Aalto University
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SALES CHANNEL STRATEGIES OF TECHNOLOGY-INTENSIVE BORN GLOBALS - A quantitative study of Finnish and Swedish ICT companies

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ABSTRACT
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This study explores the sales channel strategies of Finnish and Swedish ICT companies from a Born Global vs. Traditional Internationalizer perspective. First, the globalization literature - mainly globalization process, different globalization approaches and factors influencing the globalization of a company - are examined, while also covering the essential sales channel strategies used by companies. The impact of selected environment and company-specific variables are inspected from the standpoint of how they impact the globalization approach and sales channels. Second, a theoretical framework of the factors impacting Sales Channel and Internet Sales Channel strategy is constructed based on the literature.

The data used in this study were collected with a web-based questionnaire and a complementary mail survey targeted to Finnish and Swedish ICT companies operating internationally. A total of 2228 companies were contacted, of which the questionnaire was sent to 579 decision makers. 424 companies completed the survey, resulting to 261 valid answers. The objective of the study is in determining whether *(1) Globalization Pressure, (2) Globalization Approach* and *(3) Managerial Resources of a company* have a statistically significant association with *(a) Sales Channels strategy* and *(b) use of Internet in Sales Channels.* Two statistical data analysis techniques, Logistic Regression Analysis and Analysis of Covariance (ANCOVA), were used to address the research questions on basis of the data. The data was also analyzed in a descriptive manner.

The results of the analyses found support for three out of six hypotheses developed for examining the relationships between above mentioned variables (1, 2, 3 + a & b). Approach was noticed to be a relevant determinant for both, sales channels and the extent to which Internet was used in sales channels. Globalization pressure was realized not to have a statistically significant relationship with neither. Managerial resources were found to impact sales channel strategy, whereas there was no significant relationship between managerial resources and the extent to which companies apply Internet for sales purposes.

Although suitable for the objectives of this thesis, the theoretical framework provided no strong explanations for the differences in channel strategies, as the variables proved to be fairly disconnected from each other. Nevertheless, by complementing the model with additional environment and resource-based variables, and by adding performance measures to the model, the framework used could be more applicable as an overall model for a quantitative assessment of the impact of internal and external variables and different channel options on the performance of a company.

KEYWORDS: Born Global, Globalization, Marketing Strategy, Sales Channel Strategy, Internet, Quantitative analysis,

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TEKNOLOGIA-INTENSIIVISTEN BORN GLOBAL – YRITYSTEN MYYNTIKANAVA-STRATEGIAT – Kvantitatiivinen tutkimus suomalaisista ja ruotsalaisista ICT-yrityksistä

Tutkimus tarkastelee suomalaisten ja ruotsalaisten ICT-yritysten myynti-kanavastrategioita Born Global- sekä normaalia kansainvälistävää yritystä vertaavasta näkökulmasta. Tutkielman ensimmäinen osa käsittelee globalisaatiokirjallisuutta - lähinnä globalisaatioprosessia, erityyppisiä globalisoivia yritystyyppejä sekä globalisaatioon vaikuttavia tekijöitä. Tämän jälkeen esitellään erilaiset myyntikanavastrategiat. Tutkimus tarkastelee myös erilaisten liiketoimintaympäristöön ja yrityksen resursseihin pohjautuvien tekijöiden vaikutusta myyntikanaviin sekä yritystyyppiin. Oleellisten teorioiden esittelyn jälkeen luodaan teoreettinen kehikko, joka tarjoaa puitteet tarkastella selittävien tekijöiden (Globalisoimisen paine, Yritystyyppi & Henkilöstö-resurssit) vaikutusta Myyntikanavastrategiaan sekä Internetin käyttöön myyntikanavana.

Tutkimuksessa käytetty data kerättiin Internet- sekä täydentävällä postikyselyllä, joilla tavoiteltiin kansainvälisesti toimivia suomalaisia ja ruotsalaisia ICT-alan yrityksiä. Yhteensä 2228 yritykseen otettiin yhteyttä. Kyselylomake lähetettiin 579 yrityspäättäjälle, joista 424 vastasi kyselyyn. Yhteensä 261 vastausta todettiin käyttökelpoisiksi. Data-analyysin tarkoituksena on tutkia *(1) Globalisoinnin paineen, (2) Yritystyypin ja (3) Johtoportaan ominaisuuksien* sekä *(a) Myyntikanavastrategian* ja *(b) Internetin käytön myyntikanavana* välisiä yhteyksiä. Analyysivaiheessa dataa tutkitaan ensin kuvaavasti, jonka jälkeen suoritetaan kaksi syvällisempää tilastollista analyysiä – logistinen regressio sekä kovarianssianalyysi.

Analyysien perusteella saadut tulokset tukevat kolmea yhteensä kuudesta hypoteesista, jotka luotiin tarkastelemaan yllämainittujen tekijöiden (1,2,3+a&b) välisiä suhteita. Yritystyypillä huomataan olevan tilastollisesti merkitsevä vaikutus niin myynti-kanavavalintaan kuin myös Internetin käyttöön myyntikanavissa. Globalisoinnin paineella ei löydetä olevan merkitsevää suhdetta kumpaankaan. Johtoportaan henkilöstöresurssien havaitaan olevan positiivisesti yhteydessä monikanavaiseen strategiaan, kun taas resursseilla ei huomata olevan merkitsevää vaikutusta Internet-myyntikanavien määrään.

Vaikka teoreettinen kehikko osoittautuu toimivaksi instrumentiksi työlle olennaisten tekijöiden välisten yhteyksien tarkasteluun, rungon osien huomataan olevan melko irrallisia toisistaan. Tästä johtuen malli ei kykene toimimaan kokonaisvaltaisena selittäjänä kanavastrategioille. Täydentämällä mallia ympäristöä ja resursseja kuvaavilla lisämuuttujilla sekä lisäämällä performanssimittareita, kehikko voisi kuitenkin tarjota puitteet mitata yritysten sisäisten ja ulkoisten tekijöiden sekä myyntikanavien vaikutusta suorituskykyyn.

AVAINSANAT: Born Global, Globalisaatio, Markkinointistrategia, Myyntikanavastrategia, Internet, Tilastollinen analyysi,

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1 INTRODUCTION

As long as fifty years ago Peter Drucker (1954) perceived that "Because it is its purpose to create a customer, any business enterprise has two, and only these two, basic functions: marketing and innovation". The observation is important in terms of the topic of this paper, but also due to the nature of the type of company under examination in the study – a Born Global. For a Born Global, both marketing and innovation are of crucial significance. These companies, usually known for high-tech and high innovation, call for innovative marketing strategies when reaching for global markets with limited resources. While Drucker was probably referring to product innovation, it is now acknowledged that competitive strategy is equally based on innovation with respect to *how* companies go to market, as opposed to *what* they bring to market. (Rayport 2005).

Internationalization and international marketing strategies of a company have been among the most interesting topics in business research during the last few decades. The phenomenon has been investigated by means of different approaches and from several viewpoints. Global and international marketing literature has put a lot of emphasis on promoting the theoretical understanding of the marketing strategies of large global firms (see e.g. Levitt 1983; Yip 1992), whereas the internationalization and globalization of SMEs has only recently been given more attention (Miesenbock 1988).

Studies focusing on the marketing strategies of Born Global (from here on BG) have growingly raised interest among scholars since the evolution of the concept in 1993 (Rennie 1993), but the overall understanding of the phenomenon is still in need of more profound research (see e.g. Knight 1997, Gabrielsson and Gabrielsson 2003). Furthermore, only a small portion of the studies that have in fact focused on the marketing strategies of BG companies, have examined the topic of sales channel selection and the vast challenges it represents to the management team in charge of the companies (Gabrielsson & Kirpalani 2004). Therefore, the focus of this study is on

small knowledge-intensive enterprises, more specifically Finnish and Swedish ICT BGs, and their globalization and sales channel strategies.

Sales channel selection is a key element in the start-up phase of the majority of companies. Especially, when entering foreign markets, the choice of channel/s to be used, is one of the most important decisions in the process. Thus, examination of sales channel options and different strategies firms are applying should be given a great deal of emphasis, as channels also act as instruments in opportunity identification and market response (Root 1987 & Li 1995). To emphasize the significance of this strategic element, Rayport (2005) states that "How companies go to market will determine who wins and loses the game".

Frankly, channel strategies have been in the scope of many researchers (see e.g. Klein *et* al. 1990 & Rosenbloom 1991 & Rangan *et al*. 1993), but quite often the channel selection process has been observed from the viewpoint of transaction cost analysis (TCA), the basic idea of which is that a producer will internalize (integrate forward) the functions which the producer is able to perform at a lower cost (Coase 1937; Gabrielsson 1999). There have also been numerous studies focusing on identifying whether there even are rational based decision-making practices in typical internationalizing companies (e.g. Calof 1993). On the other hand, the number of studies focusing on the characteristics of a decision maker and the impact a decision maker has on internationalization and channel selection, has been left to much less attention.

As a result of the existing gaps in the literature explained above, the scope of this thesis is in examining the Born Global phenomena from the viewpoint of sales channel strategy and testing some of the variables influencing the strategic decisions. While aiming to contribute to the theoretical understanding of the channel selection process in BG companies and in general, the study analyses numerically how selected external and internal elements – mainly industry specific globalization pressure, and human capital and managerial characteristics - influence channel selection and utilization, and tests if

there are noticeable differences among the BGs and Traditional Internationalizers (from here on TI) in the Finnish and Swedish ICT segment.

1.1 Background of the Study

This thesis is completed as a part of the Global Marketing Strategy Survey or the GLOMARK project. The project is headed by Peter Gabrielsson from University of Vaasa with Mika Gabrielsson and Tomi Seppälä from Helsinki School of Economics.

The project aims in examining the global marketing strategies of Finnish and Swedish ICT companies through extensive collection of data in survey form. Collection of data was completed in 2007-2008 by a group of HSE Graduate students. During the data collection period, a list of ICT companies in Finland and Sweden were contacted and invited to participate in a study by responding to a 20-minute Internet based survey. The data collection process and the companies within scope of the research are discussed in more detail later on in the study.

As this study as well as the GLOMARK project were limited to only inspecting companies that operate in the Information and Communication Technology segment, a brief introduction to the industry is in place.

1.2 ICT in brief

The Information and Communication Technology (ICT) is strongly present all over the world. Our lives are dependent on technical efficiency in most corners of the society; the manufacturing and services industries as well as basic everyday family lives. ICT sector supplies production, trade and services sector directly and indirectly and it definitely makes our lives easier, faster and much more efficient. The societal alterations we have experienced in the last decade or two can be well portrayed as the “third industrial revolution” (Paija 2000).

The last decades have seen continuous growth in terms of telecommunication and ICT infrastructure development and service uptake. By the end of 2008, an important milestone in the ICT development on global level was achieved: over 4 billion mobile cellular subscriptions worldwide, resulting to a penetration rate of 61 percent. At the same time, according to estimations, there were approximately 1.3 billion fixed telephone lines globally and almost a quarter of the world's 6.7 billion people were using the Internet. Nevertheless, fixed and mobile broadband penetration levels remained relatively low; 6 % and 5 % respectively. (ITU 2009)

The ICT field is also very strongly linked with globalization, and firms are faced with an immense pressure to globalize, as Gabrielsson, Gabrielsson and Seppälä put it: "*globalize or die*" (Gabrielsson *et al.* 2008). In the Nordic ICT field, the domestic market provides a valuable development and test ground, but the actual business environment and reference groups are global from the early outset (Paija 2000).

When thinking of the status of the ICT sector in the Nordic societies, can be said that it plays an important role at least in Finland and Sweden. According to International Telecommunication Union (ITU), Finland and Sweden are among the most advanced countries in the world in terms of ICT development. The ITU *ICT Development Index* (IDI) ranks country-level ICT development by measuring sets of data categorized under ICT access, ICT use and ICT skills (see Appendix 1). On the IDI-list, which ranks 154 countries according to their ICT level, Sweden is ranked as no: 1 and Finland no: 9. The ICT sector also represents a crucial part of Nordic societies also in terms of economic value. This important field of business/industry produces an immense contribution to business sector employment and value added, as seen in figure 1. (ITU 2009)

One might speculate how small economies like Finland or Sweden are able to sustain such vast demand to support the production of ICT products and services. The answer is that a large portion of the output is sold outside national borders – or exported. The role of the high-tech segment is very significant when viewing the value of exports originating from Finland and Sweden. As an example, the share of high technology

products of all goods exported from Finland in 2008 was 17.6 per cent and their share of goods imports was 13.9 per cent. The value of Finland's high technology products exported abroad amounted to a total of 11.5 billion €, of which Electronics and telecommunications products represented 9.2 billion – 14.1% of total exports. Although high tech exports were down by 150 million € from the year before, the surplus of foreign trade in high technology products totaled the value of 2.8 billion Euros. (Tulli 2008)

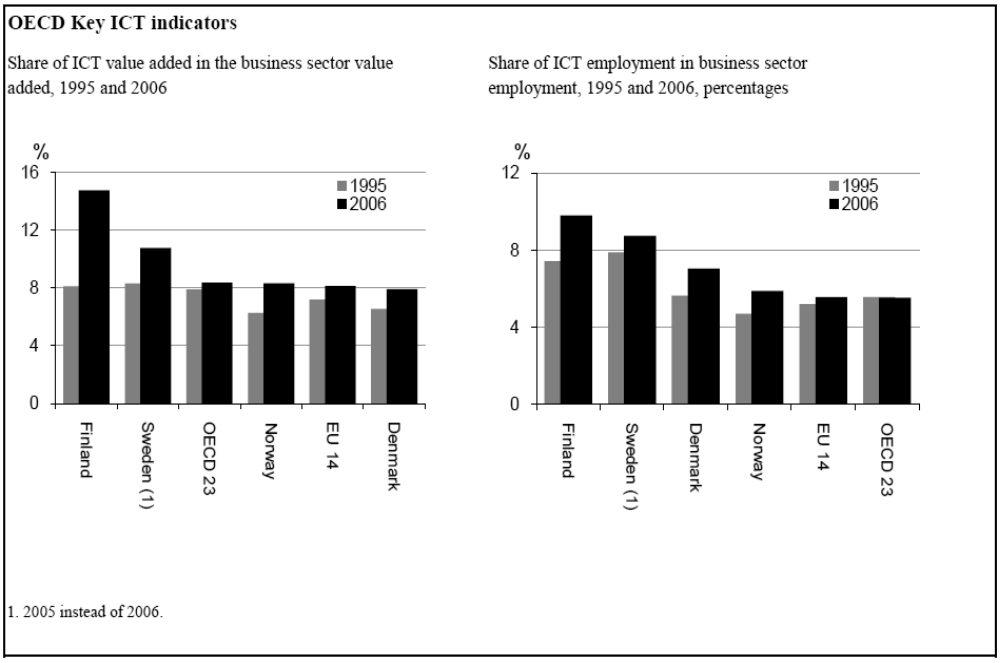

Figure 1: OECD Key ICT Indicators. Source: OECD (2010)

Due to this it is essential that companies have access to the best practices of international business theory and develop the ability to assemble their foreign sales functions on a solid and efficient basis. Knowledge of different sales channel strategies is an important aspect when determining whether or not an effort to internationalize/globalize is going to be set up in a competent and resourceful way. To contribute to the understanding of this important topic, the sales channel strategies used by international Finnish and Swedish ICT companies are examined in this study. To provide the reader with more precise understanding of the industry itself, the ICT cluster will be defined and limited in part 1.4 of the paper.

1.3 Research Gap and Objectives

Based on the previous research and literature, the overall understanding of the marketing strategies of Born Globals is still in need of extensive research (see e.g. Knight 1997, Gabrielsson & Gabrielsson 2003). Furthermore, as the number of studies focusing on international channels of distribution is fairly limited (Ensign 2006) and as only a small portion of the studies have examined the topic of sales channel strategies among BGs (Gabrielsson & Kirpalani 2004), the aim of this thesis is in contributing to the understanding of the strategic internationalization and sales channel strategies used by knowledge intensive BGs operating in the Finnish and Swedish ICT sector.

The thesis concentrates on two specific types of companies, Born Globals and Traditional Internationalizers. The study will examine the sales channels used by BGs and TIs through an analysis of the impact which selected firm specific resources and industry-related external components have on channel strategy. In addition, a comparison between a BG company and TIs is executed and analyzed.

The main objective of the thesis is to add to the theoretical understanding of two subjects; *how do BGs differ from TIs in terms of global/international sales channel strategy* and *how selected external and internal variables affect the use of sales channels and Internet based e-channels in companies.* These two main objectives are approached through statistical analysis of the following sub questions:

1. Are there differences in the use of Sales Channels and use of Internet in sales channels between BGs and TIs?
2. How do the managerial / entrepreneurial resources and capabilities impinge on the sales channel strategies applied by companies?
3. What is the impact of market environment and globalization pressure on sales channel strategy?
4. What is the role of Internet in global/international sales channels and how do sub-questions 2 & 3 influence its use as a channel?

The sales channel alternatives relevant to this study are as follows: (1) indirect, (2) direct, (3), dual and (4) hybrid; which will be further compressed to (1) single (indirect + direct) and (2) multiple (dual + hybrid) channels.

The research questions will be specified later on in the paper, as the research hypotheses are set. The analysis will be conducted to a dataset, which was collected from 261 Finnish and Swedish ICT companies.

1.4 Key Concepts and Limitations

Internationalization: the process of increasing involvement in international operations across borders (Welch & Luostarinen 1988).

Globalization can be conceptualized as a multidimensional process of international network formation. The network metaphor simplifies the concept of globalization by highlighting both the *nodes* (e.g., people, organizations, and states) and the *relations* (e.g., trade, investment, organization membership, consumption, and migration) that are central to the globalization process. Cross-national connections are created in the economic, political, cultural, social, and environmental domains, which can also be seen as the five dimensions of globalization (Beckfield *et al.* 2008). In the context of this study globalization will be investigated from the viewpoint of economic globalization, which results when corporations go multinational, either by selling their products in other countries, buying corporations located in foreign countries, or opening branch offices or subsidiaries outside their home country (ibid).

Born Global (1st recognized by McKinsey & Co. 1993; Rennie 1993). The Born Global firm is defined 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" (Oviatt & McDougall 1994; 49). Knight and Cavusgil (1996) define a BG as a small firm that "relies on cutting edge technology in the development of a relatively new

product or process innovations" and is managed by "entrepreneurial visionaries who view the world as a single, borderless marketplace from the time of the firm's founding". This study utilizes a combination of the two definitions when separating BGs from Traditional Internationalizers, as BGs are bound to have a global vision from inception and are operating in multiple countries and outside home continent. Additionally, all companies examined in the study are operating in the ICT Field, and are thus likely to rely on high-tech and product and process innovation. Further limitations for the BG are explained in a latter part of the study.

Sales Channel: This research is limited to investigating four different sales channel options; direct, indirect, dual and hybrid.

ICT: The OECD countries agreed on the following definition of ICT in 1998; in an ICT manufacturing industry, the products must be designed to fulfill the function of information processing and communication, including transmission and display. The product must use electronic processing to detect, measure and or record physical phenomena or control a physical process. (Nordic Information Society Statistics 2005). In an ICT service industry, the products must be intended to enable the function of information processing and communication by electronic means. (ibid)

Figure 2 displays an extensive view over the categories and industries seen as parts of the ICT cluster. In this study, the main focus was set on the most important and segments of the cluster, mainly the ones listed under "key industries". Nevertheless, some supporting industries and associated services were accepted relevant in regards of the study – more specifically parts and component manufacturers, ICT consultancies and venture capital companies. ICT companies within the research mainly operate as telecommunications network, mobile phone, personal computer, component or software producers.

