

Internationalization of South Korean software SMEs:

A multiple-case study on market selection,
expansion patterns and the influence of
large business conglomerates

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Abstract

The purpose of the thesis was to examine the internationalization process of South Korean software SMEs with a focus on their market selection and international expansion patterns. In addition, the thesis aimed to determine whether the presence of large business conglomerates in the domestic market, a unique characteristic of the South Korean economy, had any significant influence on the internationalization process of these software SMEs. In order to explore the topic, the thesis used the revised, business network version of the Uppsala model as the theoretical framework and employed a qualitative multiple-case study research design with a total of four case companies. Based on the findings, this thesis emphasized that the market size and the expected opportunities in the potential market were the most important influencing factors behind market selection for these companies. Furthermore, findings showed that the international expansion of these companies happened in an accelerated pace which was influenced considerably by network relationships. Finally, the thesis argued that large business conglomerates did not have a significant influence on the overall internationalization process of South Korean software SMEs. However, their presence could have limited the options to start internationalization.

Keywords: South Korea, internationalization, software firms, SMEs, market selection, chaebol, multiple-case study, expansion pattern

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1. INTRODUCTION

1.1. Research Problem

1.1.1. Internationalization of SMEs

The topic of internationalization of Small and Medium sized Enterprises (SMEs) has been attracting increasing attention both from academia and policy-makers in the past several decades (OECD, 2009; Sommer, 2010). Technological advancements and continuous liberalization of international trade had led to an environment where many SMEs enter foreign markets to pursue potential international opportunities (OECD, 2009). Through internationalization, SMEs are able to improve productivity, enhance growth and increase their chances of survival (Lee, Kelley, Lee, & Lee, 2012; Onkelinx & Sleuwaegen, 2008). However, these smaller enterprises do not enjoy the same benefits and resources that bigger companies have and the processes they go through to enter international markets can be very different. As a result, there has been an increasing interest in researching their internationalization process among both international business and international economics scholars.

According to the internationalization literature that focuses on SMEs, knowledge intensive companies, especially those operating in the software industry, tend to have rather different internationalization pattern compared to other firms (Bell, 1995; Coviello & Munro, 1995). Steps, or ‘stages’ taken by these software SMEs during their internationalization do not necessarily follow an incremental process that was proposed by the Uppsala model, one of the most widely accepted theory in the internationalization literature (Coviello & Munro, 1997). Furthermore, compared to other firms, market selection of these companies is influenced more by network relationships and the market size of potential countries, overruling concerns about cultural and geographical distance from the domestic market (Bell, 1995; Moen, Gavlen, Endresen, 2004; Ojala & Tyrväinen, 2008). However, results from previous research could not reach a general explanation on their internationalization process and market selection.

In addition, despite scholarly works attempting to explain the phenomena have increased considerably, this literature largely focuses on Western, mostly European developed economies (Dib, da Rocha, & da Silva, 2010) if not on a small set of larger developing nations such as India

(Terjesen, O’Gorman, & Acs, 2008). Research on the internationalization of South Korean knowledge intensive firms is limited at best due to the recent nature of the phenomenon and there has been no research on the internationalization of smaller software firms from South Korea. As the characteristics of the domestic market and the particular business system of the home country have a considerable impact on the internationalization process and the performance of the firm, including those in international markets (George, Wiklund & Zahra 2005; Ibeh & Kasem, 2011; Whitley 2007; Zhang & Dodgson, 2007) the validity of previous findings is questionable on South Korea as the country has a rather different business system than previously examined countries (Whitley, 1992). Therefore, the internationalization of South Korean software firms might differ from those that have been investigated in mostly Western countries.

1.2. Background and Context

1.2.1. Drivers behind internationalization

There are several drivers for small and medium sized companies to go abroad. One of the most important motives is identified as the need for growth (OECD, 2009). Through growth, companies seek to increase profit and market size as well as lessen their reliance on a single market. A relatively small home market with limited growth potential can act as a catalyzer for a firm to internationalize (Onkelinx & Sleuwaegen, 2008). Another important group of motives are knowledge related. This category include the international experience and language skills of the management. Additionally, possession of a unique product can also be counted as a knowledge related motive. (OECD, 2009). In summary these drivers are regarded as the “push” factors for a firm to go international (OECD, 2009; Onkelinx & Sleuwaegen, 2008). “Pull” factors are related to business networks, social ties, regional market conditions and other external or international environment related factors (OECD, 2009).

1.2.2. Constraints and barriers for SMEs to go international

Small and Medium sized firms often face barriers in the process to expand to overseas markets. These constraints can limit the ability of a company to enter, develop and sustain business activities in foreign markets (Leonidou, 2004). They can be divided into internal and external barriers to the firm. The former consists of information constraints that include limited information to analyze

potential markets and inability to connect with overseas customers. Functional constraints such as lack of managerial time and experience to deal with exporters (Suh & Kim, 2014), inadequate personnel for handling exporting activities, and the shortage of working capital are some examples of internal barriers. The lack of working capital and the possible costs involved in internationalization is often regarded as the main constrain for SMEs to embark on the road to foreign entry (Onkelinx & Sleuwaegen, 2008). Lastly, marketing and production related issues are also categorized as internal barriers as the firm can have potential problems developing new products for foreign markets, offering satisfactory price and arranging distribution and logistics. External barriers consist of procedural issues such as communication difficulties; the possible lack of government assistance and issues that could arise from to the different economic, political, legal and cultural environment in the new market (Leonidou, 2004). The need for international networks is also considered to be a potential external constraint that an SME face while going abroad (Suh & Kim, 2014).

1.2.3. Global software industry

The software sector emerged to be one of the largest world industries by the 1990s (Niosi & Tschang, 2009). It is characterized by high growth rate, around eight percent growth in 2012 (Picot et al., p. 5). The largest software market in the world is the US, followed by Japan (Ojala & Tyrväinen, 2008). The industry is characterized with an opportunity-rich environment for new firms (Terjesen et al., 2008). Entry barriers are relatively low and a high number of market segments exist inside the industry, allowing smaller software firms to enter with their products (ibid.). Software companies can use the internet as their distribution channel as most of the time the product is only “virtual”, allowing them to enter global markets easier compared to other industries (Rönkkö & Peltonen, 2010). This is also reflected on the characteristic of the firms in the industry. Although larger multinationals are present, there is a significant number of smaller, entrepreneurial firms (Terjesen et al., 2008).

