp.111), where findings emerge from three kinds of data collection (1) in-depth open-ended interviews (2) direct observation, and (3)

written documents. (Patton, 2002). The qualitative researcher can choose from a number of methods for collection data, including: historical review, focus groups and case studies (Ghauri and Kronhaug, 2005). To ensure the most opportune choice, the following assesses the relationship between research and theory in the research setting.

3.1.1 Method of Analysis - Analytic Induction

The early advocates of INV growth and survival frameworks (e.g. Gabrielsson and Gabrielsson, 2009) stress the importance to construct theory where none exists, which suggests an inductive approach. However, as the theoretical discourse related to the research problem lends itself to a conceptual framework and one has been synthesized from literature to assist in data examination, the approach of the study is deductive at first. But because the investigator sets out to test the framework and set of propositions deduced from theory, whilst allowing empirically based restructuring of the preliminary theoretical stance in order to contribute theoretically, the analytical approach is referred to as *analytic induction* (e.g. Taylor and Bogdan, 1984, cited in, Patton 2002, pp.454).

In contrast to grounded theory (see e.g. Glaser and Strauss, 1967, cited in Patton 2002, pp.454) analytic induction, commences with a researcher's deduced propositions or theory-derived hypotheses and is a method for verifying these propositions and theories based on qualitative data. The process, which is often associated with a case study method of qualitative data collection, is exemplary of qualitative analysis that is first deductive and then inductive. For example, the researcher starts by examining the data in terms of theory-derived sensitizing concepts or applying a theoretical framework developed by someone else. During or after the deductive analysis the researcher attempts to look at the data anew for undiscovered patterns and newly emergent understandings (inductive analysis) (Patton 2002).

To accommodate any themes emerging from the empirical data, the research propositions of the present study are revised and the main findings inserted back into relevant contemporary theoretical discourse. However, before the potential of analytic induction can be fully realized, the investigator needs to collect and structure empirical

data. The *case study method* (see e.g. Yin, 2003), often associated with analytic induction (e.g. Patton, 2002) seems the most opportune method here.

3.1.2 Method of Data Collection - Multiple-case Study

Yin (2003) identifies characteristics of a research setting that is apt for a case study approach. He argues that a researcher can make good use of a case-study method when: (a) the focus of the study is to answer (axiological) "how" and "why" questions, the (b) researcher(s) cannot manipulate the behavior of those involved in the study and the (c) boundaries are not clear between the phenomenon and the context. The research problem and setting of the present study echo these principles rather strongly:

"*How can International New Ventures from the physical product market survive and grow to become truly global companies considering their limited resources to address global market opportunities?"*

Addressing the research problem is essentially a macro-economical query. It calls for scrutiny over certain types of firms within the loosely defined global market environment and draws from a presumed difference between organizations, which also speaks for a case study method (Miles and Hubermann, 1994). The focus is on a complex social phenomenon in its real-time context. There is some evidence of the phenomenon, as witnessed by related works, but the boundaries between the phenomenon and its context are not clear. Boyd et al. (1985, cited in Ghauri and Kronhaug, 2005, pp.214) stress that one way to analyse data collected through case study methods, is to search for commonalities across multiple cases, whereas Baxter and Jack (2008, pp.550) argue that whenever a study contains more than a single case, a multiple-case study approach is required.

The research setting (see 1.3) implies that international new ventures are different from "mainstream" firms when it comes to growth and survival. Additionally, product manufacturing international new ventures are supposedly subject to different variables of growth and survival than INVs in general, whereas consumer and industrial market PMINVs also potentially differ in this aspect. Consequently, the research is geared to

explain *why* this is the case and *how* it manifests into reality through the behaviour of the studied group of PMINV case firms. The environment where this takes place provides firms with certain prospects and restrictions. International new ventures are presumably disadvantaged in making use of these opportunities in relation to their more established (MNE) competition because of their inherent liabilities (2.1.4). Yet, they also carry some advantages over more established firms due to the specific nature of their resources (2.2.4), capabilities (2.2.5) and entrepreneurial agility (2.2.6) which potentially enable rapid internationalization and growth.

Considering the above, the method of research needs to build on differences between groups of firms and limiting the focus to an analysis of one case firm and focusing on internal factors as units of analysis seems insufficient. The scope needs to be broadened into the relationships between firms that share enough characteristics to be grouped under banners relevant for contrasting purposes. As the scope of research needs to include several firms and their behaviour in the set environment, the internal, external and output factors that presumably mediate growth and survival are the units of analysis. Thus, multiple cases need to be constructed around shared units of analysis to enable comparison between the cases. Campell (1975, cited in Ghauri and Kronhaug, 2005, pp.215) and Yin (2003, pp.26-27) refers to such an approach as *pattern matching*, where information from several cases can be related to a priori assumptions. That is to say, theoretical assumptions and propositions can be confirmed by systematic patterns found from the data and statistical testing is not a pre-requisite for conclusions.

3.2 Data Collection and Quality of Research

In order to adhere to the principles of pattern matching, four currently active case firms were selected for analysis. Two of them supply industrial markets, namely IonPhasE LTD and Vacon PLC. Avant Tecno LTD caters for both the industrial and consumer markets, whereas Innohome LTD supplies the consumer market. The number of case firms is brought to five with the addition of Audibit LTD, a B2B/B2C manufacturer inactive since 2004. Table 4 provides a summary of the case firms. The firms were selected from a pre-defined population based on the following criteria, partly shared by the “Born Globals: Growth Stages and Survival” research (shared criteria =*):

(a) The firm is a Born International (at least 25% of total sales accumulated from foreign markets within the first three years of commercial operation*), or

(b) The firm is a Born Global (same as above and at least 25% of total sales accumulated from markets outside the home continent within the first six years of commercial operation*), and

(c) The firm manufactures physical products for industrial or consumer markets as its main source of revenue (at least two cases from each category), and

(d) The firm is based in Finland, and

(e) The firm is an independent entity i.e. not a subsidiary of another company*, and

(f) The firm is active **or** inactive (at least one case from the latter category)

Table 4. Description of case firms

	Innohome	IonPhasE	Avant Tecno	Vacon	Audibit
Primary Customer Market(s)	Consumer	Industrial	Consumer and industrial	Industrial	Consumer and industrial
Operational Span and year of initial sales.*	Active since 2005 First sales: 2007	Active since 2001 First sales: 2005	Active since 1991 First sales: 1991	Active since 1993 First sales: 1995	Active between 1998 - 2003 First sales: 1999
Vision	Global from Inception	Global from Inception	Global from Inception	Global from Inception	Global from Inception
Product(s)	Appliances for home safety	Conductive polymers	Wheeled loaders	Frequency Converters	VoIP handsets
Size	Micro	Small	Large	Large	-
Internationalization Degree**	2009: ca. 50%	2009: ca. 50%	2009 : 52%	2009: 45%	2002: 85%
Globalization Degree***	2009: 0%	2009: ca. 50%	2009: 15%	2009: 35%	2002: 5%
International new venture path	Born International	Born Global	Born International	Born Global	Born International

*Active since = registration year **share of foreign sales within Europe ***share of sales outside Europe

Semi-structured open-ended interviews (see e.g. Ghauri and Kronhaug, 2005, pp.132) conducted with case firm founders and/or executives, were chosen as the sources of *primary data* (see e.g. Ghauri and Kronhaug, 2005, pp. 102-106) for reasons of practicality and availability. For the case questionnaire utilized in the interviews see Appendix A. A total of nine interviews between eight executives were conducted and recorded between 02.06.2009 and 12.4.2010 resulting in ca. 17h of raw data. *Secondary*

data (see e.g. Ghauri and Kronhaug, 2005, pp. 91-101) for the study were drawn from a variety of sources. For a detailed account of source material refer to Appendix B.

The conventional case study approach (e.g. Yin, 2003; Stake, 1995 cited in Baxter and Jack, 2008, pp.545) is primarily based on a constructivist paradigm, which claims that truth is relative and that it is dependent on one's perspective. The paradigm "recognizes the importance of the subjective human creation of meaning, but does not reject outright some notion of objectivity".(Baxter and Jack, 2008, pp.545). The present study also adheres to a combination of subjectivist and objectivist views. Its view of the social world lends from the objectivist perspective whereby there exists a universal truth of the relationship between the outcomes of INV growth and survival and their antecedent factors, but also recognizes that empirical evidence of the phenomenon is prone to subjective influence (see e.g. Morgan and Smircich 1980, pp.492-495). In taking this view the researcher assumes that the relationship between the outcomes of growth and survival as well as their antecedent factors, can to an extent, be depicted through the subjective experiences and words of firm executives whom continuously adapt to changes in their environment, as explained in more detail in the following.

Executive Interviews as Primary Data Sources

In relying on executive interviews as the primary sources of data, the present study assumes a view of the empirical world resembling that which Morgan and Smircich (1980, pp.495) term: "Humans as Adaptive Agents". That is to say, the interviewed case-firm managers are considered the archetypes of the companies they represent and they are thought to exist in an interactive relationship with their world - the "global economic environment". The case-firms interact with their environment by way of the managers' actions and insights and the environment, in turn, exerts its influence on the firms. The nature of this exchange is a competitive one as the setting assumes that case-firms seek to interpret and exploit the economic environment as best they can in order to fuel growth and survive amid e.g. competitive pressure from other firms and environmental threats. By studying these firms' responses to environmental constraints

and enablers one can better understand how the select antecedent factors influence PMINV growth and survival.

Generalizability Validity and Reliability of the Study

Yin (2003) underlines three commonly used tests that have been found effective in ensuring the quality of exploratory case study research.

Construct validity is achieved by ensuring that the correct operational measures are utilized for the studied concepts (Yin, 2003, pp.34). As the qualitative investigator often collects and interprets data according to his self-reference criteria when operating in an unfamiliar setting (Cateora and Ghauri, 2000, cited in Ghauri and Kronhaug, 2005, pp.112) there are risks of subjectivity in interpretation. Yin (2003, pp.36) stresses that by using multiple sources of evidence and submitting drafts of the case reports to key informants for review, construct validity can be enhanced. Thus, the case reports of the present study make use of extensive secondary data (see Appendix B) and upon completion were sent to the interviewees for verification of accuracy.

External validity is enhanced by identifying a domain to which the study's findings can be generalized (Yin, 2003, pp.34). In case studies overall one should exert caution when generalizing the results beyond the studied cases (Flyvbjerg, 2006, pp.224-228). However, the popular notion whereby case study results are inept for *statistical generalization* does not hold for *analytical generalization*. In analytical generalization, the investigator attempts to generalize a specific set of results to some broader theory and in multiple case studies can make use of replication, thereby enhancing external validity. An inquiry into the differences and similarities between cases can either predict similar results between the cases i.e. literal replication *or* contrasting results but for predictable reasons i.e. theoretical replication (Yin 2003).

Based on its relationship with extant theory, the present study adheres more to theoretical replication. The growth and survival factors for case firms are expected to vary pending on whether a given case firm operates on the industrial or consumer

market. Yin (2003, pp.48) also stresses that in multiple-case studies the theoretical framework becomes the vehicle for generalizing to additional cases and if some empirical cases do not function as predicted, modifications need to be made to it accordingly. Therefore, in the present study the research propositions are revised after empirical scrutiny for later empirical compliance and to ensure external validity.

A threat for external validity resides in the fact that for a study aiming to contrast the difference a firms customer market has on growth and survival, the research population is somewhat weighted in favor of industrial market firms. Of the active case firms, only Innohome supplies solely the consumer market. Avant Tecno supplies both B2C and B2B markets. However, despite providing for e.g. agricultural segments, Avant Tecno's produce is not of "ingredient" nature nor do intermediaries make any modifications to the products before sale and their primary function in the channel is that of a sales outlet. Furthermore, inactive case firm Avant Tecno also catered for both the consumer and industrial markets during its time in operation.

Reliability stems from ensuring that upon repeating the operations of the study, any subsequent investigator would arrive at the same results as the original investigator. Thus, detailed procedural documentation is essential. (Yin, 2003). In compliance with good practice all of the interviews conducted for the case reports of the present study were transcribed for the benefit of coherence. Secondary data are largely drawn from publicly available transparent (and accounted for) sources such as financial statements and annual reports. Photocopies were made of any hard copy research documentation such as interview notes and material received from case firms, and stored separate from the originals. All electronic research documentation was also backed-up and stored in multiple locations. Appendices A and B provide the reader with the general interview questionnaire and a source material index respectively.

4 EMPIRICAL CASES, ANALYSIS AND RESEARCH FINDINGS

The first part of the section forwards five individual case descriptions, based on Innohome LTD IonPhasE LTD, Avant Tecno LTD, Vacon PLC and Audibit LTD respectively, and is followed by a cross-case analysis detailing differences and similarities between the single-cases. The empirical part of the study is completed with a summary of how the differences between consumer and industrial markets effected growth and survival as well as a revision of the research propositions.

4.1 Single-case Descriptions

The following details the five individual cases subject to empirical analysis. The single-case descriptions provide the grounds for pattern matching (see 3.1.2) between the cases. The chosen format of case reporting is story-based (see e.g. Baxter and Jack, 2008), where emphasis is placed on outlining the different phases of organizational development the case firms have experienced. Each case report follows a chronological timeline and the antecedent factors for growth and survival, drawn from theory, are discussed in relation to the different phases of organizational development. Appendix C provides definitions of the governmental organizations mentioned in the case reports.

4.1.1 Case Innohome - B2C Born International

Espoo-based Innohome Ltd was registered in 2005 by innovator Matti Myllymäki. After an initial planning and product development period of some two years Myllymäki recruited former colleague Pertti Haavisto as Managing Director in order to assume the position of Technical Director himself. Following a successful commercialization of the founder's innovation, based on increasing household safety, domestic sales started in 2007. The company produces stand-alone high-tech safety add-ons or "guards" for hazard-prone home appliances such as stoves and washing machines. These safety add-ons are powered by smart adapters, which reduce energy consumption, protect household appliances against misuse and prevent fires and water damage.

Innohome customers reside in the consumer market, which is catered through a variety of re-sellers including agents, distributors and major retailers. The firm employs four people and everything but the core functions of product development, partnering, strategic management and marketing are outsourced. Manufacturing is done by a Polish subcontractor, while an Estonian partner handles logistics and a Finnish service-provider takes care of helpdesk and after-sales services domestically. The vision to globalize operations has served as a guideline since the inception of the firm, with the recognition that the niche market of high-tech home safety appliances would prove too small locally and even regionally. The company adheres to a Born International status.

The Development of Innohome in Phases

Scrutiny over the developmental milestones of Innohome suggests that the company's developments to date can be attributed to two phases: the introductory phase, fuelled by domestic sales and a commercial breakthrough, achieved through growth in the Swedish market. The firm has also experienced two survival crises.

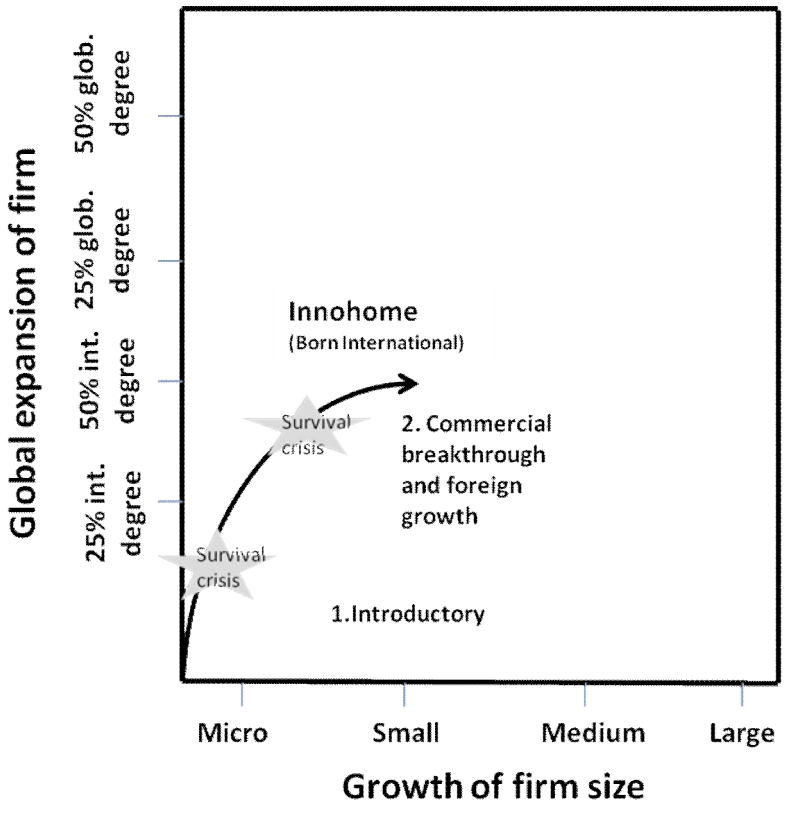

Figure 5. Growth path and survival crises of Innohome

The Introductory Phase: Prior to registering the company in 2005, the founder spent some two years developing product ideas. When Pertti Haavisto, a former colleague of the founder, joined the company in 2007, the first products were being finalized and the rest of the current portfolio followed in quick succession. The strategic aim since has been to keep the organization thin and focused on sales, marketing and product development: *"So everything is outsourced, except ourselves. So, factoring, customer service, logistics, even some part of development."*- MD, Innohome. Before deciding on the product line, the company did considerable market research, which prompted a focus on fire and water damage prevention. The first sales were made to various Finnish retailers in 2007. Innohome was quick to build on the commercial potential of the products and invested heavily in marketing early on.

The aim in the introductory phase was to utilize the relatively large production capacity of a domestic subcontractor, and thereby maintain a comprehensive stock of products. A key objective of the domestic push was to learn the market of home-safety appliances and use it as a frame of reference in the upcoming expansion to foreign countries. To support this "learning by doing" approach, Innohome began partnering efforts with public organizations, such as government subsidized financial institutions and business support agencies. The acquired benefits ranged from market data to legal assistance in drawing up contracts. Public financiers also provided some start-up grants.

During the introductory phase, the firm realized that convincing re-sellers of the products' potential was not difficult but because of their unprecedented nature, the end-users needed to be educated of the products' functionality. Innohome racked up total sales of ca. 85 000 € within the first two months of commercial operation, drawing the year 2007 to a close. The sales were facilitated by an intensive marketing campaign, featuring both a TV advert and personal selling to domestic re-sellers and retailers. Consequently, Innohome was able to contract a considerable amount of retailers and re-sellers with a large overall coverage of the Finnish market, but sales remained relatively composed. Re-sellers were not able to move the product off the shelf as quickly as expected, which resulted in a delay to the follow-up for the first batch of deliveries.

After a promising start to commercial operations, disaster struck for Innohome as its manufacturer went into severe financial difficulties and was unable to continue production, resulting in a halt for business in early 2008. As the firm failed to reach pre-meditated sales targets due to a shortage of products, investors were unimpressed and cut off financial support. The resulting financial crisis severely dug into the firm's capability to finance much needed further mass marketing campaigns.

The resulting survival crisis is one the company is still to fully negotiate. However, due to some corrective measures made in 2008, it was able to stay in business. Replacing the operationally strapped contract manufacturer, based in Finland, became a priority and Innohome turned to a firm with a manufacturing site in Poland. Innohome executives were convinced by the capacity and quality of the Polish facility and a re-location of manufacturing soon followed. 2008 produced year-end sales of some 60 000 € a 33% decrease from the year before, which pronounced by the fact that Innhome was active for only two months in 2007. Yet, it was the managerial actions taken to secure the business more than yearly returns that were to prove decisive for Innohome.

Commercial Breakthrough and Foreign Growth: The difficulties ensuing from the incident with the initial manufacturer meant the company had very limited finances to pursue foreign markets with. Finland was meant to be the spring board for not only testing the market, but financially as well. The domestic experience had demonstrated the considerable expenses that went into marketing the products and the financially strapped company decided to look for support in going international. This resulted in the formulation of an export group with a few other domestic SMEs in a bid to pool resources for the joint objective of internationalization. Consequently, a governmentally subsidized organization appointed an experienced sales manager to promote the interests of the six members of the group. For a resource constrained SME this had the benefit of risk sharing albeit with the disadvantages of having to make due with only a share of the commercial push. For Innohome, the pros quickly outweighed the cons.

The firm scrapped an initial interest towards the German market in favour of the Swedish market as the export group manager was able to open up opportunities there. From an array of products, Stove Alarm and Stove Guard were eventually selected to spearhead the foray to Sweden. Business leads from the export group helped Innohome establish ties with a number of medium to large-sized distributors in the Swedish market towards the end of 2008 and fund the recruitment of a sales staff. With Swedish distributors in-place some required product adaptations were made and export commenced in early 2009. In addition to making country-specific adjustments to the packaging and other product peripherals, the company released Swedish and English versions of the web-pages and product information therein.

The early experiences from Sweden proved so promising, that the company decided to (re-) position its strategy to focus on the Swedish market more fundamentally and search for agent-type of representation from other countries and continents. While customer service in Finland was outsourced to a service provider, the Swedish distributors were able to provide customer service for Swedish consumers.

The results of these manoeuvres have been mixed but predominantly positive. The export to Sweden in 2008 accounted for ca. 50% of revenues and is largely responsible for a considerable improvement from the year before in overall sales. In 2009 Innohome is expecting to double the total sales tally of 2008. Despite promising inquiries and leads from other countries in Europe such as the UK, Austria and Belgium and countries from other continents such as the US, Canada, China, Australia and South Africa, the company remains rooted to Finland and Sweden. Representation in Finland was in-fact solidified because of the Swedish expansion, as some of the foreign distributors also cater for the Finnish market. The Norwegian and UK market were added to the array of foreign markets also due to the international coverage of the Swedish distributors.

Despite the promising advances, Innohome executives stress that the company is “not out of the woods yet” as they had been caught off-guard by how much even the nearby markets differ in characteristics such as installation standards and vocabulary. The original plan of learning an export market primarily through domestic operations has

been revised based on the Swedish experience:*"...in Sweden we found that we, originally thought that it's possible that we have only one product there and it's plug and play and everything is fine, but we found that the market was much more, colourful, much more different, so it was, some kind of crisis that this was not so easy, and meaning that we got bad reaction from customers because we were, our product was not ready actually, and we, we didn't have time to make it."* - MD, Innohome.

The repercussions of the failure of the initial contract manufacturer continue to deter additional capital investments to the company. This obviously severely limits the means available to pursue further growth and the company currently has to re-invest sales revenues for this purpose. Financial constraints continue to be accentuated by a global economic downturn, which has set a negative financial undertone for most of the time Innohome has been commercially active.

Overall, Innohome stands at the very early stages of commercial breakthrough. This is underlined by the acquisition of several accounts from Sweden, whom have helped secure the business financially and are largely responsible for the considerable upturn in revenues from the year before. Furthermore, they have provided additional coverage in Finland and potentially Norway and the UK. However, the firm continues to be saddled with the burdens of the first survival crisis. The resulting delays in delivery eventually led to financial difficulty and inability to attract investments. The unexpectedly different nature of the Swedish market also slowed the pace of internationalization.

Foreign Operations Mode Development: Due to the outsourcing-driven business model, some key upstream activities of the Innohome value chain are done outside the domestic market. Since dropping the original contract manufacturer in late 2007, the company established ties with another Finnish sub-contractor whose production facility is located in Poland. Key to the decision was the site's ability to scale up production volumes if need be. In early 2009, Innohome outsourced the logistics function to an Estonian-based provider. Thus, the primary foreign operations modes for upstream activities are contract-based. For downstream activities, export to Sweden since 2009

has been the solitary mode of foreign operation. Swedish distributors are also set to provide the after-sales and helpdesk services to Norway and partly the UK.

Development of the Product Offering: The domestic range of Innohome products has contained three different product lines, guards for stoves, washing machines and small electric appliances, since 2007. Innohome has also included a service element to the offering from the start via helpdesk, assistance in installation and use related queries.

In the beginning of expansion efforts to Sweden in late 2008 and early 2009, Innohome was presented with challenges stemming from country standards. In preventing potential malfunctions and hazards, smart adapter technology partly relies on controlling the electric current that powers domestic appliances. The differing voltage and electrical outlet connection standards within the Nordic countries came as a surprise to Innhome executives and resulted in unforeseen re-design and adaptation efforts. To maintain operations and finance the necessary adaptations, the firm chose to limit the array of products for the Swedish market to the Stove Alarm and the battery powered Stove Guard. Thus, the international scope only contains products from one line.

Survival Crises: Despite the challenges ensuing from country-specific product adaptation requirements, the consequences stemming from the bankruptcy of the original contract manufacturer in the introductory phase were more substantial. Had the partnership continued to the expected degree, Innohome would have had the less risky opportunity to grow the business domestically before embarking toward other Nordic countries. Foreign expansion was facilitated by a necessity to obtain revenues to re-invest in the business in the absence of equity investment. Despite the revenues from Sweden keeping the company in business, they came at a price of decreased good-will.

The international product launch needed to be rushed to keep the company afloat and as the products were not as applicable as initially thought, adaptations were needed. Some of the products had to be withdrawn and eventually the international portfolio of products was trimmed down. The resulting bad reception is something the company has still not fully recovered from, even with the success of the current product portfolio in

Sweden. Despite recent positive developments and a substantial growth in revenue, Innohome is still reeling from the first survival crisis both financially and operationally. Table 5 provides a summary of the growth phases of Innohome.