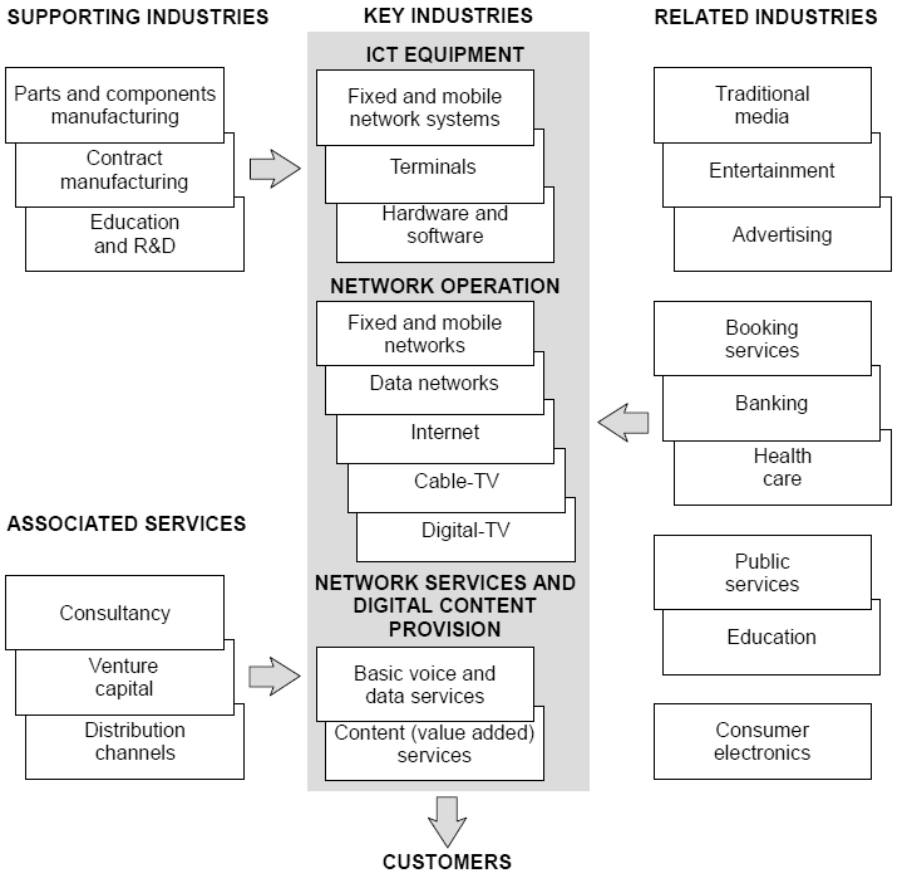

Figure 2: The ICT Cluster Chart. (Source: Paija 2000)

2 LITERATURE REVIEW

This chapter outlines the theoretical background of the study. The chapter begins with a discussion on globalization and the drivers which stimulate the aspirations of companies to pursue the international and global markets. In order to describe how small companies with limited resources are able to compete globally, the concept of Born Global company and the factors underlying the phenomenon are discussed in the following part. After that, the chapter introduces the basic principles of international sales channel strategy. The 2nd chapter ends with a discussion on the influence of selected company and industry specific factors on sales channel strategies used by companies.

2.1 Globalization

Globalization and internationalization are not new concepts per se, as cultures have traded goods across borders and between continents since and before the time of the Roman Empire. Even though international trade and its basic principles have been studied by scholars for centuries – ever since the revolutionizing publications by Adam Smith and David Ricardo – the internationalization process on a company level has not been under profound examination until the 1970s. Since then, the academic activity in the field has increased substantially, and the quest to being competitive on a global level has become one of the focal issues of business firms and governments (Welch & Luostarinen 1988).

The company level globalization process is a multidimensional phenomenon and should therefore be inspected from diverse perspectives and by means of different measures (Gabrielsson *et al.* 2008). Not all international companies are, nor wish to be global; therefore the companies studied in this thesis are placed in two categories – Traditional Internationalizers and Born Globals. TIs are companies which gradually transform according to the stages pattern of internationalization from the domestic stage towards

the international stage (Johanson & Vahlne 1977; Luostarinen 1979; Gabrielsson *et al.* 2008) whereas BGs do not proceed in line with the stages pattern, but jump over stages rapidly advancing towards the global stage as they have a global vision from inception (e.g. Oviatt & McDougal 1994; Knight & Cavusgil 1996; Gabrielsson *et al.* 2008). The companies are positioned in these two categories using boundaries such as mindset of management (e.g. management orientation and vision), strategic thrust (e.g. entry, local expansion, rationalization), and geographical spread (e.g. sales derived outside home country / outside home continent, number of countries / continents with company presence) (Gabrielsson *et al.* 2008). The categorization will be further explained in chapter 3.

2.1.1 Drivers for Internationalization

The international markets and international marketing have become ever-increasingly important to companies of all sizes, to their customers and to national economies. Most companies globally are now selling to and competing with products from across borders, while using materials and equipment from other nations. The economic health has become more and more dependent on international trade on a national and regional level as export sales acts as an engine of growth and as a source of foreign exchange. (Albaum *et al.* 2002)

According to Luostarinen (1979; 1994), there are three important domestic macro factors acting as push forces for the internationalization; small size, openness and peripheral location of the domestic market. On the other hand, the large size and reciprocal openness of foreign target markets create an international pull force encouraging firms to target international markets. As a third element of Luostarinen's model, the enabling environment factors, e.g. lowering barriers of trade and investment, improvements in transportation and logistics, deregulation of capital markets, etc. promote the eagerness of companies to enter foreign markets. Company specific advantages act as a fourth group of forces: 1. Advantages of economies of scale, 2. Advantages of specialization, 3. Advantages of global alternatives and 4. Advantages of

integration (Luostarinen 1994). For Finnish ICT companies the factors are extremely valid as the size of Finnish market is not large enough to launch products in the ICT field (Gabrielsson 2004).

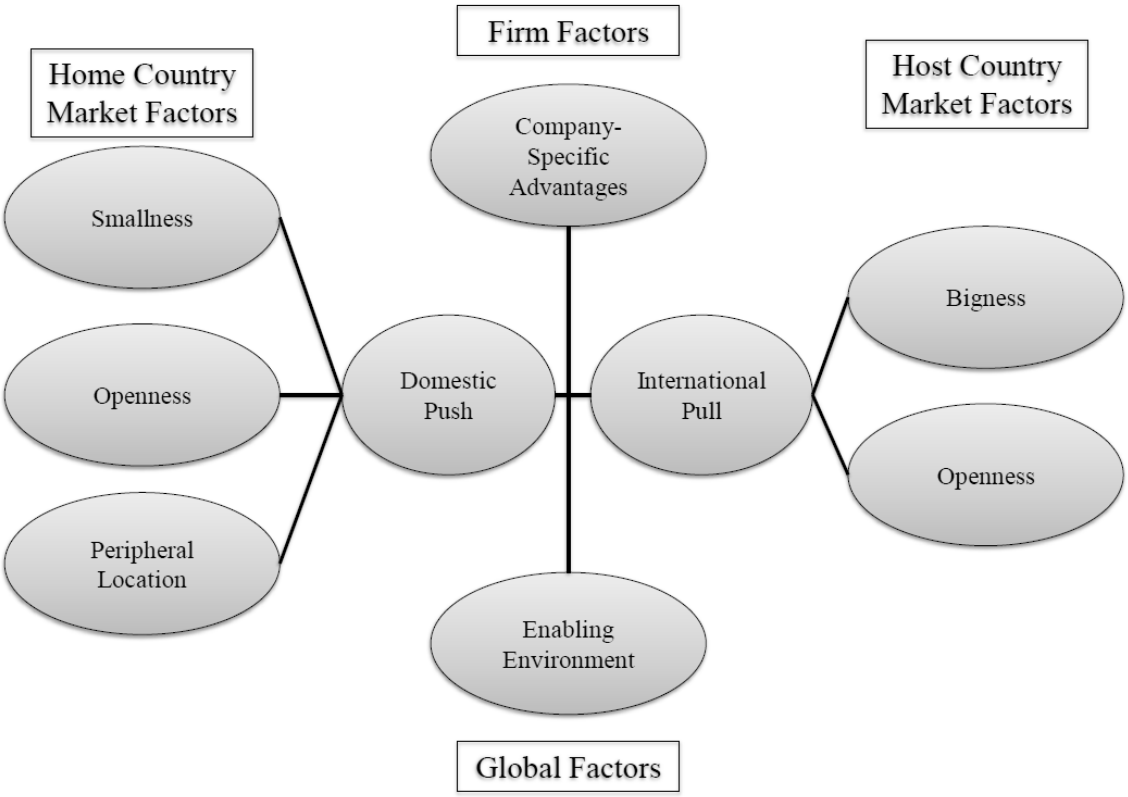

Figure 3: Powerfield for the Internationalization of Finnish Firms (Source: Luostarinen 1994)

Luostarinen (2001; Gabrielsson 2004) argues that the growth strategies of Finnish companies can be seen to have developed in four stages: 1. Domestic business and unrelated diversification, 2. Internationalization and unrelated diversification, 3. Globalization and focus, and 4. Globalization and related diversification. Understandably, BGs cannot be seen as traditional Finnish firms, as they initiate globalization and have global vision in terms of product, marketing and operation strategies from inception. Thus the next section centers the attention on introduction of the globalization drivers.

2.1.2 Globalization Drivers

Globalization and emphasis on global strategy have recently been given an increasing amount of attention due to intensification of new factors enforcing companies to adapt themselves on increasingly fast paced and progressively more homogenized business environments. There are three commonly accepted forces that are driving globalization of business (Acs *et al.* 2001). (1) the explosive growth of low-cost technology connecting people and locations, (2) the steady dismantling of trade barriers and financial deregulation and (3) the widespread economic restructuring and liberalization that followed the fall of socialism in Russia and Eastern Europe, as well as China. These formerly isolated markets are now open for investment, and sources of further growth and investment.

In his article, Yip (1989) highlights several globalization drivers that push companies towards a global strategy. The drivers can be categorized under (a) Market drivers, (b) Cost drivers, (c) Governmental drivers, and (d) Competitive drivers.

2.1.2.1 Market drivers

Market globalization drivers are linked to customer behavior and distribution channel structure. *Homogeneous customer needs,* e.g. when customers in different countries want essentially the same product, create opportunities to market standardized products. This also allows companies to enter large number of markets more easily.
Global customers, who buy centrally for decentralized use, both allow and require a uniform marketing program. *Global channels,* analogous to global customers, buy on a global or maybe regional basis. These middlemen may buy for a low price in one country and sell high in another therefore making worldwide pricing more important to companies. *Transferable marketing:* some marketing elements, like brand names and advertising, may require little local adaptation thus making it possible for companies to use brand names and marketing campaigns globally. (Yip 1989)

2.1.2.2 Cost drivers

According to Yip, (1989), cost drivers principally affect activity concentration and depend on the economics of the business. *Economies of Scale and Scope* implies that participation in multiple markets combined with standardized products or concentration of activities scale at a given location can be increased by expanded attendance in multiples markets. Presence in multiple markets and activity concentration also advance and accelerate the accumulation of *Learning and Experience*. Centralized purchasing lowers costs and thus improves *Sourcing Efficiencies*. Concentrated production, on the other hand, can favorably affect transportation costs and schedules, thus resulting in *Favorable Logistics*. *Differences in country costs and skills* enable companies to concentrate certain activities between low-cost and high-skill countries resulting in an increased productivity and reduced costs. Increased level of globalization also makes lowered *product development costs* possible, as it is cheaper to develop a few global products than many national products. (ibid)

2.1.2.3 Governmental drivers

Favorable Trade Policies; the liberation of government restrictions on international trade - import tariffs and quotas, non-tariff barriers, export subsidies, local content requirements, currency and capital flow restrictions, technology transfer requirements, etc - opens up global markets for competition and sets of a rush to expanded market participation. *Compatible Technical Standards* create opportunities for product standardization as government set requirements ease. Absence of *Common Marketing Regulations* creates problems, as different policies on *what* is allowed to be advertised *where* and *how* still exist. In addition, certain types of media may be restricted in certain countries. (Yip 1989)

2.1.2.4 Competitive drivers

Market, *Cost* and *Governmental drivers* are fixed for an industry at any given time. In contrast, *Competitive drivers* are entirely dependent on a competitor choice.

Globalized Competitors indicates that matching or pre-empting individual competitor moves, e.g., entering markets, introducing products, using uniform marketing, may be necessary. The need to preempt a global competitor may result to increased market participation. The second part of competitive drivers, *Interdependence of Countries,* can be created through global strategy, typically through sharing of activities. When sharing activities between countries, a firm's market share in one country changes its overall scale and cost position, resulting to advantages in all countries dependent on the activities in question. (Yip 1989)

2.1.2.5 Changes over Time

The industry globalization drivers evolve over time, and so will the appropriate global strategy change. In some cases, even the actions of an individual competitor may influence the direction and speed of change; e.g. a competitor with superior central manufacturing capabilities may wish to accelerate the acceptance of a globally standardized product. (Yip 1989)

Although globalization drivers are powerful, they do not represent a formula for success as drivers vary across industries (Yip 1989). The ICT field is for example characterized by the following drivers (Gabrielsson 2004): (a) the markets are becoming more alike and the need for market adaptation is becoming less significant, (b) global players are present, (c) although still mainly government-controlled industries, deregulation of operator competition has opened the operator business for competition, and (d) in ICT companies, the research and development (R&D) costs are often enormous, thus making it important to try spread the costs over the largest possible volume of sales globally.

2.1.3 Global Strategy in the Internet Era

Industries with strong *market globalization drivers* have seen a greater acceleration of globalization due to the increasing use of the Internet. Factors such as global commonality in customer needs, existence of global channels and customers, and global

marketing facilitate industry globalization and the spread of global offering. Industries with strong *cost globalization drivers* are more capable of capitalizing the opportunities deriving from an extensive use of the Internet. Internet will also enable industries that have traditionally been held back by *government* barriers to more resourcefully sidestep the barriers. The level of global competition is also likely to intensify due to the effect of Internet within industries characterized by strong *competitive* globalization drivers. Figure 5 gives a more precise view on the impact of Internet on Industry Globalization Drivers and Barriers. (Yip 2000)

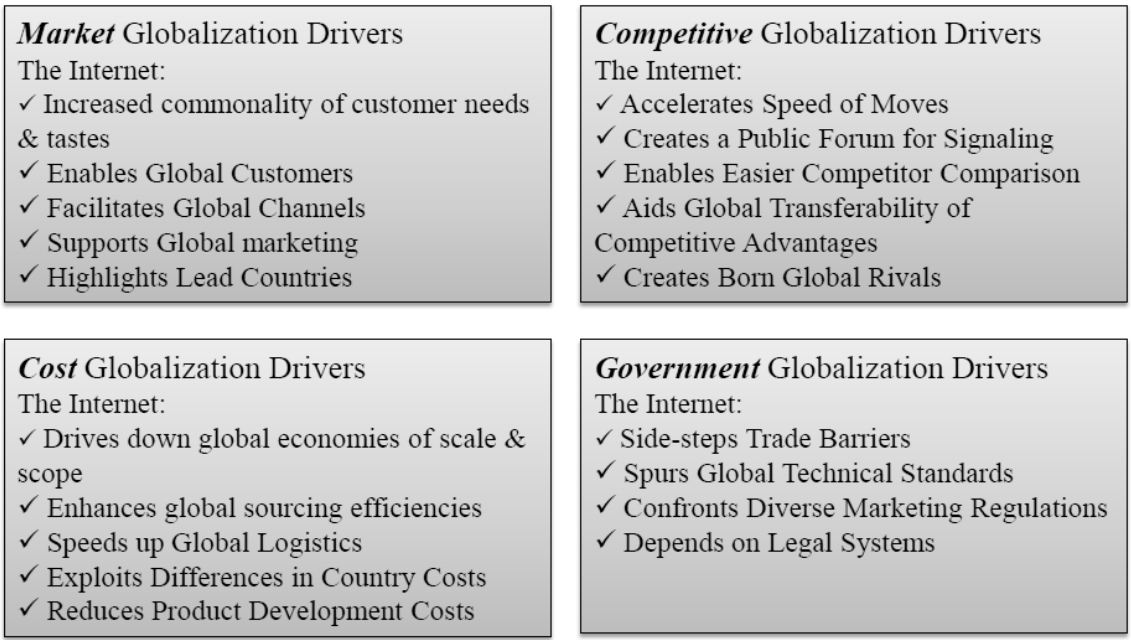

Figure 4: The effects of Internet on Industry Globalization Drivers and Barriers (Source: Yip 2000)

2.1.4 Formulation of Global Strategy

Global strategy is often linked to multinational corporations. The Multinational Corporation strategies are typically known as international (or export-driven), multidomestic and transnational strategies (Bartlett & Ghoshal 1989). Global strategy, on the other hand, is one particular form of multinational enterprise (MNE) strategy that treats countries around the world as a common, global marketplace (Levitt 1983).

In order to adapt a total worldwide strategy, Yip (1989) introduces three essential steps: (1) Development of core strategy, which is usually developed for the home country first, (2) Internationalization of the core strategy through international expansion and adaptation, and (3) Globalization of the International strategy through adaptation across countries. The model suggests that globalization is normally achieved gradually, through international and multidomestic stages. Although the model is valid for most companies (e.g. Traditional Internationalizers and Globalizing Internationals), Born Globals companies represent an exemption. Kudina, Yip and Barkema (2008) observe that most multinational companies have grown in their home markets before going overseas. In recent years, a number of Born Global companies (mostly small- and medium-sized enterprises) have gone international / global within a few years of inception, even while quite small and unknown at home, and have reached very high percentages of international revenues very rapidly.

2.2 Born Globals

In terms of the age and geographic scope of companies, a vast amount of research has focused on start-up firms operating only in domestic markets, and on established firms that sell in domestic markets or in international markets. On the contrary, the study of new firms operating in international markets has been left for less attention (Oviatt & McDougall 1994, Kudina *et al.* 2008).

In traditional internationalization processes, companies tend to have a relatively long domestic stage, after which they proceed to international markets through the stages pattern of internationalization (Johanson & Vahlne 1977; Welch & Luostarinen 1988). The Uppsala model (Johanson & Vahlne 1977) implies that companies internationalize through four stages, as they slowly advance from exporting stage to overseas production via foreign direct investment. The U-model describes internationalization as a learning process, in which one of the basic assumptions is that "the lack of knowledge is an important obstacle to the development of international operations" (Johanson & Vahlne 1977: 23). Therefore, the model indicates that companies advance in a step-by-step

pattern, starting from physically close countries and proceeding to more demanding markets, as their knowledge of and commitment to foreign operations increase (ibid: 24).

The entering of new markets is usually distressed by psychic distance which is the sum of differences in languages, cultures, political systems, etc. The psychic distance is often creating more gaps between the firm and the markets than actual physical distance (Johanson & Wiedersheim-Paul 1975). Experiential knowledge, which can only be acquired through personal experience, is very relevant in order to reduce psychic distance (Johanson & Vahlne 1990).

Born Globals (McKinsey & Co. 1993), also called International New Ventures (McDougal *et al.* 1994) and Global Start-ups (Jolly *et al.* 1992) are an unconventional breed of companies. They operate in a dissimilar way compared to traditional internationalizing companies, as they adopt international or a global approach at or shortly after conception, even without any experience from domestic operations (Madsen & Servais 1997). Unlike traditional companies, BGs – their products, marketing and operation strategies, along with vision and mission – are formulated to facilitate rapid growth on international/global markets right from start-up (Luostarinen & Gabrielsson 2004). Current internationalization theories have been challenged as the impact of technological, social, and economic changes drive firms into international markets at a fast pace soon after inception (Oviatt & McDougall 1997).