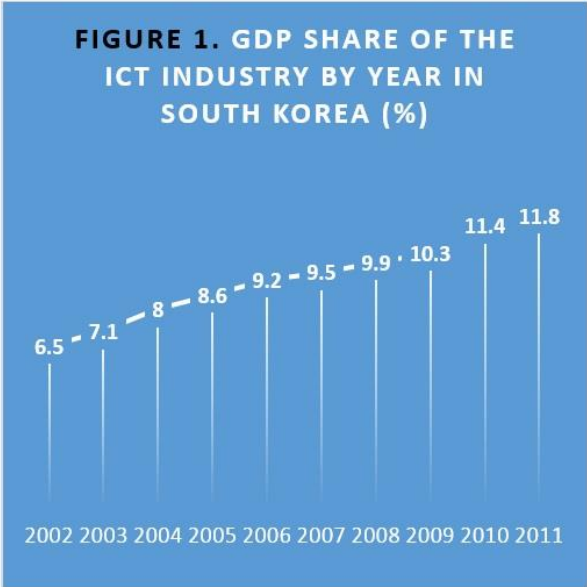
1.2.4. National context

South Korea has experienced a rapid economic growth in the past half a century. From one of the poorest country in the world, it emerged as a developed nation, a member of OECD and the 12th largest economy in the world with \$30,000 GDP per capita over the past half century (McKinsey,

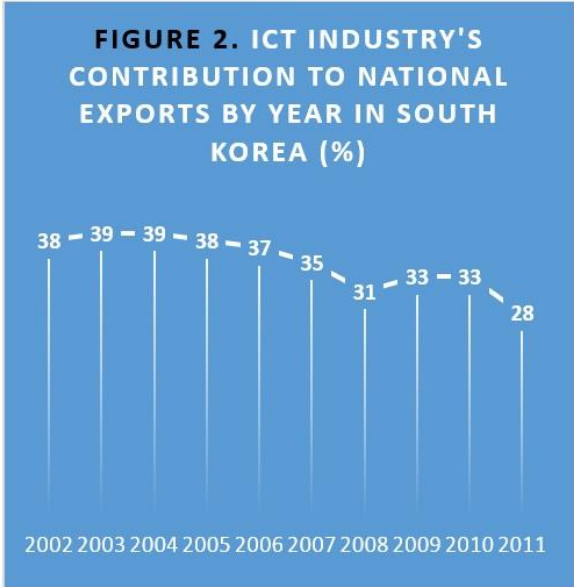
2013, p. 15). The “miracle on the Han river” was achieved with continuous export promotion by ruling administrations making South Korea the 6th largest exporter in the world today (ibid.). In addition to export promotion, the development of larger business conglomerations, called chaebols also played a crucial role in the economic development of the country. The most well-known and largest chaebols are Samsung, Hyundai and LG. Although chaebols were undoubtedly important players in building a developed economy, their share of domestic employment has been decreasing in recent years due to their high productivity and globalized business activities, shifting the focus on SMEs in job creation.

However, the large focus on chaebols in the past resulted in a weak SME sector in South Korea. While SMEs account for 99.9 percent of all enterprises, they provide only 50 percent of the gross industrial output (Doh & Kim, 2014, p. 1559). In addition, chaebols exhibit a high level of internal transaction rate, which percentage amounts to twice as much as in Germany, an already alliance-based system. These organizational practices and high level of economic concentration by the chaebol groups limit growth opportunities for SMEs (McKinsey, 2013). The concentration of market power also resulted in the lack of presence of foreign multinationals in the domestic market in certain sectors (ibid.).

In terms of Information and Communication Technology (ICT), the country has experienced immense growth in the sector over the past few decades. Thanks to the national ICT policies, the importance of the ICT sector in Korea’s economy has become significant and continues to increase every year (Lee, Ahn & Sung, 2009). **Figure 1.** presents the annual GDP share of the ICT sector until 2011.



Source: Ko, Park & Lee, 2013, p. 6



Source: Ko, Park & Lee 2013, p. 10

However, the growth rate of the sector has started to slow down and its contribution to the growth of the national economy and the national export has started to show a decreasing trend which is illustrated in **Figure 2**. (Ko, Park & Lee, 2013, p. 7). Concerns are being raised that the unbalanced export structure is responsible for this, as it shows huge disparity between large and smaller companies as in 2011 the former took nearly 85 percent share of all the export (ibid., p. 9). There is also a huge disparity between the two main segments: hardware and software of the ICT sector as **Table 1**. shows.

Table 1. Annual hardware and software exports (%)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Hardware	99.38	99.37	99.45	99.45	99.39	99.4	99.3	99.15	99.13	99.09
Software	0.62	0.63	0.55	0.55	0.61	0.6	0.7	0.85	0.87	0.91

Source: Ko, Park & Lee, 2013, p. 7

Although, South Korea has been successful in focusing on manufacturing ICT hardware and to build the network infrastructure in the past, the software industry lagged behind in this process and in export proportion (ibid.). While production of software in Korea in 2011 was 25,8 billion USD, only 1,2 billion USD worth of software was exported (OSEC, 2012, p. 13) which means that only a small portion of Korean software companies are present in the international market.

1.3. Purpose of the Thesis and Research Questions

Due to the lack of previous research on the internationalization process of South Korean software SMEs and based on the argument that the characteristics of the domestic market can have a considerable impact on the internationalization, the purpose of this thesis is to examine the internationalization process of South Korean software SMEs. In particular, I intend to identify the most important influencing factors behind their market selection. Furthermore, I aim to examine their international expansion patterns and determine whether the presence and dominant role of chaebols in the domestic market, which is a unique characteristic of the Korean economy have any significant influence on the internationalization process of South Korean software SMEs. In order to do that, the following research questions will be employed:

1. What are the most important influencing factors behind the market selection for South Korean software SMEs?
2. What patterns of international expansions do the Korean software SMEs follow?
3. Does the presence of chaebols in the domestic market have any significant influence on the internationalization process of South Korean software SMEs?

1.4. Terminology

1.4.1. SMEs in South Korea

As the thesis focuses on SMEs in South Korea, it is crucial to define what type of firms can be categorized as SMEs. The Korean usage of SMEs is defined in Article 2 of the Framework Act on SMEs and Article 3 of the Enforcement Decree of the Act (“Criteria of Korean SMEs”, n.d.). According to these, the Korean government defines SMEs in accordance with the sector in which they operate. For software companies, SMEs will follow the categorization of the information and communication technology sector, where companies with fewer than 300 employees and less than total annual sales of 30 billion South Korean won are categorized as SMEs.