Table 5. The growth phases of Innohome

Phase	1. Introductory	2. Commercial breakthrough and foreign growth	3. Global breakthrough and expansion	4. Global rationalization and maturity
Key strategy	Develop safety guard product portfolio and secure re-sellers domestically.	Leverage sales channels provided by international distributors.	N/A	N/A
Size of the firm (employees/ sales ≈ €)	2007 -2008 Employees : 2 Sales: 85K – 60K	2009 - Employees: 4 Sales: 120K -	N/A	N/A
Global division of sales (approx.)*	DOM: 100% (2007)	DOM:50% (2009) EUR: 50% (2009)	N/A	N/A
Evolution of foreign operation mode(s)	Contractual: Polish manufacturer and Estonian logistics partner	Export to Sweden Norway and the UK	N/A	N/A
Products	Safety Guards for stoves, washing machines and small appliances	Export markets: Stove Guard and Stove Alarm	N/A	N/A
Networks	MNEs: -channels Trade Support: Institutions -financing	Export Circle: -customers -channels Education -market data	N/A	N/A
Survival crisis in end of phase	Bankruptcy of contract manufacturer leads to delivery delays and financial crisis	Product adaptation challenges in Nordic markets detract some distributors and deter growth	N/A	N/A

*DOM = domestic sales, EUR = foreign sales within Europe

Factors Influencing the Growth and Survival of Innohome

Industry Development since Establishment: Based on extensive market research either conducted or contracted by Innohome, the market of home-safety add-ons or is an emergent one internationally, operated mainly by small companies with a domestic focus. Despite rivaling or surpassing Innohome in size, these competitors operate on a

smaller portfolio and few have similar ambitions regarding international expansion. Thus, Innohome welcomes the increase in product awareness brought by competitors

Internal estimates position industrial growth at an annual level of 20% for the duration of operations and the short-term future. These predictions are based on statistics available for appliance-based domestic accidents, which indicate an increase in fire and water related hazards. Thus, there is a well documented need for appliance safety guards at least among western households. However, making the customer known of the problem let alone the solution is an altogether different story. In fact, the need to create an end-user pull has left Innohome in-search of resourceful partners to take care of part of the demand generation activities.

Even if the need for the products is more or less universal among the target markets, country-specific standards and regulations subject the bulk of the Innohome product offering to market specific adaptations prior to extensive foreign market entry. Yet, trade is not heavily regulated in this type of electronics industry.

Innohome can credit the industry for its enabling influence for growth and survival. It is growing at a pace set by small suppliers, dependant on their effectiveness in generating end-user pull either independently or with the help of re-sellers or other partners. The case company is as much creating a market than it is providing for an existing one. The initial foray to the Finnish market showed that sales efforts to resellers need to be coupled with mass marketing in-order to facilitate demand. When the company was able to exert this combination for the first couple of months of commercial operations, the results in terms of sales were very positive. When financial difficulties started, there was a shortage of funds to sustain mass marketing as well as branding and growth stalled. This suggests that in an emergent industry, such as that of Innohome's, the manufacturer needs to facilitate both the push and pull aspects of marketing.

As a result of the survival crisis, the company reached out to the Swedish market in a bid to stay in business. The Swedish end-customers showed more awareness towards the Innohome products from the outset as the market was more mature. This, coupled

with the promotional efforts of the Swedish distributors (including the provision of after-sales services), ensured that Innohome could concentrate on sales directed at resellers and order fulfilment at the expense of consumer marketing efforts. The revenues were quick to follow and it can be argued that expansion to a more mature market largely kept the company in business.

Development of Most Critical Resources and Capabilities since Establishment: Arguably the most crucial resource for Innohome spurs from the innovative capacity of Founder/entrepreneur Myllymäki, a trait that has received recognition e.g. in the form of the annual presidential InnoFinland inventor award. Innohome is part of a long list of high-tech companies based on Myllymäki's innovations, most of which he has helped steer into commercial achievements during his career as an entrepreneur. According to the Founder's philosophy, a company's success on a high-tech consumer products market is often dictated by the ownership of patents and Innohome boasts several of these key resources. Only four people are directly employed by Innohome, which means that there is very little in the way of administrative tasks. Managing Director Haavisto is responsible for much of the partnering efforts, at least domestically, leaving the technical responsibilities to the founder.

The MD and Founder have a combined total of some 60 years of managerial experience, albeit most of it comes from predominantly domestic operations despite both enjoying lengthy terms and colleagueship in a Finnish multinational communications corporation. From a capabilities perspective the managerial experience of the pair of Innohome executives has facilitated an organization centred on the core competencies of partnering, product development and marketing whilst outsourcing the peripheral functions. In addition to enhancing strategic flexibility and organizational responsiveness to growth opportunities, the business model balances risks via partnering. From a technological capabilities perspective, the company has been constructed on sophisticated and self-tailored information systems from the outset.

From a marketing viewpoint, innovative capability is again required to offset resource constraints. In order to push the product to retailers and re-sellers, partnering and co-

branding efforts are exerted. The approach to a given market differs based on the capacity of partners. Because of insufficient funds to actively take part in creating an end-user pull to help resellers in their sales efforts e.g. via mass marketing, Innohome is left to concentrate on cost efficient, demand generation and reseller support. Although, the firm mostly promotes to resellers, the Innohome brand is central to the marketing philosophy and there are plans for consistency of representation in the long term.

Marketing in the short-term is concentrated on using a partner's umbrella brand; OEM agreements and private labelling. The long-term strategy relies on making the corporate brand global and does not stress the importance of individual product brands: *"I don't know if it's a problem but a challenge, to make our, brand to see worldwide, world brand, as we discussed…To make so that when you see our web-pages, everything, you see that this is a global company, not actually a company from Finland, but a global company…"* - Founder, Innohome. In addition to social media visibility, (unsolicited) editorial publicity, re-seller seminars and e-marketing in the form of a global e-newsletter are emerging as means of innovative marketing.

In dealing with the resource constraints common for INVs, Innohome has made extensive use of the organizational networking capability personified in the two key executives. In addition to leveraging networked resources by playing an important role in creating an export group, Innnohome managers also undertake partnering efforts based on the network potential of the partner. Both vertical and horizontal value chain partners are reviewed for their network equity. Thus, in addition to an ability to provide sales channels (horizontal support), partners are approached e.g. based on their ability to develop and co-manufacture the planned second generation product (vertical support).

Additionally, Innohome has successfully reached out to institutional partners i.e. government subsidized financial institutions, non-profit organizations and more recently universities, for market information as well as financial and managerial support. The consensus at Innohome, stresses that owing to a thin organization and well selected core competencies, the company has been able to better respond accordingly to the changes in its environment. Also, the substantive capabilities and resources in technology,

marketing and management are enforced by the existence of dynamic capabilities. As organizational demands have evolved, the company has been able to respond to them without greatly altering or adding to the extant resource/capability base.

Entrepreneurial Orientation and Lateral Rigidity: The term "entrepreneurial" summarizes the organizational culture of Innohome, due to the backgrounds of the Founder and MD both of whom are no strangers to managing a start-up, having started a series of companies each. The entrepreneurial backgrounds of the executives have helped instil a culture where new initiatives and pro-activeness are encouraged. Due to the small size of the organization, there is a high level of autonomy and very little in terms of routines and established practices as everyone goes about their business self-reliantly. The combination of innovativeness and autonomy fosters an environment where fresh ideas, especially for products are often acted upon very quickly, sometimes to the detriment of long-term plans: *"If we get new ideas, we are really fast, and I think a little bit too fast. And now actually, almost when we have good new ideas, or new product, I'm always saying that now we must be cool now we must stay in these and make this work, and this is the, core business at the moment."* - MD, Innohome.

The rapid expansion to the Swedish market is perhaps the best evidence of the organizational willingness to take risks at Innohome. When faced with severe challenges compromising survival, it opted to take on a new foreign market in the hope of tapping into its potential sufficiently to keep the firm in business as opposed safeguarding the Finnish market. The majority of development initiatives spur from monitoring the market and customer dialogue. Innohome executives are satisfied with the market potential and limit the number of pursued initiatives and innovations to the boundaries of the home-safety appliance niche, despite having an eye on developing the completeness of the offering by adding a service element. Competition is not viewed upon as a threat at the moment and Innohome would in fact welcome the added product awareness that often stems from a more contested market instead of "going at it alone".

Innohome is organizationally very agile in adapting to changes in the environment; not least due to the thin organization and flexible outsourcing based business model.

Organizational agility enabled the company to quickly react to the failure of the initial contract manufacturer and pursue revenues from the Swedish market, a move that arguably saved it from bankruptcy. The executives make it a priority to act on outside impulses, something that has had a tendency to yield mixed results. On the one hand, organizational agility and responsiveness have provided the company with an abundance of market information and an understanding of the global customer base. On the other hand, it has led the company to pursue some unfruitful initiatives, which have had an adverse effect on growth due to misplaced resources. Overall, the entrepreneurial culture of Innohome has had a diverse impact on growth and survival. It enables an organization that is quick to respond to opportunities and gear resources towards pursuing them. In retrospect, not all of these opportunities would have merited attention and the mis-deployment of resources has stalled growth. After all, only a highly focused set of products facilitated the company's transition to a commercial breakthrough.

Governmental Support: The consensus over regulatory support is two-fold, at Innohome as the firm has benefited from assistance that goes into subsidizing product development efforts, yet according to executives, more could have been put to use in the domains of commercialization and marketing. *"You can get money for example in Finland for research and development, but when you start marketing, it's absolutely difficult to get money"* - Founder, Innohome. The firm is currently looking to boost its resource base to support internationalization efforts and finds the current support system lacking. The demands are not so much driven by financial imperatives than by a need to add certain competences to facilitate expansion. According to Innohome, support should take the form of operational and personnel assistance, while additional forums bringing together public agencies and like-minded SME's would also be welcomed.

4.1.2 Case IonPhasE - B2B Born Global

IonPhasE Ltd was registered in 2001. Before commercial operations started in late 2005, the primary focus of the founding group of three chemical engineers was on R&D. The group consisted of founder Tech Lic. Jyri Nieminen and two Ph.D students, all specialists in the field of polymer chemistry. After inviting his fellow students to the

project, Nieminen wanted to build on some promising results for a solution he had developed as part of his licentiate degree. Its novelty was in processing ion conductive polymeric materials' by neutralizing static electricity from the surface of plastic. The concept proved interesting for public financiers Finnvera and Tekes, whom were convinced of its prospects and extended low interest loans for IonPhasE. The start-up was based near the University of Tampere, where the founders had graduated from.

In 2009 IonPhasE employs 17 people, caters for the global industry of plastics processing and supplies high-end dissipative polymers to a variety of plastics manufacturers whom need to control the surface levels of static electricity native to their produce. The firm's core competencies reside in application-specific product development and sales. The products, also called granulates, are utilized as ingredients in a wide range of plastics applications in industries including, chemical and food packaging, automotive, telecommunications as well as electronics. The diminutive size of the Finnish market fostered a global business vision early on and sales have predominantly come from Asia, underlining the firm's stature as a Born Global.

The employees of IonPhasE are split between four locations and two countries. The company is headquartered from Espoo, Finland since 2007, while the initial lab-like facility at Tampere relocated into a nearby factory in 2003. IonPhasE has also established sales and distribution subsidiaries in Hong Kong and Guangzhou, China. Growth in sales has been relatively swift when the total of ca. 18 000 € from 2005, is taken as a reference. Towards the end of the decade, the firm has been able to draw annual revenues around the 500 000 € mark consistently.

The Development of IonPhasE in Phases

IonPhasE resides in a phase best dubbed as commercial breakthrough and foreign growth, whilst also exhibiting signs of a tentative global breakthrough owing to the relative importance and potential of Asian markets. Followed by a lengthy introductory phase, underpinned by product development efforts, the company was able to expand to global markets rapidly after the start of commercial activities in 2005. Yet, the firm

continues to be offset by survival crises stemming from managerial volatilities and over-extended product development runs. Figure 6 shows the growth path of IonPhasE.

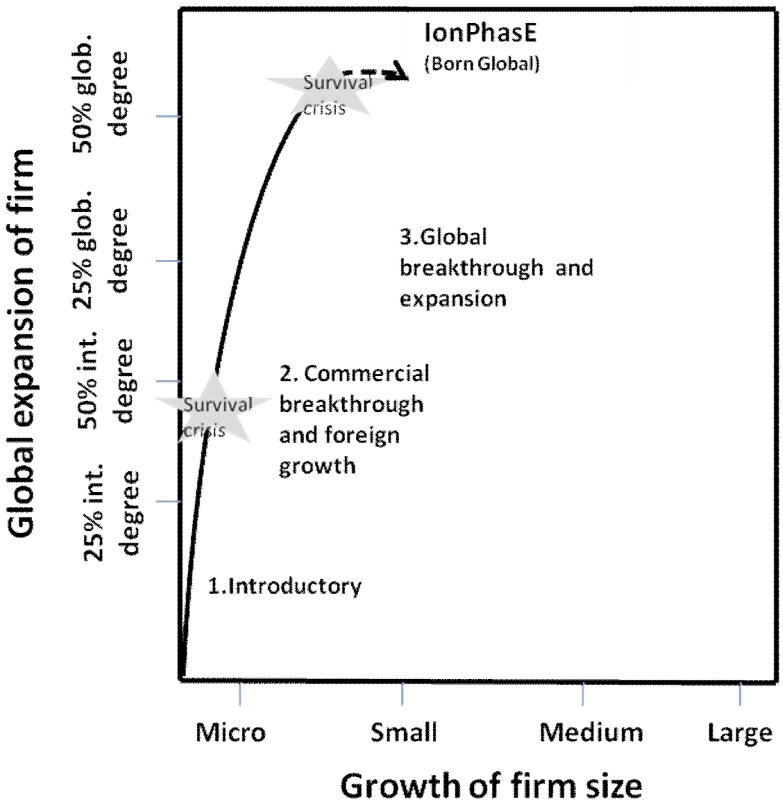

Figure 6. Growth path and survival crises of IonPhasE

The Introductory Phase: The influence of founder Nieminen was substantial in the early stages of IonPhasE. Nestled in the incubating area of the University of Tampere, the operational focus was almost entirely on developing a promising chemical solution further. The company was very much internally focused: *"I think that the guys, they were just realizing that there's a need for this type of product but, they were more into developing this granulate in various ways and mainly concerning the antistatic properties as to a fully suitable form thinking of sales and end-customer requirement battery. A lot of these starter companies, as they don't have the sales mentality, have the product focus mentality, and they are scientists more than businessmen. Their love is in the product and the technology, not in the commercial side of it.*" - CEO, IonPhasE.

The platform for development and production was enhanced as the company relocated into a bigger Tampere-based factory in 2003. Another step towards commercialization

was the recruitment of six Master's students in chemical engineering from the University of Tampere going into 2005. Yet, this did not exactly increase the heterogeneity of the human resource base of the company, the core of which now consisted of ca. ten chemical engineers. The sales of ca. 18 000 € in 2005, did little to convince investors of the commercial potential of the firm.

During the first two years of commercial operations, in addition to granulates, the firm sold permanently antistatic plastics film, which in itself is a more evolved stage of plastics produce than pure granulate. This meant that some peripheral parts of the manufacturing process had to be outsourced to subcontractors. After a disappointing start, the loan finances from governmental organizations Finnvera and Tekes were running thin and the company was under increasing pressure to find accounts

In early 2006 negotiations with a Finnish-German network conglomerate provided IonPhasE with its first major account, a Chinese manufacturing subsidiary of the MNE in Suzhou, China, whom can be credited with establishing IonPhasE as a commercial firm. The deal helped increase overall sales to ca. 320 000 € for 2006, with the Chinese market accounting for over 85% of total sales. Yet, a somewhat of an ad-hoc approach to expand the product portfolio to fit other potential end-user applications meant that persistently long product runs were undermining further expansion efforts.

The founder/MD, despite his contribution in developing the core product, was found wanting in certain managerial aspects: The plastics processing industry develops with the continuously improving functionality of product ingredients that make up for the building blocks of the end-user applications. A company aiming to provide for this market of ingredients needs to focus on, not only innovative capacity, but also the environment comprised of customer needs and evolving standards. Thus, the importance of the product development process in reaching commercial goals is accentuated, an issue which was overlooked at IonPhasE. An over-emphasis on R&D was evident and due largely to the founder's heavy involvement in operational control, and a management style best described as authoritarian: *"Yeah, it was one man-one voice and the whole culture was based on that everything had to go his way. He wanted*

the other people to do a lot of things, but nobody was allowed to do anything without his detailed acceptances. Which meant that things got very much slowed down and the founder was involved in issues he actually wanted to get away from. But then again, and there was no real planning of especially the R&D work…"- CEO, IonPhasE

Commercial Breakthrough and Foreign Growth: Until very late 2006, IonPhasE was a company established and managed primarily by chemical engineers. This changed in 2007 as a Finnish venture capitalist firm acquired a controlling stake of IonPhasE, initiating a series of organizational changes.

Managing Director, Tage Johansson was instilled midway through 2007 to add international business and managerial experience to the executive level, whilst holding on to the talent of founder Nieminen. Johansson's arrival coincided with the recruitment of a Sales Director, and a Product Director both with mid- to long term international business experience. From a strategic perspective, finishing product testing faster and expanding the portfolio of granulate solutions increased in priority. The company also began to strategically narrow down its product range. The increase in pure granulate design and production was made at the expense of of ready-made plastic film and thereby the use of subcontractors.

In 2007 the company established its headquarters in a high-tech cluster in Espoo. The new owner invested into increasing the productivity and R&D capacity of the manufacturing facility. The firm also established its first foreign sales subsidiary in Hong Kong in 2007. However, a clash between the old and new way of doing things was to follow the rapid-fire changes:"*…the founder very often is the maker of the company, but he's also unfortunately very often the biggest obstacle for the company's further success. Because of his methods, his stubborn ways to operate (processes), the company will hit the wall time after time making always the same mistakes and not learning from the mistakes - as the prior experience of making things work is missing. But on the other hand, the company would have never been born without his basic idea. So you are, in the first real crisis of the company where you have to finance the company, which means that the founder group - or one founder in our case – is going to*

get heavily diluted, and he gets so (in)furiated about that. But on the other hand, the company badly also needs maybe people who have international business experience. And it means that the founder's, grounding business ideas have to be reshaped… a lot of conflicts ahead" - CEO, IonPhasE.

Despite entering a cycle of regular deliveries to the Chinese account and continuously securing some contracts in Central Europe during 2007 and 2008, the firm's sales operations over this period are perhaps better described more sporadic than account-based. The year 2007 saw an increase in Central European volumes as ca. 130 000 revenues from therein combined with ca. 400 000 from China brought the annual total to ca. 530 000 €. Percentage-wise, sales to China made up for ca. 75% of the total for the year. Echoing the global undertone set by an economic downturn, the year 2008 brought a reverse to the growth trend as total sales declined to ca. 475 000, with the Chinese market accounting for ca. 73% of total sales

The organizational changes paid dividends in 2009 as IonPhasE achieved its second major account in the form of a German chemical giant in a deal that concluded a proofing period of some two years. During the same year founder Nieminen relinquished his operational position in the company in favor of an equity stake, signaling the end of the conflict between the two management cultures.

Global Breakthrough and Expansion*:* In early 2009, the product range of IonPhasE was limited to granulates, after the discontinuing of all film production. With an expanded line of granulate versions, the company hopes to initiate concept proofing with a wide array of potential customers and increase sales into current MNE accounts.

Despite recently negotiating a survival crisis of sorts caused by the clash of the old and new management styles and obtaining a key client in the German Chemical Giant, IonPhasE has not secured stable business growth. In 2009, the company is struggling to finance further advances. In a bid to succeed in global expansion and growth, long-term plans are in place to invest in an additional sales subsidiary, located in Central Europe, as well as in a foreign production facility with a substantially higher production capacity

than the current Tampere plant. However, these projects are subject to finding an additional investor. If the company fails to attract one, there exist concerns as to whether the current scale of operation is sufficient to keep the company in business.

Foreign Operation Mode Development: IonPhasE's foreign operations overall predominantly consist of downstream activities, while sales have been international from the outset. The firm began export to German and French subcontractors in 2005. Regular sales started more or less during 2007 and 2008 when deliveries to China commenced on a fixed basis. During 2007-2009 export deliveries to Central Europe also intensified either via foreign distributors or on-site deliveries. In addition to export, the company has also FDI vested in the two Chinese sales and distribution subsidiaries, the first of which was established in Hong Kong in 2007. A later addition is the sales and distribution center established in Guangzhou in 2009.

Development of the Product Offering: IonPhasE supplies three granulate solutions. A film blowing solution for polyethylene film, used mainly in the electronics industry, a film solution apt for use in a variety of applications in the chemical & food packaging and other antistatic packaging industries as well as a granulate solution designed for plastic trays, employed in the electronics manufacturing industry. The firm started with a broader product scope than it operates with in 2009. Between 2005 and 2008 the company often utilized the services of a third party plastics film blower in supplying its end-customers with a more advanced stage of plastics produce. It was common for up to 80% of the actual processing to be done by an external subcontractor, with IonPhasE supplying granulate and outsourcing the rest of the production process to an outside contractor. The firm also sold pure granulates to various end-customers. A change to this approach came in 2009 as the firm narrowed its product scope down to solely granulates, thereby leaving the rest of the production process to the customer.

Product development is on-going to expand the array of granulate versions to be applicable for an increasing number of plastics applications within an industry. Different granulate versions are either requested or promoted by the company. In either case, the product; a granulate version, is subject to a lengthy proofing phase. Thus, the

product always carries a service element as proofing is done in cooperation with the customer.

Product adaptation for IonPhasE is always customer or application specific where the county of origin of the customer is largely ineffectual. Thus, the need for product adaptation increases somewhat with every addition to the customer portfolio. Plastics processing is a diverse industry characterized by standards which evolve in parallel with plastic ingredients. The pace of this development is partly set by the ingredient suppliers, but also dependent on their customers, the manufacturers, whom provide the final approval for the ingredient by utilizing it in their production process. For a supplier such as IonPhasE, an approval from a large manufacturer is an important reference as well as a market opener, since the same form of granulate solution can be utilized by a variety of manufacturers with relatively limited or no adaptation.

Survival Crises: The involvement of the new venture capitalist owner in 2006 ushered in a time of incremental change. As a result founder Nieminen was soon accompanied by three new executives whose ideas of running the firm conflicted with his. The company remained in a state of flux for the best part of two years, a time perhaps best described as a conflict of managerial styles. Underpinning the crisis was an inability to finish granulates, meaning that there were few results to show investors. The firm needed to make changes or risk going out of business.

The newly installed management prioritized the faster finalization of product development cycles in an attempt to reach out to the market proactively with a variety of granulate versions. Despite obtaining some quick wins, in 2009 the company is still suffering the effects of the prolonged introductory phase. Furthermore, as it hopes to facilitate a global breakthrough, resources are stretched across a variety of product versions in the hopes of expanding the portfolio of granulate solutions. Table 6 summarizes the discussed developments of IonPhasE.

Table 6. The growth phases of IonPhasE

Phase	1. Introductory	2. Commercial breakthrough and foreign growth	3. Global breakthrough and expansion	4. Global rationalization and maturity
Key strategy	Develop plastic film and granulate solutions for a variety of industrial applications.	Shorten product development cycles and undertake a proactive market approach.	Expand globally and leverage current and potential MNE accounts.	N/A
Size of the firm (employees/ sales ≈ €)	2005-2006 Employees: 4-11 Sales: 18K- 320K	2007-2008 Employees: 11- 17 Sales: 475K-530K	N/A	N/A
Global division of sales (approx.)*	DOM: 0% (2006) EUR: 10% (2006) GLOB: 90% (2006)	DOM:0% (2008) EUR: 27% (2008) GLOB: 73% (2008)	N/A	N/A
Evolution of foreign operation mode(s)	Sales: -export; Central Europe, Asia	Sales: -subsidiaries; Honk Kong, China (mainland)	N/A	N/A
Products	Plastics Film and Granulates	Granulates (various versions)	N/A	N/A
Networks	Education: -student recruits	MNEs: -customers -channels	N/A	N/A
Survival crisis in end of phase	Long product development cycles lead to a clash of management styles.	The inability to convert concept proofing into revenues results in financial difficulty	N/A	N/A

*DOM = domestic sales, EUR = foreign sales within Europe, GLOB = sales outside Europe

Factors Influencing the Growth and Survival of IonPhasE

Industry Development since Establishment: Upon request form IonPhasE, an independent agency estimated an annual growth rate of 25% from 2007 to 2010 for the inherently dissipative polymer (IDP) market. Trade in the industry is not regulated heavily as suppliers operate largely based on global trade regulations. The country of origin of the customer has little significance and the same ingredient can be utilized on a variety of manufacturing sites in different countries if need be.

Partly owing to the high entry barriers i.e. the required level of technical expertise, there are only a few companies active in the industry, most of who do not specialize in the area of IDP. All of them operate more or less on a global basis, but despite racking up

annual overall sales in the billions, their IDP sales volumes do not greatly surpass the current potential annual capacity held by IonPhasE of ca. 1200 tons.

At IonPhasE, the largely global and MNE-driven nature of the competition is not viewed upon as a threat but an enabler: *"Because, as I said, competitors are always good, because if you're alone, you have to fight the whole world alone. If you have competitors, everybody is singing the same message, and it helps you as well. So, from this point of view, the more global players there is in this market to certain extent, it of course helps everybody, and then it really helps the market to get accustomed with the new product and gets the growth coming."* –MD, IonPhasE. The global and dynamic nature of the industry has functioned as an enabler for IonPhasE. It is seen as sufficient to meet and exceed short to mid-term expectations and a failure to build on its potential is pinned down to internal factors.

Development of Most Critical Resources and Capabilities since Establishment: Perhaps the most critical resource of IonPhasE resides in innovative technical capacity. It is behind a total of six patents geared for the IDP industry. Despite the founder and main innovator leaving his operative post, executives are confident that IonPhasE has retained an adequate amount of this ability.

As evidenced by the relatively long introductory phase of IonPhasE, innovative competence and resources count for little unless they can be efficiently geared towards commercial objectives. When investing in a controlling stake of the company in late 2006, the owner wanted to make sure that the technological capabilities of IonPhasE are focused on growth, which also meant re-staffing the board of directors. Current MD Johansson highlights the role of the owner and a board that understands the business as key resources when setting the right managerial and strategic course for the firm.

The MD himself is one of the three managers hired in quick succession in 2007 in a bid to balance the managerial and innovative pools of talent quickly after the arrival of the new owner. Between them the new executives had a combined total of ca. 30 years of international business experience in management positions. Yet they all joined from

international SMEs, which means that the stock of entrepreneurial experience at IonPhasE is also rather limited as the firm also represented the first for founder Nieminen. In a bid to decrease the time spent on product development, the firm also invested heavily in R&D equipment in early 2009. The idea was to improve the R&D infrastructure thereby having the ability to do more testing work in-house.