2.2.1 Categorization and Definitions of BG

A BG may be categorized using several different criteria. Many studies focus on the size of a company and the rapidity and extensiveness of the internationalization process when defining a BG; i.e. Knight and Cavusgil (1996) describe BGs as generally small companies with less than 500 employees and annual sales of under $100 million. They also state that BGs begin exporting one or several products within two years of their establishment and tend to export at least 25% of total production. To give a more

precise picture of the type of company categorized as a BG, previous research has identified several characteristics to portray the company type (Oviatt and McDougall 1995, 1997; Knight & Cavusgil 1996):

1. Managed by entrepreneurial visionaries with international experience
2. Global vision since conception – to *be* global, a firm must *think* global
3. Reliance on cutting edge technology
4. Small in size, flexible and able to move fast
5. Strong international business networks. The network identifies opportunities, gives advice and helps with negotiations.
6. Customer orientation
7. Uniqueness of the product or service, usually through special knowledge or know-how.
8. A BG usually serves a niche market.

This thesis, however, uses the following frame to classify a company as a BG in the quantitative part of the research (Gabrielsson *et al.* 2008):

1. Start of foreign sales outside Europe is within 2 years from foundation
2. Vision: global markets from inception
3. Sales outside home country at least 50 %
4. Sales outside Europe at least 10 % (35 of 40 firms had 20% or more)
5. Sales in at least 3 foreign countries

2.2.2 Factors Facilitating the Expansion of the BG Phenomena

The global market has experienced a drastic change during the last 20-30 years. It is fair to say that the world has become “smaller and faster”. Borders have opened and international communication means have taken huge leaps since the invention of PCs and satellites. Dramatic increases in the speed, quality, and efficiency of international communication and transportation have reduced the transaction costs of multinational interchange (Porter 1990; Knight & Cavusgil 1996; 2004) and therefore facilitated the

spread of BGs to the global markets. The improved international communication and transportation along with the homogenization of markets and customer needs simplify and shorten the process of firm internationalization (Oviatt & McDougall 1994).

There are, in fact, several aspects that have contributed to the emergence of BGs. The factors are mainly in the areas of market conditions, technological advancements and changes in human resources available to companies. In addition to these, also the high level of specificity and significant improvements of home country advantages in many SMOPEC (Small Open Economy) countries have contributed to the phenomena. The following figure presents the factors in a more compact form:

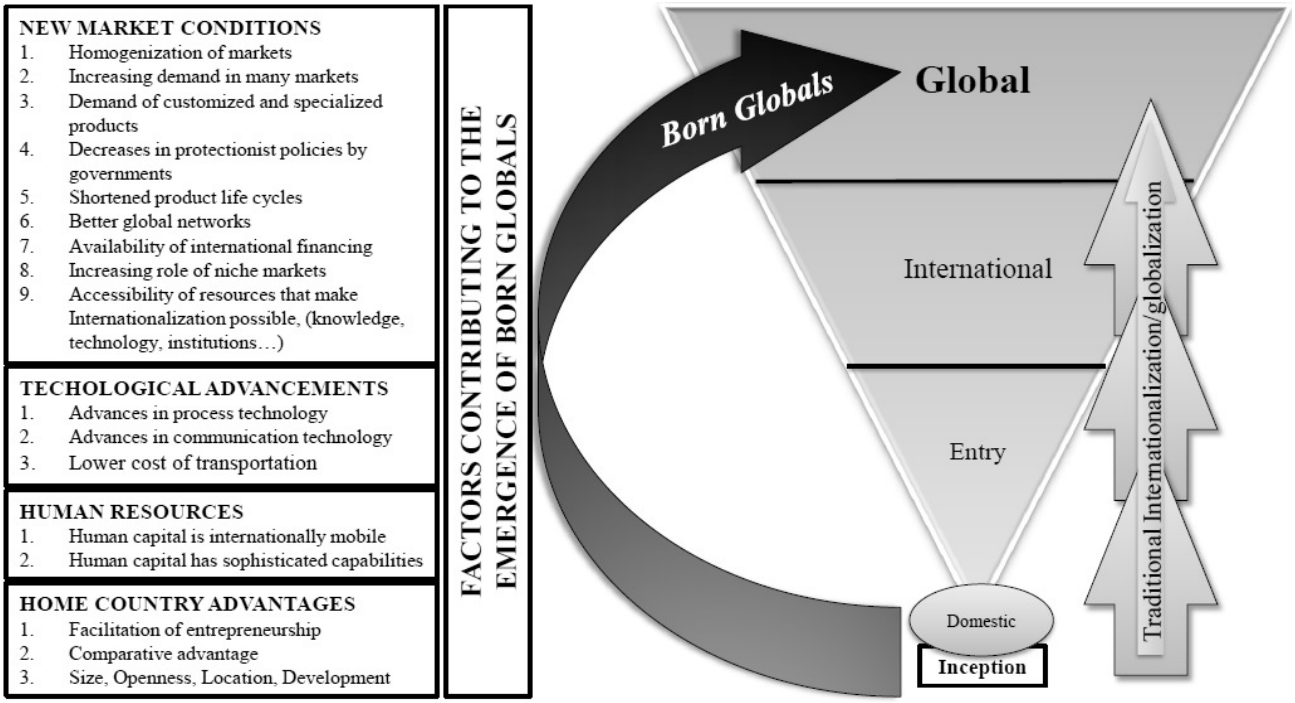

Figure 5: Factors contributing to the emergence of Born Globals (adapted from Sperling 2005 and Gabrielsson & Gabrielsson 2003)

2.2.3 Criticism

Although the term Born Global has been widely accepted by scholars, not everyone agrees that it describes the phenomenon accurately. Hashai and Almor (2004) have stated that although BGs do not internationalize according to the predictions of the

classic stages theory, they still gradually increase their commitment to foreign markets. The results of their study show that knowledge-intensive BGs pursue the following internationalization sequence over time: (1) exports are employed initially in order to serve customers in psychically close foreign markets; (2) subsequently, Greenfield marketing subsidiaries are established in these markets; (3) finally, firms engage in mergers and acquisitions, create subsidiaries that incorporate several value-adding activities and penetrate psychically distant foreign markets. (ibid)

2.3 Internal Resources of a Company

Resource-Based View of the Firm, or RBV (Barney 1991), suggests that there can be heterogeneity, or firm-level differences, among companies which allows some firms to sustain competitive advantage. RBV emphasizes strategic choice, charging the company's management with the important tasks of identifying, developing and deploying key resources to maximize returns. The ideology states that abnormal rents can be earned from resources to the extent that they are (Barney 1991):

- *Valuable* (when they enable a firm to conceive or implement strategies that improve its efficiency or effectiveness)
- *Rare* (valuable firm resources possessed by large numbers of competing firms cannot be sources of either a competitive advantage or a sustainable competitive advantage)
- *Imperfectly Imitable* (due to a combination of three reasons: unique historical conditions, causally ambiguous, socially complex)
- *Non-Substitutable* (competitors should not be able to counter a firm's value-creating strategy with a substitute)

In this study, the resources of a company will be examined from the human capital perspective – more precisely from the perception of whether and how managerial and entrepreneurial competence influences the channel strategies within companies, as they

in best cases can be considered *Valuable, Rare, Imperfectly Imitable* and *Non-Substitutable.*

Recent research has highlighted the importance of examining the role of resources and capabilities of the BGs (Laanti *et al.* 2007; Jones & Coviello 2005; Knight & Cavusgil 2004). According to the research a BG's relationships with other companies and the experience and competences of the founders should be taken as an integral part of the analysis. Consequently, the human-element in the decision making process of a company, in this case the individuals managing BGs will be analyzed in the following section.

2.3.1 Entrepreneurship and Managerial Mindset in Born Globals

A successful internationalization/globalization of a firm is reliant on several vital factors. One of the factors and a very significant one indeed, is the set of capabilities possessed by the decision makers in a company (see e.g. Ruzzies et al. 2007). Numerous studies addressing managerial experience have showed that companies are more likely to export when managers have lived or worked abroad (e.g. Bilkey 1978; Reid 1981). This argument is also supported by Tung and Miller (1990), who argue that international experience of top management is essential in formulation and implementation of international strategies.

As a result of a Korn/Ferry institute survey of 1500 senior executives from 20 countries, Hambrick *et al.* (1989) discovered that international managers ideally possess the following traits:

- Global perspective and an international outlook
- Knowledge of, and at least some training in, a foreign language
- Experience outside one's home country

Gray (1994) added to the theory by defining the most common required elements as adaptability, cultural sensitivity and language skills, whilst also stating that there are

three personality variables which seem to account for variances in international marketing investment decisions: (1) international experience, (2) international orientation, i.e. cultural empathy/sensitivity and (3) international business commitment.

International experience of the management team or founders of a BG is often viewed as the most important element when determining whether the company is likely to realize global/international success. Fundamentally, it depends on the founders of a company if the company even aims to achieve international expansion by selling its products on foreign markets. In case a company wishes to pursue internationalization, it is up to the founder to communicate the global vision to each one associated with the venture. "To *be* global one must first *think* globally". (Oviatt & McDougall 1995)

Cavusgil and Knight (1997; also Oviatt & McDougall 1995) also came to a conclusion that managers of BGs tend to have a global orientation, as they examined the managerial mindset of the managers. A global orientation can also be further characterized as a collection of qualities and competencies, which appear to be positively associated with export-marketing performance (Cavusgil & Knight 1997: 5). Luostarinen and Gabrielsson (2006) characterize the young founders of the BGs as "forward going and fearless; they rely on their own abilities and skills and therefore select for their management teams similar, often young and educated people with little business experience". They also emphasize the role of the advisory boards and/or official boards as the advisors who are guiding these entrepreneurs (ibid).

Oviatt and McDougall (1995) stress the importance of managerial knowhow and awareness in the internationalization process. Kaish and Gilad (1991) argue that "successful entrepreneurs are those individuals who are capable of foreseeing disequilibrium profit opportunities when they come across them*"*. The entrepreneurs, who possess an unusual set of competencies e.g. networks, knowledge, and background that are unique to them, (McDougall *et al.* 1994) are also more likely able to combine the necessary resources across national borders that result to successful BGs.

In most cases, a BG is lacking many resources a Traditional Internationalizer or a Globalizing International (see categorization in Appendix 2) possesses. Commonly, companies have spent very large amounts of money and resources on setting up subsidiaries, and building marketing channels in place (Gabrielsson & Kirpalani 2004), but given the circumstances, BGs tend to pursue the goal of rapid globalization in different terms (ibid). As Oviatt and McDougall (1995) list the typical characteristics of a successful Global Start-up, the following items are presented:

1 A Global **Vision** Exists From Inception
2 **Managers** Are Internationally Experienced
3 Global **Entrepreneurs** Have Strong International Business Networks
4 *Preemptive* Technology or *Marketing* is Exploited
5 A Unique **Intangible Asset** is Present, *e.g. Tacit Knowhow*
6 Product or Service Extensions Are Closely Linked
7 The **Organization** is Closely Coordinated Worldwide by *a Strong Management Team*

While examining the list above, it is quite clearly visible, that most of the factors separating a successful BG / Global Start-up from the unsuccessful ones are to do with entrepreneurial/managerial skills and tacit knowhow. To make possible the accelerated pace of internationalization typical to a BG, a manager/entrepreneur in charge of a company is required to continually generate connections to foreign networks and to high-level executives acting as regional managers of large global companies (Freeman and Cavusgil 2007).

Whereas the significance of entrepreneurial skills and managerial knowhow in internationalization of a company is vastly acknowledged, there remains to be fairly modest information on how knowledge and managerial experience affect the selection of sales channels used in internationalization. Thus, one of the scopes of this thesis is in contributing to the theory of international sales channel strategy selection process. In order to do this, the study analyzes the association between managerial know-how and

experience in international business on the sales channel mixture used by BGs and TIs, as well as possible differences between them.

2.4 International Sales Channel Strategies and Structures

There are differences in definitions the IB and marketing literature have developed for sales channel structures. Some scholars consider international channels as a sub-set of theoretical work on marketing channels. Others view international distribution channels as a separate field (Ensign 2006). Both branches of literature examine similar aspects in channel use, e.g. the degree of directness and ownership of the channel, the variety and number of the channels, and the degree of selectivity of the channel. However, the IB literature views channel dimensions from the foreign market entry mode and internationalization stage perspective whereas marketing literature views channel structures in a single-market context (Gabrielsson 1999; Gabrielsson *et al.* 2002).

The target country internationalization process model by Luostarinen (1979) divides the marketing operations of a company in two main groups – the nondirect investment marketing operation modes (NIMOS) or *export operations* and the direct investment marketing operation modes (DIMOS) or *sales and marketing subsidiary operations* (Gabrielsson *et al.* 2002). These two groups form a base for a company's channel strategies (ibid).

1 Non-investment marketing operations (**NIMOs**)
   a. ***indirect exporting****:* another company located in the home market carries out export activities on behalf of the producer
   b. ***direct exporting****:* the producing firm takes care of exporting activities directly with the first intermediary located in a target country
   c. ***own exporting***: there is no domestic or foreign intermediary between the producer and the end customer.
2 Direct investment marketing operations (**DIMOs**)
   a. **sales promotion subsidiaries:** Aims to advance sales in the target market, but does not sell directly or engage in invoicing

b. **sales/marketing subsidiaries:** Sales subsidiaries are established to sell directly to the end customer or to channel middlemen. Marketing subsidiaries engage in both sales and sales promotion activities.
c. warehousing subsidiaries
d. service subsidiaries

According to the marketing literature, the sales channels can be of two main types: (A) direct sales channels or (B) indirect sales channels (Gabrielsson 1999). The division is based on whether the producers themselves sell directly to the end-customer or whether independent channel members located in the target market are utilized (Hardy & Magrath 1988; Al Obaidi & Gabrielsson 2002). To further explain the difference among the two views on sales channels, figure 6 illustrates the relation between international marketing operation modes and sales channels.

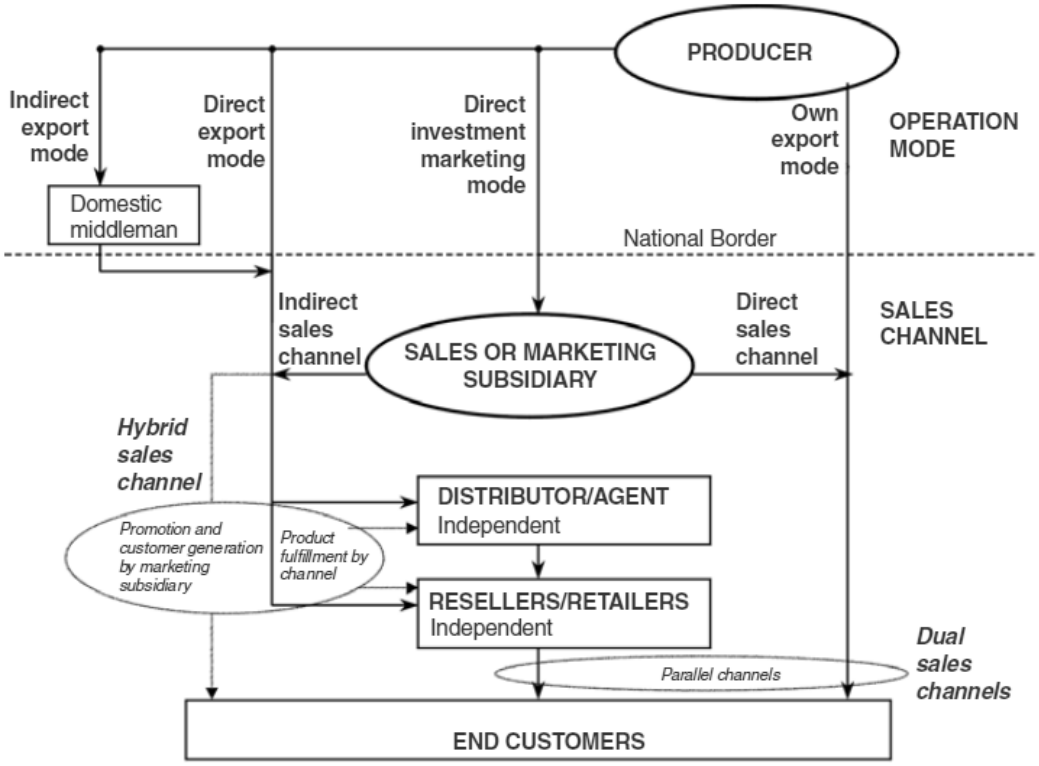

Figure 6: Relation between international marketing operation mode and sales channels (Gabrielsson 1999; Al Obaidi & Gabrielsson 2002)

As seen in the figure, in the exporting stage a firm can choose between three main alternatives: indirect exporting, direct exporting, and their own exporting. In the *indirect export* mode, another company located in the home market carries out export activities on the exporting firms' behalf. In the *direct exporting mode,* a producing firm does the exporting directly using a first middleman, which is located in the target country. In the *own export mode,* the producer's own export personnel take care of sales activities to serve end-customers, and there is no domestic or foreign middleman between the producer and the end-customer (Luostarinen & Welch 1990; 21-27; Al Obaidi & Gabrielsson 2002). The activities performed by a sales subsidiary can be compared to those of an importer or wholesaler, and can thus be characterized as a middleman in the chain (Hentola 1994; Al Obaidi & Gabrielsson, 2002). The sales channel strategy may thus be either a direct sales channel or an indirect one. In the former, the producer's personnel conduct the sales function, whereas in the latter, channel members sell the products to the end customer (Al Obaidi & Gabrielsson 2002).

Next, the different channel approaches will be discussed in a more precise matter. The single channels consisting of *direct* and *indirect* and multiple channels containing *dual* and *hybrid channel* options. In the proceeding section, the factors influencing sales channel strategy are examined.

2.4.1 Single Sales Channels

Single sales channels can be divided in two categories based in the directness and level of control and ownership over the channel: *direct* channels and *indirect* channels.

2.4.1.1 Direct sales channels

Direct channels are fully controlled and owned by a company. If used, they allow companies to enjoy benefits of scale and scope economies, and improved communication and co-ordination of activities. Direct channels also deliver high levels of personal contact to consumers, but on the other hand require large investments, resulting to a loss of strategic flexibility (Easingwood *et al.* 2003).

Gabrielsson (1999: 25-26) makes the distinction between *indirect* and *direct sales channels* through ownership and control of the construct (see: figure 6). The channel is *direct* in case a company controls the sales to the end customer, even though it would be done through retailer/reseller or in addition a distributor. The key is that the producer is in control of the subsidiaries through ownership.

2.4.1.2 Indirect sales channels

In his study of sales channel strategies in the PC industry, Gabrielsson (1999) implies that when applying *indirect channels,* instead of entering into direct sales activities to the target customer a company utilizes independent channel middlemen located in the target market. This can be completed through a one-level (1st tier reseller/retailer is utilized) or a two-level structure (where a 2nd tier distributor is located between a sales subsidiary and the retailer). In some cases the channel may be even longer than this (Gabrielsson *et al.* 2002).

2.4.2 Multiple Sales Channels

A multiple channel strategy is used when a company wants to make a product available to the market through two or more channels of distribution. Usually the purpose of multiple channel use is in extending a firm's market coverage. The number of companies using a multiple channel strategy for the distribution of their products is increasing steadily, thus it is becoming the most popular channel design (Coelho & Easingwood 2008)

According to McNaughton (2002), two forms of multiple channels can be identified; hybrid and plural (or dual (Gabrielsson 2002)). In a hybrid channel situation, both channel members are serving the same consumer, but a division of duties exists; e.g. a marketing subsidiary directly handles customer generation and promotion, whereas a private distributor/reseller is in charge of sales and distribution (see. Figure 7).