1.4.2. Internationalization

There is no common agreement on the definition of internationalization. In many cases it is combined together with a certain aspect of internationalization, such as speed (Johanson & Vahlne, 1977) or a specific driver such as the desire for further growth (Buckly & Ghauri, 1999). In my study, I utilize a more general definition proposed by Welch and Luostarinen (1988, p. 38) which describes internationalization as the “... process of increasing involvement in international operations”.

1.5. Disposition

Chapter 1 introduces the research problem; the background and context; the aim and purpose of the study; the research questions, as well as, the terminology used in this thesis. Chapter 2 deals with the theory and literature review by presenting the applied theory and reviewing existing literature on the internationalization of smaller software firms in general and on the internationalization of any type of South Korean firms. Following that, the methodology used in this thesis together with the ethical considerations is presented in Chapter 3. Empirical findings are shown in Chapter 4 starting with the overview of the case companies’ profile and their internationalization process. As a next step inside the chapter, the collected data is analyzed and discussed according to the research questions. Chapter 6 conclude the thesis and presents implications for further research.

2. THEORY AND LITERATURE REVIEW

2.1. The Business Network Internationalization Model

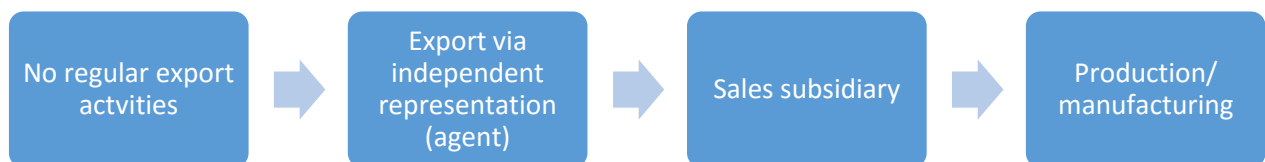
There is a significant amount of literature on theories that deal with the internationalization of the firm. In this thesis the revised, business network version of the Uppsala model will be used as the theoretical framework. However, in order to fully understand the model, it is important to review the original Uppsala model and the criticism related to it.

2.1.1. The original Uppsala Internationalization model

The name refers to Uppsala University, where Jan Johanson, the co-founder of the theory was a researcher. However, the “Uppsala School” also includes scholars from other Northern European universities (Ruzzier, Hisrich & Antoncic, 2006). The theory was developed in the 1970s and focused on the dynamics of the whole internal process of internationalization (Johanson & Vahlne, 1977). It was influenced by behavioral theory of the firm and Penrose’s theory of knowledge and change in organizations (ibid.). Johanson and Vahlne (1990) suggested that the model is good for examining the internationalization process of smaller firms.

As it was mentioned above, the Uppsala model (U-model) is a dynamic model which explains the internationalization as a gradual process of increased international involvement, where learning experience during internationalization has a considerable impact on the process. According to the theory, firms increase their involvement in the international markets in small incremental steps (ibid.). They named this aspect of the internationalization pattern the establishment chain (Johanson & Vahlne, 2009). **Figure 3.** explains the concept.

Figure 3. The establishment chain



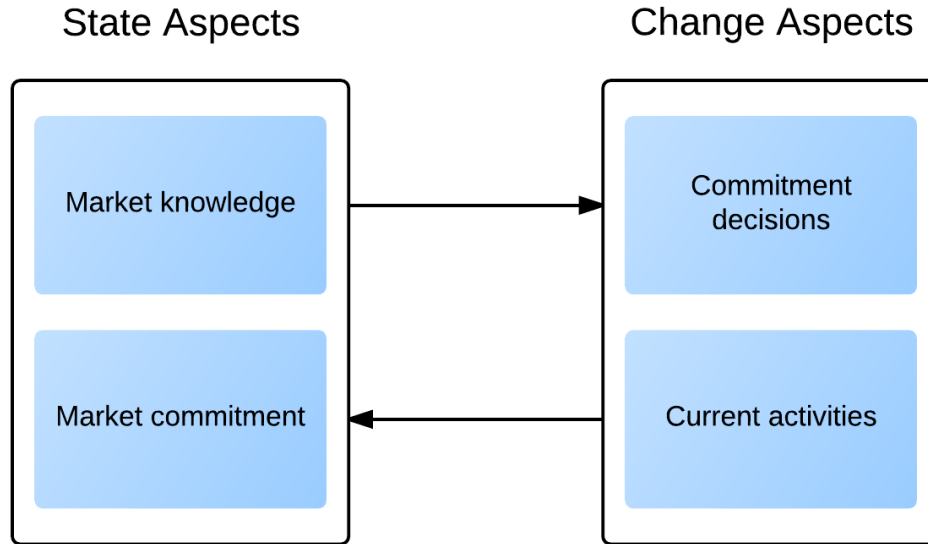
Source: Johanson & Wiedersheim-Paul, 1975

The theory also tries to explain the influencing factors behind market selection by applying the concept of “psychic distance”. As they describe, “psychic distance is defined as the sum of factors preventing the flow of information from and to the market” (ibid., p. 24). These factors are differences in education, language, business practices, culture, and industrial development”. According to the model, this “distance” is a major determinant of market selection throughout the process of internationalization. In an earlier article, Johanson suggested that geographical distance and psychic distance has correlation, based on the empirical findings on Northern European firms (Johanson & Wiedersheim-Paul, 1975).

The model is based on state and change aspects that provide the basic mechanism of the model (Johanson & Vahlne, 1977). State aspects are market commitment and market knowledge. The former consists of two factors: amount of resources committed and the degree of commitment. Commitment to a market affects the firm’s perception of risks and opportunities (ibid.). The other state aspect, market knowledge, can be divided into different categories. These categories include objective knowledge which can be transferred from one market to another; and experiential knowledge, which can be gained through personal experience (ibid.). Experiential knowledge can lead to the identification of opportunities (Johanson & Vahlne, 2009). Market-specific knowledge can also be acquired, mostly through experience only. The model assumes that market commitment and market knowledge affect the way current activities and decisions regarding commitment of resources for the markets abroad (Johanson & Vahlne, 1990). Change aspects are current activities and commitment decisions related to the foreign market. Current activities are the main source of experience (Johanson & Vahlne, 1977).