From a substantive capabilities perspective, technological capability in product development and managerial capability underpinned by strategic intent, business intelligence and clear business objectives are named as central by management. Also, a customer-driven sales approach underpinned by market sensing merits attention: *"The sales force is the best business intelligence, because any time you get involved with potential client or clients, you get new ideas about what it really is, because on the other side you have a person that is not fully aware of this miracle stuff, and from our side we are not fully aware of this potential client's needs.."* - CEO, IonPhasE.

Equating business intelligence and the sales force illustrates that success in the IDP market is partly dependant on customer linking. References are crucial in promoting the firm within and across customers. Despite playing a central part in obtaining the firms major accounts and recruits from universities, current management sees poor networking capability as one of the reasons for the firms stunted growth so far.

When it comes to adapting and renewing resources and capabilities based on changes in the environment, the company has so far operated under financial restraints alike many start-ups. In terms of interchangeability, the resource base of IonPhasE remains rather static. With a relatively polarized (engineers/business managers) pool of talent, current management has to look outside the company to e.g. boost the sales force. Resource renewal at present is done on a financially driven outside-in basis overall instead of developing the current resources and capabilities.

For growth, the most critical resource and capabilities have been in the technical areas of product and the managerial capabilities brought by the executives recruited in 2007. While it is too early to judge the executive groups influence conclusively in 2009, it can

be argued as to whether IonPhasE would even exist today had it proceeded under the authoritarian management of the founder. Networking capability, while perhaps lacking early on, helped the company on its way in an inherently complex market environment, which is underlined by the two major accounts. It also helped the company in recruiting able hands from university more than once. Also, the financial prowess vested in the company by governmental institutions as well as the owner, mainly based on its potential not performance should not be overlooked.

Entrepreneurial Orientation and Lateral Rigidity: The current company culture of IonPhasE is a juxtaposition of the two very opposite managerial philosophies of the two respective MDs, Nieminen and Johansson. The introductory phase of IonPhasE is described as being personified in the authoritarian leadership of Nieminen devoid of employee empowerment and autonomy, where risk taking was encouraged mainly in R&D at the expense of process and administration development. During this time, the company did not prioritize a proactive approach to the market. Thus, supplementing areas that were found lacking in the introductory phase is central to the philosophy of the executive group that followed as it hopes to rely on structure and measurement for the benefit of steering and motivation.

While comparatively low operating costs and laterally rigid decision making kept the company running, progress towards commercial success was only made after substantial investments into the managerial personnel in 2007, a move that effectively initiated a change of culture. Investments continued by way of FDI to China as well as new R&D equipment and facilities. The second directorate is clearly more entrepreneurially oriented than its predecessors. Current management is working to reverse old routines and the firm has started to proactively approach the market by basing operations on business intelligence accumulated through internal (the sales force) and external sources (consultancies). The company is working on expanding the market by introducing ingredient products to new industries and applications as well as penetrating the current market further by intensifying operations with current and potential customers. The underlining belief is that there is no need to aggressively conquer market share from competitors, but create market space.

Governmental Support: The main public financiers behind IonPhasE are Finnvera and Tekes, who financed the company through the introductory phase. The discontinuance of Finnvera's financial support coincided with the venture capitalist firm's entry to the frame in 2006, while Tekes' funding ends in 2009. Additionally, Finpro provided some assistance to the company when establishing the first Chinese subsidiary. The firm also underwent a small bilateral product development project with Tekes in 2009, which as a support organization, receives a vote of confidence from the managing director.

Despite welcoming the continued support from Tekes, IonPhasE believes that more could be done on the governmental level to assist internationalizing SME and that support should be both monetary and operational. In effect, shortening the "runway" to international commercialization for SMEs should be the governmental strategy for advancing the Finnish economy, according to the IonPhasE perspective. This includes more than handing out money as some SME's also struggle with the operational practicalities and strategic considerations of internationalization.

4.1.3 Case Avant Tecno - B2C/B2B Born International

Ylöjärvi-based Avant Tecno LTD, established in 1991, supplies compact multi-purpose wheeled loaders and related attachments to a variety of resellers and end-users. The firm's main sales channels include an international network of distributors active in 40 countries and two international sales and distribution subsidiaries in Germany and the UK. The family enterprise, and world market leader in loaders with an operating weight limit of 2000kg, was founded on the remains of YLÖ-tehtaat a manufacturer specializing in the production of loaders and tractor supplies. Predecessor YLÖ-tehtaat, active since 1948, had endured a steep decline in sales owing mostly to the feigning Soviet trade in early 1990 and filed for bankruptcy the same year. Avant Tecno founder and former YLÖ-tehtaat executive Risto Käkelä saw promise in a portion of its product portfolio and bought the rights for sections of the wheeled loader and tractor supply businesses.

Avant Tecno was established in the old YLÖ-tehtaat premise and around 40 employees also opted to join from the bankrupt manufacturer. The start-up also secured an agreement with a local mining and construction conglomerate for the manufacture of self-propelled drill rig foundation units. Consequently, Avant Tecno could quite seamlessly continue the remaining two product lines of YLÖ-tehtaat directly after establishment, whilst also receiving additional revenues from the drill rig units.

In the early 1990s Finland was reeling from an economic depression and Avant Tecno was founded on the promise of international markets and pursued an international vision from the start. Avant Tecno subscribes to the Born International label by drawing ca. one third of total revenues from international markets already during the first three years operations. Yet, sales outside the home continent have yet to surpass the 25% mark. Over time the company has grown from a 40 person SME manufacturer with sales of 3.3M € to a world leading supplier of multifunctional loaders, employing some 140 people and with sales totaling near the 40M € mark in 2009.

The Development of Avant Tecno in Phases

The major expansions to the Avant Tecno loader range are an effective way to outline the transitions between the developmental phases of Avant Tecno. *"…we see them (growth phases), you can see quite well when we brought new machines and machine types into the market, and that has helped us with the existing sales network so that they got a better machine that they can sell now to, either better to the existing customer groups or they can find new customer groups completely. Or then, for the new ones to get more excited about wanting to be aboard of this sales network."* - PM, Avant Tecno.

The time-span between the transitions has been some five years, where introduction to the international market began with a revised edition of one of the loader prototypes bought from Ylötehtaat. Commercial breakthrough and international expansion intensified in 1995, owing to the release of articulated wheeled loaders. Another decisive point was the release of the "mini" - loader, directed mostly at the consumer markets in 2000, an event that coincided with global expansion and growth. While

pursuing growth via the release of yet another model in 2009, the company has also exhibited some signs of regional or international rationalization. Figure 7 illustrates.

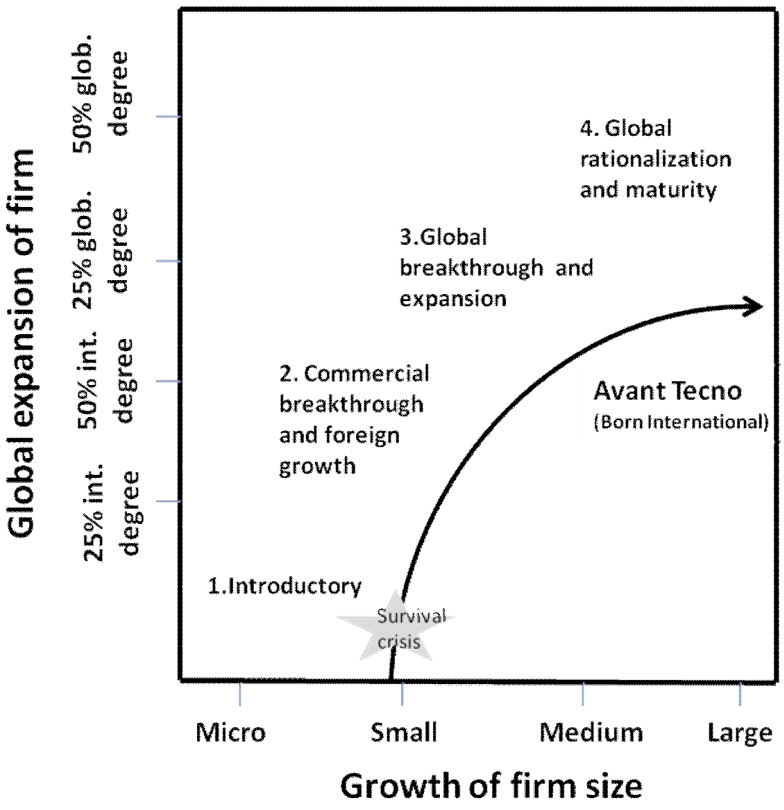

Figure 7. Growth path and survival crisis of Avant Tecno

The Introductory Phase*:* In 1991, the wheeled loaders were considered the future of the business as development efforts were concentrated on a new loader version for agricultural end-use. The other two lines were maintained largely to keep the business afloat and provide revenues to re-invest in the loader business. Considerable revisions were made to a loader prototype bought from Ylötehtaat. The product was apt for use in farming activities and introduced to a variety of markets, concentrating to nearby Scandinavian ones i.e. Norway and Denmark as well as select Central-European ones, such as France and Germany.

The loader, dubbed 300 series, proved attractive for resellers and end-users after its release in 1992. It was able to undertake some of the chores traditionally reserved for heavier machinery with a lower price. It could also be fitted with a range of separately sold attachments for different purposes. These attributes backed up by generally

favorable reviews helped Avant Tecno carve out a niche devoid of direct competition domestically and internationally and contract foreign dealers.

From the early days of Avant Tecno, it was evident to the management that a domestic focus would not suffice in the niche wheeled loader market. Central Europe was subsequently identified as the center of the loader industry and the company was quick to establish a sales and distribution subsidiary in Frankfurt in 1992. The investment was made in the aftermath of a successful showing in the 1992 iteration of the Germany-based Bauma trade and construction fair, which proved central in a series of decisive events that prompted the company to trim down the product range into solely loaders.

Since internationalization began the firm has approached each foreign distributor with a long-term perspective and emphasizes mutual gains in business relations: *"Of course we are always working on long-term basis with the importer, and we're trying to make sure that they get all the tools necessary for the sales."* - PM, Avant Tecno

Midway through the 1990s, a cash-strapped domestic economy, a high-interest commercial loan and continued investments in product development had taken their financial toll on the firm and prompted efforts to further penetrate international markets with the loader business. But, the company was hesitant to discontinue the profitable tractor supply and drill rig unit lines, at least before solidifying the loader business.

Commercial Breakthrough and Foreign Growth: Avant Tecno's commercial breakthrough commenced around 1995, courtesy of the next generation of loaders, the 500 series. The enhancements to the previous generation were considerable, and extended the customer range beyond the agricultural segment to small scale landscaping and more demanding do-it-yourself (DIY) work. Further additions to the attachments range, in turn, provided additional customizability.

With the 500 series, Avant Tecno was able to further penetrate into the foreign markets obtained in the introductory phase. The new product also gave distributors the option of renting out the loaders. The firm gradually adopted a similar mutual gains approach

with select suppliers than it emphasized in with distributors and began building strategic relationships on both sides of the value chain: *"Well, with the core suppliers we have of course very tight relations too, and we are in daily contact with them. And not only suppliers, but they are a little level higher than that. Then there are suppliers that supply just their standard products to us, and normally with that you have very little problems with. And so, also there tight relations is the key, and also there we have been establishing very long lifespan commitments to that."* - PM, Avant Tecno.

To further advance foreign expansion efforts, the company established its second sales subsidiary, in Norwich, England in 1998. A distributor was also contracted soon after, from Ireland to strengthen the firm's geographical presence in the area. Meanwhile, the biggest increase in export volumes took place in markets where Avant Tecno had already established a firm foothold on during the introductory phase i.e. Scandinavia and Germany. Towards the end of the 90s it strengthened its push for European markets and enacted a policy whereby each foreign country is catered via one local distributor.

During the mid to late 1990s, Southern European countries such as Greece, Italy, Spain, Portugal and Turkey were added to the portfolio of markets along with a host of Central European countries including Belgium, Austria, Poland, Hungary, Luxemburg and Switzerland. Towards the end of the 1990s, expansion efforts were also intensified in Eastern Europe and dealers contracted from the likes of Russia, the Czech Republic, Slovakia, Ukraine, Estonia, Latvia and Lithuania. During the turn of the century the array of Scandinavian markets was complemented by Sweden and Iceland. The strategic intent behind the wide-scale expansion was to balance out the market trends within each individual market or market area and thereby draw economies of geographical scale.

Global Breakthrough and Expansion: The turn of the century coincided with Avant Tecno's expansion in volume to markets outside of Europe, fueled mainly by the 2nd edition of the series 500 loader, which was able to attract a wider group of end-users from increasingly diverse country markets. The year 2000 brought a change in strategy as Avant Tecno began to deploy more sophisticated monitoring efforts to determine whether it was feasible to continue with additional country market expansions or further

penetrate extant markets by intensifying sales efforts. This included reviews of macro-economical data and global trends in strategic planning.

In 2000 the company contracted an US.-based partner to start supply on a private label basis to spearhead North American operations. The distributor sold Avant Tecno loaders under its own brand name for some five years. Despite initial success in the North American markets, the exchange rate fluctuations between the Euro and Dollar considerably cut in Avant Tecno's margins and U.S.-based profits diminished by 2005. Amidst penetration difficulties into the North American market, Avant Tecno had success in other global markets during the early 2000s. Middle East provided an initial foray to the east and importer-dealers were contracted from the likes of, United Arab Emirates, Oman and Qatar, whilst South Korea, Mexico, Australia, New Zealand and South Africa were also added to the fore soon after.

With a global dealer network Avant Tecno was better able to balance out demand decreases in certain country markets or economic areas with ones that showed opposite trends:"… *we have a very good feeling about which countries is doing well compared to, well, the GDP and all of that, and you can draw pretty clear lines from* there *where to go to."* - PM, Avan Tecno. Consequently, as sales decreased in the U.S. market the company gradually shifted its strategic focus to Europe and those markets external to the home continent, that were showing promise, such as Australia, Middle East and South Africa. The strategic manoeuvres paid dividends as the four years running from 2004 showed unprecedented growth of ca. 30% per year, a trend that was finally reversed partly due to the global economic downturn commencing as of late 2008. The growth was partly due to the 2003 release of the 200 model "mini" loader which was well received, especially in Scandinavia and parts of Europe

Global Rationalization and Maturity: In 2009, all Avant Tecno manufacturing is done in the Ylöjärvi facility, much like other primary activities such as marketing, product development etc. The emphasis is on preventing country-market duplications which is evident in the one dealer per country-market ideology. This notion transcends into other functions as well, as the firm is able to respond to the current demand with the present

establishment, while the leftover capacity means that even a considerable increase in demand is manageable. The avoidance of further expansion by way of foreign subsidiaries is considered risk management. Dealers are viewed upon as strategic partners who share the responsibility for sales. Replacing them with subsidiaries would require considerable investments in localized operations and staff as well as additional administration in the company headquarters, which the firm is keen to avoid.

Avant Tecno perhaps adheres most to a stage of global growth and expansion where Europe remains the focal point of business but global markets, most notably those in Australia and Middle East are invariably increasing in importance. Yet, the emphasis is avoiding country market duplications can be considered a means of international or regional rationalization.

Foreign Operations Mode Development: Avant Tecno undertook direct export already in 1991 as commercial operations were international from the outset. The first sales and distribution subsidiary was established in 1992 in Frankfurt Germany and a second one followed some six years later in 1998, in Norwich the UK. The private-label partnership with the U.S.-based importer-distributor constitutes the solitary downstream strategic/co-operational mode of foreign operation. Additionally, the company utilizes a number of foreign suppliers in upstream activities.

Development of the Product Offering: In 1991 Avant Tecno started commercial operations with three product lines: drill rig foundation units, tractor parts and wheeled loaders. The two product lines mentioned first were maintained mostly in order to fuel loader business development. As sales of the loader business proved a success internationally, the other two product lines were gradually discontinued.

Despite the overall portfolio growing to include a total of six different models or series of loaders, the first 300 series loader already epitomizes much of the novelty the company has introduced to the industry. The products include a service element, meaning that the company only distributes via certified dealers whom are able to provide after-sales services, assistance in maintenance, spare parts as well as help with

other related enquiries. Owing to the possibility to fit the loader with a variety of separately sold, attachments most of which are applicable across models, the product is highly modular and customizable pending on the intended use.

The launch of the 500 series in 1995, and especially its second iteration some five years later played a large role in facilitating the international expansion and foreign growth of Avant Tecno, owing to upgrades in performance and functionality. The 500 series is designed for private do-it-yourself construction, farming and small-scale landscaping segments and it was followed by the 2003 release of the 200 series “mini-loader”, targeted at private end-users.

The 200 series can be seen as a separate product line for the company, not only due to its target segment(s), but also the fact that it comes with its own separate set of attachments, whereas previous and subsequent models can make use of a large joint pool of attachments. For the development effort related to the model, Avant Tecno enlisted the help of the Institute of Hydraulics and Automation at the Tampere University of Technology. The more recent introductions to the Avant Tecno product portfolio include the 600 series, released in 2006. An increased operating range from the 500 series, both in load and power meant that its target segments include more heavy-duty users. The 700 series, released in 2008 further stresses on increased performance metrics, such as drive speed and lift capacity.

With the 2009 introduction of the 400 series, the company stresses coming full circle with the range of loaders available in terms of price and performance. Also, the range of attachments, increasing with each new loader, provides additional end-user options. Having released six models of loaders, Avant Tecno in 2009 caters for a variety of global customer segments including: landscaping, property maintenance, construction and farming as well as private do-it-yourself builders. Due to individual performance and specifications, each new model has increased the amount of segments upon release.

Product adaptation within, and to an extent across, segments is done via the different attachments that are available for the loaders. The core functionality that comes with a

certain model of loader remains relatively standard across country markets while the country-specific demand from individual segments varies greatly i.e. cheaper models with lower performance and less optional "extras" are more in demand in developing economies. *"There's basically only few optional things as in, for example in a car, you can choose some comfort elements like different caps on the machine, or you can choose some functional elements to the loader itself, or something else. But it's, maybe, you could say so the richer countries order more complete machines, or more expensive, more user friendly machines than the poorer countries."* - PM, Avant Tecno. Thus, the firm can draw manufacturing economies from standardized design and product platforms.

Certain country market traits such as performance regulations and extreme weather conditions have presented requirements for product adaptation. Examples can be taken from South Africa and Australia where high ambient temperatures prompted changes to the cooling solutions etc. Yet, most of the country-based adaptations, once implemented have become a fixed part of the product. Overall, growth in international direction has increased the need for country market-based product adaptation. However, arrival to the latter stages has coincided with product standardization as the loader models have been made more standard across country-markets. Customization across segments, in turn, is left for the customer via the range of attachments available.

Survival Crises: During the establishment of Avant Tecno, Finland was in the midst of a recession, which severely limited the firm's possibilities in relying on the domestic market for sustained growth and survival. The fact that the company was mostly financed by a bank loan (in a declining currency) and sweat capital contributed to an extended financial struggle, which the company negotiated with the successful international release of the 300 series. The decision to internationalize was made as much out of necessity than a bid to capitalize on growth opportunities. The push for international markets proved crucial as the company emerged from its first and only survival crisis to-date: *"Well, just, basically then, just had the sales guy going a little bit in, especially, say Germany, and establishing of the German company back then helped to get us at least going through that period. The next period was already a little bit*

better, and so there onwards it has been good…"-PM, Avant Tecno. Table 7 summarizes the discussed growth phases.

Table 7. The growth phases of Avant Tecno

Phase	1. Introductory	2. Commercial breakthrough and foreign growth	3. Global breakthrough and expansion	4. Global rationalization and maturity
Key strategy	Develop loader business at the expense of secondary lines. Obtain a foothold in Central Europe via subsidiary and distributors.	Expand to additional European markets and leverage strategic dealer partnerships to further penetrate current markets.	Expand to global markets via distributors and private label supply. Pool country-market data for strategic coordination .	Avoid country market duplication of activities and emphasize home continent.
Size of the firm (employees/ sales ≈ €)	1991-1996 Employees: 40-61 Sales: 3,3M-7,3M	1997-2003 Employees: 67-84 Sales: 10,7M- 19,1M	2004-2009 Employees:70 -145 Sales: 21,6M-58M	N/A
Global division of sales (approx.)*	DOM: 64% (1993) EUR: 36% (1993)	DOM: 46% (1997) EUR: 42% (1997) GLOB: 12% (1997)	DOM: 38% (2009) EUR: 42% (2009) GLOB: 20% (2009)	N/A
Evolution of foreign operation mode(s)	Sales: -Distributors; Central Europe, Scandinavia. -Subsidiary; Germany	Sales: -Distributors; Southern/Eastern Europe -Subsidiary The U.K.	Sales: -Distributors; ME, Asia, SA, South Africa and Australia Strategic/ co-op: -Private label (the US.)	N/A
Products	Drill rig units Tractor supplies Wheeled loaders: 300 series	Wheeled loaders: 300 and 500 series	Wheeled loaders: 300, 500, 600, and 700 series Mini-loader: 200 series	Wheeled loaders: 300, 400,500, 600, and 700 series Mini-loader: 200 series
Networks	Ylötehtaat-based: -customers Trade fairs: -re-sellers	Suppliers: -networked sourcing	Education: -product development.	N/A
Survival crisis in end of phase	Financial, due to a high debt-to-equity ratio and small domestic market, depleted by recession.	-	-	N/A

*DOM = domestic sales, EUR = foreign sales within Europe, GLOB = sales outside Europe

Factors Influencing the Growth and Survival of Avant Tecno

Industry Development since Establishment: Although statistics are hard to come by, internal estimates position industrial growth around the 20% mark on annual average for Avant Tecno's industry of operation. It is important to note that the company created a niche for itself by being the first to manufacture and market multipurpose small-sized wheeled loaders. Thus, the industry has grown together with the company.

Avant Tecno only has one direct competitor; an Italian manufacturer that provides a similar portfolio of products. Because the business extends from consumer use into heavy industry, Avant Tecno meets different indirect competitors pending on customer segment. Thus, segment and country-specific competitors range from small local players into large Multinationals such as Schaefer and Bobcat.

Operating across global markets in a vehicular industry means having to negotiate challenges presented by country and trade area specific policy makers. In the case of Avant Tecno this is most apparent in the variable customs regulations of Russia as well as similar protectionist policies exerted by some South American economies. Such factors obviously make certain markets less attractive and in extreme cases unfeasible altogether due to e.g. difficulties in pricing the products accordingly. Despite country - specific differences in the operating environment customer demand with regards to the basic functionality of the loader remains relatively static across country markets, while customers in some countries want to cut down on some of the optional "extras".

In establishing a niche for itself Avant Tecno credits some enabling global megatrends that have accelerated the growth of the industry i.e. the mechanization of developing economies and the tightening regulations for the use of manual labor in the west.

Development of Most Critical Resources and Capabilities since Establishment: The experience of the Founder has played a central role in the development of Avant Tecno. Prior to establishing the company, he ran a small agricultural establishment, followed

by tenure of several years in Avant Tecno's predecessor YLÖ-tehtaat where Risto Käkelä worked in executive positions both in marketing and product development.

In addition to many shop-floor workers joining from YLÖ-tehtaat, an internationally active manufacturer in its own right, Avant Tecno was able to recruit some of the managerial-level employees as well. Chief among them were the R&D manager and CFO. The successful revision of the YLÖ-tehtaat business model with the help of retained key personnel is evidence of the managerial capabilities at the firm. The company additionally stresses the importance of constant renewal of resources and capabilities in responding to growth opportunities: *"…we are constantly wanting to evolve ourselves in.. As with the products, as with the sales, as with any other aspect of the company structure."* -PM, Avant Tecno. This is manifested in the continuous analysis of feedback coming from within the organization or the distributors etc.

Avant Tecno also stresses the importance of the technological capabilities instilled in the product engineers, which allow the development of the product portfolio in response to feedback. In addition to technological prowess, Avant Tecno has benefited from the sales and marketing competencies of the sales managers whom have enacted a mutual gains approach in customer relationship management with re-sellers, something the competition has failed to emulate. Further building on market sensing capability, the firm pools information from across global operations and decides which segments within a certain market are the most feasible at a given time-frame.

Reseller partnerships are carefully coordinated and the firm stresses the importance to provide a complete support package to help grow the business with the re-sellers. *"…we are, like I said, in more constant, building a more constant sales network. We have a good backup for the product, we have, as in product backup, as in also personal backup, as in also help for exhibitions and so on, so you get a complete package from us. And that, well, I would have to say it's been very important for us."* - PM, Avant Tecno. Thus, coordinated dealer support is an important reference for customer linking.

Avant Tecno utilizes branding as means to communicate with end-users across segments. Despite changing the visual image over the years, it has maintained a single corporate brand globally from the outset, apart from the US, where a partner re-branded the products initially. Branding is centrally coordinated from the Finnish HQ and country specific adaptation mainly takes the form of translating the material to a variety of languages. Centralization is done to provide a uniform look across markets. Traditional mass marketing is kept to a minimum and the company instead tries to ensure that re-sellers have adequate and up-to-date promotional material. The corporate web-pages are maintained in five languages and provide localized product information.

Avant Tecno has also been able to rely on considerable networking capability, underlined in upstream activities by the network of strategic suppliers and in downstream activities by the global network of strategic resellers. Additionally, university collaboration in product development has seen the company branch out to the educational sector. The firm also stresses the importance of trade fairs in networking.

Avant Tecno was able to replenish the resource and capability base of predecessor Ylötehtaat, exhibiting dynamic capabilities in the process. Since then, a combination of technological, managerial and marketing capabilities has produced an organization that is highly responsive to market impulses, owing to the emphasis based on customer relationship management. Avant Tecno dedicates substantial effort into ensuring efficient partner relations, and thereby growth and survival are inevitably CRM efforts.

Entrepreneurial Orientation and Lateral Rigidity: The company culture at Avant Tecno can be broadly defined as free-form and entrepreneurial, where individual input and initiative are encouraged over formal administration. Executives believe that facilitating an environment free of bureaucracy and a strict hierarchy is a necessity in order to fuel innovation. There are some country specific differences between the Ylöjärvi-based HQ and the subsidiaries, evidenced by how e.g. German management has instilled a more procedurally-driven work environment locally.