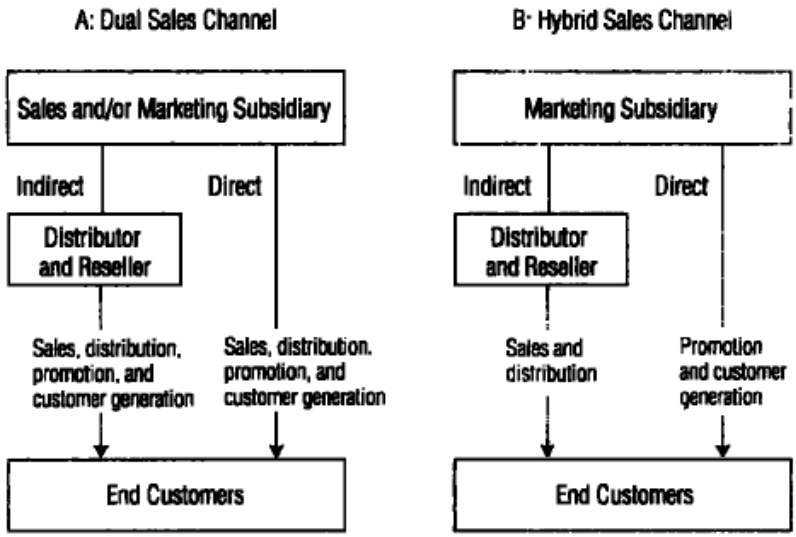

Figure 7: Dual and Hybrid Sales Channels (Source: Gabrielsson 1999; 2002)

In a study of small knowledge-intensive firms, McNaughton (2002) discovered that multiple distribution channels are often chosen to serve foreign markets. He also argued that integrated modes are often preferred for international channels as they facilitate protection of intellectual assets and provide high levels of customer service and support. Next, two multiple channel alternatives are discussed in more detail.

2.4.2.1 Dual channels

In a dual channel situation, a firm uses integrated *and* non-integrated distribution channels at the same time. Dual channels of distribution are found in many industries and may take several forms, e.g. when a supplier 'sells directly to consumers as well as through independent marketing intermediaries' (Mols 2000). With dual channels the independent local distributor becomes part of a mixed system in which the producer usually manages major customers directly, whereas the independent distributors focus on discrete segments of national markets or small accounts (Arnold 2000; Al Obaidi & Gabrielsson 2002). This strategy is usually considered as an adversarial channel strategy (ibid), in which the producer and the middlemen perform basically the same function and perhaps serve the same end customers.

2.4.2.2 Hybrid channels

With hybrid sales channel structure, the sales and sales promotion functions are shared between the middlemen and the producer (Gabrielsson 1999; Anderson *et al.* 1997). The producer performs functions such as sales negotiation and order generation, whereas the channel partners/middlemen take care of physical distribution and order fulfillment. Furthermore, some of the channel members might specialize in functions such as after-sales service. The basic idea is that channel members cooperate vertically to fulfill the need of a customer (Anderson *et al.*1997). The main distinction from dual channels is that the hybrid channel strategy is based more on co-operation and partnership (Al Obaidi & Gabrielsson 2002).

Ideally, channel members participating in the hybrid system are compensated only for the functions they perform. Nevertheless, all members in the hybrid system need to perform their functional responsibilities sufficiently for a sale and customer satisfaction to take place (Anderson *et al.*1997).

2.4.3 Factors Influencing a Sales Channel Strategy

There is a large variety of factors that influence the efficient use of sales channels in international context. However, the factors under more precise investigation in this study are limited to the following: 1. target-market-related factors, 2. the product-technology life cycle, 3. globalization drivers, 4. internal resources – mainly managerial characteristics and social capital, 5. company characteristics and finally, 6. the impact of increasing use of Internet in sales channels.

2.4.3.1 Globalization Drivers

There are several industry- and environment-related factors influencing the marketing strategies and sales channel strategies of companies. As presented in the earlier part of the study, Luostarinen (1994) describes the small, open and peripheral domestic market to push companies to globalize their business. In addition, the larger size and openness

of the global target market pulls companies towards internationalization and globalization. ICT companies are often haunted by immense R&D costs, thus making it beneficial to spread the costs over several markets, and thrive for greater sales figures (Gabrielsson *et al.* 2008).

According to Gabrielsson, Gabrielsson and Seppälä (2008) the globalization drivers are especially strong in the high technology industry for a number of reasons. First, the market need is homogenizing between countries, and global or at least regional customers and channels are often present. Second, competition is very intense and companies are often operating on a worldwide scale. Third, the increasing technical standardization in the ICT industry is speeding up the globalization process (Häikiö 2001; Gabrielsson *et al.* 2008).

In addition to the three drivers, the global competition has increased not only vertically but also horizontally in the ICT field. This has increased the importance of horizontal co-operation. Furthermore, the technology lifecycles and dominant designs may be expected to impact marketing strategies (Gabrielsson *et al.* 2008). The drivers will be further examined next from the product-technology life cycle, target-market and industry-specific perspectives.

2.4.3.1.1 Target-Market and Industry-Related Factors

As Luostarinen (1970: Gabrielsson 1999) lists the *target-market-related factors* that influence channel selection, he points out two main factors: (1) the size of the market and (2) market form (concentration). Both of the factors; large size and high concentration have a positive association with the use of direct investment methods over export based modes; e.g. establishment of a sales subsidiary. Large size and high concentration also encourage the use of direct over indirect channels.

According to Albaum *et al.* (2002), there are three main groups of market-related factors that operate as international marketing channel determinants:

- Nature, size and geographical distribution of customers
- The needs, requirements and preferences of the customers
- The level of economic development of the market
- (+ political stability and extent of legal barriers)

Environmental instability makes it difficult to make predictions of what type of channel is appropriate (Anderson *et al*. 1997). Foreign countries with different cultures, customs, and business practices often create uncertainty and cause problems for producers as they attempt to develop relationships with foreign-based intermediaries (Klein *et al*. 1990). Unlike domestic channels, export operations often expose companies to increased volatility due to a much greater potential for unexpected occurrences in the economic, political, and demand facets of their environment. Market volatility refers to rapid changes in the foreign market and causes the producer to be caught by surprise (ibid).

In a dynamic environment, customers' shopping and buying behaviors, buying criteria, and segments change frequently, and thus complicate a producer's channel selection process. Bucklin (1966; Anderson *et al.* 1997) suggests that when consumer demand is varied and complex, distribution channels will be varied as well. As the producer cannot acquire as much market knowledge as many local entities collectively, it is better to deal through many entities instead of few.

According to Anderson *et al.* (1997) multiple channels are most common in fast-changing market environments as they reflect the range of channel options available to buyers and suppliers. An example from the personal computer industry soundly describes the situation: "*A buyer of personal computers, for example could buy the same model from a direct-mail catalogue, a computer superstore, or a specialty store, each for a different price and service. Ideally, these different service levels reflect the needs of different buyers.*" (Anderson *et al.* 1997)

According to Gabrielsson (1999), in an environment characterized by high volatility and diversity (a fast changing and heterogeneous environment consisting of many customers,

final users, and many competitors for the same product, with dissimilarity among them), is likely to increase the use of multiple sales channels as the producer faces an increased set of difficulties in attaining market information and developing multiple strategies to address the multiplicity (Gabrielsson 1999). Nevertheless, although multiple channels are necessary to reflect market plurality, each channel ought to be clearly specialized to serve a specific buying pattern (Anderson *et al.* 1997).

As volatility decreases and environment stabilizes; products assume accepted configurations, better understood segments emerge, and behavior of the buyer becomes predictable**,** the amount channels may become fewer, more substantial, and more stable, and reflect a more precise channel strategy. **(**Anderson *et al.* 1997)

2.4.3.1.2 The Product-technology Life Cycle

According to Combs (2004), it is very essential to understand in which part of the product lifecycle a product is located in order to efficiently use the correct channels at correct times. For example, a new product that relies on emerging technology may require face-to-face selling, while a more standardized commodity may be more efficiently distributed in a way that enhances impulsive purchases (ibid). According to Combs (ibid), choosing the right channel for the life cycle stage of the product may have a remarkable influence on sales, and even determine whether a product will or will not be a success. The typical ideology of the lifecycle is that a life of a product advances in stages characterized by different levels of revenue it creates.

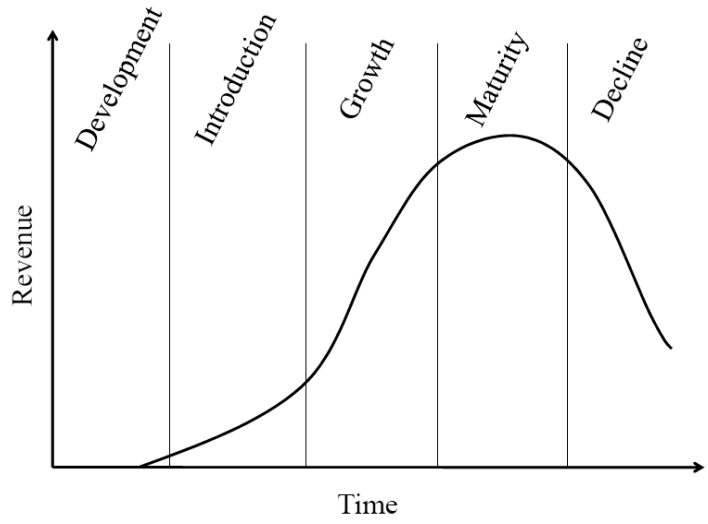

Figure 8: Product Life Cycle

A product-technology lifecycle builds on the technology adoption lifecycle developed by Beal, Rogers & Bohlen (1957) and later refined Moore (1991). Gabrielsson, Kirpalani and Luostarinen (2002; Moore 1991) address the question of dependence between product-technology life-cycle stages and different sales channel strategies with the following propositions: (1) in the introduction stage (innovators and early adopters), companies apply single - direct sales representatives or indirect specialized - channels to satisfy the heavy customer support needs; (2) in the growth stage (early majority customers), new channels are added and dual channels are applied to provide availability to all customer groups. (3) In the maturity stage – with the "late majority" market, companies use multiple (dual, hybrid) channels to enable intensified distribution. Finally, (4) in the decline stage with the "laggards", hybrid or direct channels are used as low-cost channels become most important. On the other hand the reality is often not as simple, as due to accelerating product life cycles, augmented number of products, and fragmentation of customer segments, multiple channel approaches are often the only way to provide market coverage (Anderson *et al.* 1997).

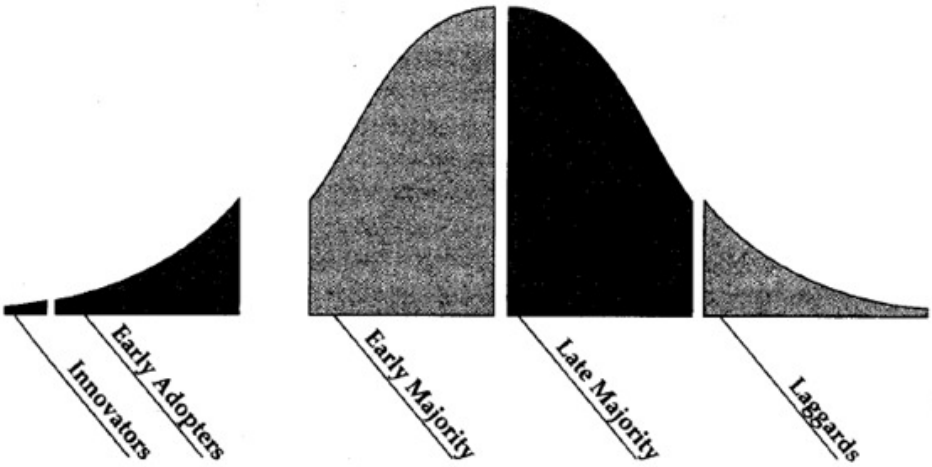

Figure 9: The Revised Technology Adaptation Life Cycle (Source: Moore 1991)

Similar with the ideas of Gabrielsson, Kirpalani and Luostarinen (2002), Combs (2004) states that a following pattern is most likely to apply to distribution channels as the life cycle of a high-tech product advances:

1. At the introduction of a new-technology product it is typical that best result derives from direct sales as clients need convincing to adopt the new technology
2. As sales grow, exclusive distribution is commonly employed.
3. During the mature period of PLC, selective distribution with two or more outlets in a given geographic market is often the best option
4. At the declining stage mass distribution is likely to result to maximum exposure

2.4.3.2 Internal Resources - Managerial Characteristics and Social Capital

According to Frazier (1999: 226; Ensign 2006) "we have barely touched the surface of all the managerial issues that need to be addressed. ...many issues of managerial importance relating to the organization and management of channels of distribution have received no attention in empirical research."

There are a number of company related factors influencing the channel use of a company (Albaum *et al.* 2002), many of which are dependent on the marketing

capabilities of an organization: e.g. (1) Marketing management capabilities; (2) Newness of a company to international marketing activities; (3) Size of a company and width of its product line; and (4) Financial strength of the company.

Without sufficient human and financial resources, a company is likely to have difficulties making a commitment to international operations and to increase its involvement in the international arena. Internationalization requires well-trained and competent personnel as well as managers to devote substantial time and effort to focus on international operations (Bello *et al*. 2003; Yamamoto 1995). Inadequate human and financial resources reduce a manufacturer's organizational capability to exchange information in the timely and in-depth manner necessary to coordinate the task interdependencies with a foreign partner (Welch & Luostarinen 1988)

Madsen and Servais (1997) have stated that the founder of a BG and especially his /her background is a significant reason for the reduced applicability of the stage models in the BGs' internationalization process. As s conclusion, the founder's previous business activities – whether he or she has built up substantial market knowledge that makes rapid internationalization possible – should be of interest.

Activities related to the start-ups are costly, and as a result BGs rarely have considerable resources available for marketing activities (McDougall *et al.* 1994; Berg *et al.* 2008). International expansion is demanding in terms of human and financial resources making it unlikely that BGs invest heavily in ownership (ibid). Rather than heavily investing on own channels, BGs are prone to make use of hybrid structures (McDougall *et al*. 1994; Gabrielsson and Kirpalani 2004; Berg *et al.* 2008) – that is, strategies in which access to resources is secured through partnerships with other companies.

The entrepreneurs' social network plays a vital part, as it has been implied that a BG controls its foreign operations through social relationships and knowledge (Berg *et al.* 2008). One entrepreneurial challenge for BGs is in identifying the links with the overseas partners that will contribute most to the overall development of the firm (Jones

1999; Berg *et al.* 2008). Studies have indicated that market selection and choice of entry modes may significantly be affected by the manager's personal networks (Coviello & Munroe 1997; Keeble *et al*. 1998; McAuley, 1999; Berg *et al.* 2008) thus making managerial characteristics a fundamental part of the frame of also this study.

2.4.3.3 Company Characteristics / Approach

According to the underlying principle of the internationalization pattern theory – the lateral rigid behavior of the decision makers, which can be overcome through the learning process – an exporter is assumed to first conduct exporting through an indirect sales channel and only later through a direct channel, as experience is gained (Luostarinen 1979; Al Obaidi & Gabrielsson 2002). However, according to Luostarinen and Gabrielsson (2006) conventional single channels are often not sufficiently effective in case of Born Globals as indirect channel middlemen are found not to be willing to invest into marketing the new and often unknown products of the BGs. On the other hand, BGs do not usually have enough resources to set up direct sales channels on their own. Single sales channels (direct and indirect) are therefore rapidly expanded to multiple channels (dual and hybrid) in comparison to conventional companies. BGs in some cases even skip the use of single channels and start directly with multiple channels. (ibid)

Oviatt and McDougall (1994) agree that hybrid structures are a distinct feature of a BG, and list them as one of four necessary elements for their existence and as an important part of Born Globals' sustainable competitive advantage. This is also because network alliances are often unique and very difficult to imitate (Oviatt & McDougall 1994; Berg *et al.* 2008).

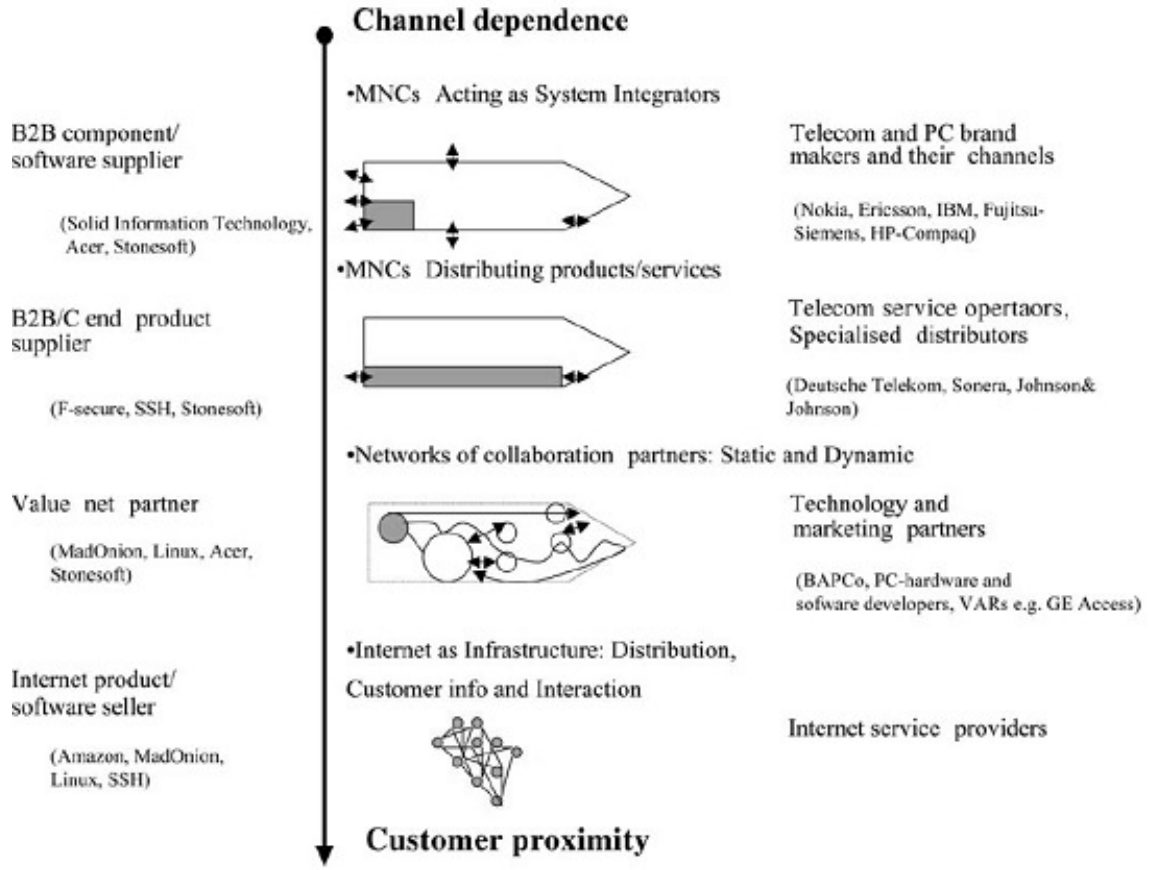

Figure 10: Channels for Born Globals (Source: Gabrielsson & Kirpalani 2004)

Gabrielsson and Kirpalani (2004) introduce four different channel approaches necessary for BGs (figure 10):

- MNCs acting as systems integrators
- MNCs distributing born global products/services
- Networks
- Internet
- Some combination of two or more of the above channels.