The model assumes that market knowledge is acquired primarily through experience from current activities in the foreign markets. This experiential market knowledge is crucial in reducing market uncertainty and risk and at the same time it is a driving force in the process of internationalization (Johanson & Vahlne, 1990). Empirical findings of Johanson and Wiedersheim-Paul (1975) indicated that firms developed internationalization process slowly and made market commitment decisions incrementally in order to minimize risks. As market knowledge and market commitment are also affected by current activities and commitment decisions, the process can be seen as causal cycles (Johanson & Vahlne, 1990). **Figure 4.** shows the basic mechanism of the model.

Figure 4. The basic mechanism of the original U-model



Source: Johanson & Vahlne, 1990

2.1.2. Criticism and challenge to the U-model: Network relationships and International New Ventures

The original U-model had and still has a considerable impact on internationalization research, however it could not escape criticism (Ruzzier et al., 2006). Many researcher criticized the model for being too deterministic (Johanson & Vahlne, 1990; Reid, 1983). The role of networks was also neglected in the original model (Johanson & Vahlne, 2009). Johanson and Mattson (1988) found that internationalization of a firm is largely dependent on network relationship. Coviello and Munro's (1995, 1997) and Bell's research (1995) on smaller software firms also indicated the importance of networks on internationalization of the firm, allowing them to follow different path than what was predicted in the original Uppsala model.

Another type of criticism was centered on the decreasing validity of the model in the globalizing world economy where internationalization barriers are disappearing and markets are more heterogeneous (Johanson & Vahlne, 2009; Oviatt & McDougall, 1994, 1997). Oviatt and McDougall (1994) found that the step-by step process, which is one of the core element of the original U-model, is not fully applicable to certain firms that tend to internationalize rapidly by leap-frogging certain steps, proposed by the U-model (ibid.). They labelled these firms as

“International New Ventures” (INV), companies that, “... from inception, seeks to derive significant competitive advantage from the use of resource and the sale of outputs in multiple countries” (ibid., p. 49). These early internationalizing business organizations are also called “Born Globals” (Cavusgil & Knight, 2015, p. 3; Rennie, 1993, p. 45) or “Global Start-ups” (Oviatt, McDougall & Loper, 1995, p. 30). Many of these firms are operating in the knowledge-intensive or high-technology industries (Fan & Phan, 2007). INVs tend to possess valuable resources, most often human resources and create unique products or services to serve globalizing niche markets (Oviatt & McDougall, 1997). Entrepreneurs inside the firm are considered to be important actors as their behavior and international experience affect and accelerate the process of going abroad (ibid.). Additionally, in parallel with the network approach (Johanson & Mattson, 1988), network relationships are observed to play an important role in the internationalization process and market selection of these firms as they usually rely heavily on their cross-border partners to conduct business abroad (Coviello & McDougall, 1997). As there are many labels on these firms, there is no agreed definition for them (Madsen 2012, p. 67) but they are usually defined by the pace, extent and scope of internationalization (Zahra & George, 2002).

2.1.3. The Business Network Internationalization Process Model

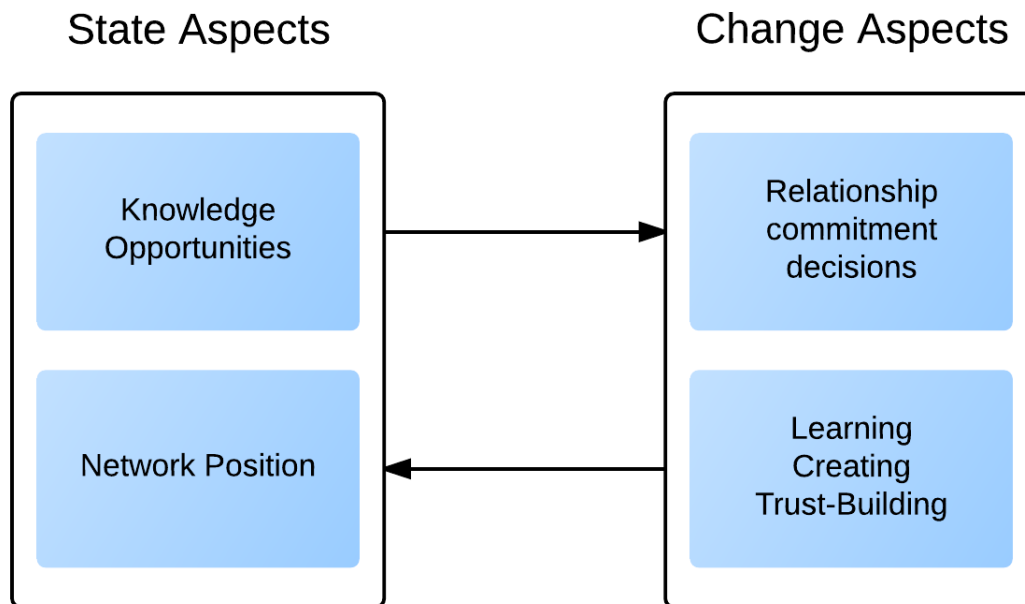
Based on the criticism, especially the ones on the important role of networks; the change in the global environment; and the growing need for the explanation of high-technology firms that internationalize “rapidly” compared to other firms, Johanson and Vahlne (2009) developed the revised version of the traditional Uppsala model and named it the Business Network Internationalization Process Model. As it will be shown in the literature review, previous papers on the internationalization of smaller software firms were calling for the integration of the Uppsala model and the network approach, therefore it seems suitable to use this revised model as the theoretical framework of this thesis.

According to the revised model: “...firms are embedded in an enabling, and at the same time constraining, business network that includes actors engaged in a wide variety of interdependent relationships” (ibid., p. 1423). Johanson and Vahlne suggest (2009) that existing business network relationships have important influence on the market selection and entry mode form. At the same time, overcoming psychic barriers, which was emphasized in the original model is not that important anymore as network relations are emphasized. In addition, learning and commitment

building take place in network relationships and they are significantly connected to identifying and exploiting business opportunities. The role of entrepreneurs and other actors inside companies are not neglected anymore, as it was in the previous U-model. These actors are the carriers of knowledge, commitment, trust and network relations (ibid.).