The entrepreneurial culture of Avant Tecno has evolved with the company. The early years were rife with risk taking, underlined by how the company invested heavily in internationalization before first securing the domestic market. Later, having established an international presence, the company has become more risk averse whilst still experimenting with new segments by introducing loader attachments in order to further penetrate current and potential markets. The firm believes that continuously experimenting with new market areas and products are necessities for continuity. By supporting composed risk taking and a highly autonomous working atmosphere, Avant Tecno executives hope to encourage development initiatives and keep the company in a continuous state of evolution. New initiatives are carefully assessed irrespective of their source from within the company and potential ones get the full backing of management.

Because of the heavily contested nature of some customer segments, Avant Tecno competes aggressively with some direct and indirect competitors. Yet, the aim is not to compete with price but provide a differentiated offering via quality produce as well as service and build a strong manufacturer brand in response to lower-priced produce.

Avant Tecno stresses that with an entrepreneurial mindset devoid of autonomy and bureaucracy, it can better respond to changes in the environment and sustain a competitive edge, without having to constantly invest in new resources: *"I would say due to the lack of bureaucracy we are very good in that, at least compared to our competitors…they often seem to be very slow in coming up with new things and new ideas, whereas we seem to be faster than they are."* – PM, Avant Tecno. Executives believe that the flexibility fostered by the culture was of great importance in responding to the challenges of high growth from 2003 onwards with largely the same resources.

In summation, Avant Tecno has become more risk averse as operations have matured, but maintains that without patience for failure in product prototypes, new country markets and customer segments it would quickly lose ground to competitors. The principles of the culture have not changed as much as the processes have.

Governmental Support: Avant Tecno concedes that the governmental support it has received has been minor and mainly taken the form of reimbursements on some of the expenses that arise from taking part in an international trade fair or exhibition. Additionally, Finpro has supported the company in low-cost market data and country-market business environment consultation. The firm stresses that agencies with a governmental mandate should do more in shortening the runway for internationalization, underlining the fact that in addition to financial subsidies they need to offer operational assistance in opening up markets and launching Finnish products abroad. This includes outlining the importance of international markets, locating forums for networking and introducing products as well as linguistic assistance.

4.1.4 Case Vacon - B2B Born Global

Vacon PLC develops and manufactures frequency converters, which are used to control the speed of electronic motors in industry. The firm was registered as Vaasa Control LTD in 1993 when 11 former ABB engineers founded their own frequency converter business in Vaasa after ABB moved its frequency converter unit to Helsinki. The company took on the name Vacon when enlisting to the Helsinki stock exchange, in the year 2000. For the sake of coherence the following analysis refers to Vaasa Control LTD and Vacon PLC as "Vacon" throughout. The manufacturing process of Vacon is driven by subcontracting. Only operations of strategic importance such as product development assembly and testing are executed in-house. Products are made to order and modular. The company customizes its produce by adapting the operational software of the converter(s) to the customer's needs. Therefore, much of the development work goes into the operational software. Vacon adheres to the Born Global label, having collected ca. 25% of sales revenues from outside the domestic market already in 1995.

Faced with a small domestic market, Vacon's objective from the outset was to build the widest worldwide distribution network possible. This global vision has come to fruition. In 2009, Vacon is the seventh largest supplier in its global industry and the largest focusing solely on frequency converters. The firm employs over 1200 people, has

development and production in Finland, the U.S., China, Italy and sales subsidiaries in 27 countries. Finnish operations are spread between Vaasa, Tampere and Vantaa.

The Development of Vacon in Phases

Vacon founders were able to build on the extensive know-how accumulated already at ACEA, BBC Brown Boveri and Strömberg, all companies with interests vested in the frequency converter business prior to merging in to the ABB in 1988. Vacon's introductory phase centered on finalizing the CX portfolio, released in 1995. After a favorable initial market response domestically, Vacon was not able to live up to expectations, which detracted some investor and led to a survival crisis, but the company was able to sign a crucial licensing agreement to secure the financial situation.

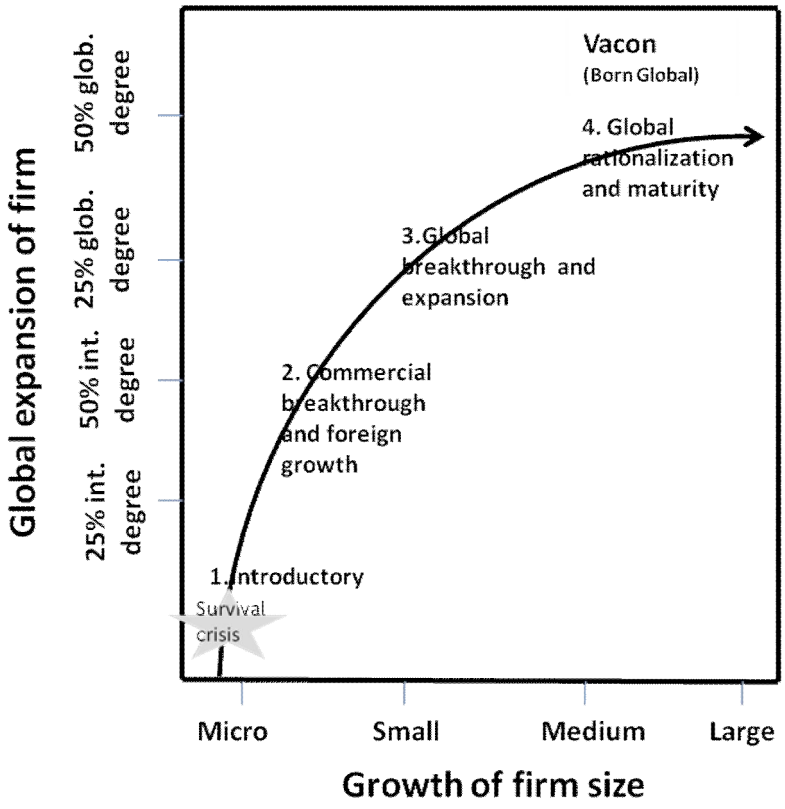

Figure 8. Growth path and survival crisis of Vacon

The commercial breakthrough that followed the survival crisis saw investments into sales subsidiaries and contracts with foreign distributors. Contacts established during

ABB times, helped Vacon executives recruit sales subsidiary managers from foreign markets as well as secure representation from distributors. With the increasing stature, U.S.-based multinationals became interested in Vacon, which lead to private-label and OEM deals that ensured a global breakthrough. After extensive investments in foreign sales subsidiaries and production units the firm began aligning global operations by means of a transnational management structure. Figure 8 shows Vacon's growth phases.

The Introductory Phase: The early years of Vacon are characterized by fast-paced international growth. Fueled by public financiers, Finnvera Tekes and the Ministry of Trade and Industry the founders began finalizing the first products upon firm inception. The CX product line was released internationally in early 1995, some 14 months later. The line proved a success and the firm was able to secure domestic customers and business looked set for growth. Yet, after an initial sell-to-stock, orders did not commence as hoped. This detracted some investors in 1996 and Vacon had to negotiate a high-interest loan to secure the short-term future of the company.

Building on ties initiated during ABB times, Vacon executives licensed a Vacon component to U.S.-based manufacturer TB Woods, whom turned into a distributor the year after. The ca. 750 000 € deal was enough for Vacon to finance the high interest loan and secure the business financially. Backed by renewed financial prowess, Vacon was quick to pursue a global vision in operational terms and Vacon GmbH was established in Germany already in 1995, followed by a Swedish subsidiary soon after. The managerial seats in these and many of the subsidiaries that followed were staffed with people Vacon executives came to know during tenures at ABB or its predecessors. *"…it (Sweden) was based on the contacts we had during Strömberg times, two fellows. And I think they were working, they jumped from ABB to Siemens, if I remember right. And we picked up, let's say, refreshed the contacts…Germany is ABB friends, Netherlands is ABB friends, Sweden is Strömberg friends, Spain is ABB friends, UK is Strömberg and ABB friends"* – Former CEO, Vacon. A network of distributors around Europe was also grounded on similar contacts, which saw Sweden, Portugal and Poland become the first important foreign markets.

1996 was the advent of the commercial breakthrough, as underlined by the strategic partnership signed with Finnish MNE (KCI) Konecranes in a deal whose negotiations were initiated already in 1994. The deal saw Vacon take over the inverter production of Konecranes on an OEM-basis. This was obviously a risky move for Konecranes as Vacon was still far from financially stable. Thus, the MNE insisted on a 30% stake in the company and a seat on the board to have a say in strategic management. Vacon had little option but to comply, but despite the loss in managerial control, a deal with a large international firm increased the marketability of the start-up.

Commercial Breakthrough and Foreign Growth: In 1997 Vacon became a private-label supplier of U.S.-based Honeywell. The MNE was to sell CX products of the HVAC segment (heating, ventilation air-conditioning), mostly to the U.S.. Soon after, Vacon Swiss elevator and escalator giant Schindler became the second large OEM account in 1998. In order to solidify its presence on global and especially North American markets, Vacon established ties with a second U.S.-based MNE. Again executive contacts proved crucial as manufacturing giant (Eaton) Cutler-Hammer was in search of a frequency converter supplier. The manager leading the search was a former colleague of Vacon's CEO. The agreement, signed in 1998, stipulated that Cutler-Hammer would sell Vacon products in the U.S. market, on a private label basis.

The channels provided by European MNEs such as Konecranes and Schindler helped Vacon reach international prominence. It was quick to build on initial forays and proceeded with aggressive foreign expansion efforts by establishing sales subsidiaries in Italy (1998), Spain (1998), the Netherlands (1998), the UK, Singapore (1999), Austria (1999) and France (2000). Another driver behind FDI was the idea that Vacon could not cater for customers solely via intermediaries in providing installation and maintenance services. The strategic onus was to cover the main European markets with centrally positioned sales subsidiaries and distributors, an objective which was largely achieved by 1999. While the company had extracted its presence across Europe via sales subsidiaries, global markets, the U.S. chief among them, were mostly catered via OEM and private label channels provided by local MNEs. Towards the end of 1990s the impact of these MNE channels grew greatly, which lead to a global breakthrough.

Global Breakthrough and Expansion: In 1999 the strides made by Vacon's major channel partners in markets outside Europe ensured a jump in global sales. The 35% year-end global sales ratio is a considerable increase from the 14% of 1998. Total revenues grew some 58% due in-part to high demand in Europe, where Vacon's network of subsidiaries was already comprehensive. North American representation was solidified through U.S.-based MNE, Rockwell Automation, whose private-label supplier Vacon became in 2000. During the same year, the second line of Vacon products was released under the NX label and it slowly began replacing the CX generation of products. The NX series was largely based on customer feedback and provided higher performance and modularity. By the end of 2000, Vacon products had been sold to 100 countries, it had 5 private label and over 20 OEM customers. Operations had grown considerably and the board decided to execute an initial public offering in November 2000 at the Helsinki Stock Exchange.

Cash reserves replenished from the IPO, Vacon moved to strengthen its network of sales subsidiaries within and, more importantly, outside Europe. A sales representative office was stationed in mainland China in 2000 and the following year Vacon signed several new distributor agreements in China, Korea, India and elsewhere in Asia. Overall, sales on the continent were heavily reliant on distributor performance. A decision to further extend operations came in the wake of the global economic dip commencing from the collapse of the IT bubble coming to 2001, which also affected the global market of frequency converters. Amid economic uncertainty sales subsidiaries were established in quick succession in Norway (2001), Belgium (2002) and Russia (2002) as Europe remained the hub of the business. Some 70% of annual revenues were collected from the home continent between 1999 and 2003 on average.

In 2002, Vesa Laisi was named CEO of Vacon as his predecessor Veijo Karppinen assumed the role of vice-chairman of the board. Laisi was given the task of transforming Vacon into a truly global company, which he thought necessitated international production operations. At the time of his arrival, Vacon was experiencing a considerable slow-down in growth as the 8% increase in total revenues coming from

2001 to 2002 was a far-cry from the ca. 80% average in annual growth of the six previous years. Amid the economic downturn, Vacon's growth was largely due to the development of Asian markets as European and North American markets shrank.

The midway of the decade approaching, executives saw that the increasingly global operations of Vacon demanded re-structuring if growth was to be sustained. The successful management of working capital in the challenging market situation of the past few years helped finance plans for further organic growth in 2003, which included inserting a common ICT platform for global operations to make processes, principles and tools more uniform internationally. Investments were also made into service support and marketing programs to enhance channel performance. In 2003, Vacon began to structure the organization around three business areas: Component Customers, Solution Customers and OEM & Brand Label Customers. Each business area was given its own process, area of expertise and competitive strategy. Changes made to the regulatory environment of China in 2003, made FDI a possibility and prompted Vacon to establish a sales subsidiary and a R&D unit in Suzhou.

In 2004, the firm signed a joint venture agreement for the design and development of frequency converters with U.S.-based Rockwell Automation. The firm also re-visited its global brand and started operating under the "Driven by Drives" label to emphasize both technical expertise and a customer-driven approach.

Global Rationalization and Maturity: After recovering from the dot.com collapse, the global frequency converter market began a sharp increase in 2005. To meet growing demand, Vacon opened its first foreign manufacturing facility in Suzhou China, where the firm wanted to emulate the highly successful domestic manufacturing platform. The move was made in-line with the strategy to usher in a transnational management model, which was to synthesize the global ICT platform and business area restructuring initiated a few years earlier as well as introduce uniform development models across international production operations. Vacon also sought economies of scale in upstream activities by contracting global suppliers: "*We have a, we call it transnational management model. The way how we manage the company nowadays. Meaning that*

certain processes are global, but then we give also local empowerment, so that certain processes can be done in a local way. In a nutshell this is the way. What does it mean in practice, it means that we have common ITC tools, we have the same manufacturing, assembly lines. We have the same product development models, we try to utilize the same suppliers as much as possible. So those are common." - CEO, Vacon.

Spurred by growing demand, Vacon strengthened its global presence further by opening sales subsidiaries in the United Arab Emirates (2005) India and Australia (2006) along with representative offices in Thailand (2006) and Brazil (2007).

The global market for frequency converters experienced its third consecutive year of strong growth in 2007, mainly owing to climbing energy prices and the construction boom in Asia and Russia. Due to the increasingly global stature of operations, Vacon began to coordinate operations and build on geographical integration. This meant dividing operations into three major sales regions, namely EMEA, Asia Pacific and North & South America, all of which were provided with organizational autonomy as well as an individual sales director. The marketing function, in turn, was largely centralized, which means that e.g. branding was done in Finland. The intent was to provide regional autonomy in sales, servicing and operational marketing across global customer segments, whilst avoiding functional duplications through centralized strategic marketing as well as common ICT, R&D and manufacturing platforms. From a branding perspective, the firm started to promote its products under the "Cleantech" label in response to growing demands for eco and energy efficiency in industry.

With the new management structure in-place Vacon was able to acquire and integrate the frequency converter business of U.S.-based TB Woods relatively seamlessly into its extant operations over the course of 2007 and 2008 along with two manufacturing facilities in the U.S. and Italy respectively. In 2008 Vacon pursued organic growth by establishing a sales subsidiary in the Czech Republic, South Korea, Mexico, Canada and Denmark as well as representative offices in Slovakia, Romania and the Ukraine. The global economic downturn that commenced in late 2008 had a negative impact also on the global frequency converter market. After 14 years of consecutive growth in annual

revenues, Vacon's total sales decreased by ca. 8% from the previous year in 2009, leaving executives with a challenge in turning the tide. Subsequent maneuvers were aimed at pursuing only prioritized growth investments and procedural enhancements while balancing these with the development in demand.

Foreign Operations Mode Development: Vacon was quick to tackle foreign markets through a variety of modes. Export to European markets began in 1995, followed by a licensing agreement to the U.S., the same year. The first sales subsidiaries were also established in 1995 to Germany and Sweden respectively. Strategic co-operation commenced during the commercial breakthrough with a private label agreement in 1997 (U.S), followed by the first foreign OEM agreement (U.S.) in 1998 and a R&D joint venture in 2004 (U.S.) during global breakthrough. The first foreign production unit was established in China in 2005 also during the global breakthrough, while the first acquisition of a foreign firm (U.S) was completed in 2008 during global rationalization.

Development of the Product Offering: Vacon has released three "generations" or distinct lines of products: the CX in 1995, the NX in 2000 and the M generation in 2009. A new generation incrementally phases out the previous generation, whilst also gradually adding new products to the overall range. It took the NX product family some six years to fully replace and complement the CX family, while the more recent introduction of the M family means that the contemporary offering ranges across two product lines. The amount of products has increased from the ca. 50 introduced to the market in mid '90s to ca. 150 in 2009.

The product families within lines can be divided into product groups, based on customer segments Vacon caters for, i.e. distributors/end-users, system integrators, private label customers and original equipment manufacturers, whose requirements regarding operating voltage and functionality differ. Each product group is based on its own design platform, which has ensured product standardization economies, especially towards latter phases of growth, as the overall product portfolio has grown.

In addition to the main physical elements i.e. the power and control units, frequency converters require a software application - a set of selectable functions that ultimately specify the end-use. In a bid to differentiate from the competition, Vacon uses common industry standards (PC/Windows) in software application programming, as opposed to the proprietary standards used by many of its MNE competitors. Thus, the software can be easily customized depending on end-user requirements. Additionally, a number of data interfaces enable the rather seamless integration of Vacon frequency converters and a given (industrial) automation system. Whilst building on the manufacturing and standardization economies facilitated by common design platforms, Vacon is able to provide mass customization via operational software.

Since the launch of the first generation of products in 1995, Vacon has provided installation, spare parts, and maintenance services. The company has expanded its service networks via sales subsidiaries and partners. In 2000, a strategic emphasis was placed on building an extensive customer service network to help deliver on the promise of 24h customer service internationally.

Fast-paced international expansion has also presented product adaptation challenges for Vacon. Despite an increase in standardization via common product platforms, regional characteristics and application specifics demand product adaptation: "*It seems so that it's very difficult to sell the same product globally speaking. We need to have optimized solutions for different regions, plus then, different applications are asking for different features, and sometimes, in order to be, to have a competitive product offering, the product needs to be optimized for applications as well…*" - CEO, Vacon. Whilst the need to adapt products has increased with foreign expansion, Vacon sees adaptation requirements as a growth limitation, but also an entry barrier to the industry.

Survival Crises: Vacon's first and only survival crisis came in 1995 when a failure to meet domestic sales targets detracted the main financiers, resulting in a dire financial situation. The sum paid by TB Woods when licensing a Vacon component was used to finance an outstanding high-interest commercial loan to keep the company in business. Table 8 summarizes the growth phases and survival crisis of Vacon.

Table 8. The growth phases of Vacon

Phase	1. Introductory	2. Commercial breakthrough and foreign growth	3. Global breakthrough and expansion	4. Global rationalization and maturity
Key strategy	Focus on networking to establish intl./global (NA) foothold via MNE partners channels, foreign distributors and sales subsidiaries.	Leverage MNE partner's channels and strengthen sales subsidiary/distributor networks for further international (EUR) penetration.	Strengthen global distributor and sales subsidiary networks (Asia, ME, AUS, Africa). Leverage MNE partners channels for further NA penetration.	Adopt "Glocal" management structure: -Autonomy for regional sales divisions -common ICT, manufacturing and R&D platforms. -centralized marketing.
Size of the firm (employees/ sales ≈ €)	1995-1996 Employees: 12-51 Sales: 0-8M	1997-1998 Employees: 96-141 Sales: 17-28M	1999-2006 Employees: 220-618 Sales: 44 - 186 M	2007-2009 Employees: 772-1231 Sales: 232-293 M
Global division of sales (approx.)*	DOM: 49% (1996) EUR: 37% (1996) GLOB: 14% (1996)	DOM: 30% (1998) EUR: 56% (1998) GLOB 14% (1998)	DOM: 20% (2001) EUR: 47% (2001) GLOB 33% (2001)	DOM: 21% (2009) EUR:45% (2009) GLOB 34% (2009)
Evolution of foreign operation mode(s)	Sales: -Distributors; EUR, NA -Subsidiaries; EUR Contractual: -Licensing; NA Strategic/co-op: -OEM	Sales: -Distributors; Asia -Subsidiaries; Asia Strategic/ co-op: -Private label (NA)	Sales: -Distributors; ME, AUS -Subsidiaries; ME, AUS Production: -Subsidiaries; Asia(China)	Strategic/co-op: -Acquisition; Production subsidiaries; U.S., Italy
Products	CX series of frequency converters/services	Extended CX series of frequency converters/services	CX and NX - series' of frequency converters/services	NX and M-series' of frequency converters/services
Networks	ABB legacy: -distributor deals -licensing agreement -subsidiary staff	MNEs' channels: -KCI Konecranes -Honeywell -Schindler -Cutler-Hammer	MNEs: -product development Suppliers: -global sourcing	Acquisition - TB Woods Drives: -sales channels -suppliers
Survival crisis in end of phase	Financial. a failure to meet domestic sales targets detracts financiers.	-	-	-

*DOM = domestic sales, EUR = foreign sales within Europe, GLOB = sales outside Europe

Factors Influencing the Growth and Survival of Vacon

Industry Development since Establishment: In a 2009 survey, commissioned by Vacon, the global market for frequency converters totals at 5.7 billion Euros and prior to a 16% decline in 2008, had grown at an approximate annual compound rate of 6-10%

since 2000. Vacon holds a ca. 5% share of the global market. The world's largest manufacturers of frequency converters are MNEs, offering a broad range of other products e.g. ABB and Siemens. A narrow focus helps Vacon emphasize customer orientation via a number of servicing outlets and build competitive advantage on a more consultative form of sales. The industry is highly fragmented and dominated by traditional triad countries. While there are large MNE's present, consolidation has not taken place to a large extent. Vacon sees the size and potential of the current industry as the main sources of its dynamism and does not foresee consolidation in the near future. Also, the industry is not heavily regulated regionally nor country-specifically par a few exceptions like the special permit required when selling to Iran.

Vacon has reason to credit the industry for providing a platform for growth, not least due to megatrends demanding energy efficiency: *"…the drivers behind the market growth, I guess, are the most important (factors of growth)"*- CEO, Vacon.

Development of Most Critical Resources and Capabilities since Establishment: The founding engineers of Vacon were largely part of the same product development team at ABB and had over 100 years of experience of frequency converters in total in one of the most successful units of the MNE. In addition to technical ability; they were familiar with "concurrent engineering" i.e. the joint development and testing of product (line)s, a novel approach in the early 1990s. Veijo Karppinen, the first CEO of Vacon and previous head of the development team at ABB had considerable experience from managerial posts at the MNE. He also consulted former colleagues from his time at Strömberg on the managerial aspects of running a start-up, as they had established a spin-off, Vaasa Engineering some five years earlier.

The importance of technological capability is underlined when identifying the critical growth factors for Vacon. Traditional frequency converters have extensive manual settings for installation. Vacon removed this hindrance by modulating the hardware with software. The (largely unprecedented) combination, allows for mass production and wide-scale customization which proved instrumental in carving a niche from a

market dominated by MNEs with substantial economies of scale. The constantly expanding family of products is further evidence of the R&D capabilities at Vacon.

Sales and marketing capabilities have also played an important role in developing the business. Sensitivity to the market and customer orientation have always been of high importance at Vacon, as evidenced by e.g. the 24h service concept driven by a worldwide network of outlets, a consultative approach to sales and the continued emphasis on feedback in development efforts: "*It's (a key capability) the, if we start from the front line, it's the product know-how close by the customer…*" - CEO, Vacon.

The fact that the company has widely introduced slogans such as "Driven by drives" or "Cleantech" in recent years, underlines a change toward a more brand conscious approach in a bid to compete with the strong brands of MNE competition. According to executive understanding, however, branding capability is still in-demand at the firm.

Networking capability has also been of fundamental importance to Vacon, outlined by how executives were able to rely on contacts when establishing ties with foreign distributors and staffing subsidiaries. Networks also played a major part in contracting major OEM and private label customers. From a sales perspective, networking capability is also required to win contracts in some market segments, such as the marine business where construction is based on networked suppliers. In sourcing, networking is a must in order to work with the best low-cost providers. Vacon's manufacturing operations are heavily based on the use of networked suppliers. Also, had it not been for the acquaintances at TB Woods whom facilitated an early licensing agreement, it is debatable whether Vacon would have survived its first and only survival crisis.

To sustain organizational growth, Vacon has constantly renewed its resource and capability base via recruitment mindful of long-term strategic objectives. Central to the policy is balancing out periods of growth with proactive investments in order to sustain development of the resources in response to the dynamics of the external environment.

When examining the importance of different factors with regards to the growth phases of Vacon, there seems to be certain fluctuation as to the most important resources and capabilities at each stage. The founders were well vested with international experience, managerial and technical resources as well as capabilities. While R&D and innovative production processes were central in the early phases, sales and networking capabilities increased in importance as the firm moved to penetrate foreign markets. The global breakthrough, in turn, was again fueled with R&D capabilities, while executive managerial capabilities were central when rationalizing maturing operations.

Entrepreneurial Orientation and Lateral Rigidity: Vacon's first CEO, Karppinen wanted to instill a culture devoid of authoritarian control, emphasizing employee empowerment in meeting customer demands. The culture was built on a vision and values that encouraged individual autonomy in realizing the mission of international growth. An important aspect of the value setting was to engage in competition by means of product and service differentiation through quality and customer responsiveness. Vacon wanted to foster innovation, through employee empowerment. With a customer orientated approach it was able to maintain sensitivity to the market and pool feedback from different market segments to respond to the dynamics of the external environment.

In the early growth phases of Vacon, risk taking was quite rife as evidenced by heavy investments into growth opportunities such as foreign sales subsidiaries and R&D, as executives wanted to pursue fast-paced internationalization. With organizational maturity the company has also become more risk-averse in a bid to avoid survival crises resulting from fiscal irresponsibility etc. Yet, it still operates on the premise whereby an ability to sustain short-term failures is a must for organizational development. Whilst executives stress that management structures have not always developed on par with external dynamics, Vacon in 2009 relies on noticeably stricter control routines than in the early growth phases, as underlined by e.g. a common global ICT platform and reporting requirements stemming from e.g. the fact that the company was publicly listen in 2000. The firm also has to contend with change resistance stemming from increased control measures and the company's transformation into a more process-driven organization in aligning with the demands of a global operating environment.