According to Gabrielsson and Kirpalani (2004), the MNC global partners' role is even more important than the Internet as a channel, probably due to the fact that e-commerce customers' trust is less often achieved without the brand offered by successful MNCs. In accord with Gabrielsson and Kirpalani (2004), Coviello and Munroe (1997) have stated in their study of New Zealand-based software firms, that BGs leverage the market resources of larger partners. Typically, larger partners provide the necessary

international distribution network, but due to this often also decide which markets the smaller companies are likely to enter. Coviello and Munroe (1997) describe the strategy of internationalization with the help of a larger alliance partner as 'piggybacking'.

The use of advanced sales and marketing technology seems quite typical to BGs (Luostarinen & Gabrielsson 2006). Many BGs use the Internet actively for marketing communication and often for sales as well. With the developments we have seen in the IT segment, companies can now have a worldwide presence without the necessity to open subsidiaries or branches in foreign countries. The role of Internet in sales channel formation is very interesting, and worthy of further examination.

2.4.3.4 The Internet

Internet and its impact on international operation modes and sales channel selection is a fairly unexplored aspect of international entrepreneurship (Kotha et al., 2001; Arenius *et al.* 2005). Nevertheless, e-business has been growing at an incredible speed during the last decade as consumers have widely adopted the Internet in their daily life. As the technology has spread throughout the world, manufacturers and service providers have an extraordinary opportunity to develop new marketing and sales channels. With Internet channels, manufacturers are able to bypass traditional intermediaries and sell products directly to customers. Additionally, if used properly, Internet channels enable manufacturers to communicate directly with their customers, offer consistent purchasing experiences, gather customer information, decrease advertising costs, and create a new market, while also providing competitive services and pricing for consumers (Younghwa *et al.* 2003).

In the recent years, innovative IT, direct marketing, database marketing, and variations have allowed manufacturers to contact smaller customers for a fraction of the cost of a direct sales call. Highly sophisticated shipping systems enable transporters to schedule and dispatch small-sized orders with low cost, and high speed and efficiency. Consequently, smaller customers no longer suffer any inconveniences from product

unavailability. Flexible manufacturing systems allow suppliers to produce small lots at only a marginally higher cost than scale-efficient large orders. (Anderson *et al.* 1997)

According to Sharma and Mehrotra (2007), traditional use of sales channels has been disrupted with the popularization of the Internet in three ways. First, firms are now able to contact small customers in a very cost effective manner, reducing their dependence on small dealers and distributors. Second, some distributors have become more strongly present in markets by effectively utilizing the Internet to provide services at considerably reduced costs. Third, customers who have exploited more traditional methods of communicating with the firm (e.g., through dealers) have increasingly started to communicate through multiple channels, including the Internet.

Because the use of Internet in sales channels is fairly new from the perspective of overall understanding of channel strategy, the subject will be investigated as a part of this study. As mentioned above, resourceful use of Internet provides Born Globals an efficient low cost method to reach new and existing customers. Thus this channel option will be investigated also from a viewpoint of BGs vs. TIs.

3 THEORETICAL FRAMEWORK

The reader has thus far been introduced with the theory of globalization and global strategy, the ideology behind the BG concept and how BGs differ from TIs, and the theory of international sales channel strategies and how channels are affected by different variables. This chapter will bind the theories into a framework which will be used as an outline for the analyses completed in the latter part of the paper.

The framework consists of three key blocks: (A) macro environment and ICT industry globalization drivers, B) the globalization approach of the firm, and C) internal resources and decision-making factors. The three blocks are very much in connection to one another, as it is expected that macro environment and ICT industry globalization drivers and internal resources influence the chosen globalization approach. The three dimensions are also expected to influence the marketing strategies of companies and thus also sales channel structures (Gabrielsson *et al.* 2008). Therefore, the conceptual framework is utilized as an outline when performing a statistical analysis of selected variables that contribute to sales channel selection and use of Internet in sales channels.

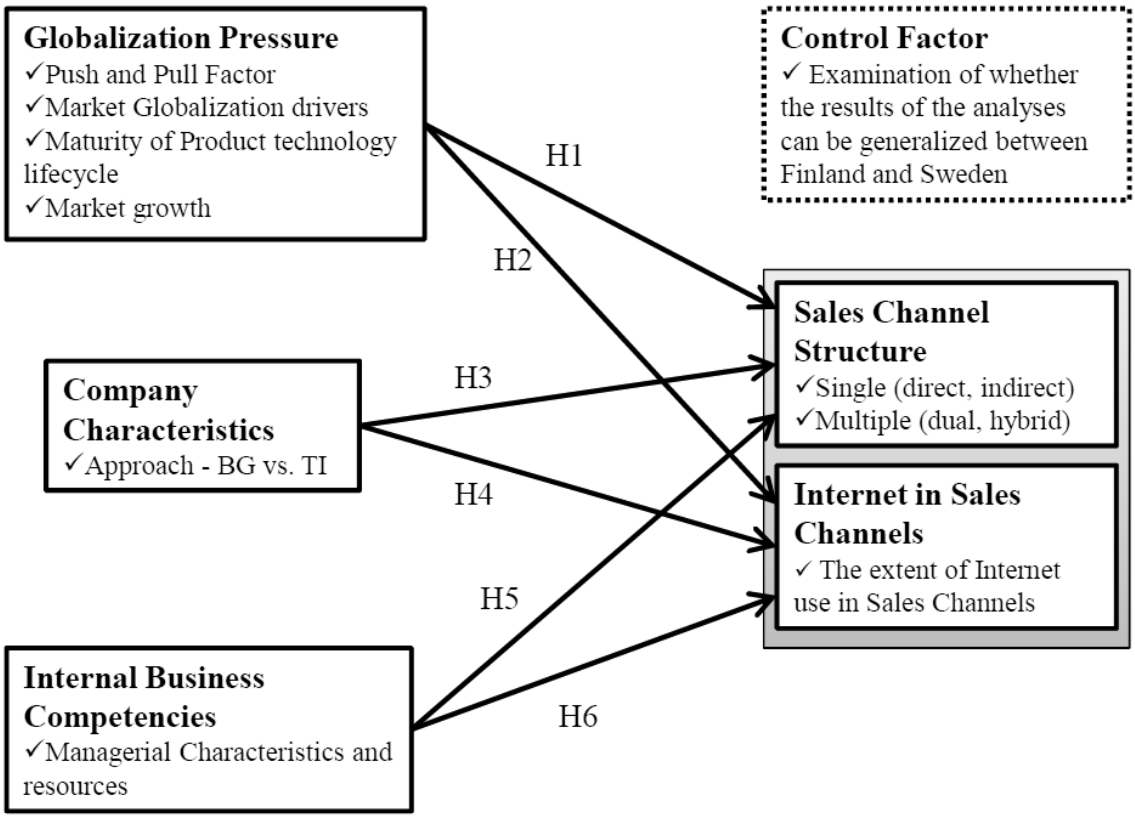

Figure 11: Framework for the BG / TI Sales Channel Structure configuration

3.1.1 Globalization Pressure and Drivers

This study investigates the external globalization pressure mainly from the viewpoint of *Domestic Market Push and Global pull* (Luostarinen 1979), *market globalization drivers* (Yip 1989), *maturity of product-technology life cycle* (Beal *et al.* 1957; Moore 1991; Combs 2004) and *Market Growth*. The large global target markets are especially important for the ICT companies. Due to the often-high research and development costs, it is of the utmost importance to spread the costs over a large number of markets. The home continent is often not big enough and companies need to market the products globally on all continents (Govindarajan & Gupta 2000). The ongoing global trade liberation and regional integration into different trading blocks around the world is expected to further decrease trade and investment-related restrictions (Yip 1989). Moreover, technological advances are expected to drive globalization (Levitt 1983).

3.1.2 Company characteristics – BG or TI

The variables used in the categorization of the firms are the rapidity of start of foreign sales in the home continent and outside the home continent (Knight & Cavusgil 1996; Gabrielsson *et al.* 2008), global vision (Oviatt & McDougall 1994; Gabrielsson *et al.* 2008), sales percentage outside the home country and sales percentage outside the home continent (Servais *et al.* 2007; Gabrielsson *et al.* 2008). As a result, companies were divided in two categories, BGs and TIs, based on the following restricting elements:

Born Globals (BG), (Total of 40 companies)

1. Start of foreign sales outside Europe is within 2 years from foundation
2. Vision: global markets from inception
3. Sales outside home country at least 50 %
4. Sales outside Europe at least 10 % (35 of 40 firms had 20% or more)
5. Sales in at least 3 foreign countries

Traditional Internationalizer (TI), (Total of 181 companies)

1. Company has international business based on sales or operations.
2. Does not fulfill criteria set for BG or *Globalizing International* (40 companies) the 3rd group of firms in the data, but not used in this study (see Appendix 2)

3.1.3 Managerial Resources and Social Capital

According to existing literature, "many issues of managerial importance relating to the organization and management of channels of distribution have received no attention in empirical research" (Frazier 1999: 226; Ensign 2006), and the overall understanding of the marketing strategies of BGs are still in need of more profound research (see e.g. Knight 1997, Gabrielsson and Gabrielsson 2003). Therefore, this study aims to contribute to the understanding of the marketing strategies of Born Globals by analyzing the existing links between sales channel strategies and human capital. As the study focuses on numerical data, the relationships between the use of single and multiple sales channels and level of international/global business capabilities possessed by the

entrepreneurs and management of companies will be calculated. The capabilities will be analyzed as a combination of the following:

- Whether management has enough time to focus on international business
- Whether company possesses valuable and rare managerial knowledge of international business
- Former experience of international and global business
- Level of previous international business involvement

3.2 Hypotheses

The study approaches the analysis of the links between the above mentioned variables and sales channels strategies based on six hypotheses. As the connection between the use of Internet in sales channels *and* globalization pressure, approach and managerial resources will also be examined, three of the hypotheses will focus on "normal" sales channels and three on the use of Internet in sales channels.

3.2.1 Globalization Pressure's impact on channel strategy

There are several industry- and environment-related measures influencing the marketing strategies and sales channel strategies of companies. Luostarinen (1994) describes the small, open and peripheral domestic market to push companies to globalize their business, while also the larger size and openness of the global target market pulls companies to towards internationalization and globalization. Therefore increases in the *push and pull* should increase *globalization pressure* and have a positive relationship with multiple channels use.

Secondly, the position of a company's product on the product-technology life-cycle and different sales channel strategies is likely to relate as follows: (1) in the introduction stage companies apply single channels to satisfy the heavy customer support needs; (2) in the growth stage new channels are added and dual channels are applied to provide availability to all customer groups. (3) In the maturity stage companies use multiple

(dual, hybrid) channels to enable intensified distribution. Finally, (4) in the decline stage hybrid or direct channels are used (Gabrielsson *et al.* 2002; Moore 1991). Therefore a higher maturity of product technology life cycle is in positive association with use of multiple channels. Same applies with increases in market growth values.

The same principles are applied to the use of Internet in sales channels. The examination of globalization pressure will be accomplished through an analysis of four separate indicators; *Push and pull factor, market globalization drivers, maturity of product technology life cycle* and *market growth*. Hypothesis 1 is the following:

H1: Increasing globalization pressure pushes companies towards innovative channels strategies and is thus positively associated with multiple channel use.

As of the use of Internet in sales channels, if used properly, Internet channels enable manufacturers to communicate directly with their customers, offer consistent purchasing experiences, gather customer information, decrease advertising costs, and create a new market, while also providing competitive services and pricing for consumers (Younghwa *et al.* 2003).

According to Yip (2000), industries with strong *market globalization drivers* have seen a greater acceleration of globalization due to the increasing use of the Internet. Measures such as global commonality in customer needs, existence of global channels and customers, and global marketing facilitate industry globalization and the spread of global offering. Therefore, market globalization drivers should be positively connected with an increasing use of Internet. As a consequence:

H2: Increasing globalization pressure is positively associated with an extended use of Internet in sales channels.

3.2.2 Company Characteristics

As stated in an earlier part of the thesis, conventional single channels are often not sufficiently effective in case of Born Globals due to lacking interest of indirect channel middlemen to invest in BGs. Furthermore, BGs often have insufficient resources to set up direct sales channels on their own. Single sales channels (direct and indirect) are therefore rapidly expanded to multiple channels (dual and hybrid) or skipped (Luostarinen & Gabrielsson 2006). Secondly, advanced sales and marketing technology seems typical to BGs. (ibid). Many BGs use the Internet actively for marketing communication and often for sales as well. Consequently:

H3: Born Globals are more likely to use multiple channels (dual and hybrid) over single channels; whereas Traditional Internationalizers with smaller internationalization rates are more probable to use single sales channels (direct and indirect).

H4: Born Globals are more likely than Traditional Internationalizers to utilize Internet in Sales Channels in order to attain rapid international expansion and growth with limited financial resources.

3.2.3 Managerial Resources and Social Capital

There are a number of company related variables influencing the channel use within a company (Albaum *et al.* 2002), many of which are dependent on the marketing capabilities of an organization. Some of the variables are related to human resources and internal capabilities, e.g. marketing management capabilities within a company and newness of a company to international marketing activities. Studies have also indicated that market selection and choice of entry modes may be significantly affected by the manager's personal networks (Coviello & Munroe 1997; Keeble *et al*. 1998; McAuley 1999; Berg *et al.* 2008) thus making managerial characteristics a fundamental part of the frame when inspecting the use of channels. Therefore the study examines the relationship between managerial resources and channels with 2 hypotheses:

H5: Incremental possession of valuable managerial knowledge and experience in foreign business is positively associated with the use of hybrid and multiple sales channel structures.

H6: Companies with higher foreign business competencies are likely to utilize Internet in Sales Channels more extensively.

4 METHOD OF RESEARCH

The objective of the empirical study is to explore the sales channel strategies of Finnish and Swedish ICT companies, and examine if there are possible differences between two types of international companies; BGs and TIs. Channel strategies are also analyzed from the viewpoint of how external globalization pressure and internal capabilities and resources of companies influence sales channels and use of Internet in sales channels. In order to achieve an extensive overall picture of the current state of companies and differences among them, a quantitative research approach was chosen. The data was collected in a web-based questionnaire as a part of GLOMARK (Global Marketing Strategy) survey study inspecting the Global Marketing Strategies in Finnish and Swedish ICT companies.

4.1 Formulation of the Questionnaire

The survey questionnaire was constructed by Helsinki School of Economics Professors Mika Gabrielsson and Tomi Seppälä and Professor Peter Gabrielsson from Vaasa University, by whom the project was mainly directed. In the formulation of the questionnaire, previous literature was used and applied when available. The measures for marketing strategies were derived from the research by Cavusgil & Zou (1994), McDougall et al. (1994b) and Solberg (2002) when applicable (Gabrielsson *et al.* 2008). Globalization drivers used in the research benefited from Townsend et al. (2004) and Zou & Cavusgil (2002), and resources related variables were partly based on measures by Zahra et al. (2003). (Gabrielsson *et al.* 2008)

To secure the validity of the measures used in the questionnaire, a pilot survey was conducted. In the pilot, different types of ICT companies were asked to fill in the questionnaire, after which the research team convened with the answerers and verified that the questions had been understood correctly and whether some were difficult to answer. The feedback was then used for modification purposes. The respondents of the

survey were responsible for international marketing and thus expected to be fairly fluent in English; a questionnaire in English language was used in both countries. (Gabrielsson *et al.* 2008)

4.2 Collecting the data

The data base was acquired from a leading data information provider, Dunn & Bradstreet. (Gabrielsson *et al.* 2008) The company information was limited to contain only ICT companies listed under NACE codes 3001, 3002, 3130, 3210, 3220, 3230, 7200, 7210, 7221, 7222, 7230, 7240, 7260, and 7250 (Seppälä, 2010). The collection of data was completed in the following steps: First, the target companies were approached by phone. Only those firms that were found to be international ICT firms were accepted to be part of the target population. Second, as a firm had showed interest towards the survey and willingness to answer the questions, the companies were sent an e-mail including a link to the questionnaire.

A total of 2228 companies from Finland and Sweden were contacted, of which 703 were found to qualify. Out of the 703 companies, 579 (82.4%) agreed to participate in the study, and thus received a web link to the survey via e-mail. A total of 424 answers were obtained from Finland and Sweden, which gave a response rate of 73.2%. However, a total of companies 120 did not fully complete the questionnaire, in 18 cases the company was not international, and in 10 cases the respondent was not an ICT company or did not originate from Finland or Sweden. Based on a statistical quality check, six other replies were disqualified as unreliable due to low or no variance across questions. As a result of some replies not qualifying for the final data set, a total of 261 valid answers were received, 146 from Finland and 115 from Sweden. As a result, an overall effective response rate, which was calculated as a percentage of the valid answers out of all the qualified companies contacted, was 37.1%. (Seppälä 2010)

4.3 Classification of Companies

As a comparison of two types of companies is a central point of this research, more precise information on the company classification is in place. To make a distinction in terms of a company being a BG or a TI, three key dimensions were compared: scale (i.e. share of turnover from foreign markets out of total turnover), scope (i.e. number of markets) and time (pace of internationalization; criteria to define a born-global sample) of internationalization. On top of these, to be included in the BG category, a company was obligated to have a global vision since inception. For a revision of the limits set for the categorization, see part 3.1.2.

Although some researchers have arrived to the conclusion that classifying the number of sales channels into just two groups (single or multiple) is an over-simplification (Easingwood *et al*. 2003), this approach is partly used in this research. The quantitative analysis uses "pure" single channel and a multi-channel categorization in which pure single channel strategy comprises of companies whose sales are obtained entirely from a use of single channels. The companies using also multiple channels are put in the second, multi-channel category.

The firms participating in the survey were asked which of the following channels they apply in foreign markets: 1. *direct*, 2. *indirect*, 3. *dual* or, 4. *hybrid*. The companies were also given the possibility of selecting a fifth alternative; *other*. The channel options were not provided as such, but in order to avoid confusion deriving from terminology, the options were provided in descriptive terms, i.e. "selling only via your own sales force to end customers in a given country". Because the questionnaire enabled companies to select more than one option of the channels available, a part of the analysis will be done in a descriptive form.

4.4 Statistical methods

In the following part of the paper, the statistical methods used in the research are briefly explained. The methods used in the study are ANCOVA (Analysis of Covariance) and multiple logistic regression.

4.4.1 Analysis of Variance – ANOVA

Because ANOVA (Analysis of variance) and ANCOVA are closely related, ANOVA and its underlying assumptions are briefly introduced. ANOVA is a form statistical design that is used for determining if the means of two or more distributions are significantly different. The ANOVA technique can be directly attributed to the creativity of Sir Ronald Aylmer Fisher (Meyers *et al.* 2009) who developed the model originally for agricultural research purposes.

The analysis of variance is for testing differences in means for statistical significance. This is accomplished by analyzing the variance, in other words, by partitioning the total variance into the component that is due to true random error (i.e. within-group sums of squares) and the components that are due to differences between means. The variance components resulting from differences between means are then tested for statistical significance. When the difference is statistically significant, the null hypothesis of no differences between means is rejected and the alternative hypothesis that the means are different from each other is accepted. (Hill *et al.* 2007)

According to the assumptions of ANOVA, the dependent variables are metric and the independent variables are categorical. The ANOVA also assumes that the error term is normally distributed with a zero mean and a constant variance, and that the error terms are uncorrelated (Malhotra *et al.* 2006).