Similar to the original model, there are two sets of variables, state and change variables and they affect each other constantly, leading to a dynamic, cumulative process of learning and trust; and commitment building (ibid.). **Figure 5.** shows the revised internationalization process model, presented by Johanson and Vahlne (2009). Even though the category names remained the same, variables inside them were modified and additional ones were added. Recognition of opportunities are now an important part of market knowledge. Beside opportunities, needs, capabilities, strategies and networks are also part of market knowledge. The other state aspect “Market Commitment” was replaced with “Network Position” in the revised model, in order to emphasize that internationalization is pursued within a network. Change variables were also modified. “Current Activities” are further specified as “Learning, Creating, Trust-building”. Learning includes more than just experiential learning but the model still regards that type as the most important of all. The other change variable remains the same as in the older model with a little modification to emphasize again the role of networks and that commitment is to relationships or to networks of relationships in a market (ibid.).

Figure 5. The “revised” version of Uppsala Model (The business network internationalization process model (2009))



Source: Johanson & Vahlne, 2009, p. 1424

According to the model, internationalization depends on a company’s relationships and network. There are two reasons for a firm to go abroad, assuming that internationalization is based on its relationships with important partner companies who are committed to developing the business through internationalization (ibid.). The first is when the focal company is expecting to find important business opportunities. Through going abroad, the firm enters networks in the foreign country where it may be possible to locate and exploit opportunities. The second reason to go abroad is to follow a partner in the network who is going abroad and wants the focal firm to follow in this process. The focal firm demonstrates its commitment to the relationship by following the company abroad (ibid.).

Market selection depends on various factors in the model. First, it can depend on where the internationalizing company or its partner see business opportunities. Second, a strong position of the partner company in a particular market can also be a decisive factor. Third, if the company has no partners abroad, the focal company might choose a market where it would be easy to connect to a new partner that is already a member of the local network. In this case, the focal company may use a middleman, such as a distributor or an agent to get connected with the customers. When

relations with customers are established, the focal company could choose to bypass the middleman (ibid.). In this case, psychic distance can have a stronger impact on the establishment and development of relationships as "... the larger the psychic distance, other things being equal, the more difficult it is to build new relationships" (ibid., p. 1414).

2.2. Literature Review

2.2.1. Internationalization of smaller software firms

Literature on the internationalization of smaller software firms has been expanding quickly in the past few decades, with the rise of the software industry. Software firms are also popular among researchers in the field to use them as an example for investigating the internationalization of knowledge intensive firms such as International New Ventures or Born Globals (Ojala & Tyrväinen, 2009).

Jim Bell's article (1995) about the internationalization of software firms from Northern European countries is one of the most influential literature in the field. In his research he challenged the traditional internationalization process, or "stage" theories, such as the original U-model, claiming that they are not compatible with certain types of firms, in his case, with smaller software firms. Bell's empirical findings suggested that even though the concept of psychic distance, the basic element of the original Uppsala model, seemed to be the key factor in market selection with the use of quantitative methods, qualitative interviews gave a completely different picture of the internationalization pattern of the same software firms. The article showed that network relationships and opportunity seeking behavior were also important influencing factors in deciding which market to enter (ibid.). He argued that industry trends had a measurable impact on market selection. Bell also challenged the view of traditional theories that a firm establishment on the domestic market was a prerequisite for internationalization. His empirical findings showed that software firms do not necessarily follow the establishment chain, proposed by the Uppsala model (ibid.). In a later article he also argued that market size of the home country is important determinant of the internationalization process as a large domestic market may provide disincentives for firms to enter foreign markets (Bell, 1997).

In their papers, Coviello and Munro (1995, 1997) investigated the influence of business network relationships on the internationalization process of smaller software firms from New Zealand.

They used multi-case research design and combined the traditional models of incremental internationalization, such as the Uppsala model, with the network approach. They identified three “stages” of international activity (Coviello & Munro, 1997, p. 369). At the first stage, software firms were focusing on the domestic market. After one year of operation, firms entered into their second phase where they became more and more active in their first international market. In the last stage, three years after foundation of the firms, software companies showed involvement to several markets with international sales dominating their growth (ibid.). These findings showed an accelerated internationalization process among software firms compared to the assumption of traditional process based theories, which were also criticized by Bell (1995). Additionally, the influence of an early network partner was considerable on the selection of foreign markets and the entry mode (ibid.). Overall, their study highlighted the importance of networks in the international expansion patterns of smaller software enterprises (Coviello & Munro, 1995, 1997). They also proved that the traditional internationalization models, combined with new approaches based on recent empirical findings, such as the network approach, could be capable of explaining the internationalization of smaller, knowledge intensive firms which tend to internationalize rapidly.

In their article, Moen, Gavlen and Endresen (2004) examined the internationalization patterns of Norwegian software firms with a focus on the market selection and entry forms. In order to do that, they used a qualitative multi-case study research design. They argued that the firm’s network relationships had a huge influence on market selection and entry mode forms. However, they outlined that network relationships could not completely tear down language and cultural barriers. Thus, the role of psychic distance in market selection should not be neglected. Their findings supported Coviello and Munro’s (1995, 1997) suggestion that networks have a major impact on the internationalization of small software firms. Additionally, network relationships were usually established prior making any serious commitment to the new market and the lack of established relationship could affect which market a firm would enter. They argued that the Uppsala model is less relevant to software firms as there was limited correlation between the companies’ international experience and their foreign entry form (ibid.). Therefore, they also suggested that the combination of the Uppsala model and the network approach may be useful to examine the internationalization process of smaller software companies.

Ojala and Tyrväinen (2009) aimed to investigate the role of psychic distance in the internationalization of knowledge-intensive SMEs. They investigated Finnish software firms in their paper. They argued that qualitative methods are better than quantitative ones to explain market selection of firms. Finnish software firms were found not to be immune to the influence of psychic distance in their internationalization process (ibid.). However, psychic distance was only one of the factors that influenced market choice. Their empirical findings showed that the market size of Japan and the expected opportunities there could tackle the impact of psychic distance as companies hired personnel with relevant market-knowledge (ibid.). These findings were in parallel with their previous findings (Ojala & Tyrväinen, 2008) about the internationalization of smaller software firms from the US where market size of the overseas market and the perceived opportunities on that market were the major influencing factors behind market selection.