Governmental Support: Vacon's view of government support is mixed. The company directs some criticism toward the ambiguity of the roles as to which each individual governmental support institution should fulfill. The firm received R&D support from Finnvera in the early phases, when commercial prospects did not convince private investors. Finnvera's support is seen as a substitute for what the company perceives as a largely non-existent venture capitalist representation in Finland, even more pronounced in the 1990s. Vacon also received financial support from the Ministry of Trade and Finance and Tekes. More recently, Tekes has provided the majority of governmental funding for Vacon, in support of R&D efforts. The funding is perceived important for growth, since private investors are sometimes hard to convince over the potential of the company due to the growing amount of working capital stemming from growth initiatives, especially as investments in R&D can take years to produce revenues.

Vacon has also utilized the help of Finpro and sees the organizations value in conducting feasibility studies for foreign markets. After being an important enabling factor for growth to-date, there are some concerns related to the gradually decreasing amount of Tekes funding, a trend executives are keen to see reversed. The executive consensus at Vacon underlines governmental support as an enabler for growth overall.

4.1.5 Non-survival Case Audibit - B2C/B2B Born International

Turku-based Audibit LTD was founded in 1998 by innovator Markku Tikkala to deal in the emerging market of voice over internet (VoIP) electronics. The company primarily focused on the development and sales of PC VoIP connectable handsets and apparels. During a history of some five years, it was globally active, supplied both the industrial and consumer markets, employed a total of three people and amassed cumulative sales revenues above the one million Euro mark, before going out of business in early 2003.

Audibit knew from the outset that the Finnish market would not suffice in such a niche business and international markets were pursued from the start. The vast majority of the firm's revenues consistently came from foreign markets within Europe, whilst the respective portions of domestic and global sales remained relatively small throughout.

Already in 1999, some 60% of the total revenues were of foreign origin. Most indicative of the trend, however, was the year 2000, when sales hit a record high of ca. 530 000 €, over 90% of revenues came from European customers outside Finland, thus cementing Audibit as a Born International.

The Development of Audibit in Phases

Audibit was unable to fully realize a sustained commercial breakthrough and went out of business following a survival crisis some four years into commercial operations. While first opting to pursue the consumer market, the industrial markets quickly proved more appealing and an extension of the market focus, in the introductory phase, to incorporate industrial customers and especially those demanding customized solutions won short-term commercial success. Despite a promising start to industrial sales, a heavy decrease in demand coupled with challenges in contracting channel partners and maintaining a focused approach to the market, proved detrimental to the company soon after. Figure 9 illustrates the developments of Audibit leading to non-survival.

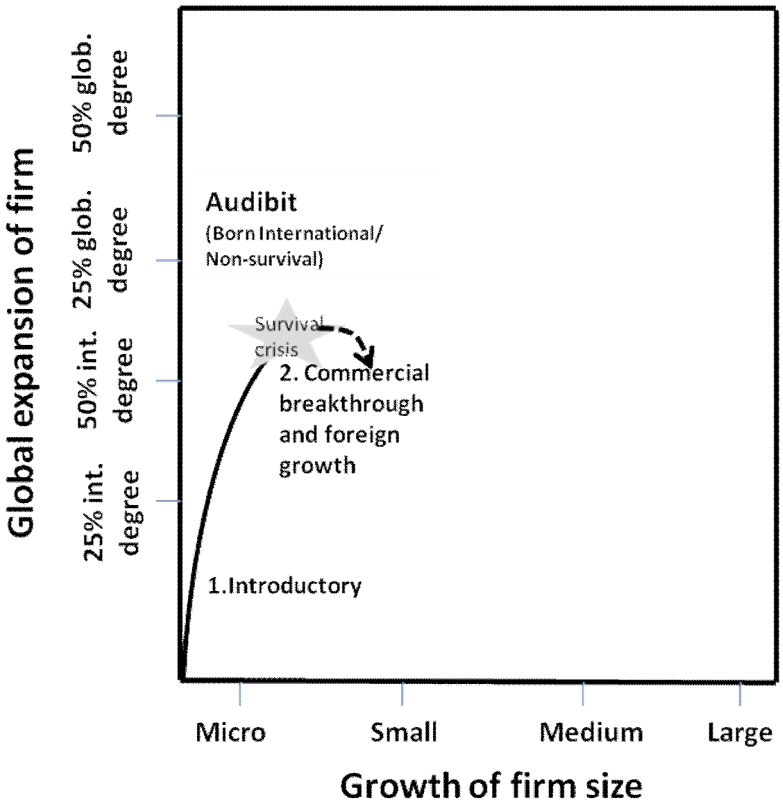

Figure 9. Growth path and survival crisis of Audibit

The Introductory Phase: During his time working for previous employer, handset manufacturer, Miratel Systems, Tikkala had garnered product know-how and decided to test it against the prospects of the up-and-coming VoIP market. Tikkala was joined by long-term friend, product development engineer Jari Virta, half a year later, in early 1999. The initial focus of Audibit was the consumer market, whose untapped potential was rising with the promise of low-cost communication and increasing adoption of broadband connections. After a preliminary design and development phase of some six months, the first products were released in late 1999. In an important development for a resource strained start-up, founder Tikkala was able to secure the production rights to an internationally accredited plastics platform for a handset from former employer Miratel, before founding Audibit. This was crucial, because the average prices for designing and accrediting such molds were high at the time. Soon after, public financier Finnvera was convinced of the potential of the firm and provided seed money to the start-up.

After dedicating the bulk of 1998 to development work, Tikkala received a patent for a handset component in 1999. Although Audibit had been tentatively testing the market by opening contacts with foreign as well as domestic wholesalers and telecom operators, the patent proved central in securing another public financier; Sitra. The financial injection from Sitra The start-up was based in a small product development facility within the Turku area and began building on the core competencies of product design and development in addition to sales and marketing, whilst utilizing local sub-contractors in manufacturing. Sub-contractors included local SME manufacturers and governmentally subsidized work activity centers for product assembly.

The total sales in 1999 only amounted to ca. 25 000 €, the bulk of which came from test samples. The foreign sales surpassed the domestic ones already in the first year of commercial operations, whilst global sales were not yet achieved. With the Sitra investment, balancing out the slow start, Audibit was able to recruit Account Manager Mika Alamäki, from his post of VoIP Product Manager at Telecom operator Sonera, to administer international sales and marketing.

Demand in the consumer market had not developed in the way the founders had hoped, despite efforts to the contrary. The start-up e.g. contracted Finnish wholesaler Toptronics as a re-seller. The deal, signed late in 1999, saw Toptronics forward a bundled internet telephony package to domestic retailers. A similar agreement was pursued with Danish wholesaler Kiss, but negotiations never lead to a deal. While the consumer market was potentially lucrative, end-users shunned the high price and installation efforts that were associated with early VoIP solutions.

Audibit also opened up its own sales channel via an online store in 2000. Based on tentative interest stemming from trade fair showings as well as the firms internet site, the market focus was extended to include industrial markets where businesses were targeted via systems integrators, such as telecom operators and application service providers. The company was also receiving an increasing amount of enquiries for customized solutions, mainly from different service industries where cost-efficient VoIP telecom was viewed as a shrewd investment. As a result, Audibit began to pursue three distinct customer segments, (1) private individuals (via the Audibit online store and re-sellers), (2) corporations, whom use IP telephony through their own intranet platform (via ASP or a telecom operator, if needed) and (3) businesses demanding specialized applications i.e. internet kiosks and cafés etc.

Commercial Breakthrough and Foreign Growth: In early 2000, industrial segments were not developing as expected due to difficulties in opening up sales channels. When engaging in partnership negotiations with domestic telecom operators, the firm found it difficult to find a collaborative platform for business, due to the fact that VoIP telephony presented a threat to traditional telephony and many domestic telecom operators did not want to risk cannibalizing their main business. As a result, Audibit was practically devoid of potential Finnish telecom partners. Thus, the firm intensified efforts to contract foreign telecom operators willing to explore the possibilities of VoIP. The idea was to market to firms that develop software clients and provide solutions for IP telephony, but do not manufacture hansets. In this channel, Audibit could compete with low-cost suppliers due to the high-end international standard approvals accredited to its handset casings via the Miratel plastics platform, retrieved by the founder.

The move paid dividends shortly after as, German IP telephony operator Swyx signed an agreement with Audibit. The deal saw Audibit supply the former with handsets on-demand and was to evolve into a full OEM agreement the following year. It was signed midway through 2000 and was soon followed by others, as French-based Alcatel was signed to a comparable agreement. The telecom giant found Audibit handsets ideal for a standardized IP telephony solution for corporations. Alcatel proved an important re-seller, since it also negotiated FCC approvals for the three handsets in Audibit's portfolio at the time, subsequently opening up the U.S. market. Another emerging VoIP empowered service in 2000, involved facilitating PC-based calls to regular landlines. Here, U.S.-based Delta Three established contacts with Audibit with a view on using its handsets in a PC-to-landline service. Since the consumer market was not developing as expected, Audibit decided to build on the recently received FCC approvals by intensifying e-commerce efforts and contracting a U.S.-based sales agent.

Despite widespread foreign representation, volumes remained small, until midway through 2000 when UK-based easyEverything contacted Audibit through supplier Delta Three in search of high-quality handsets for its international chain of cafés. The resulting deal, some 270 000 € in value, considerably boosted sales revenues for 2000 and 2001. Towards the end of 2000, Audibit's reference list had grown to include household names, such as, Nokia, Cisco Systems and the Merlin Group. However, the vast majority of all Audibit's deals were still rather small in quantity, usually including only downwards from a hundred handsets each Meanwhile, global interest for Audibit products was increasing as samples were sent to the likes of Vietnamese, Canadian, Korean, Nigerian and Russian customers. In Europe similar ties were established with Italian, Swiss and Swedish customers, adding to the aforementioned country markets of France, Germany and the UK. Many of the contacts were established at the CEBIT fair.

Consumer sales via the internet were not picking up as expected. To generate demand, Audibit dedicated more resources towards e-commerce by investing in an online marketing campaign and co-marketing with internet service provider SurfEU, a contact also provided by supplier Delta Three. However, Audibit's revenues began to decline in

2001, a year which also saw the January release of Audibit's second line of products the, U-series. The novelty of the new series was that its two models were the first in the market, connectable via the USB port. The release of the USB series of phones was met with tentative interest from Audibits existing and potential customers and resulted in an OEM agreement between Audibit and Swyx. The deal was to secure larger volumes and a more fixed rate of supply of handsets to Germany, but proceedings quickly hit an obstacle as Swyx discovered a persistent defect in a U-series handset. This drove Audibit into lengthy re-design efforts and postponed any potential windfall.

After the setback Audibit continued to pursue growth via other avenues. The firm had also attracted a competitor in the form of ITEM. The French handset provider was building a competitive advantage on production economies provided by the use of Chinese manufacturers, but lacked the technical expertise to produce USB phones. The two companies were both searching for customers, which eventually resulted in a partnership. Audibit was now able to add a fourth product to the S-series, the S40, which was a low-prized consumer handset sourced directly from ITEM, whom was given the production and distribution rights of an Audibit USB handset.

During 2001, Audibit added the likes of Singapore, the Netherlands, Ireland and Japan to its portfolio of markets but revenues were not growing. The potential usage of VoIP technologies had collected some momentum in various service sectors and Audibit was still approached by organizations that were searching for an application that required specific modifications to the handsets. Yet, the sporadic nature of these contracts did little to unease the long-term concerns. Revenues for 2001 fell some 41% from the year before. In the wake of increasing uncertainty, Audibit representatives attended several trade fairs, in hopes of sales leads and brand awareness and enrolled in the Finpro SPRING program in early 2002 as well as signed an agreement with local systems developer Firstcom, detailing a joint R&D project,

In 2002, monthly revenues were dropping incrementally from the year before, which forced the company to deliver software development and electronics design services on-demand to substitute for unutilized production capacity and keep the business going.

While Audibit was able to add the likes of Belgium, India, Luxemburg, Portugal and Australia to its portfolio, it was unable to penetrate any country markets beyond one or two customers per country. Furthermore, large accounts in the frame of Alcatel and Swyx were not able to push the product down the channel which resulted in a lack of follow-ups to the first high-volume orders, while online sales remained next to non-existent. Midway through 2002 the sustainability of the company could be heavily questioned and Account Manager Alamäki was forced to continue on a part-time basis before leaving the company in December. After a disappointing end to 2002, that saw revenues drop another 18% from the year before, Audibit filed for bankruptcy in early 2003. The high-priced handsets were found of insufficient utility by the public and were replaced by low-cost head-sets, microphones and receivers built-in to the PC.

Foreign Operations Mode Development: Audibit's foreign sales were largely the result of own export activities, starting already in 1999, with Sweden being the first export market. Additionally, the company engaged in two types of strategic cooperation agreements by signing a licensing contract with French-based ITEM in 2001 and several OEM-type of agreements also starting in 2001 with Germany-based Swyx.

Development of the Product Offering: The first generation of products, the S-series was released in 1999. It consisted of three handsets, the S100, S140 and S340. The company additionally released its own software client for making VoIP calls on the PC, holders for the handsets as well as branded peripherals used to connect the hardware to the PC. The S-series was largely responsible for all revenues, despite the release of the USB connectable U-series in 2001 with a range of two handsets, the U160 and I500.

In addition to the largely standardized models of the two series' Audibit made considerable customer-specific modifications to cater for the special applications segment. The business model, based on sub-contracting and on-demand production, enabled the company to be highly responsive to specific customer demands: *"…I would say that we never said no to any customer who asked maybe to some modification or something like this..."* - Former AM, Audibit. The firm was also able to build on standardized design and technology platforms and make adaptations cost efficiently.

A result of customer-specific adaptation was the S190 model, which was manufactured, specifically to cater for the needs of the firm's largest account and subsequently added to the S-series. Also, through an OEM agreement signed with French-based ITEM in 2001, Audibit was able to contract a low-cost consumer segment handset, dubbed the S40. In addition to customer specific adaptation, Audibit incurred some country-specific adaptation requirements, common to dealing in the international markets of consumer electronics. The EU regulates the use of some materials in consumer electronics, while some membership countries choose to enforce even stricter criteria for suppliers. Yet, once the new modifications were implemented into the standard product platform, Audibit was able use largely the same design in all foreign markets as long as it adhered to the strictest country-specific criteria i.e. the German one.

Survival Crises: While the lack of a sufficient demand for VoIP handsets is perhaps the largest influence behind Audibit's banktrupcy, the company is also left to speculate as to whether it pursued an overly ambitious and unfocused range of segments from the start, highlighted by how consumers quickly shunned the handsets. While the industrial market was a different story, Audibit allocated a great deal of time and resources to contracting established telecom operators in the hopes of utilizing their channel prowess in selling to business customers. Yet, established telecom operators opted out of the opportunity to become systems integrators in the fear of cannibalizing their business.

A more focused product scope from the start, concentrated on finding the right channel partners i.e. systems integrators from the likes of experimental telecom operators as well as software developers, might have provided a more stable platform for business. After all, barring the lucrative easyEverything contract, the most sustainable customer relationships were established with the likes of Alcatel and Swyx, both of whom fit the mentioned profile: *"I think there are (were) a lot of companies who are making software clients to the system. And I think, and it should be so that we increase with those companies to make handset to that kind of firm."* – Former PMD, Audibit. The lack of focus was further accentuated towards the end as the firm was forced to take on customer projects outside its area of focus in order to stay afloat. Table 9 summarizes.

Table 9. The growth phases of Audibit

Phase	1. Introductory	2. Commercial breakthrough and foreign growth	3. Global breakthrough and expansion	4. Global rationalization and maturity
Key strategy	Secure re-sellers internationally from wholesalers, telecom operators, and electronics manufacturers to cater for B2C and B2B markets.	Focus on B2B market via on-demand special applications and through OEM customers and system integrators. Establish own sales channel via online store	INACTIVE	INACTIVE
Size of the firm (employees/ sales ≈ €)	1999 Employees: 2 Sales: 25K	2000-2003 Employees: 3-2 Sales: 530K – 5300	INACTIVE	INACTIVE
Global division of sales (approx.)*	DOM: 40%(1999) INT: 60% (1999)	DOM: 10% (2000) INT 85% (2000) GLOB: 5% (2000)	INACTIVE	INACTIVE
Evolution of foreign operation mode(s)	Own Export	Contractual: -Licensing -OEM -R&D	INACTIVE	INACTIVE
Products	S-series of VoIP handsets	S and U-series' of VoIP handsets	INACTIVE	INACTIVE
Networks	Suppliers' -subcontracting network	Channel partners' -new customers (e.g. easyEverything) -marketing synergies	INACTIVE	INACTIVE
Survival crisis in end of phase	-	A lack of demand and an unfocused product scope lead to non-survival	INACTIVE	INACTIVE

*DOM = domestic sales, EUR = foreign sales within Europe, GLOB = sales outside Europe

Factors Influencing the Growth and Survival of Audibit

Industry Development since Establishment: Internal estimates outline, the industry remained rather stagnant throughout the operative history of Audibit. Looking at the developments of the firm it can be speculated as to whether the industry actually diminished from its peak in 2000 and not vice versa. According to internal insights, the dot.com collapse also impacted negatively on VoIP telephony.

During the time Audibit was active, the international market was populated by a few companies sharing roughly the same profile. However, the speculative potential of the market deterred entrants and many of Audibit's competitors shared the same fate.

Audibit representatives observe that the contemporary diminutive international market for VoIP handsets is contested between a handful of MNEs, like Siemens and Phillips who sell some thousands of pieces yearly, which underlines a lack of general demand.

While country regulations on the use of components differed, customer needs were similar across the globe. Traditional telephony is an appropriate analogy where Asian users want the same functionality from a telephone handset as do European ones etc. Apart from country specific regulations on the use of materials in consumer electronics, the industry is largely devoid of trade barriers in Europe, because of the de-regulation of trade between EU member states. Thus, the only country market in Europe, where Audibit had to concern themselves with divergent customs regulations was that of Switzerland, albeit this had little if any commercial impact. The U.S. market was a slightly different story, as sales of consumer products are conditional to the approval of the FCC, which Audibit was able to obtain via business partner Alcatel..

To argue that a market did not exist for Audibit's produce is an overstatement as the company was able to collect over 1M € in total sales, the bulk of which were accumulated at the early stages of the tentative commercial breakthrough. However, outlining how much of the early demand was fueled by the hype surrounding all IT produce at the time, is a different story entirely. In summary, the industry provided a platform for the business, but not a sustainable one:*" That was exactly the problem, the markets didn't grow so the market didn't exist practically. Ok, naturally there was some market, because we were able to sell something…"* - Former AM, Audibit.

Development of Most Critical Resources and Capabilities since Establishment: Both Tikkala and Virta, the founding engineers of Audibit, had enjoyed long-standing careers, mainly in managerial product development roles in international high-tech companies. Tikkala left an ISDN phone manufacturer, to establish Audibit, while Virta signed on from a company designing navigation and GPS systems for the shipping industry. The pair originally met in the Tampere University of technology where Tikkala supervised Virta's thesis. When establishing Audibit the two engineers had a combined total of some 30 years of experience working in internationally active

companies. Tikkala also had some ten years experience as entrepreneur, being one of the owners and founders of his previous employer. Based on a technical background Audibit's business model was built on the design and sale of high-tech products.

Obtaining a key resource in the form of a handset technology patent provided Audibit the governmental funds to invest in competences found lacking, namely sales & marketing, which were added in the form of Account Manager, Alamäki whom joined from his post as VoiP product manager from a large domestic telecom operator. A telecommunications engineer by education, Alamäki had collected some ten years of experience in export marketing working for his previous employers. An example of the marketing capability vested in Audibit thereafter, was the successful employment of e-commerce to substitute the lack of mass marketing resources.

Early on Audibit also exhibited branding capability by building a corporate brand. The firm e.g. hoped to attract editorial publicity via sending handsets to trade journals. The results were positive, since e.g. the S140 received an Editor's Choice Award in the Internet Telephony Journal. After opting to focus more on industrial segments, the company however, opted for a less resource consuming OEM supplier approach to branding: *"Well, we at least tried to create a brand and um, here is a slogan: "Audibit, Quality and Ease of Use to PC Telephony". So, we tried to brand Audibit to be a quality, brand not a cheap but a quality high-priced brand... It was Audibit brand, which was the important one…no product brands. Actually we sold products also under other brands; OEM-based, like Swyx, for example…*" -Former AM, Audibit.

Audibit also demonstrated market sensing. Despite having to deal with a situation where there was limited information available of a newly-emergent market, managers tried to pool information from the internet and newspapers, while trade fairs, were treated as networking forums and opportunities to gather information in addition to just sales venues. Yet, the firm had difficulties in inserting the information into the customer interaction processes, owing to the perceived remoteness of the customer(s).

The small size of the venture demanded procedural flexibility from Audibit's employees. In what can be considered a testament to the dynamic capabilities, the employees had to build on their previous experience to accept a wider range of organizational responsibilities than they were previously accustomed to. In negotiating resource scarcities, Audibit also exhibited networking capability. The business model of the firm was wholly based on utilizing local networked suppliers, whom Audibit managers had come acquainted with due to previous business engagements and as Turku natives. In other downstream activities, networking capability is evident how Audibit was able to leverage the networks of e.g. customer Delta Three to secure the highly influential easyEverything contract. Marketing and product development synergies were also obtained owing to networking capability.

When discussing the resource and capability base of Audibit in broader terms, internal opinions suggest that while the company could have benefitted from additions, the results would have been similar nonetheless. Perhaps it is not the quantity, but the quality of the resources and capabilities that Audibit was devoid of that merits attention. According to insider views Audibit could have made use of the insight of a business manager and management capabilities to complement technological and marketing capabilities: *"…maybe there was, we should have needed some manager to our company. So Markku was also more develop person, I am develop person and so on. There would have some money person also."* - Former PM, Audibit. This is underlined by the company's difficulties in finding a coherent approach to the market.

While innovative technological capabilities were instrumental in establishing the foundation of the Audibit, they were later complemented by sales, marketing and dynamic capabilities, which facilitated the commercial breakthrough. One can speculate on the effects added managerial capabilities would have had in installing a more focused and business oriented approach. The question remains, whether more resources would have been able to change the outcome or merely prolong the inevitable.

Entrepreneurial Orientation and Lateral Rigidity: The organizational culture at Audibit can be described as highly entrepreneurial, devoid of hierarchy and bureaucracy

as well as supportive of individual autonomy, which stems largely from the fact that the company only employed three people at most. Audibit can hardly be faulted for shunning risks. Much like many other companies founded on the commercial promise of the internet, it was established to contest a market whose perceived potential was more the result of cautious optimism than statistics etc. Innovativeness was something all Audibit's employees had in common and new ideas were perceived a necessity for keeping the company in business, which is why they were pursued eagerly. Maintaining a healthy list of orders meant that the firm had to constantly re-design its products and processes to provide for the diversity in demand.

Devoid of information relating to the global stature or the development potential of the industry, Audibit chose to pursue a variety of customer segments in the hopes of promptly finding the most lucrative one. Such an approach meant that in order to grow or, at the very least, survive the organization had to exert flexibility and quickly adapt to external dynamics e.g. the variation between requirements in different segments, which was answered by elasticity in product design. Because the market was practically devoid of competition, the firm could dedicate resources into locating further business opportunities, instead of aggressive competition. Thus, Audibit was proactive in pursuing growth opportunities via strategic partnerships etc.

Audibit's organizational culture remained largely unchanged throughout its operative history and while a willingness to take risks can be credited for establishing the company as well as some successful growth initiatives, it also provided the platform for an unfocused approach to the market. The high level of entrepreneurial orientation can be considered both a necessity for testing the potency of the market, and a handicap in its tendency to stretch the limited resource base at Audibit's disposal across too many customer segments. In retrospect it seems that, neither Audibit nor its industrial customers knew the most opportune use for VoIP handsets, which made selling the application a daunting task, with obvious implications for firm survival.

Governmental Support: In the advent of the introductory phase, Audibit was given start-up money by public financier Finnvera, whom saw promise in the company's

provisional range of products. The same organization also aided Audibit in the investment that went into sourcing for the high volume deal signed with easyEverything. Finnvera later provided funds also for the development of the U-series of handsets and the financing was predominantly conditional to a tangible end-product. The commercial breakthrough of Audibit was partly facilitated by Sitra, whose outlay enabled the company to hire Account Manager Alamäki and invest in international marketing and sales efforts in addition to product development. Audibit also benefited from the governmentally subsidized services of Finpro whose SPRING consultancy program, the management attended, albeit to little commercial effect. The consensus among Audibit representatives stipulates that the government support received was largely sufficient, while the firm could have made use of additional operational support in international sales, networking and locating potential customers.

4.2 Cross-case Analysis

In accordance with pattern matching (3.1.2), the following analyzes the differences and similarities across the five cases described in the previous chapter. The growth and survival factors, outlined in section 2 provide the reference points between cases in the analysis. In the analysis, cases Avant Tecno and Vacon are occasionally referred to as "high-performance" firms for adhering to the latter phases of growth at the time of writing. It is also important to note that, when discussing the findings in light of earlier studies, product manufacturing international new ventures are treated synonymously with international new ventures. Figure 10 exemplifies the growth patterns of the case firms.