4.4.2 Analysis of Covariance – ANCOVA

When the set of independent variables consists of both metric and categorical variables, a proper analysis technique is called analysis of covariance (ANCOVA). In ANCOVA, the categorical variables are referred as factors, whereas the metric-independent variables are referred as covariates (Malhotra *et al.* 2006). An ANCOVA is subject to all of the assumptions underlying ANOVA, but there are two additional assumptions that are important to meet when one is performing an ANCOVA. These assumptions are linearity and homogeneity of regression (Meyers *et al.* 2009).

When performing an ANCOVA, the covariates are first used for predicting the dependent variable. This is accomplished through a linear regression procedure. Second, the values of the dependent variable are adjusted for removing the effects of the covariate. An analysis of variance is then performed on the adjusted scores. The significance of the combined effect of the covariate and the effect of each covariate is then tested using appropriate *F* tests (Malhotra *et al*. 2006). If a statistically significant *F* ratio is obtained for the independent variable in an ANCOVA, it indicates that the groups differ on the adjusted dependent variable means (i.e., when the effect of the covariate has been statistically controlled for) (Meyers *et al.* 2009).

4.4.3 Regression Analysis

Regression is a rather flexible and powerful tool used for analyzing the associative relationships between a metric dependent variable and one or several independent variables (Malhotra *et al.* 2006). The main uses for regression model are the following (ibid, 519):

1. Determine whether an independent variable(s) explain a significant variation in the dependent variable – if a relationship exists
2. Determine how much an independent variable(s) explain of the variation in the dependent variable – the strength of the relationship
3. Determine the form of the relationship

4. Predict the values of the dependent variable.
5. Control for other independent variables when evaluating the contributions of specific (set of) variables

The use of the terms dependent and independent variables in regression analysis arises from the mathematical relationship between the variables. Although the independent variable may explain variation in the dependent variable, there is not necessarily any causation between them, thus the terms dependent and independent do not necessarily imply causal relation (ibid, 519), but the general purpose of multiple regression is to learn more about the relationship between several independent or predictor variables and a dependent or criterion variable (Hill *et al.* 2007).

As normal regression model assumes a metric dependent variable, in the case of binary and categorical variables, a logistic regression model should be applied.

4.4.4 Logistic Regression

The central mathematical concept that underlies logistic regression is the logit—the natural logarithm of an odds ratio (Peng *et al.* 2002). Odds ratio is a value associated with each predictor variable and shows the strength of association between a predictor and the response of interest (Meyers *et al.* 2009). Odds ratio ranges from zero to infinity; with value one signaling no association between the variables of interest. In general, logistic regression is a good method for describing and testing hypotheses about relationships between a categorical outcome variable and one or more categorical or continuous predictor variables (ibid). With Logistic Regression model, it is acceptable to use both quantitatively measured and dichotomously (binary) coded variables as predictors. Therefore, according to Agresti (2002), logistic regression is the most important model for categorical response data. When comparing logistic and linear regression models, there are three main differences (Meyers *et al.* 2009):

1. In logistic regression, the dependent variable is categorical and dichotomously coded – e.g. in this study, the dependent variable has only two possible values - 0 and 1 (ibid).
2. Whereas in linear regression, a straight line function is fitted to the data set by using an ordinary least squares method; *in logistic regression*, a logistic function (an S-shaped function) is fitted to the data set by using a maximum likelihood estimation procedure (ibid).
3. Because the dependent variable is categorical, the likelihood that a case with certain predictor value(s) is a member of the reference group (in this case, multiple channel users) is predicted (ibid).

The binomial logistic regression or binary logit model is used to explain the likelihood of whether an observation belongs to one group or another. It estimates the probability of an observation belonging to a particular group. The multiple logistic model is presented below:

(1)

$$\text{logit}(Y)=\ln\left(\frac{\pi}{1-\pi}\right)= \alpha+\beta_1X_1+\beta_2X_2+\ldots\beta_kX_k$$

Where

Y = the dependent variable

π = the probability that Y=1

α = the Y intercept

$\beta_1 \ldots \beta_k$ = the regression coefficient (Peng *et al.* 2002)

When describing the outcome of binary data, the two parallel lines resulting from the dichotomy of the data are difficult to be described with an ordinary least squares regression equation for two reasons. First, the extremes do not follow a linear trend. Second, the errors are neither normally distributed nor constant across the entire range of data. The logistic regression model solves the problem of fitting a binary response

data on a linear model by applying the logit transformation to the dependent variable. An example of this S-shaped curve in binary data is presented below. (Peng *et al.* 2002)

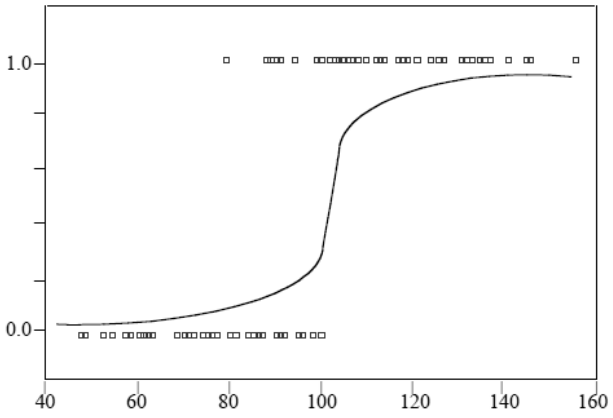

Figure 12: Example of S-shaped curve (Peng *et al.* 2002)

In logistic regression, the significance of estimated coefficients is based on Wald's statistics (Malhotra *et al.* 2006). In the model, the null hypothesis underlying the overall model states that all βs equal zero. A rejection of this null hypothesis implies that at least one β does not equal zero in the population, which means that the logistic regression equation predicts the probability of the outcome better than the mean of the dependent variable *Y* (Peng *et al.* 2002).

5 DESCRIPTION AND ANALYSIS OF THE DATA

The objective of the analysis part of the study is in examining the relationships between (1) Globalization pressure, (2) Approach, (3) Managerial resources and characteristics and (a) Sales channel strategy and (b) use of Internet in sales channels. The study aims to expose, whether BGs are more active users of multiple sales channels and use Internet in sales channels to a greater extent when comparing to TIs. As indicated with the six hypotheses, the study also concentrates in examining whether increases in values of globalization pressure and managerial resources indicators are related with tendencies to use multiple channels over single, or result to increased use of Internet in sales channels over lesser use or even none.

To investigate the impact of managerial traits and globalization pressure on sales channel strategy and use of Internet, a number of questions in the dataset were grouped under subtopics. In terms of *managerial resources*, the following qualities were examined:

1. Possession of valuable and rare foreign business managerial knowledge, which is difficult to learn and copy
2. The amount of previous international business experience and history in international business involvement
3. Experience in managing global business
4. Top management's time available for international opportunities

The impact of *globalization pressure* on sales channel strategies was inspected in four separate categories;

1. Push and pull factors
2. Market globalization drivers
3. Maturity of technology
4. Market growth

The *push and pull* factors consist of domestic market smallness (push) and foreign market potential (pull), the impact of *market globalization drivers* comprise of four elements; (1) homogeneity of customer needs (2) existence of global channels and (3) global customers, and (4) standardization of purchasing practices. The *maturity of technology life cycle* is measured in terms of global standardization of product-technology and worldwide existence of product awareness and information. Usually, *market growth* is an integral part when studying the maturity of technology life cycle, but because increases in the values measuring standardization of technology and market growth had possibly cancelled one another out, the *market growth* factor is investigated as a separate category influencing globalization pressure. *Approach* will be examined in terms of companies being either BGs or TIs.

5.1 Description of the data

As the data is first analyzed in a descriptive manner, the reader will be introduced with the frequencies of how the companies are divided between BGs and TIs, single and multiple channel users, and how different company types apply internet in their sales channels. As a supplementary part of the descriptive discussion, the mean values of explanatory variables – globalization pressure and managerial resource – will be examined.

5.1.1 Sales Channels

The sample used in the study consists of 261 companies of which 40 are categorized as Born Globals and 181 as Traditional Internationalizers. 40 companies belong to the third category, Globalizing International, which are excluded from the study. The survey questionnaire enabled companies to choose sales channels among 5 options: (1) direct sales channels, (2) indirect sales channels, (3) dual sales channels, and (4) hybrid sales channels. The fifth option was labeled as *other*, and was to be crossed if the respondent felt that they were using a channel which did not belong to any of the above given 4 categories. The questionnaire did not list the channel options as explained above, but

merely gave more of a descriptive illustration of the option, i.e. *"Selling only via your own sales force to end customer in a given country"*. The intention was to avoid misunderstandings due to possibly different views on terminology.

Due to the fact that several/most of the responding companies operate simultaneously in more than two countries, there exists a possibility that a given company uses more than one type of channel designs; i.e. company X sells directly to Norwegian customers, but applies hybrid channels to reach its North American clientele. Thus the respondents were allowed to select more than one option of the five. Therefore a company may be described to use from one to five different sales channel options of which the fifth, *other*, is excluded from the analysis. In some cases the writer was able to assign companies that had chosen option *other* under options 1-4 through interpretation of the open explanation given by the respondent. Below, table 1 illustrates the total number of different sales channels used by the 221 companies. 6 companies were appointed to none of the four categories.

Table 1: Channels used by companies in the study; BG and TI combined

Channels used by companies in the sample		
	Frequency	%
Direct	103	46.6
Indirect	62	28.1
Dual	61	27.1
Hybrid	80	36.2

As seen in table 1, the total number of channel frequencies exceeds the total number of companies in the study, n=221. This is due to several of the companies having selected more than one sales channel option. From the 306 sales channel options used by the companies in given countries, the *direct* sales channel alternative seems to be the most popular with 46.6% of companies using them. The second most popular being *hybrid* channels with 36.1% companies applying them in their channel strategies, whereas the two least used alternatives were *indirect* and *dual* sales channels.

To illustrate the use of different channels among different types of companies; BGs and TIs, the subsequent table 2 and figure 13 show the channels used by BG and TI separately. Table 5 illustrates the frequencies of different channels applied by BGs and TIs, and the percentages of companies using a specific channel option (e.g. 90 TIs or 49.2% of the 181 TIs are using direct channels in some market or country). As said, when exploring the use of channels by approach in the data, it can be witnessed that TIs have a more inclination towards use of direct sales channels compared to BGs, which prefer the use of hybrid sales channels over single and dual. Figure 13 illustrates the proportions of specific channel options as a percentage of all channels. The cumulative percentage of the four bars per approach totals 100%. When for example examining how BGs use hybrid channels, we can see from the table and the figure that hybrid channels account for 30.1% of all channels used by BGs with 47.5% of BGs using them. If compared with TIs, which prefer direct channels, it can be stated that the result corresponds with H3 of the study.

Table 2: Frequencies and Percentages of Sales Channels used by BGs and TIs

Channels used by TIs in the sample		
	Frequency	%
Direct	90	49.2
Indirect	46	25.4
Dual	46	25.4
Hybrid	61	33.7

Channels used by BGs in the sample		
	Frequency	%
Direct	13	32.5
Indirect	16	40.0
Dual	15	37.5
Hybrid	19	47.5

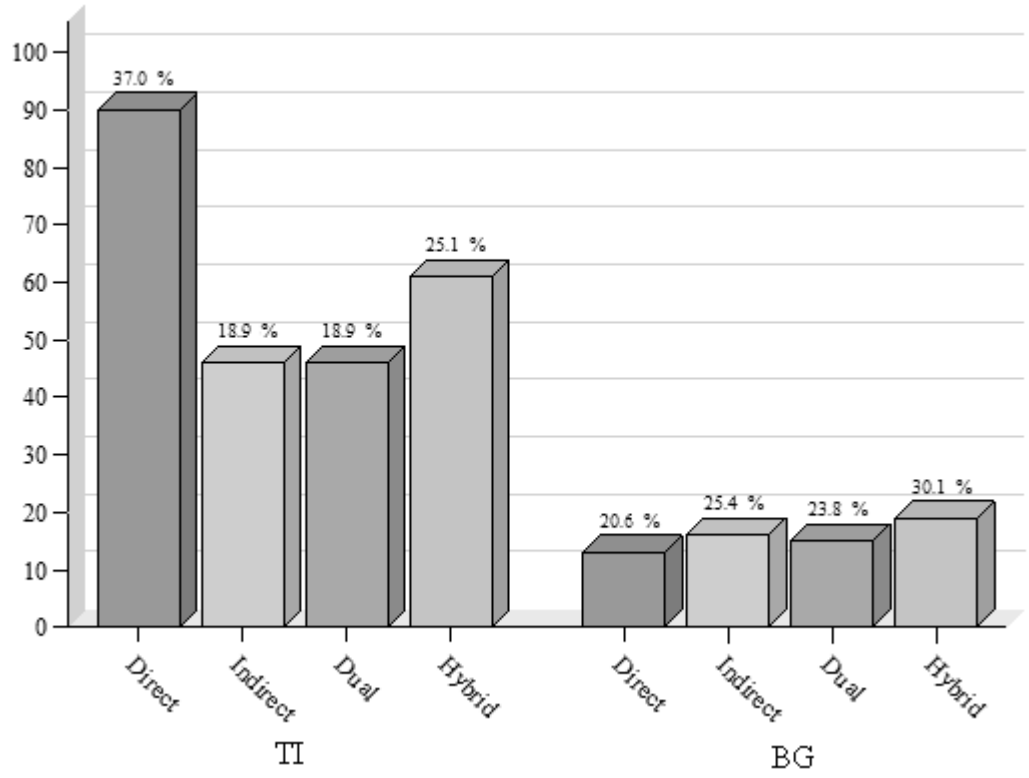

Figure 13: Channel use by Approach – Percentage of all channels per channel type

Although the difference is here clearly visible, the reliability of the differences between the two approaches will be further examined as the dataset is later analyzed with statistical analysis methods. In the statistical analysis section of the paper, sales channel strategies are divided in two categories; companies that are using multiple channels and companies that are not. It is noteworthy that companies categorized in the multiple sales channel user group may also use single channels in some market area. Table 3 exhibits the 1-5 scale mean values of managerial resources and globalization pressure indicators in terms of single channels and multiple channel users of the total population and for the BG and TI groups separately.

Table 3: Mean values of managerial resource and globalization pressure indicators

	Total	Variable	Mean		TI	Mean		BG	Mean
Multiple Sales Channels	117	Push / pull	4,13	*	89	3,99	*	28	4,57
		Market drivers	3,54			3,46			3,80
		Maturity tech	3,20			3,13			3,44
		Market Growth	3,94	*		3,89	*		4,11
		Manag. Resources	3,01	*		2,84	*		3,57
Single Sales Channels	98	Push / pull	3,73		86	3,66		12	4,29
		Market drivers	3,63			3,62			3,71
		Maturity tech	3,30			3,24			3,72
		MKT Growth	3,63			3,58			4,00
		Manag. Resources	2,59			2,45			3,60

* Multiple channel values differ from single channel users at $p<0.05$ level

When inspecting table 3 in terms of the total population, companies applying multiple channels seem to have clearly higher mean values for *push/pull, market growth* and *managerial resources* variables on the 1-5 scale. According to one-way ANOVAs and Post Hoc analyses (Tukey's test) performed for the variables, the means of the single and multiple channel groups also differ at $p<0.05$ level statistical significance within the total population as well as within the TI group. Surprisingly, companies using multiple channel strategy report lower levels of technological standardization than those using only single channels. The same applies to market globalization drivers, where the mean is higher for the single channel group. It is also evident that BGs indicate higher values in all categories when compared with TIs, but the differences in the variable means between the two channel strategies within the BGs are quite small and incoherent. The relationship between the five variables and channel strategy will be further examined in the statistical analysis section of the paper.

5.1.2 Use of Internet in Sales Channels

The Global Marketing Strategy survey also collected information on the different ways companies are using Internet in their sales channels. The respondents were again allowed to select several from eight different alternatives of how they use Internet in

sales channels, as well as choosing an option of not using Internet at all. The possible uses of Internet in sales channels were classified under the premises of four categories; (1) Internet is used as a channel to provide product and sales related information, (2) End customers and channel members place orders over the Internet, (3) Internet is used for gathering sales leads (used by own sales people / channel members) and (4) Internet is used for the delivery of products to end customers or channel members.

In order to clarify the selections, this study places companies in 5 different categories in terms of the *extent* to which Internet is used in Sales channels.; (0) not used, (1) one of the four categories above, (2) two of the categories above, (3) three of the categories above, (4) all of the four of the categories above (indicating the a company uses Internet to provide product information and gather sales leads. The firm also allows customers to place orders as well as delivers products over the Internet).

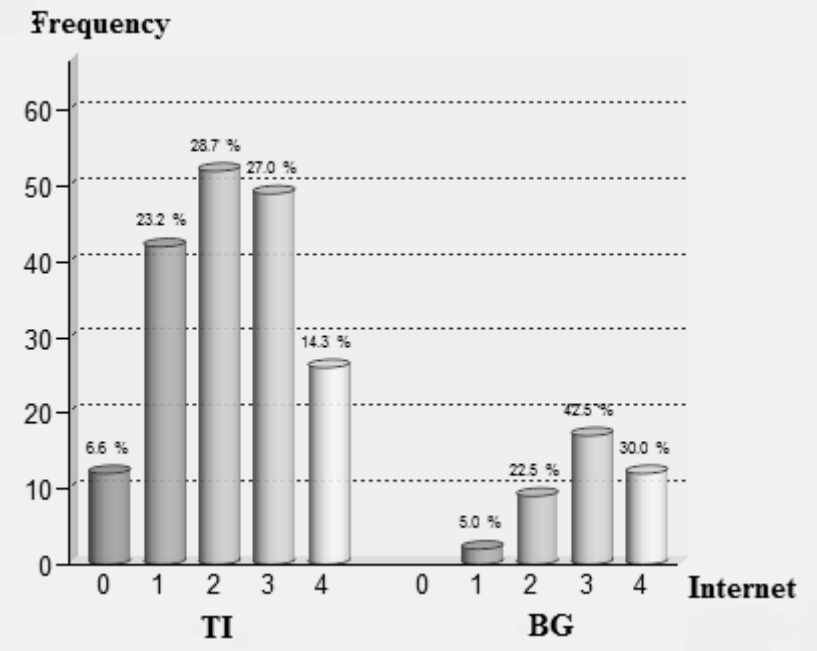

Figure 14: Internet in Sales Channels frequencies and percentages by Approach

Figure 14 above shows the distributions of frequencies and percentages between companies, which are not applying Internet in their sales channels, and companies using Internet in sales channels from one to four different ways. Overall, it is evident that

Internet has been widely adopted by ICT companies. In light of hypothesis 4, which stated that *Born Globals are more likely than Traditional Internationalizers to utilize Internet in Sales Channels in order to attain rapid international expansion and growth with limited financial resources* it can be noted that 95.0% of BGs utilize Internet in their sales channels for 2 purposes or more. The comparative percentage for TIs is 70.2%. Furthermore, when examining companies that utilize Internet in their sales channels in 3 different ways or more, BGs have a rating of 72.5% compared to 41.4% of TIs. Taking into consideration the great differences between the above discussed percentages, it seems that there is evidence to support H4. Nevertheless, the confirmation for the argument will be sought in the forthcoming sections of the paper.

Later on in the study, the use of Internet in sale channels will also be analyzed through examination of the relationship between use of Internet and (1) managerial resources and selected (2) globalization pressure measures; hence the values are presented in the tables below.