Rönkkö and Peltonen (2010) analyzed the internationalization of Finnish software firms. The authors used quantitative methods to analyze the data collected through a large scale survey. The most significant finding of their research was that Finnish software firms seemed to internationalize in a stage-based manner instead of following the international new venture or born-global pattern (ibid.). According to their empirical data, it was possible for a smaller software firm to have its first international sales before domestic (ibid.). In terms of market entry, software firms seemed to enter culturally and geographically similar markets first, as Scandinavia was the number one choice for market entry (ibid.).

Studies on firms from other countries has been focusing on Syria (Ibeh & Kasem, 2011) or India (Terjesen et al., 2008). Ibeh and Kasem (2011) argued that there is a lack of research on high-technology firms from developing countries such as Syria and emphasized that country conditions have considerable impact on the internationalization process of smaller software firms. Their findings on Syrian firms showed that networks, both social and business, have a strong influence on the speed and the overall patterns of internationalization of smaller software firms (ibid.).

Terjesen et al. (2008) examined the intermediate form of internationalization among smaller software firms from Ireland and India (2008). This form of internationalization means the “... channeling of a venture’s innovation through an existing multinational enterprise, located at home or abroad” (Terjesen et al., 2008, p. 90). They argued that barriers in internationalization might lead firms to choose this method to internationalize. Overall the article highlighted the role of

business networks by arguing that using the network of a client, in their case a foreign multinational corporation on the domestic market could lead to a more rapid internationalization process.

In summary, previous studies highlighted the importance of qualitative methods in the field, especially in investigating the market selection. Furthermore, the use of the revised, business version of the Uppsala model seems to be justified as nearly all of them emphasized that the old model, combined with the network theory could be usable to understand the internationalization of smaller software firms.

In terms of the findings, limited market size of the home economy seemed to be one of the main “push” factor for firms to internationalize (Bell, 1997). Therefore, in case of South Korea, the relatively small domestic market is expected to be a catalyzer for internationalization. Additionally, most of the scholars agree that the market size of the potential country; expected opportunities; and network relationships can tackle concerns related to psychic distance, allowing firms to enter psychically more distant markets (Bell, 1995; Coviello & Munro, 1997; Moen et al., 2004). However, there was no general agreement which one of the three factors are the most important in market selection as Coviello and Munro (1997) and Moen et al. (2004) emphasized the role of network relationships, while others tended to underline the importance of market size and the expected opportunities on that market (Ojala & Tyrväinen, 2008, 2009). Furthermore, even though psychic distance seemed to be less relevant for smaller software firms, its role in market selection should not be neglected (Ojala & Tyrväinen, 2009). The first market entry was usually to a geographically close market, however, the reasons behind this were not necessarily related to psychic distance, as network relationship were found to be behind making this decision (Bell, 1995; Moen et al., 2004). Therefore, it is expected that the most influential factors behind the market selection of South Korean firms will be the market size of the potential market; expected opportunities there, as well as network relationships. However, psychic or geographical distance from the domestic market may also influence the selection of overseas market, especially in the early phases.

It was also suggested by most of the scholars that the whole internationalization process was heavily influenced by network relationships (Bell, 1995; Coviello & Munro, 1997; Moen et al., 2004). The internationalization process of smaller software firms also seemed happen in an

accelerated mode. The process was still happening in stages and they tended to increase their involvement on a specific market (Rönkkö & Peltonen, 2010). However, they could skip certain stages that would be suggested by the concept of establishment chain from the U-model (Coviello & Munro, 1997; Rönkkö & Peltonen, 2010). Therefore, South Korean software SMEs are expected to follow this pattern and internationalize in an accelerated way. Also, as it was suggested by Bell (1995) and Rönkkö and Peltonen (2010), the first international sales may also happen before any domestic sales for South Korean software SMEs.

2.2.2. Internationalization of Korean firms

Erkamilli, Srivastava and Kim (1999) examined the internationalization of Korean multinational companies and tried to investigate whether the original Uppsala model is applicable to the Korean context. The authors used quantitative methods to do this. They found that psychic or physical distance played an important role determining the first markets to enter. However, it became less and less important in subsequent market selection (*ibid.*). They raise the issue that measuring “psychic distance” is rather hard and therefore they use psychic distance but they claim that in Korea’s case it can be arguably seen as similar (*ibid.*). Overall they found that the Uppsala model can be applicable to Korean multinational companies in order to understand the internationalization behavior of firms.

Zhang and Dodgson (2007) examined the rapid internationalization process of a Korean high-tech firm, called Avaro. Even though the internationalization of Avaro failed, the authors tried to identify the reasons behind it. They approached the issue from the international entrepreneurship perspective, based on Oviatt and McDougall (1994) international new venture theory. The article is unique in a way that it tries to examine the influence that Korean culture and business system have on internationalization. The authors argued that Koreans sometimes tended to be nationalistic and this had an impact on their business decisions and among other factors this also contributed to the failed internationalization attempt of the examined firm (Zhang & Dodgson, 2007).

In his article, Rhee (2008) tried to contribute to the field of international new venture theory by examining the determinants of entry mode choice and internationalization performance of South Korean ventures. With the help of three different theoretical perspectives, transactional costs, social networks and absorptive capacity, he found that the latter two could have significant

explanatory power in predicting the entry mode and internationalization performance of new ventures in Korea (ibid.). Rhee highlighted that social networks can help firms to mitigate uncertainties in the new market (ibid.).

2.2.3. Criticism to existing literature and expected contributions

As it was mentioned in the introduction chapter, most of the previous research on the internationalization of smaller software firms had been focusing on European companies and research on Asian countries was limited to India. Although they mention certain characteristic of the domestic market that can influence internationalization, it is usually limited to market size (Bell, 1997; Ojala & Tyrväinen, 2008) or the geographical location of the market (Coviello & Munro, 1995, 1997). National characteristics were only emphasized in the case of Syrian software firms (Ibeh & Kasem, 2011). Research focusing on the internationalization of any type of Korean firms seemed to include the national background beyond market size (Rhee, 2008; Zhang & Dodgson, 2007) and found rather unique attributes to firm internationalization by focusing on the entrepreneur. However, there is clearly a lack of research on the internationalization of Korean firms. Therefore, this thesis tries to contribute to two different research areas at the same time by enhancing the understanding on the internationalization of smaller software firms and by contributing to the developing research on the internationalization of South Korean firms.