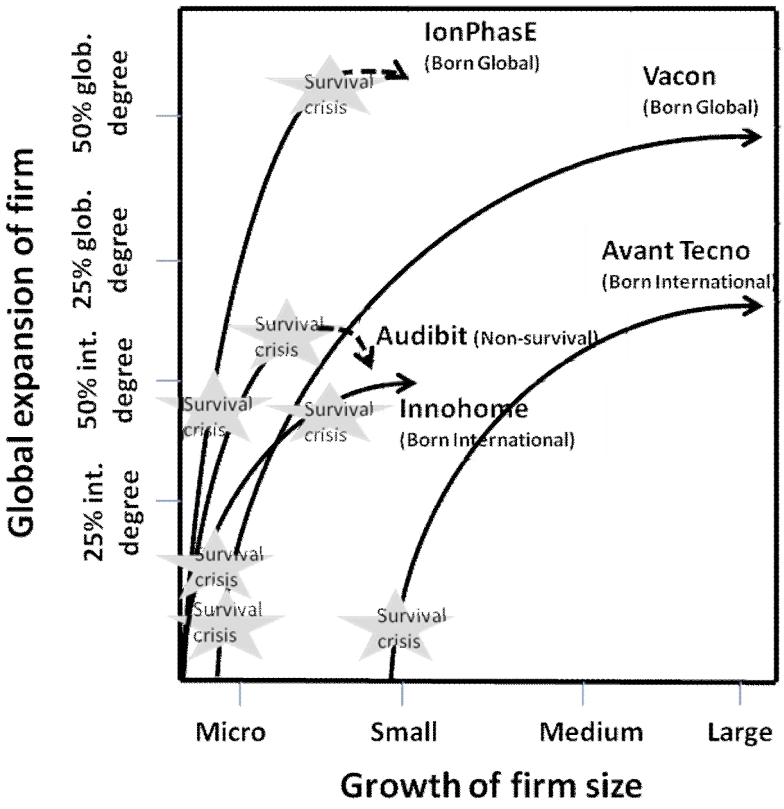

Figure 10. Growth paths and survival crises of case firms

Industry Growth Rate

Since the studied active case firms operate in global niche segments, their performance has a considerable impact on how the industry develops i.e. the small groups of firms that specialize in these industries are jointly responsible for creating product awareness. The MNEs that choose to partake in such a niche market often rely on a more arms-length approach, economies of scale and a strong manufacturer brand. Of the case companies those yet to secure a sustained commercial breakthrough; Innohome and IonPhasE, welcome additional competition to the market to promote product awareness and subsequently industry growth. The large PMINVs of the study; Avant Tecno and Vacon, in turn, attest to operating in industries, where despite competitive pressure, there is still potential for considerable industry growth.

The active case firms were based in dynamic industries characterized by estimated annual growth rates between 5% and 25% and the high-performance firms benefited

from relatively higher industry growth rates until the global economic downturn, commencing in late 2008, and a decline in overall demand prompted rationalization efforts. Empirical evidence suggests that industry growth impacts PMINV growth positively, as implied by e.g. Oviatt and McDougall (1994). Furthermore, a lack of demand ultimately played a major part in Audibit going out of business. Thus, the present study concurs with Mudambi and Zahra (2007), in that growing industries seem to provide a more sustainable platform for PMINV survival. Table 10 summarizes.

Table 10. Industry growth in case firm growth phases

Company (Customer Markets)	1. Introductory	2. Commercial breakthrough and foreign growth	3. Global breakthrough and expansion	4. Global rationalization and maturity
Innohome (B2C)	intermediate	intermediate	N/A	N/A
Avant Tecno (B2C/B2B)	intermediate	high	high	negative/low
IonPhasE (B2B)	intermediate	high	N/A	N/A
Vacon (B2B)	high	high	intermediate	negative/low
Audibit (B2C/B2B)	intermediate	negative/low	INACTIVE	INACTIVE
	INDUSTRY GROWTH RATE			

Scale: negative/low → intermediate → high | Based on primarily qualitative analysis.

Industry Penetration by Foreign Firms and Global Seller Concentration

The fact that none of the active case firms attests to operating in fiercely contested industries, is evidence that industries with low penetration rates for foreign firms and low global seller concentration make for sustainable survival platforms, as advocated by Mudambi and Zahra (2007). An overview of the exploits of the two high-performance firms suggests this relationship transcends into the domain of PMINV growth. Avant Tecno and Vacon both operate in fragmented industries where large-scale consolidation of suppliers has not taken place.

Avant Tecno pioneered the market for multipurpose wheeled loaders and while it has since attracted one internationally active direct competitor, competition overall is highly regional and segment-specific. The global industry of frequency converter's, where

Vacon operates, has similar characteristics. The market leader only holds an estimated 17% of the market, while Vacon the seventh largest supplier, holds ca. 5%. The exploits of these firms suggest that low industry penetration rates for foreign firms and low seller concentration influence PMINV growth positively. Table 11 provides a summary.

Table 11. Industry dynamics in case firm growth phases

Company (Customer Markets)	1. Introductory	2. Commercial breakthrough and foreign growth	3. Global breakthrough and expansion	4. Global rationalization and maturity
Innohome (B2C)	low	low	N/A	N/A
Avant Tecno (B2C/B2B)	low	low	intermediate	intermediate
IonPhasE (B2B)	low	intermediate	N/A	N/A
Vacon (B2B)	low	low	low	intermediate
Audibit (B2C/B2B)	low	intermediate	INACTIVE	INACTIVE
	INDUSTRY PENETRATION BY FOREIGN FIRMS AND SELLER CONCENTRATION			

Scale: low → intermediate → high | Based on primarily qualitative analysis.

Industry Globalization Drivers

All of the active case firms operate in industries largely devoid of trade regulations and vested in globalization drivers (e.g Yip, 1989) such as common market conventions and technical standards. High performance case firms Vacon and Avant Tecno also cite the enabling effect of global megatrends, such as increased demand for energy efficiency and the mechanization of developing economies. The impact of globalization drivers seems more profound for consumer market PMINVs overall.

Avant Tecno, Audibit and Innohome had to react to the varying nature of standards on consumer market(s). For them, differences in technical, environmental and/or regulatory standards between countries or trade areas prompted needs to adapt the products or opt out of a given market due to protectionism etc. Avant Tecno and Audibit were mostly able to incorporate the required changes to product components or functionality and sell a similar, if not the same product across markets. Innohome, in turn, had to release a product line extension to overcome the differences between the electrical standards of

Finland and Sweden, a resource consuming task which jeopardized firm survival. Empirical evidence suggests that the existence of industry globalization drivers influences PMINV growth positively, as advocated by Oviatt and McDougall, (1994). They also seem to influence survival positively. Table 12 summarizes.

Table 12. Industry globalization drivers in case firm growth phases

Company (Customer Markets)	1. Introductory	2. Commercial breakthrough and foreign growth	3. Global breakthrough and expansion	4. Global rationalization and maturity
Innohome (B2C)	intermediate	low	N/A	N/A
Avant Tecno (B2C/B2B)	high	high	intermediate	intermediate
IonPhasE (B2B)	high	high	N/A	N/A
Vacon (B2B)	high	high	high	high
Audibit (B2C/B2B)	intermediate	intermediate	INACTIVE	INACTIVE
	LEVEL OF INDUSTRY GLOBALIZATION DRIVERS			

Scale: low → intermediate → high | Based on primarily qualitative analysis.

Product Scope

Case firm analysis suggests that product scope management has a substantial impact on PMINV growth and survival. Empirical evidence supports the findings of Boter and Holmquist (1996), whereby a *narrow product offering* is an enabler of high international business performance for innovative SME manufacturers. In fact, the ability to allocate available resources across an opportune amount of product lines at a given time is perhaps the main determinant of performance between the studied firms.

The developments of Innohome, IonPhasE and Audibit suggest that an overly ambitious or unfocused product scope can severely hamper a firm's progress along the stages of growth and/or have a detrimental effect on survival. One of the biggest reasons behind IonPhasE's prolonged introductory phase was the insistence to divide R&D and sales efforts across two product lines: ready-made plastics film and granulate. After discontinuing film production, the firm no longer required the services of contract

manufacturers and was able to focus R&D efforts towards extending the granulate product line in a move that paved the way for a commercial breakthrough.

Case Innohome, in turn, demonstrates how the domestic product range may not be international by default. The initial plan for Innohome's expansion to Sweden included all three of the company's product lines: guards for stoves, washing machines and small electric appliances. Because of differing technical standards, however, only two products from the stove guard line were ultimately chosen, albeit after considerable re-design efforts and a resulting loss of good-will from distributors. Eventually, these developments lead to a survival crisis. Audibit also had product scope related difficulties that factored in the non-survival of the firm. After continuously failing to tap into the consumer market, the firm eventually found its niche from industrial applications made-to-order. When faced with a decrease in demand and a survival crisis, however, Audibit also began to deliver software development and electronics design services on-demand. This did little to alleviate the crisis and bankruptcy soon followed.

An assessment of the developments conditional to product range experienced by the two high-performance firms of the study provides a contrast. Avant Tecno started out with three product lines, drill rig foundation units, tractor supplies and wheeled loaders, yet, the first two were maintained only to fund the R&D and sales efforts of the loaders. The firm's commercial breakthrough coincided with focus being narrowed down to the loader product line, while the global breakthrough benefited from extending the product scope with the "mini-loader", product line designed primarily for consumers.

Vacon, on the other hand, has maintained a focus on frequency converters throughout all stages. Instead of branching out to wholly new products, the firm has gradually increased the number of products within the product range via each new line of products that incrementally phase out the preceding line, through performance and usability improvements. Thus, since the global breakthrough there have only been two lines in the range. Currently in its third generation, the number of products within the overall portfolio has tripled and it covers a variety of segments. Also, the release of a new line, has usually been followed by a transition to the next phase of growth.

In conceptual terms, the rationale behind the above-mentioned pattern seems straightforward. During early stages of growth, a PMINV can ill afford deploying scarce resources across too many product lines and types, and by doing so risks growth and in severe cases survival. As more resource became available later, the PMINV may need to offset competitive pressures by extending the product scope, which is in-line with what Douglas and Craig (1989) assert on part of conventional firms. Table 13 shows empirical evidence of the pattern via product scope developments in case firms.

Table 13. International product scope development in case firm growth phases

Company (Customer Markets)	1. Introductory	2. Commercial breakthrough and foreign growth	3. Global breakthrough and expansion	4. Global rationalization and maturity
Innohome (B2C)	|||	|	N/A	N/A
Avant Tecno (B2C/B2B)	|||	|	||	||
IonPhasE (B2B)	||	|	N/A	N/A
Vacon (B2B)	|	|	||	||
Audibit (B2C/B2B)	|	||	INACTIVE	INACTIVE
	NUMBER OF PRODUCT LINES IN INTERNATIONAL PORTFOLIO			

Product Adaptation

The rate of product adaptation in relation to growth differed greatly between the industrial and consumer market case firms. With regard to B2C case firms, the entry of Audibit, Avant Tecno and Innohome to new foreign markets or trade areas was often conditional to product adaptations due to country market differences in regulation, technical standards or consumer preferences. Audibit had to alter product components, according to country-based regulations on consumer products. Avant Tecno needed to make adjustments to the products, because of the high ambient temperatures of certain working environments, whereas Innohome's adaptation challenges stemmed from the varying technical standards between Finland and Sweden

The case firms catering B2B markets, in turn, were mostly devoid of adaptation requirements when it came to negotiating country-market differences. Yet, if the requisite of product adaptation is based on the differences between customer's applications, the requirements of the studied B2B PMINVs and B2C PMINVs start to resemble each other, as shown by table 14. For Vacon the majority of new accounts are conditional to adjustments made to operational software, if not the frequency converter itself, whereas for IonPhasE each new account is subject to a concept proofing period where the granulate solution is adjusted to the client-specific application.

Table 14. Product adaptation in case firm growth phases.

Company (Customer Markets)	1. Introductory	2. Commercial breakthrough and foreign growth	3. Global breakthrough and expansion	4. Global rationalization and maturity
Innohome (B2C)	few	several	N/A	N/A
Avant Tecno (B2C/B2B)	few	several	many	several
IonPhasE (B2B)	few	few	N/A	N/A
Vacon (B2B)	few	few	several	few
Audibit (B2C/B2B)	few	several	INACTIVE	INACTIVE
	COUNTRY MARKET-BASED PRODUCT ADAPTATIONS			
Innohome (B2C)	few	few	N/A	N/A
Avant Tecno (B2C/B2B)	few	few	several	few
IonPhasE (B2B)	many	several	N/A	N/A
Vacon (B2B)	few	several	many	many
Audibit (B2C/B2B)	several	many	INACTIVE	INACTIVE
	CUSTOMER APPLICATION-BASED PRODUCT ADAPTATIONS			

Scale: few → several → many | Based on primarily qualitative analysis.

Also, in their more advanced stages of growth, both high performance firms: Avant Tecno and Vacon have been able to draw production economies from standardized products as well as development and design platforms that cut across product types. Based on these examples, PMINV growth is conditional to increased product adaptation requirements on both consumer and industrial markets, albeit on the latter they stem

from (customer) application not country-specific differences. Product adaptation also seems to impact survival, but in a reverse manner. Consider how the failure to bring concept proofing periods to timely conclusions led to a survival crisis at IonPhasE or how the resource consuming adaptations Innohome undertook, to expand to Sweden, had the same outcome. Thus, while the commercial and global breakthroughs of INVs seem to benefit from product adaptations, excess resource commitments can also impact survival prospects negatively. Pressures in the global rationalization phase, in turn, seem increase the need to standardize products.

Resource Amount and Governmental Support

Upon their introduction to the market, none of the studied firms was able to build on an abundance of resources relative to the established firms within their respective industries. Avant Tecno purchased the remains of industrial manufacturer Ylötehtaat, including a sizeable production facility, and contracted its key blue and white collar employees albeit with the help of a high-interest commercial loan. It remains the largest of the case companies at the outset of operations with some 40 employees and 3,3M € of sales after the first year of operations. Other case firms relied on founding groups between 2 to 13 employees, more modest fundamentals and initial year-end sales.

The case firm founder groups consisted of experienced product specialists and/or business managers, whose skill set is perhaps best distinguished through "innovativeness". A trait that was shared by all PMINVs of the study, innovativeness transcended to managerial processes as well as technical aspects within the companies. For example, Innohome, draws from a business model where all functions peripheral to core competences are outsourced, providing the firm an alternative to ownership-based control of resources and associated risks.

All active case firms manufacture high-tech products based on *patented technologies*, while inactive case firm Audibit also supplied a high-tech market. The importance of patents in offsetting the resource-based advantages of more established competitors was of pronounced importance, especially in the early phases. Patents often became the

tangible output of technological innovativeness vested in the companies. Patents attracted private and/or public financiers and lead the firms to pursue growth initiatives through improved financial resources. Consider, how Audibit reached a commercial breakthrough with the help of the public investment conditional to a technology patent. Also, after high-performance case firms Avant Tecno and Vacon had negotiated a commercial breakthrough, their increased stature and credibility coupled with growing demand helped attract further resources to the company and meant that growth initiatives were less dependent on outside financing. The resource base of these companies grew as they progressed through the growth phases.

Governmental support provides a boost to a firm's resource base and all case firms benefited from some type of government support. The vast majority of public financing, outside of start-up grants, took the form of product development subsidies, conditional to a patent or a tangible end-product. In some cases, the expenses from participating in trade fairs and seminars were also subsidized. In addition to financial support, the case firms also made use of governmentally subsidized consultancy services.

Increase in the amount of resources seems to draw a parallel with PMINV growth through phases. In the early phases, PMINVs may need to rely on intangible resources to make up for resource poverty relative to more established firms, but as they grow in stature and become less dependent on loan financing, resources need to be supplemented through growth initiatives, which upon opportune implementation produce a snowball effect in enforcing the resource base. It is also safe to say that a lack of resources, financial in particular, ultimately spells the end of a company. In as much as government support takes the form of a boost to a firm's resource base, it influences PMINV growth and survival positively.

Although difficult to tie to a precise timeline collectively, table 15 shows some generic trends in resource development conditional to the growth of the case firms.

Table 15. Development of resources in case firm growth phases

Resource Category	1. Introductory	2. Commercial breakthrough and foreign growth	3. Global breakthrough and expansion	4. Global rationalization and maturity
Financial	-Sweat capital -Governmental support (financial) -Commercial loans	-Private financing -Governmental support (operational)	-Based on Initial public offering	N/A
Intangible	- Innovativeness -Founder contacts	-International networks	-Global networks	-Brand equity
Physical	-Patents -R&D facility -Foreign sales subsidiaries	-Mass production facilities	-Foreign production facilities -Common ICT platform	-Acquisitions (Brownfield FDI)
Human	-R&D -Sales -Managerial	-Marketing -Administrative	-Executive -Branding	-Top executive
	TRENDS IN RESOURCE DEVELOPMENT			

Managerial Experience

With the exception of IonPhasE, the founder groups of the case firms consisted of individuals whom had garnered long-term managerial experience from prior commitments. Thus, stock managerial experience (Reuber and Fischer, 1999) was relatively high in these firms already during their introduction to the market. The fact that IonPhasE greatly benefited from the recruitment of three experienced managers in reaching a commercial breakthrough suggests that the stock of managerial experience facilitates growth, but the impact is not entirely straightforward.

According, to case firm developments, the stock of managerial experience within a company is more likely to facilitate growth and survival when coupled with stream experience (Reuber and Fischer, 1999) i.e. experience accumulated after firm establishment. This is evidenced by how the case firms took a number of years before making a commercial impact after registration. Case Innohome shows how experience collected at the home market is not readily applicable for foreign operations and underlines the impact stream experience has on growth. Innohome, was unsuccessful in learning the market of home safety-appliances domestically. Case IonPhasE, in turn, suggests that a lack of sufficient managerial experience may jeopardize the survival of

the company, since without the inclusion of experienced managers it is debatable whether the firm would have survived.

In General, it seems that the combination of stock and stream managerial experience influences PMINV growth positively, where a lack can be detrimental to the firm. Based on this analogy, it is also safe to assume that the more *variety* in terms of the breadth and depth of managerial experience (Eriksson et al., 2000), the stronger the positive influence on growth and survival. Table 16 illustrates case firm developments.

Table 16. Development of managerial experience in case firm growth phases

Company (Customer Market)	Type	1. Introductory	2. Commercial breakthrough and foreign growth	3. Global breakthrough and expansion	4. Global rationalization and maturity
Innohome (B2C)	Stock	high	high	N/A	N/A
	Stream	low	intermediate	N/A	N/A
Avant Tecno (B2C/B2B)	Stock	high	high	high	high
	Stream	low	intermediate	high	high
IonPhasE (B2B)	Stock	low	high	N/A	N/A
	Stream	low	low	N/A	N/A
Vacon (B2B)	Stock	high	high	high	high
	Stream	intermediate	high	high	high
Audibit (B2C/B2B)	Stock	intermediate	intermediate	INACTIVE	INACTIVE
	Stream	low	intermediate	INACTIVE	INACTIVE
		Level of Managerial Experience			

Scale: low → intermediate → high | Based on primarily qualitative analysis.

Substantive Capabilities

Case firm traits were assessed under the areas of managerial, technical and marketing capabilities (Verona, 1999). Empirical evidence suggests that it is indeed diversity across these, rather than excellence in a single or two, capabilities that impacts PMINV growth and survival considerably.

Both high-performance case firms, Vacon and Avant Tecno had a diverse capability base from inception, vested with managerial, technical as well as marketing capabilities. Avant Tecno was able to contract experienced executives and R&D personnel from predecessor YLÖ-tehtaat to complement the managerial and marketing capabilities of the founder. While the founding group of Vacon was predominantly characterized by

the technological expertise of engineers, it also included business and sales managers. The CEO of Vacon was also able to consult management of a fellow high-technology start-up over accelerated internationalization prior to inception.

In contrast, other case firms experienced growth constraints due to a lack of variety in their capability bases. Despite a technologically competent group of founders, only after the inclusion of a new CEO, a sales director and a product manager, was IonPhasE able to reach a commercial breakthrough. Similarly, important commercial developments of Innohome were in large part due to an increase in marketing and sales capabilities, contracted by taking part in an export group. The sales leads generated via the export group enabled a commercial breakthrough.

Case Audibit, on the other hand, underlines how a lack of diversity in the capability base of a PMINV can factor in the non-survival of the firm. The two founders of Audibit were highly capable in the technical aspects of the business, and the firm was further enforced with the inclusion of a sales manager, whose entry was quickly followed by the commercial breakthrough of the firm. The firm's failure is underlined by not only a lack of demand, but also an inability to enact a focused business strategy. The firm spent the majority of its time in operation trying to find the most opportune segment from consumer and industrial markets and could have benefited from additional management capabilities and strategic focus.

In general, diversity across substantive managerial, technological and marketing capabilities seems to impact PMINV growth positively more than excellence in any one or two of the areas specifically. A lack of diversity, in turn, can hamper firm growth and, in a severe case, also survival prospects.

As is in the case of resources, it is difficult to tie case firm capability developments to a precise timeline collectively; however, table 17 shows some generic trends.

Table 17. Development of capabilities in case firm growth phases.

Substantive Capability*	1. Introductory	2. Commercial breakthrough and foreign growth	3. Global breakthrough and expansion	4. Global rationalization and maturity
Management	Product scope management:	Regional: -channels -suppliers	Global: -channels -suppliers	Transnational: -coordination -PMI
Technology	-Product development	Product adaptation: -customers -country-markets	Product scope extension(s)	Product standardization
Marketing	-Product servicing -Export promotion	-Country-specific adaptations	-Regional adaptations -Brand management.	"Glocal"
	TRENDS IN CAPABILITIES DEVELOPMENT			

Dynamic Capabilities and Resource Fungibility

The studied firms were disadvantaged in relation to their more established competitors when it comes to resources, especially during the early phases of growth. However, they exhibited a way of offsetting this disadvantage through what some prior research terms dynamic capabilities (Zott, 2003) and others, resource fungibility (Sapienza et al. 2006, pp.924-925) i.e. the extent to which existing resources and capabilities can cost effectively be deployed into alternate uses in response to external dynamics.

Resource fungibility or the existence of dynamic capabilities within the case firms is transmitted through their avoidance of ownership-based asset control as means of risk management. The strategy of Innohome relies on a very small core organization, widespread use of sub-contractors and a high level of employee autonomy, which means that changes in the business environment are encountered largely with the same resource-base. Regardless, Innohome was able to obtain a commercial breakthrough. Case Audibit is similar, as the firm was able to negotiate a commercial breakthrough with a small resource-base, despite widespread changes in the business environment. Innohome's growth, on the other hand was severely hampered owing to a homogenous resource and capability base and the lack of resource fungibility. Only after revisions were made, was the firm able to achieve a commercial breakthrough.

From the high-performance case firms, Avant Tecno's global breakthrough was achieved and managed with largely the same production infrastructure and personnel the firm had relied on prior to the substantial increase in demand that followed the breakthrough. At Vacon, global rationalization was achieved through the removal of some duplicate activities, which required the effective re-deployment of the remaining resources and capabilities.

Overall, in providing an alternative to ownership-based control of assets, resource fungibility and/or dynamic capabilities positively influence the growth of product manufacturing international new ventures. Following this, analogy the relationship is the same with firm survival, since dynamic capabilities and resource fungibilty help offset resource poverty, which can lead to non-survival. Table 18 summarizes.

Table 18. Resource fungibility in case firm growth phases

Company (Customer Markets)	1. Introductory	2. Commercial breakthrough and foreign growth	3. Global breakthrough and expansion	4. Global rationalization and maturity
Innohome (B2C)	high	high	N/A	N/A
Avant Tecno (B2C/B2B)	intermediate	high	high	intermediate
IonPhasE (B2B)	low	intermediate	N/A	N/A
Vacon (B2B)	high	intermediate	low	intermediate
Audibit (B2C/B2B)	high	high	INACTIVE	INACTIVE
	LEVEL OF RESOURCE FUNGIBILITY			

Scale: low → intermediate → high | Based on primarily qualitative analysis.

Networking Capability

Empirical scrutiny reveals networking capability (Mort and Weerawardena, 2006) as one of the most important traits underpinning the performance of the studied firms. The enabling influence of networking capability is underlined by how it facilitated commercial and even global breakthroughs among the case firms.

In response to difficulties on the domestic market, Innohome took an active role in the creation of an export group of like-minded Finnish SME manufacturers whose objective was to expand to the Swedish market. Through efficient networking, the firm was able to utilize the pooled resources of the group and obtain a series of valuable sales leads. These contacts made possible the entry to the Swedish market in a development that not only saved the business, but ultimately lead to a commercial breakthrough. Case Innohome demonstrates how networking capability, alike resource fungiblity, provides an alternative for ownership-based control of resources.

For IonPhasE, networking is essential in leveraging major accounts once a proof of concept has been received. A proof of concept gives IonPhasE the opportunity to "sell through" the account, meaning that once the firm's granulate solution is accepted in to the MNE customer's manufacturing process, it is generally applicable across different "networked" production units in the organization. By exercising networking capability IonPhasE was able to "sell through" its two MNE accounts, whose purchases constitute the vast majority of the firm's revenues. VoIP handset manufacturer Audibit was also able to reach a commercial breakthrough owing to a sales lead generated through networking efforts with a manufacturer.

An overview of the high-performance case firms provides an idea of the dynamic role of networking capability in mediating PMINV growth. Avant Tecno's global network of distributors was the product of successful networking during introductory and commercial breakthrough phases, as the firm often built on successful showings in trade fairs. Yet, to provide for the substantial increase in demand coinciding with the firm's global breakthrough, Avant Tecno streamlined the manufacturing and introduced internationally networked suppliers. In doing so, it was able to draw manufacturing economies and better respond to increasing competitive pressures.

Case Vacon is perhaps the biggest testament to the relationship between networking capability and growth. The firm's global network of distributors is grounded on contacts the founder's had established during their time at previous employers ABB or one of its predecessors. In addition to expanding internationally through distributors in the

introductory phase, Vacon also established a range of foreign sales subsidiaries, most of which were staffed by individuals Vacon executives knew from prior commitments. After achieving a commercial breakthrough through the combined efforts of the distributors and sales subsidiaries, Vacon intensified networking efforts toward major international companies and was successful in negotiating private-label and/or OEM-agreements with four MNEs. The additional market exposure and sales provided by these strategic partners facilitated the global breakthrough. Yet, the increasing competitive pressures meant Vacon had to rationalize its supply structure and networking efforts were successfully coordinated toward utilizing internationally networked suppliers. Further rationalization was pursued through the acquisition of the driver business unit of a U.S.-based competitor. The acquisition strengthened Vacon's foothold in the Americas and provided access to a network of distributors as well as suppliers, which became invaluable when integrating global operations. Table 19 specifies the nature of the impact of networking capability in case firm growth phases.