Table 4: Means of the variables at different levels of Internet use

Internet in Sales Channels 0-4	Total	0	1	2	3	4	
Mean of Push/pull	3,95	3,54	3,69	4,13	3,98	4,00	*
Mean of Market Drivers	3,57	3,15	3,67	3,48	3,61	3,66	**
Mean of Tech Maturity	3,23	2,64	3,22	3,27	3,19	3,46	**
Mean of Market Growth	3,79	3,75	3,68	3,84	3,88	3,71	
Mean of Managerial Resources	2,80	2,42	2,64	2,76	2,85	3,10	*
N	221	12	44	61	66	38	
%	100	5,43	19,91	27,60	29,86	17,19	

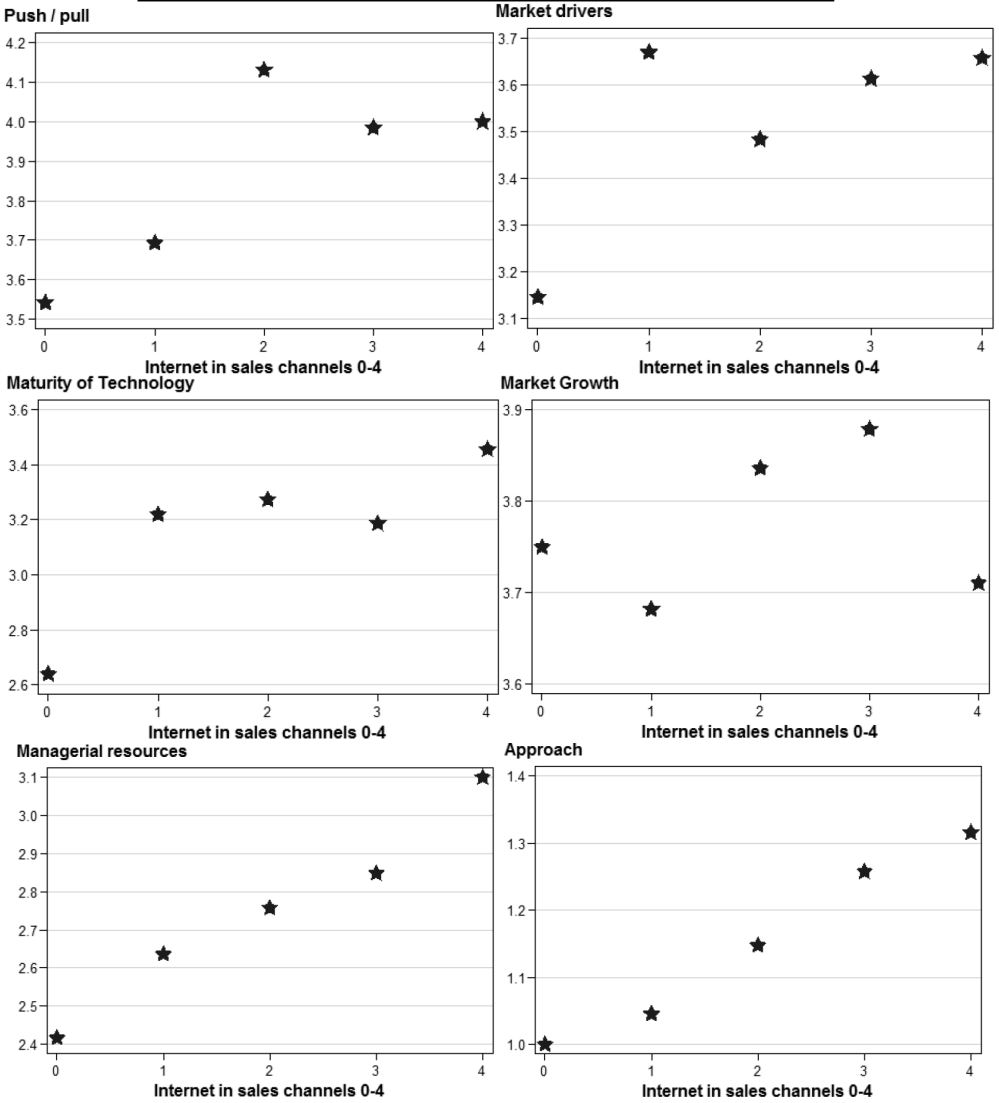

Figure 15: Means of the variables at different levels of Internet use - Push/pull, Market Drivers, Maturity of Technology, Market Growth and Managerial Resources on 1-5 scale, Approach on 1-2 scale where 1=TI, 2=BG (If mean equals 1, only TIs are present, as the mean increases towards 2, more and more BGs are present). * p<0.1, ** Internet in sales channels categories 0 and 4 are in different REGWQ groups.

When examining the mean values of the selected variables, it seems evident that there are no large differences in *market growth* values between companies not using Internet and companies more extensively using Internet in sales channels. Nevertheless, the *push and pull, market drivers, technological maturity* and values seem to increase at least to some extent when moving from Internet use level 0 towards level 4. As also explained in Table 4 with the ** sign, the means of *Market driver* and *Maturity of technology life cycle* group extremities 0 and 4 are categorized under different REGWQ (Ryan-Einot-Gabriel-Welch multiple range test) groups, when testing for differences between the groups. As an addition to this, the differences in the means of *Push/pull* and *Managerial Resources* categories have a statistically significant difference at $p<0.1$ level. Furthermore, *Managerial Resources* and *Approach* seem to be quite linear in their growth from internet use level 0 to level 4. This signals positive association between the variables and use of Internet. As further support is needed, the relationships will be examined more thoroughly in latter part of the study.

5.2 Statistical Analysis

As the previous section focused on description of the data, the data is now analyzed with more advanced statistical methods, mainly logistic regression and ANCOVA. The first part of the section concentrates on examining the relationship between (1) *approach*, (2) *globalization pressure*, (3) *managerial resources* and *sales channels* strategy. The analysis is completed with table analysis and multiple logistic regression.

5.2.1 Sales Channel Strategy

As a first step, due to the binary nature of the variables, the relation between sales channels and approach will be examined with table analysis and Chi-Square test. The analysis of the relationship between (1) managerial characteristics, (2) globalization pressure (3) company characteristics *and* sales channels will be later computed with a multiple logistic regression.

5.2.1.1 Approach and Sales Channels

The frequencies and percentiles of BGs and TIs applying single and multiple channels are presented below in table 5 showing the 2x2 table analysis of the *approach/sales channel* relationship. From the total n of 221, 6 companies were missing a value indicating whether or not they use multiple or single channels, due to indicating to use something else than the options under the two categories under inspection. When examining the two channel strategy categories, the difference among two different approaches, BGs and TIs, is very substantial. As 70 percent of BGs apply multiple channels in their overall international sales channel strategy vs. the 50% of TIs, it can be stated that H3 seems to be accurate. Based on the *chi-square test* (lower part of Table 4) we can see that there is a statistically significant relationship between the approach of a company and the sales channels it uses (Pearson Chi-Square with 1 degree of freedom = 4.8099 & p=0.0283). Fisher's two-sided probability gives a statistically significant result (p=0.0346) for the test.

Table 5: Table Analysis and Chi-Square Test – Approach and Use of Sales Channels

Frequency Percent of total Row % Column %	Table of Approach by Sales Channels			
	Approach	Uses Multiple Channels		
		Yes	No	Total
	TI	89	86	175
		41,4	40,0	81,4
		50,9	49,1	
		76,1	87,8	
	BG	28	12	40
		13,0	5,6	18,6
		70,0	30,0	
		23,9	12,2	
	Total	117	98	215
		54,4	45,6	100,0

Statistic	DF	Value	Prob
Chi-Square	1	4,8099	0,0283

5.2.1.2 Sales channels – analysis of the relationships with an overall model

According to Meyers *et al.* (2009) it is important to thoughtfully determine which group is assigned which code when using logistic regression. In accord with Hosmer and Lemeshow (2000; Meyers *et al.* 2009), values of 1 and 0 are used, and the focal group,

companies using multiple channels, is assigned value 0 because this way is preferable in SAS. Table 6 exemplifies the results of multiple logistic regression analysis on the impact of Approach, Managerial Resources and Globalization Pressure on Sales Channel Strategy.

Table 6: Multiple Logistic Regression - Approach, Managerial resources, Globalization pressure and Sales Channels

R-Square	0,11	Max-rescaled R-Square	0,145

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	24,69	7	0,0009
Score	23,21	7	0,0016
Wald	20,76	7	0,0041

Analysis of Maximum Likelihood Estimates				
Parameter	Estimate	Standard Error	Wald Chi-	Pr > ChiSq
Intercept	-2,09	1,19	3,10	0,0781
Push / pull	0,29	0,19	2,40	0,1211
Market drivers	-0,35	0,23	2,28	0,1311
Maturity of Technology	-0,07	0,18	0,16	0,6905
Market Growth	0,37	0,17	4,85	0,0276
Managerial resources	0,46	0,20	5,22	0,0223
Approach (BG=1)	-0,12	0,22	0,33	0,5683
Country (Finland=1)	0,00	0,15	0,00	0,9919

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence	
Push / pull	1,34	0,93	1,94
Market drivers	0,70	0,45	1,11
Maturity of Technology	0,93	0,66	1,32
Market Growth	1,45	1,04	2,02
Managerial resources	1,58	1,07	2,34
Approach	0,78	0,34	1,82
Country	1,00	0,55	1,82

Hosmer and Lemeshow Goodness-of-Fit Test		
Chi-	DF	Pr > ChiSq
4,60	8	0,7998

As the results of the overall logistic regression analysis where the relationships between sales channel strategy and the variables are examined, the analysis finds statistically

significant relationship between *Sales Channels* and *Managerial Resources* (p=0.0223) and S*ales Channels* and *Market Growth* (p=0.0276). Interpreting the Max-rescaled R-square, or Nagelkerke pseudo *R*-square value, it can be seen that the model accounts for approximately 14.5% of the variance of whether a company uses only single or also multiple channels in their channel strategy (Meyers *et al.* 2009). Although the table analysis indicated statistically significant relationship between *Approach* and *Sales Channels,* the logistic regression model does not (p=0.5683). In addition to this, ANOVA based descriptive examination of the differences in means finds the *Push/pull* statistically significant at $p<0.05$ level. In the multiple logistic regression model it no longer is significant.

The weakening of the statistical significance of some elements could result from multicollinearity, which can be explained as a state of high intercorrelations among independent variables (Malhotra *et al.* 2006). When inspecting the correlation matrix of the independent variables (table 7), there seems to be no signs of serious multicollinearity as the maximum correlations between variables remain mostly under 0.4 level. If multicollinearity were present, there are several things that could be done. One resolution to the problem of multicollinearity is collection of more data. One option derives from the assessment of the relative importance of the independent variables by examining their statistical significance (ibid).

Table 7: Correlation matrix of Independent variables

Estimated Correlation Matrix					
Parameter	**Push pull**	**Market drivers**	**Tech Maturity**	**Market Growth**	**Managerial Resources**
Push pull	1				
Market drivers	-0,1772	1			
Technology Maturity	0,0378	**-0,4101**	1		
Market Growth	-0,1431	-0,2505	0,1477	1	
Managerial Resources	-0,3264	0,0505	-0,0786	0,154	1

Here, as the model seems to have no problem of multicollinearity, the results require closer inspection. The odds ratios are the outcomes that are most often interpreted when examining the results of logistic regression (Meyers *et al.* 2009), thus they are shown in table 6 presented before. The direction and strength of the correlation can be viewed from the Point Estimate column of the odds ratio table. When examining the statistically significant variables, *Managerial Resources* and *Market Growth,* the point estimate of 1.583 for *Managerial Resources* signifies that an increase of 1 point on the 1-5 scale measuring the variable increases the odds of respondents using multiple channels by 1.583 times when the effects of the three other variables are controlled for. The point estimate of 1.449 of *Market Growth* signals that an increase of 1 point on the 1-5 scale measuring the variable increases the odds of respondents using multiple channels by 1.449 times when the effects of the other variables are controlled for.

The Finland / Sweden parameter is included in the model as a control variable. The statistically insignificant p-value (p=0.5977) of the control variable approves the model for generalization, as there are no significant dissimilarities between the two countries. As of the overall statistical significance of the logistic regression analysis examining the relationship between the variables and sales channels, both the Hosmer and Lemeshow Goodness-of-fit test and the testing of global null hypothesis give statistically significant status for the model.

For further examination of the relationships between the independent and the dependent variable, a logistic regression analysis was also computed for an alternative model only consisting of the variables that were found significant at acceptable or nearly acceptable level in the overall model. As a consequence, the redundant variables; Finland/Sweden control variable, Approach and Maturity of technology life cycle were removed from the analysis and calculations for the new model executed. The results were as follows:

Table 8: Multiple Logistic Regression - Push/pull, Market Drivers, Market Growth and Managerial Resources

R-Square	0,1064	Max-rescaled R-Square	0,1422

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	24,18	4	<,0001
Score	22,77	4	0,0001
Wald	20,39	4	0,0004

Analysis of Maximum Likelihood Estimates				
Parameter	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	-2,49	1,03	5,90	0,0152
Push / pull	0,30	0,18	2,82	0,093
Market drivers	-0,38	0,21	3,25	0,0713
Market Growth	0,39	0,17	5,56	0,0184
Managerial resources	0,49	0,19	6,81	0,0091

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
Push / pull	1,35	0,95	1,93
Market drivers	0,68	0,45	1,03
Market Growth	1,48	1,07	2,05
Managerial resources	1,63	1,13	2,35

Removal of the statistically insignificant variables did not affect much the Nagelkerke pseudo *R*-square value, as it dropped only to 14.2% from 14.5%. In the condensed model, the two previously statistically significant variables remained at significant level, whereas the statistical significance of the other two improved. Now all four, *Push/pull, Market Drivers, Market Growth* and *Managerial Resources* are significant at $p<0.1$ level with the point estimates of **1.354**; **0.682**; **1.478** and **1.629** respectively. Surprisingly, an increase in the market driver globalization pressure category seems to be negatively associated with multiple channel use, but as expected, the other variables have a positive association with multiple channels.

5.2.2 Statistical analysis – the Use of Internet in Sales Channels

The statistical analysis on the relationship between *Approach, Managerial Resources and Globalization Pressure* and *use of Internet in Sales Channels* is calculated with

ANCOVA involving managerial resources and globalization pressure variables as covariates and Approach and firm's home country as categorical independent variables. Use of Internet in sales channels is the dependent variable in the model. A firm's home country is included in the model in order to find out if generalization of the model is prohibited due to large differences between Finland and Sweden. The output of the analysis is exhibited below. Additionally, when testing for the homogeneity of regression lines between the independent variable (approach) and covariates with a preliminary model, none of the interaction terms tested had statistically significant slope p-values.

As use of Internet in sales channels also depends on many factors not included in the model, this analysis is only able to explain 9% of the changes in the use of Internet. The model itself is statistically significant (p=0.0047), whereas the only statistically significant variable in the model is *Approach,* while other variables have no statistically significant effect on the dependent variable. From the point estimate column of the table, it can be seen that as of two companies otherwise being identical in other variables in the model, a company being a BG instead of a TI positively affects the use of Internet in sales channels with a coefficient 0.6471. As a result we can say that BGs use 0.6471 more Internet channels in the channel strategy compared to TIs on a 0-4 scale.

Table 9: ANCOVA – Use of Internet in Sales Channels

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	1,4513	0,54	2,67	0,0082
Push / pull	-0,0090	0,10	-0,09	0,9252
Market drivers	0,0447	0,12	0,38	0,7034
Maturity of Technology	0,0771	0,09	0,84	0,3998
Market Growth	-0,0170	0,08	-0,20	0,8401
Managerial resources	0,1281	0,10	1,27	0,2039
Country - Finland	0,1745	0,16	1,11	0,2688
Approach - BG	0,6471	0,22	2,98	0,0032

R-Square
0,090427

6 ANALYSIS OF THE EMPIRICAL FINDINGS

The objective of the thesis is in analyzing possible differences between BGs and TIs, and finding out how selected factors impact sales channel strategy and use of Internet in sales channels. The aim was also to find out if BGs and TIs significantly differ in their use of sales channels and how these companies apply Internet for sales channels purposes.

The study consisted of six hypotheses of which three focused on sales channels and the other half on the use of Internet in sales channels. If each six of the hypotheses had been examined with separate analysis model, the results could have seemed excessively powerful in terms of the associations and relationships. Thus, the analyses were computed in a combined manner; one model that inspected the relationship between selected variables and sales channels and one model inspecting the same for Internet in sales channels. The findings will next be analyzed on hypothesis level.

6.1 Globalization Pressure

6.1.1 Hypothesis 1

The assumption of H1 was that *increasing globalization pressure pushes companies towards innovative channels strategies and is thus positively associated with multiple channel use.* The results for the relationship between globalization pressure and sales channels were derived from the multiple logistic regression model. The first logistic regression model found only one variable measuring globalization pressure to be statistically significant. The variable was *Market Growth* (p=0,0278). The point estimate of 1,449 of *Market Growth* signaled that an increase of 1 point on the 1-5 scale measuring the factor increases the odds of respondents using multiple channels by 1.449 times when the effects of the other variables are controlled for.

As the regression model was condensed by removing three statistically insignificant variables, *Push/pull* and *Market Growth* indicators turned out to be significant at a $p<0.1$ level. As a conclusion of the results deriving from the analysis, it can be said that there was partial support for H1. However, because three of the four variables measuring *globalization pressure* were statistically insignificant in the overall model, hypothesis 1 must be rejected.

6.1.2 Hypothesis 2

The assumption of H2 was that an increasing globalization pressure is positively associated with an extended use of Internet in sales channels. The relationship between globalization pressure and use of Internet in sales channels was examined with an ANCOVA, where the four variables were incorporated as covariates in the model. None of the four parameters had statistical significance in the model, thus H2 is rejected.

6.2 Company Characteristics / Approach

6.2.1 Hypothesis 3

As noted earlier in the paper, conventional single channels are often not sufficiently effective in case of Born Globals. This is often due to indirect channel middlemen lacking interest to invest in BGs while also one explanation is that a BG's often have insufficient resources to set up direct sales channels on their own. Therefore according to literature, in case of BGs, single sales channels (direct and indirect) are rapidly expanded to multiple channels (dual and hybrid) or skipped. (Luostarinen & Gabrielsson, 2006)

Due to the above, hypothesis 3 of the study presumed that *Born Globals are more likely to use multiple channels (dual and hybrid) over single channels; whereas Traditional Internationalizers with smaller internationalization rates are more probable to use single sales channels (direct and indirect).*

As use of sales channels was examined in light of frequencies and percentages, it was quickly evident that BGs were more active users of multiple channels than TIs. 85% of BGs were using either dual or hybrid channels, whereas the relative figure for TIs was only 59%. Reversibly, 49% of TIs were employing direct channels, as of BGs only 32%. On the other hand, BGs were unexpectedly more active users of indirect channels, with 40% of them applying indirect channels in some market area. It must be noted that with the percentages above, the total exceeds 100%. This is due to companies using more than one channel option. The relationship between approach and sales channels was also examined with table analysis and chi-square test, according to which BGs and TIs were different in terms of sales channels use at a statistically significant level.

However, when approach was included in the logistic regression model which analyzed the combined effect of approach, managerial resources and globalization pressure on sales channel strategy, there no longer existed statistically significant relationship between *sales channels* and *approach*.

As a conclusion of H3, as the hypothesis assumes that *BGs are more likely to use multiple channels than TIs*, and the assumption is supported by table analysis and chi-square test, the study sees that the hypothesis gets enough support even though the logistic regression analysis called for the rejection of the hypothesis. It should be noted that there was some level of controversy in the results. It could be that the rather small amount of BGs in the study had some level of influence to the results of the regression model. Next, the results of the connection between approach and use of Internet are analyzed.