3. METHODOLOGY

3.1. Meta-Theoretical Considerations

This thesis examines the internationalization of smaller South Korean software firms from a critical realist point of view. In contrast to the subjectivist approach, this perspective assumes the existence of an external reality, in this case the internationalization process of smaller Korean software firms, that is independent from the researcher's description of it (Avesson & Sköldbberg, 2009; Bryman & Bell, 2007;). However, instead of uncovering the reality with research, as implied by positivists (Bryman & Bell, 2007), the critical realist approach intend to enhance the way of knowing of that reality. Therefore, I do not intend to uncover a definite reality in this research but to increase the knowledge about the internationalization of smaller software firms in order to better understand the phenomena.

3.2. Research Design

Due to the lack of previous research on the internationalization of software firms from South Korea and the exploratory nature of this study, a qualitative research approach with a multiple-case study design is employed. In particular a qualitative interviewing method is used in order to explore the cases in greater depth from the companies' perspectives, rather than merely relying on quantitative database that would only provide aggregate figures on indexes such as FDI. Yin (2014) argues that case study design can be used when the researcher examines a contemporary event, but the relevant behaviors cannot be manipulated (*ibid.*). This approach is commonly used in examining the internationalization of smaller software firms (Bell, 1995; Coviello & Munro, 1995, 1997; Ibeh & Kasem, 2010; Moen et al., 2004). In this thesis, four companies will be selected as the cases in order to examine the internationalization process of South Korean Software SMEs.

3.3. Data Collection

As Bryman (2012) mentions, data collection have significant importance in a research project. Thus, to conduct this research, both primary and secondary data were collected. Interviews conducted with case companies constitute the primary data of this research, while the secondary

data comprise of previously composed literature and information on websites of selected companies.

3.3.1. Primary data

The primary data were collected through semi-structured interviews which helps the researcher to “... keep more of an open mind about the contours of what he or she needs to know about” (Bryman, 2012, p. 12). Through semi-structured, qualitative interviews, it is possible to put greater emphasis on the viewpoint of the interviewee (ibid.). Additionally, these interviews give the possibility to depart from the pre-set questions and ask new, improvised ones that arise from the interviewee’s reply, making it sure that the researcher can understand the whole context of the issue, or even get new highlights and ideas to the research (Bryman, 2004).

Purposive sampling approach was employed, more specifically “Criterion Sampling”, which Bryman describes as a sampling of units that meet a particular criterion (2012). Criterion were that the company (1) originated from South Korea; (2) operate in the software industry; (3) be a SME in South Korea, defined according to the criteria set by SMBA (defined above); and (4) had already entered or had concrete plans to enter foreign markets. In total four interviews were conducted with four companies. A general overview of the companies is presented in **Table 2**.

Table 2. Overview of the case companies

	Alpha	Beta	Gamma	Delta
Foundation	1997	2000	2009	2010
Number of employees	50	173	11	31
Market segment	Patent analysis and management solutions	Online gaming security; financial institution security, personal computer security solutions	Mobile application developer	Clinical trial software solutions
Total annual sale	3 billion KRW	20 billion KRW	150 million KRW	2,5 billion KRW
Percentage of sales coming from international markets	50%	25-30%	90-95%	0%

Alpha was contacted through the help of my university professor at Korea University who asked his colleague in KOTRA to locate companies for my research, based on the criteria I provided. Although three companies were located through KOTRA, only Alpha replied for my request to

conduct interview. Beta and Gamma were located through personal contact. I met representatives of the companies during an entrepreneurship seminar in which I participated in Seoul. The last company, Delta, was found through the help of my classmate who was teaching English for the CEO of the company. Based on the criteria I also located several other companies through the internet and e-mailed them for a possible interview but I received no reply.

All interviews were conducted with top managers or with the CEO of the company. Gamma is an exception, as the CEO, who was supposed to be the interviewee got sick and instead of him, a project manager gave me the interview with the general manager listening to the conversation in case the data provided was not valid. Based on the concept of semi-structured interviews (Bryman, 2004), a list of research related questions were prepared beforehand to serve as a guide. However, questions did not necessarily followed the pre-set order and new, improvised questions were asked. The interview questions for Delta were different from the other three as that was the only company that was only in the process to go abroad but not yet entered foreign market. All interviews took place at the companies' office and they were recorder after the interviewees gave their consent to it. Each interview lasted for about an hour. Furthermore, in order to get more comprehensive answers, research questions and introduction to my research were sent to the interviewees few days prior to the interview. Interview questions are presented in **Appendix A** and **Appendix B**.

3.3.2. Secondary data

In order to answer the research question the use of secondary data was necessary to complement the empirical data that was collected in South Korea through the interviews. The website of each company was used in order to gain more information about the companies. Relevant literature was also used in order to write the thesis.

3.4. Critical Considerations

Even though I tried to locate more companies, the final number of cases are four, which makes it harder to generalize the findings of this research. Also, in case of Gamma, where the interview was conducted with the project manager, the reliability of the data can be an issue as she might not possess the same level of information about the company and its decision making process as

someone in the top management. However with the general manager attending the interview, the issue could be minimized.

The biggest obstacle in the data collection was language as I only have basic Korean language abilities. Even though the English abilities of Korean people are improving and the use of English is becoming more widespread, obstacles were present in several ways. First, possibilities of making contact with companies found on the internet were very limited and probably played an important role in not getting any replies to my interview requests. Second, as all interviews were conducted in English, which was not a native language to any of the interviewees, misinterpretations of questions were possible. However, every time when I noticed that the interviewee is not certain about the question, I explained them with other words until they understood it in order to minimize misinterpretation and to maximize the validity and reliability of the data. There was a lack of confidence in speaking English among all interviewees, therefore I encouraged the interviewees every time to ask questions freely if they did not understand something. Third, the lack of Korean knowledge limited my review of the previous research. Even though more and more Korean researchers are publishing in English, there is a chance that important contributions to the field were overlooked as they were written in Korean.

3.5. Data Analysis

Following the collection of data from the field, an analysis was required to interpret the data and answer the research questions (Bryman, 2012). This thesis employed a thematic analysis which, according to Bryman, is a popular approach in examining data in order to extract core themes “that could be distinguished both between and within transcripts” (ibid., p. 13). As part of the thematic analysis, a framework approach seemed suitable for this study. This strategy is conducted by creating an index of central themes and subthemes in a matrix where the researcher applies this to the data (ibid.). These central themes are categories, identified by the researcher that relates to the focus of the research questions.