Table 19. Networking in case firm growth phases

Company (Customer Markets)	1. Introductory	2. Commercial breakthrough and foreign growth	3. Global breakthrough and expansion	4. Global rationalization and maturity
Innohome (B2C)	MNEs: -channels	Export partnering: -channels -customers	N/A	N/A
Avant Tecno (B2C/B2B)	Founder Contacts: -customers Trade fairs: -distributors	Sourcing: -international suppliers	Education: -R&D	N/A
IonPhasE (B2B)	Education: -recruitment	MNEs: -customers -channels	N/A	N/A
Vacon (B2B)	Founder contacts: -channels -recruits	MNEs: -channels -customers	R&D partnering: -products Sourcing: -global suppliers	Acquisition: -channels -suppliers
Audibit (B2C/B2B)	Sourcing: -subcontractors	MNEs: -channels -customers	INACTIVE	INACTIVE
	NETWORKING EFFORTS AND OUTCOMES			

Based on analysis of the case firms, networking capability seems to impact PMINV growth positively, as implied by Oviatt and McDougall (2005). Since it also provides an

alternative for ownership-based control of resources, to offset resource poverty, it seems to have the same impact on survival.

Entrepreneurial Orientation and Lateral Rigidity in Decision making

When assessing the growth and survival impact of the trade-off between entrepreneurial orientation and lateral rigidity, it is useful to contrast the case firms that are in the early stages of growth with ones that are in the latter stages of growth. This exhibits whether PMINV's decision making becomes more "rigid" and less entrepreneurial as a function of growth through the phases, as suggested by Gabrielsson and Gabrielsson (2009).

IonPhasE and Innohome exhibited entrepreneurially oriented decision making, characterized by employee autonomy, risk taking and pro-active behaviour, in negotiating survival crises and subsequently reaching a commercial breakthrough. In response to the severe financial difficulties stemming from the bankruptcy of its contract manufacturer, Innohome took a considerable risk in expanding to the Swedish market, with an already drained resource base. While the move ensured a commercial breakthrough, the firm was left to negotiate a survival crisis stemming from the resource requirements of the expansion. Also, the culture of the firm relies on employee autonomy as a pre-requisite for keeping operations going with only four employees.

IonPhasE, on the other hand, became distinctly more entrepreneurially oriented as the current owner recruited a new management team in the advent of the commercial breakthrough. In contrast to the authoritarian management structure of the early days, the new administration encouraged employee autonomy and opted for a highly pro-active approach to the market where commercial objectives were considered a priority. These actions were supplemented by outlays into machinery and facilities, in what can only be considered as risky investments considering preceding business performances. Yet, the moves paid dividends in the form of a commercial breakthrough, albeit with the drawback of a survival crisis, also resulting from excess resource demands.

A look at the case firms in more advanced stages of growth suggests that their decision making during early stages was no less entrepreneurially oriented than that of Innohome or IonPhasE. Both Avant Tecno and Vacon are based on an organizational culture that encourages employee autonomy and the firms took considerable risks in undertaking FDI very early in foreign expansion efforts. Additionally, the two firms have been successful in balancing out periods of subdued growth with pro-active growth investments. Upon achieving global breakthroughs and resource maturity both firms, while maintaining a patience for failure in growth initiatives, are less inclined to take risks and exhibit less employee autonomy. In Vacon's case this is partly due to the responsibility of governance that comes with a public listing. Avant Tecno, in turn is content with its current majority share of the global market and does not want to risk it via aggressive FDI or other large-scale growth initiatives. Since the introductory phase, neither Avant Tecno nor Vacon has encountered a survival crisis. Table 20 summarizes.

Table 20. Entrepreneurial orientation in case firm growth phases

Company (Customer Markets)	1. Introductory	2. Commercial breakthrough and foreign growth	3. Global breakthrough and expansion	4. Global rationalization and maturity
Innohome (B2C)	high	intermediate	N/A	N/A
Avant Tecno (B2C/B2B)	high	intermediate	intermediate	low
IonPhasE (B2B)	low	high	N/A	N/A
Vacon (B2B)	high	high	intermediate	low
Audibit (B2C/B2B)	high	high	INACTIVE	INACTIVE
	LEVEL OF ENTREPRENEURIAL ORIENTATION			

Scale: low → intermediate → high | Based on primarily qualitative analysis.

Empirical evidence suggests that entrepreneurial orientation influences PMINV growth positively while lateral rigidity increases as a function of growth. Risky growth initiatives, associated with entrepreneurially oriented decision making, in turn, are more common in the early stages of growth and can influence PMINV survival negatively. Conversely, as the PMINV approaches resource maturity, decision making tends to become more laterally rigid and risk averse.

4.2.1 Consumer and Industrial Market Differences for Growth and Survival

In a bid to contrast potential differences between industrial and consumer market PMINVs, the present study focuses on the existence of organizational capabilities that prior research has found influential to the performance of market-driven and brand-driven firms (Day 1994; Urde 1999). Empirical scrutiny suggests that the growth of the B2B case firms benefits from market sensing (Kohli and Jaworski 1990, cited in Day, 1994, pp.43) and customer linking (Day, 1994, 44-45), while the growth of B2B case firms benefits from brand supportive dominant logic (Beverland et al., 2007).

Market Sensing and Customer Linking

The commercial breakthrough of IonPhasE was achieved after a newly recruited managerial group instilled a more pro-active and commercially oriented approach to business. The strategic overhaul underlined the importance of market sensing or organization-wide generation and dissemination of market intelligence for the benefit of strategic planning. The main responsibility of market sensing was given to the sales force, in a move that also highlights the organizational importance of customer linking. The growth of IonPhasE is dependent on how efficiently the firm can generate sales from a proofed concept product. As the product version can then be utilized in a variety of manufacturing processes within and sometimes across customers, customer linking is imperative for growth and largely responsible for the firm's revenues thus far.

Before going out of business, Audibit achieved its greatest commercial success and a commercial breakthrough due to customer linking, while the limited information available of the newly emergent VoIP apparel market meant that the firm had to enact market sensing as the basis for forward planning. Since inception, Vacon has relied on a consultative approach to sales and a sustained emphasis on customer feedback in strategic planning, which are also illustrative of market sensing. Furthermore, Vacon's global breakthrough was facilitated by "sales through" OEM and private-label MNE channel partners that benefited from customer linking.

Brand Supportive Dominant Logic

The B2C PMINVs, of the study Innohome and Avant Tecno exhibited brand supportive dominant logic (Beverland et al., 2007) and a preference toward managing a corporate brand, as opposed to a series of product brands. During the introductory phase, Innohome was successful in generating end-user pull through mass media advertising that focused on promoting the corporate brand. The campaign had a highly positive impact for growth. Owing to resource constraints the firm has been unable to emulate such brand building efforts since and has had to rely on low-cost brand building through e-commerce, which has impacted growth negatively.

While collaborating with distributors in promotional efforts, the branding activities of Avant Tecno are centrally coordinated from the firm's headquarters in Finland. The firm maintains the corporate brand as an assurance of quality for the consumer and a competitive advantage against "weaker" brands and as such it has a direct impact on firm performance. It is worth noting, that while the U.S. is the only major market in Avant Tecno's range of foreign markets where the manufacturer has failed to make a considerable impact on, it remains the only market where products were sold under the distributor's brand.

As expected from the outset of the study, the impact some of the studied growth and survival factors varies pending on whether the PMINV caters for consumer or industrial markets. The following highlights these differences based the on empirical analysis.

Differences in Industry Factors

The B2B PMINVs of the study were less restricted by barriers to trade and could build on globalization drivers more consistently than their B2C counterparts, which echoes with the views of Anderson and Narus (2004) whereby industrial markets are more globally integrated. Growth on industrial markets was, to an extent, conditional to the existence of market sensing and customer linking capabilities. Market sensing is of pronounced importance to strategic planning, since secondary data of global B2B niche

markets is scarcely available or expensive to obtain. Since the international B2B environment needs to be analyzed as a network of relationships (Håkansson & Snehota, 2000), customer linking capability is also of profound importance to performance. Analysis suggests that a B2B PMINV needs to assess each customer as a link in a chain of potential customers when pursuing growth.

The B2C PMINVs of the study, on the other hand, had to deal with less uniform market conventions and more regulation across countries, which lead to unexpected, time and resource consuming responses. Yet, where globalization drivers were available the firms greatly benefitted from them in terms of growth. This suggests that the extent of globalization drivers need to be assessed before resource commitments are made, since a reactive approach can be detrimental to growth and even survival.

Differences in Product Factors

Empirical analysis suggests that product adaptation for manufactured goods is highly resource consuming, and perhaps one of the reasons INVs are often based on industries where revenues stem primarily from the services and know-how sold either separately or in conjunction with the product.

The B2C PMINVs of the study made product adaptations as a response to country market differences. As a result they were often profound yet infrequent i.e. conditional to expanding to new foreign market. This suggests that unless the product is readily applicable to market conditions, successful entry to multiple diverse foreign markets is difficult to achieve and expansion efforts need to be paced. Furthermore, an overly ambitious approach can in an extreme case lead to non-survival.

For the B2B firms of the study, product adaptations were less profound, but more frequent as they were usually conditional to differences in customer applications rather than country attributes. They were also collectively less resource consuming than for their B2C counterparts. Yet, since adaptation is often done in unison with the customer, the actual sales process can take a considerable time and the lean time prior to revenues

can undermine growth aspirations as well as, in an extreme, lead to non-survival. This connects with the views of Håkansson and Snehota (2000, pp.45) whereby, for B2B firms, marketing builds on the effort of allocating the firms resources across different relationships according to *likely* return.

Differences in Resources and Capabilities

Although, the existence of networking capability had an enabling effect on performance across all case firms, its impact as a growth and survival factor was perhaps more profound on industrial markets, as evidenced by the two born globals of the study. Both firms cater industries which, despite being global, centre on a relatively small hub in terms of personnel. In fact, empirical evidence here echoes the statement of Madsen and Servais (1997, p.565) whom stress that many contemporary industries are characterized by global sourcing and international networks, elements that help enable the born global phenomenon. Against this backdrop it is easier to fathom, why the growth of B2B PMINVs of the study was greatly enhanced by their ability to tap into such globally integrated networks and in doing so contract large accounts and/or channel partners.

For the B2C PMINVs of the study, marketing resources were a central determinant of performance. To supplement the sales efforts of re-sellers, these firms had to actively take part in generating an end-user pull, a resource consuming feat, especially for an SME. Resource constraints here were partially negotiated via the use of innovative e-commerce marketing as well as brand supportive dominant logic, which saw marketing resource pooled for the benefit of the corporate brand as opposed to diverse product brands. However, results in demand generation were at times conditional to traditional mass media utilization (e.g TV/print), which underlines the impact ample marketing resources hav on growth and survival.

Table 21 shows the discussed differences between growth and survival determinants of the studied B2C and B2B PMINVs.

Table 21. Consumer and business market differences for PMINV growth & survival

	Industrial market PMINV	Consumer market PMINV
Industry Factors	Globally integrated industries where market sensing and customer linking capabilities mediate performance.	Industries less globally integrated, where the existence of globalization drivers mediates performance.
Product Factors	International performance is conditional to customer application-based product adaptation(s).	International performance is conditional to country market-based product adaptation(s).
Resources and Capabilities	Networking capability is of pronounced importance in contracting channels and "selling across" large/ MNE accounts	The importance of marketing resources and brand supportive dominant logic is accentuated in generating an end-user "pull".

4.2.2 Revision of Propositions

In compliance with analytic induction (3.1.1) the empirical part of the study is completed by a revision of the theoretical propositions to highlight any emerging themes unaccounted for in the conceptual build up of the study.

Product Manufacturing International New Venture Growth

Proposition 1a: The commercial and global breakthrough of a Product Manufacturing International New Venture is positively related to the industry growth rate, the globalizing enablers in the industry, the amount of resources and managerial experience, the substantive and dynamic capabilities and a high level of entrepreneurial orientation in decision making.

Proposition 1a is predominantly supported by the empirical analysis. All of the studied firms benefited from globalization drivers (Yip, 1989) such as commonalities in country-market directives and a lack of protectionist policies and trade regulation, albeit industrial markets were generally more devoid of barriers to trade than consumer markets. Commercial and global breakthroughs mostly coincided with industry growth (Vernon, 1966) and were fostered by risky growth investments attributable to entrepreneurial orientation (Lumpkin and Dess, 1996). Generally, case firm

advancement along these phases benefited from experienced managers (Reuber and Fischer, 1999) whereas the amount of resources (Barney, 1991; Laanti et al., 2006).and variety (Eriksson et al., 2000) of managerial experience also grew in parallel with the firms. Yet, experience did not always translate to diversity in substantive capabilities (Verona, 1991), which had adverse effects on the performance of some firms.

As cases IonPhasE and Innohome underline, it is not merely the existence of substantive capabilities, but *diversity* among them that tends to facilitate PMINV growth. IonPhasE, despite holding a wealth of technical capabilities, was able to reach a commercial breakthrough only after the injection of marketing and managerial capabilities saw the firm transform to a more commercially oriented one. Similarly, whilst strong in technical and managerial areas, Innohome obtained a commercial breakthrough only after the inclusion of marketing (sales) capabilities via part-taking in an export group, lead by an experienced sales manager. Furthermore, dynamic capabilities (Winter, 2003) were instrumental for the case firms in negotiating resource constraints and achieving commercial and global breakthroughs.

Proposition 1b: The global rationalization of a Product Manufacturing International New Venture is positively related to higher global seller concentration in the industry, pressures for resource alignment, and a low level of both industry growth rate and entrepreneurial orientation.

Proposition 1b receives support from the empirical data, as evidenced by an account of the developments of Vacon and Avant Tecno. Approaching resource maturity, an increase in competitive pressure and a decrease in industrial growth drove the need for resource alignment for both firms. From a strategic perspective, these changes in the industry dynamic fostered requirements to integrate operations internationally and thereby avoid duplication of certain activities and thereby cut costs. Furthermore, the extent of entrepreneurial orientation in decision making markedly decreased as the firms arrived to a stage of global/regional rationalization and maturity. It should be noted, however, that the decrease in industrial growth and subsequently demand, is at least

partially due to the global economic slump commencing in 2008 that has overshadowed the most recent developments of these two case firms.

Product Manufacturing International New Venture Survival

Proposition 2: The survival of a Product Manufacturing International New Venture is positively related to the industry growth rate, the amount of resources and managerial experience, the existence of substantive and dynamic capabilities, and a lower level of entrepreneurial orientation.

Proposition 2, similarly to proposition 1a, is predominantly supported by the empirical analysis. The survival of all case firms benefited from industrial growth, with the exception of Audibit, whose exit from the market was largely due to a stagnant industry and lack of demand. The survival crises experienced by case firms were mostly pre-empted by resource constraints, usually financial, which suggests that the amount of resources the firm has at its disposal is positively related to its survival prospects. Case IonPhasE, in turn, underlines the importance of managerial experience for survival as it is highly unlikely that the firm could have survived its first survival crisis without the inclusion of added managerial experience. For its tendency to produce risky growth initiatives, entrepreneurial orientation can also be associated with many of the survival crises experienced by the case firms during their early phases of growth. This contrasts with how, high performance case firms, whilst exhibiting a decrease in entrepreneurial orientation in the latter stages of growth, had also managed to avoid survival crises.

As evidenced by case Audibit, the survival of a PMINV is perhaps more conditional to *diversity* in the select managerial, technical and marketing (substantive) capabilities, than the word existence implies. Although the majority of Audibit's failure can be pinned down to a lack of demand, the firm's survival could have benefited from managerial capability to supplement its evident technical and marketing capabilities. Finally, while it can be argued that dynamic capabilities can help supplement a PMINV's resource constraints or the mentioned substantive capabilities, case Audibit

shows that despite being able to reach a commercial breakthrough with only three people, the survival of the firm would have necessitated more resources and capabilities.

Product Manufacturing International New Venture Survival and Growth

Proposition 3: The commercial breakthrough, global breakthrough, global rationalization and survival of a Product Manufacturing International New Venture is positively related to high networking capabilities.

Proposition 3 is the most explicitly supported by the empirical evidence. All of the studied firms markedly benefited from networking capability (Mort and Weerawardena, 2006), and it was often among the primary catalysts that fueled a PMINVs transition from a given stage of growth to the next, as case Vacon best exemplifies. In providing an alternative to ownership-based control of resources, networking capability also had a positive impact on the survival of the case firms, since survival crises were often the result of a lack of physical, human or financial resources.

Proposition 4a: A Product Manufacturing International New Venture provides a narrow product offering during the early phases of growth and a wider but related product offering during the latter phases of growth.

Proposition 4a is supported by the empirical analysis, IonPhasE, Innohome and Avant Tecno all narrowed their international product scope before they were able to negotiate a commercial breakthrough. After narrowing its focus down to industrial loaders, Avant Tecno's subsequent global breakthrough was partially achieved by again extending the product scope, albeit with the addition of a related product line, the "mini-loader". Vacon, on the other hand, has maintained consistent focus on frequency converters, although with timely updates where the new "generation" or line of products gradually phases out the old line, which means that to-date, the company has supplied a maximum of two lines at the same time.

Proposition 4b: A B2C Product Manufacturing International New Venture does considerable country market product adaptation during early growth phases, but offers more standardized products in latter stages, whereas a B2B Product Manufacturing International New Venture does less country market product adaptation throughout.

Proposition 4b receives support from the empirical analysis. The companies supplying consumer markets had to undertake large scale product adaptation, in order to cater for select country markets. Innohome was unable to expand to Sweden without considerable adaptations, owing to different technical standards. Audibit also had to change product components, to be able to supply country-markets where regulations were stricter for consumer product components. Avant Tecno, in turn, provides different versions of a product to different trade areas, since less sophisticated models are more in-demand in developing economies than developed economies. Also the loader manufacturer has been forced to adapt its products according to the specific requirements of certain countries e.g. differences in ambient temperatures. Yet, it has gradually incorporated these changes into the offering, resulting in more standardized products across markets and segments. In the latter phases of growth, the firm has offered products, which can be cost-efficiently uncovered of the accessories that are less in-demand in some markets.

For the industrial market PMINVs of the study, country market product adaptation was not an issue, as the country of origin of the customer has little meaning to e.g. Vacon and IonPhasE, since most of their adaptation requirements stem from customer application specific differences. Consequently, if the onus is placed on customer application-based adaptation, the positioning of B2B PMINVs and B2C PMINVs in the proposition can be reversed. The implications are discussed further in 5.1.

Proposition 4c: The growth and survival of a B2B Product Manufacturing International New Venture are positively influenced by a predominantly market-driven approach, while the growth and survival of a B2C Product Manufacturing International New Venture are positively influenced by a predominantly brand-driven approach.

Proposition 4c is partially supported by empirical evidence. The case firms primarily supplying for industrial markets: Audibit, IonPhasE and Vacon can credit the growth enabling effects of market sensing and customer linking capabilities, associated with market-oriented firms (Day, 1994). Furthermore, brand supportive dominant logic (Beverland et al., 2007), that can be attributed to brand-oriented firms (Urde, 1999), had a positive influence on the growth of the firms catering for consumer markets: Avant Tecno and Innohome. However, the impact these organizational traits had on case firm survival is somewhat inconclusive. Unlike with dynamic capabilities, research was unable to conclude whether these traits constitute an alternative to ownership-based resource control or establish conclusive evidence of any other type of positive impact on survival. In general, the industrial market PMINVs of the study were primarily market-driven whereas the B2C PMINVs of the study were more brand-driven. Nevertheless proposition 4c is re-formulated as follows.

Revised Proposition 4c: *The growth of a B2B Product Manufacturing International New Venture is positively influenced by a predominantly market-driven approach, while the growth of a B2C Product Manufacturing International New Venture is positively influenced by a predominantly brand-driven approach.*

5 CONCLUSIONS AND RECOMMENDATIONS

The final section of the study summarizes the main findings, highlights theoretical and managerial contributions as well as advocates potential research avenues that can build on its exploratory nature and empirical conclusions.

5.1 Summary of Findings

In summarizing the findings of the study, it is useful to re-visit the research objectives.

Physical Product Manufacturing International New Venture Growth and Survival

Research objective 1: What factors impact the growth and survival of physical product manufacturing international new ventures on their way to adulthood?

Of the wealth of factors that potentially impact the growth and survival of product manufacturing international new ventures identified by international business literature, the present study focused on the impact of select industry and product factors, firm resources and capabilities as well as the trade-off between entrepreneurial orientation and lateral rigidity, with the following results.

Industry factors: In reaching commercial and global breakthroughs the active case companies of the study all benefited from a relatively high *industry growth rate* (Vernon, 1966), a low *industry penetration of foreign suppliers* and low global *seller concentration* (Driffield and Munday, 2000) as well as the existence of industry *globalization drivers* (Yip, 1989).. Based on this evidence, these industry factors influence PMINV growth positively. A low industry growth rate, in turn, was one of the main causes of the non-survival of the inactive case firm, which suggests that a comparatively low or negative industry growth rate can lead to non-survival.

The global or regional rationalization of the studied PMINVs' operations was executed in response to increased global seller concentration in the industry, a substantial

decrease in industry growth and other pressures for resource alignment, which underline the impact of these factors for in reaching resource "maturity"

Product factors: The way in which the studied PMINVs managed their *product scope* (Boter and Holmquist, 1996) had a considerable impact on growth and survival. A narrow product range proved a more sustainable platform for resource deployment and growth during early stages of growth and enabled a commercial breakthrough. Yet, extensions to the range in the form of related products were required to facilitate a global breakthrough and to offset increased competitive pressures. A failure to coordinate resources across an opportune number of product lines, in turn, proved detrimental to growth prospects of case firms, whilst threatening the survival of some and contributing to the failure of one.

The commercial and global breakthroughs of the case firms were conditional to *product adaptations* (Calantone et al., 2004), either stemming from customer application or country market differences. None of the firms could readily offer an international product portfolio and difficulties in resourcing adaptation efforts hampered growth prospects and led to survival crises. Furthermore, upon approaching global rationalization and maturity, case firms were able to offer increasingly standardized products. This suggests that the commercial and global breakthroughs of PMINVs are positively related to the rate of product adaptation, whilst global rationalization is positively related to increased product standardization.

***Resources and Capabilities*:** Empirical evidence suggests that, the *amount of resources* (Barney, 1991; Laanti et al., 2006) and *managerial experience* (Reuber and Fischer, 1999; t Eriksson et al., 2000), the PMINV has at its disposal as well as diversity across its *technological, managerial and marketing (substantive) capabilities* (Verona, 1999) are positively related to growth. Also, the existence of *networking capability* (Mort and Weerawardena, 2006), *dynamic capabilities* (Winter, 2003) and *resource fungibility* (Sapienza et al., 2006) seem to positively influence growth as well as survival.

The commercial and global breakthroughs of the case firms were positively related to the amount of resources and variety in stock as well as stream managerial experience at their disposal. However, firm growth here was conditional to the existence and diversity in substantive capabilities across managerial, marketing and technological domains, more so than excellence in any single or two these substantive domains. A lack in these resource and overly homogenous substantive capabilities, in turn, hampered case firm growth aspirations as well as in extreme situations also survival prospects.

In providing an alternative to ownership-based control of resources and capabilities, the existence of networking capability, dynamic capabilities and resource fungibility were positively related to the commercial breakthroughs, global breakthroughs, global rationalization and maturity as well as survival of the studied PMINVs.

Entrepreneurial Orientation and Lateral Rigidity in Decision Making: The extent of entrepreneurial "agility" in decision making was found to mediate growth and survival. Some essential growth investments were the product of entrepreneurially oriented decision making (Knight and Cavusgil 2004) but so were some detrimental survival crises. Increased lateral rigidity (Luostarinen, 1979) resulted in a decrease of risky growth initiatives and thereby fewer survival crises.

The commercial and global breakthroughs of case firms were achieved through entrepreneurially oriented behavior, whereas the global/regional rationalization of their activities coincided with an increase in laterally rigid decision making. The firms suffered survival crises solely during their introduction and commercial breakthroughs; times characterized by entrepreneurially oriented decision making and risky growth initiatives. However, commercial and global breakthroughs were largely the product of risky growth initiatives and as the firms approached resource maturity they became disinclined to pursue risky growth initiatives i.e. more laterally rigid.

Entrepreneurial orientation seems to have a positive impact on PMINV growth but a negative impact on survival. Lateral rigidity in decision making, on the other hand, seems to have a positive impact on PMINV survival, but a negative impact on growth.

With an understanding of how the studied performance factors influence PMINV growth and survival in general it is possible to evaluate whether and how their impact differs pending on whether the firm caters for the industrial or consumer market.

The Industrial and Consumer Market Difference for Growth and Survival

Research Objective 2: How are the pathways to adulthood different between physical product manufacturing B2B and B2C international new ventures?

From the studied product manufacturing INV performance attributes mentioned above, notable differences between consumer and industrial market firms were found in industry and product factors as well as resources and capabilities.

Industry Factor Differences: The industrial markets supplied by the case firms were found to be more globally integrated than the consumer markets. This accentuated the importance globalization drivers, such as uniform market conventions and technical standards as well as trade de-regulation had on consumer market PMINV performance. The lack of globalization drivers within the industry often prompted highly resource consuming responses in the form of e.g. product adaptation in addition to making some country markets inaccessible altogether for consumer market PMINVs.

Product Factor Differences: Owing to its resource consuming nature when it comes to manufactured goods, product adaptation efforts mediated the growth and survival of the studied PMINVs. However, the nature of adaptation varied between the consumer and industrial market PMINVs of the study.

The B2C PMINVs of the study made adaptations when attempting to enter foreign markets. Therefore, adaptations were relatively profound and infrequent in nature. This meant that unless the product was readily applicable to market conditions, successful entry to several diverse foreign markets was difficult to achieve owing to the resource requirements of product adaptation and expansion efforts needed to be paced as a result.

This stalled growth aspirations, whereas excessive adaptation requirements stemming from overly ambitious expansion efforts led to survival crises.

The B2B PMINVs of the study, on the other hand, adapted their products when attempting to add to their portfolio of customers. Since adaptations were mostly conditional to differences in customer applications, they were less profound but more frequent in nature. Despite being less resource consuming than in consumer markets, the fact that they were done in collaboration with the customers meant product adaptations often took comparatively more time. Therefore, an overly ambitious set of on-going product adaptations led to stalled growth aspirations and in extreme cases survival crises.

Resource and Capability Differences: Growth for the studied industrial markets was positively related to the existence of *market sensing and customer linking capabilities* (Day, 1994), whilst *brand supportive dominant logic* (Beverland et al., 2007), had a similar impact on consumer market firms. Consequently, in terms of market orientation B2B PMINVs followed a *more market-driven approach* (Day, 1994), whereas B2C PMINVs followed a *more brand-driven approach* (Urde, 1999).