6.2.2 Hypothesis 4

IB literature has generally accepted that advanced sales and marketing technology is a quite typical element of BGs (see e.g. Luostarinen & Gabrielsson 2006). Many studies have found out that BGs actively use the Internet for marketing communication and often for sales as well. For this reason, this study also aimed in examining the relationship between approach and the extent of Internet use in sales channels.

In hypothesis 4 we assumed that *Born Globals are more likely to utilize Internet in Sales Channels in order to attain rapid international expansion and growth with limited financial resources.* As the connection between Internet and approach was examined and approach was set to be the independent variable in the ANCOVA model, the relationship between the two parameters was obvious. Although the relationship was not strong, a company being a Born Globals instead of a Traditional Internationalizer had a statistically significant positive relationship with an increased use of Internet in sales channels. Thus it can be stated that hypothesis 4 is supported.

6.3 Managerial Resources

6.3.1 Hypothesis 5

In hypothesis 5 the study assumed that *incremental possession of valuable managerial knowledge and experience in foreign business is positively associated with the use of hybrid and multiple sales channel structures*. The association between sales channels and managerial resources was analyzed as part of an overall multiple logistic regression model. The multiple regression analysis gave out only two statistically significant variables, of which *Managerial Resources* was the other (with a p-value of 0.022. The odds ratio point estimate was 1.583. This signifies that an increase of 1 point on the 1-5 scale measuring the variable increases the odds of respondents using multiple channels by 1.583 times when the effects of the three other variables are controlled for.) As a result of these, hypothesis 5 is supported.

6.3.2 Hypothesis 6

The assumption of H6 was that *companies with higher foreign business competencies are likely to utilize Internet in Sales Channels more extensively*. According to the results which were derived from the ANCOVA model, the hypothesis is not supported. The managerial resources estimate was incorporated in the model as a covariate, and no statistically significant results were received for the parameters. Therefore, hypothesis 6 is rejected.

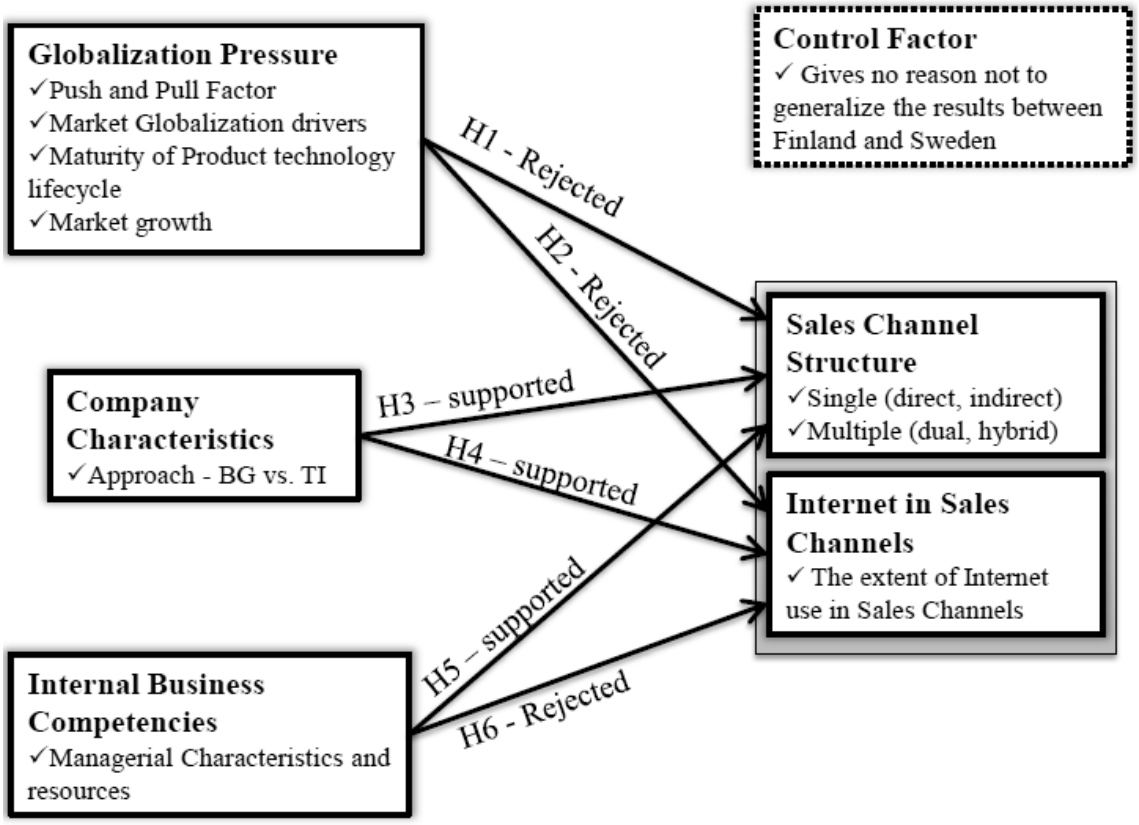

Figure 16: Visualization of the Results Relative to Theoretical Framework

7 SUMMARY AND CONCLUSIONS

The findings of the study support the general view of the existing literature according to which Born Globals are an exception from what is seen as the traditional internationalizing firm (see e.g. Oviatt & McDougall 1995; Knight & Cavusgil 1996; Madsen & Servais 1997). When examining the measured values averaged by BGs and TIs in managerial resources, globalization pressure indicators, sales channels and the extent to which companies use Internet in sales channels, BGs reported dissimilar values than TIs in all categories. The values measuring globalization pressure and managerial resources on a 1-5 scale were higher for BGs in all categories, BGs were more active users of multiple - especially hybrid channels than TIs and they applied Internet in channel strategy more extensively. Next, the content and the results of the study will be briefly revised and discussed.

7.1 Summary

The objective of the study was in exploring the sales channel strategies of Finnish and Swedish ICT companies. The analyses were conducted from a perspective of how Born Globals and Traditional Internationalizer differ in their channel strategies and in the use of Internet in sales channels, while also examining the impact of selected internal and external variables on channel strategy.

The first part of the thesis briefly introduced the reader with the ICT industry in Finland and Sweden as well as the current state of and the gaps in the literature covering the topics of Sales Channels and Born Globals. As the existing literature was examined more profoundly in chapter 2, the focus was first set on globalization, mainly corporate globalization process, the drivers and factor facilitating globalization and different globalization/internationalization approaches. The distinction between the two distinct approaches relevant to the thesis - BGs and TIs - was based on three key dimensions: mindset of management (e.g. management orientation and vision), strategic thrust (e.g. entry, local expansion, rationalization), and geographical spread (e.g. sales derived

outside home country / outside home continent, number of countries / continents with company presence) (Gabrielsson *et al.* 2008). For a company to be categorized as a BG, it was required to start foreign sales outside Europe is within 2 years from foundation, have a global vision from inception, have at least 50 % of sales coming from outside home country and at least 10% coming from outside Europe, while also having sales in at least 3 foreign countries.

As a second main subject of interest to the study, the reader was introduced with the essential theory of sales channel strategies. Based on the existing literature, four distinct channel options were identified: (1) direct, (2) indirect, (3) dual and (4) hybrid sales channels. The categorization of the distinct options is based on the directness and level of control and ownership over the channel as well as on the use of middlemen in channels. After examining the theory of international sales channels, the impact of selected environment based and company-specific variables on sales channel strategies was reviewed.

After reviewing the literature relevant to the study, a theoretical framework of the factors impacting Sales Channel and Internet Sales Channel strategy was constructed. The framework constituted of five main elements; (1) *globalization pressure* as a combination four elements: the push/pull, market globalization drivers, maturity of product-technology life cycle and market growth, (2) *Approach* (BG vs. TI as explained above), (3) *Managerial resources* constituting of management's time available for international business, valuable and rare managerial knowledge of international business, former experience of international and global business, and the level of previous international business involvement. The fourth and fifth elements of the framework were *Sales Channels* and the *use of Internet in Sales Channels*. The use of Internet in sales channels was analyzed in terms of the *extent* to which companies are applying Internet in sales channels. As a result, five categories were formed, as the use of Internet was seen to range between 0-4 according to companies using Internet in 0-4 different manners listed below:

(1) Internet is used for providing product and sales related information,

(2) End customers and channel members place orders over the Internet,
(3) Internet is used for gathering sales leads
(4) Internet is used for the delivery of products to end customers or channel members.

The objective of the analysis section of the study was in determining whether (1) *Globalization pressure*, (2) *Approach* and (3) *Managerial resources* of a company have a statistically significant relationship with and explanatory power over differences in (a) *Sales Channels strategy* and (b) *use of Internet in Sales Channels*.

The data used in this study were collected by a web-based questionnaire and a complementary mail survey targeted to Finnish and Swedish ICT companies operating internationally. A total of 2228 companies were contacted, of which the questionnaire was sent to 579 decision makers. A total of 424 companies completed the survey, resulting to 261valid answers, of which 221 were used in this study. The data was first analyzed in a descriptive manner and with some simple analyses. Two more complex statistical data analysis techniques - multiple logistic regression analysis and analysis of covariance - were used for addressing the research questions specified with six hypotheses.

The hypotheses of the study were as follows:

- H1: Increasing globalization pressure pushes companies towards innovative channels strategies and is thus positively associated with multiple channel use.
- H2: Increasing globalization pressure is positively associated with an extended use of Internet in sales channels.
- H3: Born Globals are more likely to use multiple channels (dual and hybrid) over single channels; whereas Traditional Internationalizers with smaller internationalization rates are more probable to use single sales channels (direct and indirect).

- H4: Born Globals are more likely than Traditional Internationalizers to utilize Internet in Sales Channels in order to attain rapid international expansion and growth with limited financial resources.
- H5: Incremental possession of valuable managerial knowledge and experience in foreign business is positively associated with the use of hybrid and multiple sales channel structures.
- H6: Companies with higher foreign business competencies are likely to utilize Internet in Sales Channels more extensively.

7.2 Discussion of the Empirical Findings

As a result of the statistical analysis completed for the data, the study found support for three out of six hypotheses. According to the results of the multiple logistic regression and ANCOVA, *Globalization pressure* was recognized not to have statistically significant relationship with sales channels or the use of Internet in sales channels. Conflicting with the suggestions of existing literature (see e.g. Anderson et al. 1997), the *Maturity of the technology life cycle* had no statistically significant relationship with whether companies were using single or multiple channels. In fact, opposite to the expectations, companies using only single channels averaged greater technology life cycle maturity values on a 1-5 scale than the multiple channel users. On the other hand, increases in *Market Growth* (which can also be seen as a part of the lifecycle theory) were positively associated with the use of multiple channels at a statistically significant level. *Push / pull* (Luostarinen 1970) and *Market globalization drivers* (Yip 1989) were also close to having statistically significant relationship with sales channels. Additionally, when the means values of *push / pull* were analyzed with a one-way ANOVA, the multiple channels group had a higher mean at a statistically significant level compared to the single channel users.

Because of the divisive results, a complementary analysis was computed for a model from which three redundant variables were removed. In the revised analysis, *push / pull* and *market drivers* became significant at $p<0.1$ level. Nevertheless, despite the

controversial results of the analyses, the required level of support for the hypothesis was not found, thus H1 was rejected.

When examining the results of the ANCOVA, none of the covariates measuring the relationship between *globalization pressure* and the use of Internet had statistical significance. Therefore, hypothesis 2 was also rejected.

In accordance with literature, e.g. Luostarinen and Gabrielsson (2006) and Oviatt and McDougall (1994), *Approach* was noticed to be a relevant determinant for sales channel strategy, as BGs were employing hybrid channels much more actively than TIs, which preferred direct channels. The extent to which Internet was used in sales channels was also noticeably greater for BGs compared to TIs. The result supported the conclusions of earlier studies (see e.g. Gabrielsson & Kirpalani 2004; Luostarinen & Gabrielsson 2006) and the assumptions of the hypotheses. Therefore, H3 and H4 were supported.

In accordance with the literature (see e.g. Albaum *et al.* 2002; Coviello & Munroe 1997; Keeble *et al*. 1998; McAuley 1999; Berg *et al.* 2008) *Managerial resources* were found to have a positive relationship with multiple sales channels at a statistically significant level, whereas there was no statistically significant association between *Managerial resources* and the extent to which companies apply Internet for sales purposes. Therefore, H5 was supported, whereas H6 had to be rejected.

The results of the analyses performed in this thesis can be described as partly surprising and deviant from earlier studies. Most unexpectedly, globalization pressure was found not to have a statistically significant relationship with the use of Internet in sales channels nor sales channel strategy in general. Opposed to the expectations, also the relationship between managerial resources and the use of Internet proved not exist at a significant level. Nevertheless, as anticipated, the analyses recognized the dissimilarity between Born Globals and Traditional Internationalizers in terms of all measures used in the study. Additionally, increases in managerial resources were found to be positively associated with the use of multiple sales channels.

7.3 Limitations and Implications for Further Research

Concerning the quantitative method chosen for the study, the implications of the findings are rather limited when it comes to explaining how companies should enhance the performance of their channels. Rather, the objective of the research was in adding to the theoretical understanding of how changes in selected variables influence channel strategy, while also statistically inspecting how Born Globals differ from Traditional Internationalizers in terms of channel strategy.

Although suitable for the objectives of this thesis, the theoretical framework did not provide strong explanations on the differences in channel strategies as the variables proved to be fairly disconnected of each other. By complementing the model with additional measures collected with the survey, the analyses should provide a more comprehensive view on the effects of different variables on sales channel strategy. It must be kept in mind that the models here were only able to explain 9% and 14% of the variances in use of different channels. Optionally, the sales channel options could have been examined using the four original sales channel categories, as some consider the single/multiple division an over simplification (e.g. Easingwood *et al.* 2003). Furthermore, while the present study was conducted with an industry specific limitation only inspecting the ICT industry, interesting results could derive from other fields if the survey and a similar project would be applied to a different industry.

To enable the reasoning of more constructive managerial implications, the theoretical framework used in the study could also be extended by adding performance measures to the model. By adding environment and resource based measures, and complementing the model with performance indicators, the framework could be applicable as a foundation for an overall model for a quantitative assessment of the impact of internal and external variables and different channel options on the performance of a company. However, in case of more complex analyses, it might be necessary to expand the dataset with additional responses, as a limited amount of data in some cases decreases the statistical significance of otherwise well constructed models (Malhotra *et al.* 2006).

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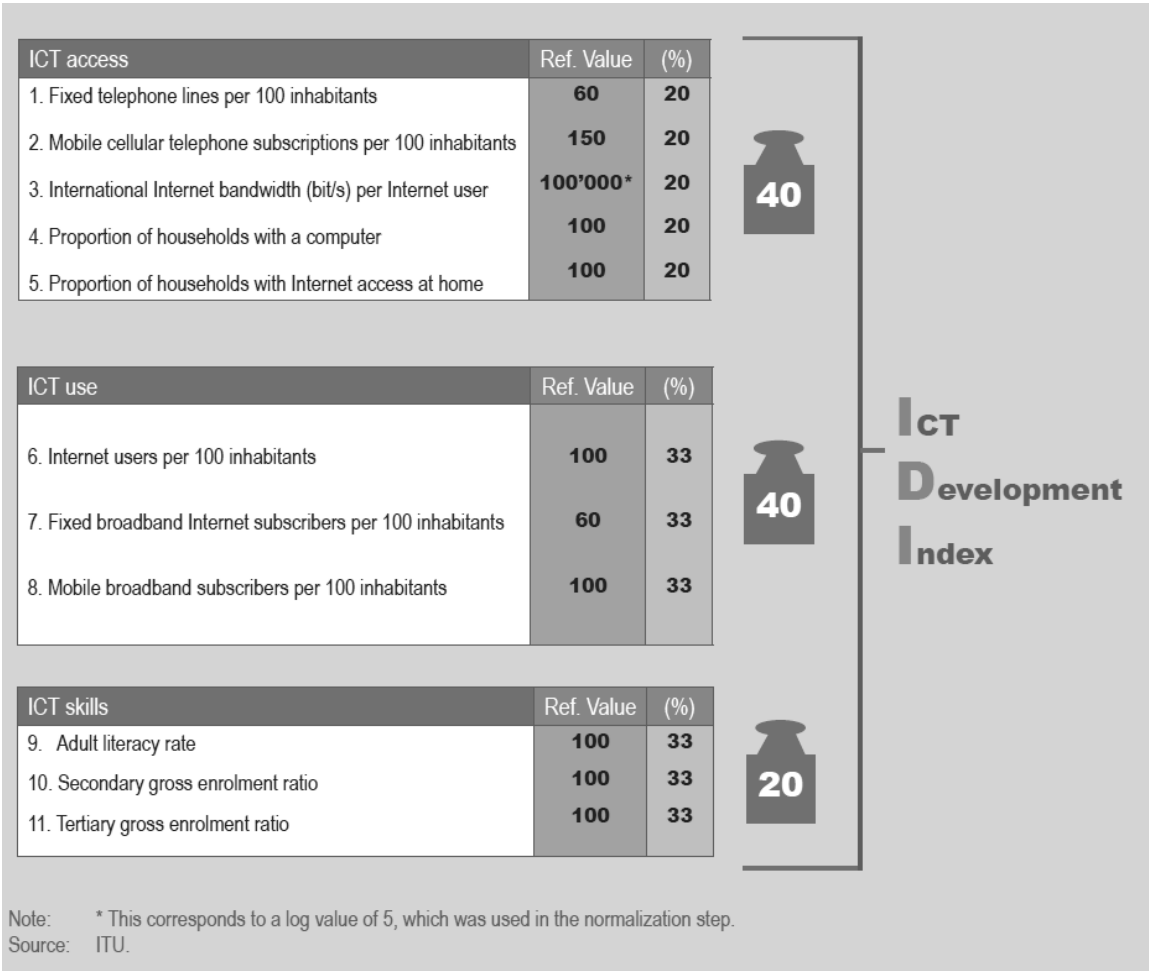
9 APPENDICES

Appendix 1. ICT Development Index – Weighting of indicators (Source: ITU, 2009)



ICT access	Ref. Value	(%)
1. Fixed telephone lines per 100 inhabitants	60	20
2. Mobile cellular telephone subscriptions per 100 inhabitants	150	20
3. International Internet bandwidth (bit/s) per Internet user	100'000*	20
4. Proportion of households with a computer	100	20
5. Proportion of households with Internet access at home	100	20

40

ICT use	Ref. Value	(%)
6. Internet users per 100 inhabitants	100	33
7. Fixed broadband Internet subscribers per 100 inhabitants	60	33
8. Mobile broadband subscribers per 100 inhabitants	100	33

40

ICT skills	Ref. Value	(%)
9. Adult literacy rate	100	33
10. Secondary gross enrolment ratio	100	33
11. Tertiary gross enrolment ratio	100	33

20

ICT Development Index

Note: * This corresponds to a log value of 5, which was used in the normalization step.
Source: ITU.

Appendix 2. Categorization of Companies within the study: BG, GI and TI (Source: Gabrielsson *et al* 2008)

Born Globals (BG), Total of 40 companies

1. Start of foreign sales outside Europe is within 2 years from foundation
2. Vision: global markets from inception
3. Sales outside home country at least 50 %
4. Sales outside Europe at least 10 %
5. Sales in at least 3 foreign countries

Globalizing Internationals (GI), Total of 40 companies

1. Start of foreign sales in Europe
2. Start of foreign sales outside Europe later than 2 years from foundation
3. Entered first home market, then Europe, and later other countries
4. Sales outside home country at least 50 %
5. Sales outside Europe at least 10 %
6. Sales in at least 3 foreign countries

Traditional internationalizer (TI), Total of 181 companies

1. Company has international business based on sales or operations.
2. Does not fulfill criteria set for BG or Globalizing International