The commercial and global breakthroughs of the studied B2B PMINVs benefited from market sensing, due to its importance in strategic planning, and customer linking, as customers were managed based on their network value. Due to the more networked and globally integrated nature of industrial markets, the relationship between networking capability and growth was accentuated for B2B PMINVs. Also, the commercial and global breakthroughs of the B2C PMINVs called for comparatively more marketing resources, owing to the resource consuming nature of demand generation.

5.2 Theoretical Contributions

In the vein of analytic induction (3.1.1), the main the findings of the study are discussed against the backdrop of theoretical discourse in international business and entrepreneurship literature in the following. In addition to the contributions mentioned

here, the study posits theory-based research propositions, and revisits them after empirical scrutiny in 4.2.2 as well as forwards a theoretical framework for the study of the growth and survival of product manufacturing international new ventures in 2.3.1 It should be noted that the propositions and framework are based on those of Gabrielsson and Gabrielsson (2009 pp.7-14).

Product Manufacturing International New Venture Growth Phases and Survival

Despite deviating from the traditional views of internationalization (2.1.1), case firm behavior exhibits commonalities with some conventional lifecycle models of organizational growth (2.1.3). The principle of stage-wise organizational growth models, whereby firms develop in identifiable stages (e.g. Scott and Bruce, 1987), receives empirical support in the present study. Furthermore, the phases of stable PMINV growth or "evolution" seem to be mediated by transitional crises or periods of "revolution". Opportune management of these crises sees the firm proceed to the next phase of growth, while a failure can lead to non-survival, a pattern discovered in conventional firms by Greiner (1972) nearly four decades ago. The PMINVs failure to manage a survival crisis seems more likely to result in non-survival than regression to a previous stage, the latter being an alternative advocated by e.g. Churchill and Lewis (1983). This is perhaps due to the "make or break" nature of accelerated internationalization where the opportunities of global markets are offset by resource poverty (e.g. Oviatt and McDougall, 1994), especially during early stages of growth.

Grounded in stage-wise organizational growth literature, the INV growth phases introduced by Gabrielsson and Gabrielsson (2009, pp.5-7), namely: (1) Introductory, (2) Commercial breakthrough and foreign growth, (3) Global breakthrough and expansion as well as (4) Global rationalization and maturity, provide a useful blueprint for studying PMINV growth and survival. The following discusses the main parallels and departures underlined by empirical evidence.

Gabrielsson and Gabrielsson (2009, p.5-6) advocate that INVs are likely to receive minor foreign sales in the introductory phase and that they introduce foreign

subsidiaries in the commercial breakthrough phase, which somewhat contradicts with some empirical cases of the present study. For example, IonPhasE drew the vast majority of revenues from global markets from the outset of commercial operations, while both Avant Tecno and Vacon established foreign sales subsidiaries very soon after inception, during the introductory phase.

As evidenced by case firms of the present study, PMINVs are often established by product specialists, who may lack the managerial expertise required for fast-paced growth. Thus, while the introductory phase centers on product development, commercial breakthrough becomes conditional to contracting the required expertise to the firm, irrespective of how difficult this may be for the founder(s) to accept, as suggested by Gabrielsson and Gabrielsson (2009, p.5). Additionally, the authors underline the importance of securing the right channels for foreign market servicing early on, which also proved highly important for the growth and survival prospects of the case firms.

The notion whereby the INV needs to be able to manufacture sell and distribute products in volume during the commercial breakthrough phase (Kazanjian and Drazin 1990, cited in Gabrielsson and Gabrielsson 2009, pp.6) was of fundamental importance for the PMINVs of the study. Furthermore, empirical evidence suggests that the challenge may be manifold for PMINVs in particular, as production costs are relatively high, whereas sales and distribution channels themselves are substantial. Their establishment and management require significant resource commitments and sales are often mediated by middlemen as opposed to e.g. in the delivery of information goods.

Analysis also supports the views of Gabrielsson and Gabrielsson (2009, pp.6) in that a (PM)INV's global breakthrough coincides with expansion to the product offering. Product scope extensions were central for case firms, in offsetting the increasing competitive pressures at this stage. Also, cost efficiencies resulting from duplication of efforts began to emerge, in accordance with the views of Scott and Bruce (1987, cited in Gabrielsson and Gabrielsson 2009, pp.6), and prompted the need to rationalize activities internationally. Yet, findings regarding rationalization were somewhat contradictory.

The conceptualization of global rationalization and maturity (Gabrielsson and Gabrielsson 2009, pp.6-7), somewhat fails to account for the developments of case Avant Tecno. Global market leader in its niche, the PMINV draws ca. 20% of revenues from outside Europe. The firm has two foreign subsidiaries, in Germany and the UK, no foreign production facilitates and has rationalized activities within Europe to avoid duplicate operations and costs. In other words, it adheres to a phase resembling *regional* or *international* rationalization and thereby provides some insight as to what happens to mature born internationals.

Finally, PMINVs seem most prone to survival crises during early phases of growth. Neither of the two case firms that achieved a global breakthrough, experienced survival crises after the introductory phase. Overall, survival crises were most common in case firms in the commercial breakthrough phase. Gabrielsson and Gabrielsson (2009, p.13), also speculate that the risk of failure for the INV is greatest in initial foreign expansion efforts. Indeed, while it is perhaps impossible for any firm to completely eradicate, the threat of non-survival does seem to considerably diminish towards the latter stages of growth, at least according to the empirical evidence of the present study.

Product Manufacturing International New Venture Growth and Survival Factors

The impact of INV growth and survival factors outlined by Gabrielsson and Gabrielsson (2009), namely: industry growth rate, industry globalization drivers, resource amount, governmental support, managerial experience, substantive capabilities (management, technology and marketing) dynamic capabilities, resource fungibility, networking capability, entrepreneurial orientation as well as lateral rigidity was subjected to empirical analysis. Also, product factors, in the form of product scope (Boter and Holmquist, 1996) and product adaptation (Calantone et al., 2004) were assessed. In the vein of Sapienza et al. (2006), Delmar et al. (2003) and Romanelli (1989), results show that growth and survival are distinct outcomes theoretically, but their relationship is difficult to describe. This is underlined by how only entrepreneurial orientation, lateral

rigidity as well as product adaptation exhibited *bilateral* impacts on the outcomes, when discussing growth in terms of case firm commercial and global breakthroughs.

Entrepreneurial orientation (e.g. Lumpkin and Dess, 1996) was found to have a positive influence on the commercial and global breakthroughs of case firms, but a negative influence on survival. Lateral rigidity (e.g. Luostarinen, 1979), in turn, had a negative influence on case firm commercial breakthroughs, but a positive influence on survival. Similarly, commercial and global breakthroughs required product adaptations, whereas excess adaptations could threaten survival. The rest of the abovementioned antecedent factors exhibited a *unilateral* impact on commercial and global breakthroughs as well a survival i.e. their underlying influence on case firm advancement along the two phases and survival was the same. For example, industry growth had a positive impact on case firm commercial and global breakthroughs and survival, while negative industry growth had a negative impact on commercial and global breakthroughs and survival.

Overall, empirical evidence suggests that the growth and survival of PMINVs in is considerably impacted by networking capability (e.g. Mort and Weerawardena, 2006) and the width of the product scope.

In providing an alternative to ownership-based control of resources, networking capability greatly contributed to the growth and survival of case firms. Moen (2002, pp.170) finds that born globals are disadvantaged partly due to the considerable challenge of establishing international distribution systems. The present study highlights the challenge for PMINVs, faced with the resource consuming task of establishing and managing physical channels internationally. Nonetheless, the commercial breakthrough of case firms was often conditional to finding the right sales and distribution channels, a task which greatly benefitted from networking capability.

Many case firms started with an ambitious product range, yet, the commercial breakthroughs of all active case firms were achieved through one product line, which illustrates the importance of deploying resources across the opportune amount of lines. This echoes with the findings of Boter and Holmquist (1996), whereby high

international performance of SME manufacturers is conditional to a narrow product scope. Although, commercial breakthroughs were achieved via one product line, global breakthroughs were conditional to the launch of a new product line, while global/international rationalization and maturity also coincided with either extensions to current lines or replacing a contemporary line with a new one. This is in-line with the views of e.g. Douglas and Craig (1989, p.55) whom state that, in response to the increased pressure brought by international competition, the manufacturer needs to consider product variants and even extensions to the range.

The Industrial and Consumer Market Difference for Growth and Survival

The present study concludes that industrial markets seem to provide a more sustainable growth and survival platform for PMINVs based on differences in both firm and industry factors. This somewhat echoes the findings of Luostarinen and Gabrielsson (2006) whereby Finnish born globals prefer industrial markets, since they can be reached with more limited marketing budgets.

Empirical findings suggests that while B2B PMINVs can generally rely on cost-effective *personal selling* in establishing a sales channel as well as "pushing" the product through it, B2C PMINVs need to convince the channel middleman in addition to the end-user in generating an end-user "pull", through a more resource consuming combination of mass marketing and personal selling. These findings underline that PMINVs are no different to "conventional" firms in this regard (see e.g. Webster 2000). However, when one considers the well resource constraints (e.g. Oviatt and McDougall, 1994) of INVs overall, the more resource consuming nature of marketing in B2C markets disadvantages consumer market PMINVs compared to industrial market PMINVs in terms of growth and survival.

In line with (Anderson and Narus, 2004, pp.15), the present study finds industrial markets more globally integrated than consumer markets, underlined e.g. by how B2B case firms were able to rely more on globalization drivers (e.g Yip, 1989) than their B2C counterparts. This also works against B2C PMINVs in comparative terms, as

globalization drivers were found to influence PMINV growth and survival positively. Furthermore, B2B PMINVs seemed to benefit comparatively more from networking capabilities, due to the more globally networked nature of some industrial segments.

Empirical evidence implies that consumer market PMINV growth is positively influenced by brand supportive dominant logic (Beverland et al., 2007) in strategic planning and promotional efforts. Industrial market PMINV growth, on the other hand, seems to be positively influenced by market sensing (Kohli and Jaworski 1990, cited in Day, 1994, pp.43) in strategic planning and customer linking (Day, 1994, pp.44-45) in promotional efforts. The division of these capabilities among case firms suggests that in terms of market orientation, B2B PMINVs adhere to a more market-driven approach (Day, 1994), whereas B2C PMINVs follow a more brand-driven approach (Urde, 1999) comparatively. Yet, a more definitive conclusion here would benefit from a larger research population and a more descriptive approach.

5.3 Managerial Implications

The findings of the study point to several organizational and strategic aspects that can benefit product manufacturing international new venture entrepreneurs and managers.

Organizational Aspects

(A) The value of *patents* should not be undermined when attempting to attract public or private financing into the firm. Patents provide tangible proof of the innovativeness and potential of the firm and are among the most important means to offset established competitors. Also, patented technologies can be licensed or sold to generate income quickly in times of volatility.

(B) *Diversity in capabilities* across the domains of marketing, technology and management is equally, if not more, crucial to performance than excellence in any single or two domains. Accelerated internationalization demands professionals across a variety of respects, a requirement that should not be overlooked when establishing the firm or renewing its resources and capabilities.

(C) *Networking capability* provides a valuable alternative to ownership-based control of assets and can prove instrumental in opening up sales channels and partnerships.

Product Strategy

(D) *Product scope management* is of crucial importance to performance. An overly ambitious range of products, especially early on, can severely hamper the growth prospects of the firm and even lead to firm failure. Due to the differences in national markets and industrial customers, physical products are highly prone to adaptation requirements, which strain the resources of the firm and produce lean time before revenues. A commercial breakthrough is not necessarily conditional to a plethora of product lines, but ensuring that one product line is available and appealing to a plethora of customers. Once the firm matures and more resources become available, extensions to the product scope may become necessary in reaching global markets and offsetting the competition.

(E) *Product servicing* is one of the few means available when competing against MNEs and manufacturers from low-cost countries. Whether dealing with business customers of the industrial markets or re-sellers on the consumer markets, adding a high-quality service element to the physical product can make the difference in customer value and in generating a sufficient end-user pull.

B2B Marketing Strategy

(F) The organization-wide generation of market knowledge i.e. *market sensing* (see e.g Kohli and Jaworski 1990, cited in Day, 1994, pp.43) for the benefit of strategic planning has a positive impact on performance on industrial markets, especially when coupled with *customer linking* (see e.g. Day, 1994, pp.44-45) i.e. the capability to create and manage close customer relationships.

(G) New accounts on the industrial market are often conditional to *lengthy collaborative product adaptation periods*, which means that resources must be divided across accounts according to likely return (see e.g. Håkansson & Snehota, 2000, pp.45).

Entering an overly ambitious amount of contract tenders can severely hamper the growth and survival prospects of the firm because of the lean time before revenues.

B2C Marketing Strategy

(H) The consumer market supplier should view the *corporate brand* as an effective means to communicate with not only the middleman but also the end-user. *Brand supportive dominant logic* or setting the firm's culture and structures around the corporate brand (Beverland et al. 2007) can assist the effort. Brand recognition is of crucial importance when competing against MNEs and low-cost producers.

(I) Product adaptation on consumer markets is often conditional to *country market differences* in regulatory and technical standards or variety in consumer tastes. Hence, adaptation can be a costly affair and the resource strained manufacturer should take caution when attempting to enter many country markets in quick succession, especially product compliance is uncertain prior to expansion.

5.4 Suggestions for Further Research

While the study was able to cautiously substantiate some of the potential growth phases and survival crises of product manufacturing international new ventures, it also opens up fresh avenues of inquiry. As evidenced by case firms, a coherent account of the (PM)INV growth phases should perhaps account for activities that take place prior to the establishment of the firm or *pre-introductory phase*. For example, the growth and survival of case firm Vacon greatly benefited from personal network ties the founders had established in prior commitments. Revisiting their original research on firm internationalization Johanson and Vahlne (2003) also recognize the substantial impact business relationships, including those established prior to the firm have on internationalization and the choice of country-markets.

The present study deals with Finnish PMINVs and thereby views the INV phenomenon from the perspective of a small and open economy or SMOPEC (Luostarinen, 1979; 2.2.1). Hence, directing the empirical focus to PMINVs originating from countries with comparatively larger domestic markets and/or stricter regulation on trade would produce

interesting grounds for comparison. Moreover, most of the antecedent factors (2.3.1) studied for their influence on the outcomes of PMINV growth and survival exhibited a unilateral impact (5.2). Future descriptive research could attempt to substantiate whether this holds true for a larger population of firms and is statistically generalizable. The finding whereby B2C PMINVs adhere to a brand-driven market approach and B2B PMINVs a market-driven approach, in comparative terms, would also be interesting to submit to statistical inquiry. Additionally, further growth and survival factors that potentially have a bilateral impact on the outcomes of PMINV growth and survival (5.2) would be interesting to explore.

A topic sure to interest consumer market PMINV executives relates to the marketing resources required to generate an end-user "pull" (Webster, 2000; 2.2.2). The present study concludes that B2C PMINVs must rely on generating consumer demand to pull the product through the channel rather than simply rely on re-seller efforts to push it to the consumer. This is challenging, owing to the expenses associated with large scale demand generation at least through traditional mass media such as television and print. It also presents an avenue of exploratory inquiry, due to e.g. the plethora of novel low-cost e-commerce promotional means available today. Future research could focus on the resources and capabilities of mature B2C PMINVs and attempt to further substantiate the organizational traits that enable mass demand generation cost-effectively.

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ABBREVIATIONS

AM - Account Manager

AUS - Australia

B2B - Business-to-business / Industrial market

B2C - Business-to-consumer / Consumer market

CA - Competitive advantage

FDI - Foreign direct investment

IDP - Inherently Dissipative Polymer

INV - International New Venture

MNE - Multinational Enterprise

MD - Managing Director

ME - Middle East

NA - North America

OEM - Original Equipment Manufacturer

PMINV - (Physical) Product Manufacturing International New Venture

PMI - Post-merger-integration

PM - Product Manager

RBV - The Resource-based View of the Firm

SMOPEC -Small and Open Economy

VoIP - Voice over Internet Protocol

APPENDIX A: CASE QUESTIONNAIRE

1. Background Information:

Please describe…

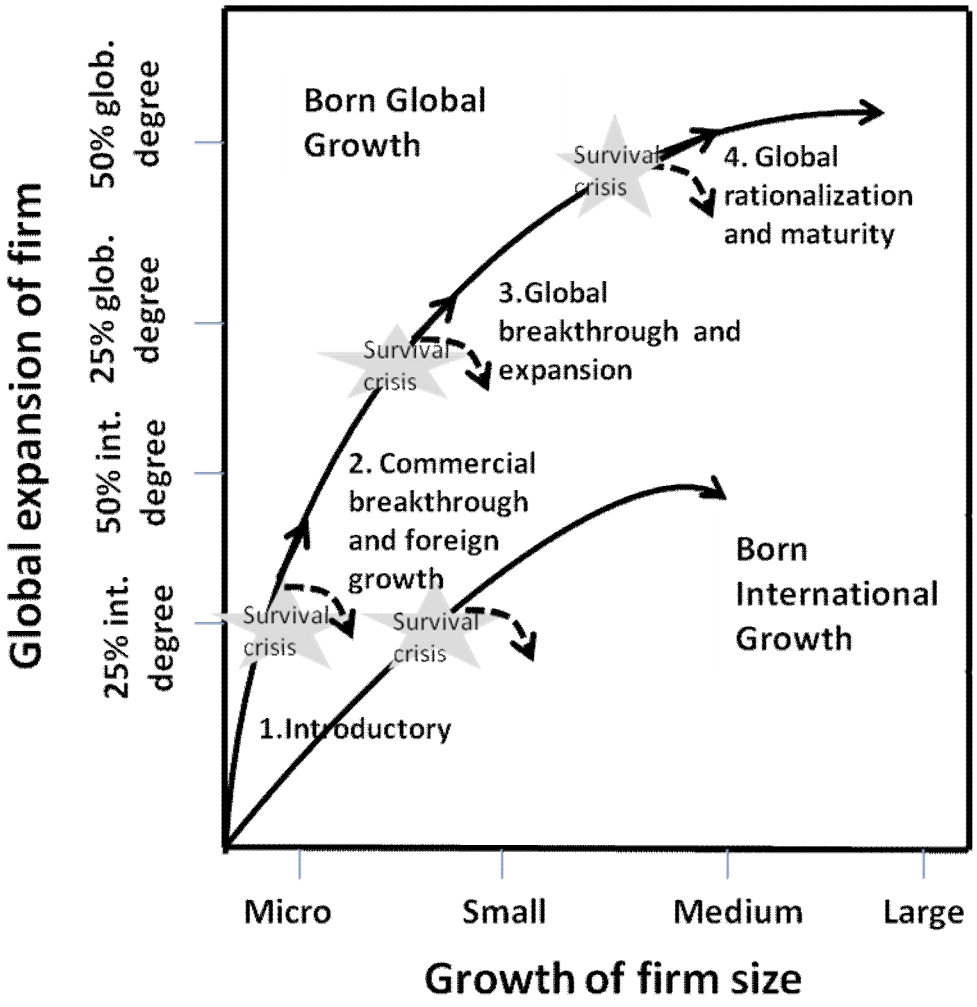
a. The firm's foundation and the people involved?
b. When the company was founded (initiated, registered & products were ready for sale)?
c. The development of the size of the firm in sales revenues and number of employees since establishment (statistics)?
d. The share of firm revenues coming from outside of Finland and its development from establishment (3 years, 6 years, now)?
e. The share of firm revenues coming from outside of Europe and its development from establishment (3 years, 6 years, now)?
f. How and when initially it became obvious that the firm is seeking to internationalize/globalize its activities, and why?

2. The Growth of the Company:

Please explain…

a. Any distinct phases that your firm has gone through during growth?
b. What have been the most critical decision making points to achieve growth since establishment? When? Why? (during which phase)?
c. How the firms first products were born
    i. How you developed the product and found the market/customer for it?
    ii. When you started initial / pilot sales and to whom?
d. When you started sales of your products in large volumes and to which countries?
    i. With which product(s) were these sales achieved?
e. The firm's expansion to foreign countries and when sales started in each foreign country?
    i. When you received your first major *foreign* deals and from which country?
    ii. How you expanded to foreign markets from then on and to which countries did you expand to and why?
f. Have you begun to expand to markets outside Europe? If so, describe how and when?
    i. What countries outside Europe did you expand to?
    ii. Did you try to further penetrate extant markets in and outside Europe and if so, how?

g. Have you started to align your operations and activities across countries globally? If so, describe when and what activities have been aligned?
h. How the firm's foreign operation modes have developed since establishment?
i. How the firm's product offering has developed since establishment?
    i. Have country specific differences produced a need to adapt products. If so, how?
j. How well the adjacent picture illustrates the growth phases of your firm?



3. The Internal and External Factors that have Most Influenced the Growth of the Firm:

Please elaborate…

a. What factors have contributed to the global growth of the firm?
b. What factors have limited the global growth of the firm?

4. The Major Challenges the Firm has faced during Growth:

Please elaborate…

a. Whether or not your company been at risk of going out of business? If so, please describe the crisis situation and in-case of non survival, please describe the survival crisis.
b. What factors (external or internal) contributed to the crisis or crises?

5. The Development of the Firm's Industry:

Please describe…

a. The industry growth rate since the establishment of the firm?
b. How similar/different the consumer/customers needs are across countries?
c. The competition in your industry?
    i. Are there global competitors. If so, please name them?
    ii. Is consolidation taking place within the industry?
d. Are there trade barriers in the industry, e.g. customs, trade limitations, protectionism?
e. The nature of the industry environment has impacted on your firm growth at the different phases/critical points you mentioned earlier?
f. How the industrial environment has impacted on your firm survival?

6. The Most Critical Resources and Capabilities of the Firm:

Please describe…

a. The development of the firm's most critical resources and capabilities?
b. The main founders' and top management teams experience as entrepreneurs and with regards to international business (years)?
c. The firm's most important physical resources (equipment/plants), intangible resources (experience, brand names, innovative human resources etc), and financial resources (internal and external)?
d. The most important firm capabilities (core competences) in technology, marketing and management?
e. In terms of resources, have you managed to adapt to the dynamics of the business environment and renew your resources and capabilities? If so, please describe how?
f. The firm's relationships with suppliers, customers, competitors and other important contacts?
    i. Your efforts in building networks and success in leveraging them?
g. The role of market understanding and customer interaction in reaching your business objectives?
h. The role of branding in reaching your business objectives?
i. The nature and timing of any government support received by the firm?
j. How these discussed resources and capabilities have impacted your firm's growth in the critical phases/points you mentioned earlier?

k. How the discussed resources and capabilities have impacted your firm's survival?

7. Characteristics and Development of Firm Culture:

Please describe…

a. In terms of experimenting growth initiatives, taking risks and responding to possible failures: Has the firm culture changed since establishment? If so, please describe how?
b. Whether and how you encourage the emergence of new ideas from within the firm?
c. What is the firm's attitude towards failures when implementing growth initiatives?
d. The firm's alertness to emerging opportunities and aggressiveness in pursuing initiatives
e. Whether you attempt to predict future developments by analyzing current market opportunities OR try to create new markets by influencing other parties?
f. How aggressively you compete with competitors?
g. The extent of hierarchy, bureaucracy, established practices and traditions within the firm?
h. The firm's ability in rapidly adapting to changing conditions?
i. Whether the selection criteria for growth related initiatives is based on expected returns OR affordable loss
j. How the discussed culture attributes have influenced the growth of the firm?
k. How the discussed culture attributes have influenced the survival of the firm?

8. The Role of Government Support:

Please elaborate…

a. The firm's opinion of the governmental support currently available?
b. Whether and how government support could have better aided the firm in critical decision points and advancing from a certain growth phase to the next?

9. Additional Information:

Is there…

a. anything important that I have not asked about firm growth and survival?
b. any material that you could distribute that describes the firm's growth?

APPENDIX B: SOURCE MATERIAL LISTING

	Audibit (inactive)	Avant Tecno LTD	Innohome LTD	IonPhasE LTD	Vacon PLC
Executive	1st Interview: -Jari Virta, Product Manager 2nd: Interview: -Mika Rajamäki, Sales Manager	1st Interview: -Jani Käkelä, Product Manager	1st Interview: -Matti Myllymäki, Founder -Pertti Haavisto, Managing Director 2nd Interview: Pertti Haavisto, Managing Director	1st Interview: -Tage Johansson, CEO 2nd Interview: -Tage Johansson, CEO	1st Interview: - Vesa Laisi, CEO 2nd Interview: -Veijo Karppinen, Former CEO
Date	1st Interview: -16.03.2010 2nd Interview: -23.03.2010	1st Interview: -02.03.2010	1st Interview: -02.06.2009 2nd Interview: -26.10.2009	1st Interview: -02.06.2009 2nd Interview: -27.10.2009	1st Interview: -22.03.2010 2nd Interview: -12.04.2010
Place	1st Interview: -Turku 2nd Interview: -Raisio	1st Interview: -Ylöjärvi	1st Interview: -Espoo 2nd Interview: -Espoo	1st Interview: -Espoo 2nd Interview: -Espoo	1st Interview: -Vantaa 2nd Interview: -Vaasa
Span	1st Interview: -90min 2nd Interview: -74min	1st Interview: - 111min	1st Interview: -105min 2nd Interview: -118min	1st Interview: -108min 2nd Interview: -199min	1st Interview: -107min 2nd Interview: -107min
Secondary Data	Monthly investor reports: -1999-2002 Monthly sales reports: -1999-2003 Product catalogues Marketing material	Income statements: -1996,1997, 1998,1999, 2002, 2003, 2004, 2005, 2006,2007, 2008,2009 Product catalogues www.avanttecno.com	Product catalogues www.innohome.com	PDF Presentations of the firm: -IDP market and client cases, 2009 -for potential investors, 2009 www.ionphase.fi	IPO circular -2000 Annual reports: -2000-2009 Financial statements: -2000-2009 Product catalogues www.vacon.com

APPENDIX C: ORGANIZATIONS OF SINGLE-CASE DESCRIPTIONS

FCC – (U.S.) Federal Communications Commission

Finnvera - Finland’s Official Export Credit Agency

Finpro - Finnish Foreign Trade Association

Sitra - The Finnish National Fund for Research and Development

Tekes - The National Technology Agency of Finland