3.6. Ethical Considerations

The research was carried out in accordance with the ethical guidelines as described by the Swedish Research Council (ISBN: 91-7307-008-4). Before each interview I presented myself as a student

from Lund University who was doing an exchange semester at Korea University. I also explained the aim of the study and ensured anonymity for the research upon request. As three company requested it out of four, I decided to use anonymity for all case companies and name them Alpha, Beta, Gamma, Delta. The names of the interviewees were also altered. All collected data is used only for this thesis, which I also mentioned to the interviewees.

4. INTERNATIONALIZATION OF SOUTH KOREAN SOFTWARE SMES

4.1. Case Companies

4.1.1. Alpha

Alpha is a content management and software developer firm in South Korea. The company utilizes patent as a content and develops software to analyze the patent data. The company was established in 1997 with the current vice-president and two developers. In 1999, it transformed into a public company. Alpha has 50 employees currently. At first, the company was a sole producer of patent analysis software but realizing the potential in content development they developed all the contents and services to the software and in 2001 they came out with a full software package and started to service it to companies. The interview was conducted with Mrs. Jung ¹ the head of sales, marketing and customer support, who was also the head of office at the company's Japanese branch in Tokyo.

Alpha was founded with the intention to serve domestic market first, however, according to Mrs. Jung the Korean market turned out to be not mature enough for their software and there was no market for their product and services. Mrs. Jung explained, that in the late 90s and early 2000s the patent analysis market was in a developing phase even in advanced economies. There were three major markets in the world in the sector: US, EU and Japan. Alpha was considering to choose one of these to enter first after they realized that there was no demand for their product in Korea.

In 1999, the company established relationship with an American IT multinational and formed a strategic alliance with the firm. Soon after that, Alpha sold its product to that American firm and decided to focus on the US market first instead of Japan or Europe. In 2002, around the same time that the company finished to develop its new package software and started to provide service, they decided to increase their commitment to the US market and open a sales office in the United States. The underlying reasons, according to Mrs. Jung, were to enhance their cooperation with the

¹ The interview with Mrs. Jung was conducted in January, 2015. The majority of the data on the company and its internationalization process was collected through this interview. However, in certain cases, information from the company's website was also used.

American IT multinational and to enhance their capability to find new customers in the US as they felt that they have gained enough experience in the market.

Following their entry to the US, the company decided to expand to the Japanese market in parallel with the plan to penetrate deeper into the US market. After finding clients in the Japanese market, the company followed the same pattern as in the US and opened a sales office in Tokyo in 2005. In case of Japan, the company did not have the same established networks when entered the market but the network of the American multinational was at hand. Even though Mrs. Jung mentioned that the European market was also their priority in the beginning, they decided not to enter as they perceived it “too far away” from Korea. In addition, the languages were also an issue as they would have to translate their software and develop their services in those languages in order to satisfy customers.

In 2004, the company started to sell its product for Korean customers for the first times, mostly for larger companies as the market became “mature” enough for Alpha. Right now the company has half of the sales coming from the Korean market as they were very successful there. According to Mrs. Jung the company is still focusing on the American, Japanese and the Korean markets. However, they want to enter to new countries. On one hand, they want to enter China as the local market is about to become “mature” enough in terms of technological advancement to use their software. Mrs. Jung emphasized that the company could have huge opportunities in China as according to her “China has money to spend”. On the other hand, the possibility to enter the European market is also on the table for Alpha but in contrast with China Mrs. Jung described Europe as a market where “...companies don’t spend money recently”, therefore Alpha has concerns about the opportunities there. She said that China seems a more viable option for them to enter, also because it is closer geographically.

4.1.2. Beta

Beta is Korean company with a headquarter in Seoul. It develops software, related to information security and service it to businesses and regular customers. The company is focusing on online gaming security and financial institution security. Beta was established in 2000 and currently has 153 employees in Korea, 20 in China and additional 3 in the USA. The company’s total annual sales was around 20 million USD and around 25-30% of that came from international markets.

The interview was conducted with Mr. Park² who is the general manager and the team lead for international business development at the company.

The internationalization process of Beta is rather complex as it has been focusing and developing software for very different segments inside information security. At first, in the online gaming security segment, the company sold its products to Korean game publisher companies as a solution against fraud and hacking in video games. As the Korean publishers released their games overseas, Beta's product came together with these games and became known in foreign markets. However, Beta licensed it to Korean game publishers, therefore they were not involved in any way in going international. Soon after that, they were contacted by foreign game developers and publishers that wanted to use Beta's product, making Beta start exporting it directly to foreign customers, first to Japan, then to US and China and later to other markets, including Latin America. As Mr. Park mentioned, in the online gaming security segment they are a globalv company.

In 2007, the company opened a subsidiary in China to enhance cooperation with Chinese game developers and publishers and to make localization of the software smoother. As Mr. Park emphasized, there is an emerging gaming industry in China, therefore the company saw opportunity for further growth there. This branch is responsible to develop online gaming security solely for the Chinese market in cooperation with the headquarter. For this purpose around 20 Chinese employees are working there. In order to open this subsidiary and comply with the Chinese regulations, the Chinese wife of an employee in the Korean office was made the co-owner of the subsidiary. Except for China, Beta's solution for online gaming security is coordinated and developed from the headquarter in Seoul. As Mr. Park said, they have been well known in the sector since the early years thus they didn't have to contact potential customers and decide which market to enter. Mostly they are contacted by the customers overseas who want to buy their product.

In parallel with the online gaming security the company has been developing financial institution security solutions. When asking Mr. Park about the reasons for looking for opportunities overseas in this sector, he mentioned that the domestic market in Korea was too small and after few years

² The interview was conducted in January, 2015. Similar to Alpha, the majority of the data on the company and its internationalization process was collected through this interview. However, in certain cases, information from the company's website was also used.

it also became too competitive. Beta believed that expanding to overseas market would enhance further growth. According to Mr. Park, market selection is highly influenced by the regulatory environment and the market size of the potential market. If national regulations ask financial institutions to provide online banking security, then the local banks are required to purchase these, creating opportunities for Beta to sell its products. Based on this the company located Japan, US and UK as their potential overseas markets. At first, they penetrated the Japanese market by signing a distributor agreement with a local firm in 2007. This distributor is in charge of the whole sales process, marketing and technical support.

Beta's second market choice in the segment was the US in 2010. According to Mr. Park, the company was contacted by one of the largest bank in America and they wanted to implement their software and solution to their online banking in the US. The American financial institution located Beta through their business network. As Beta was considering entering the market earlier they decided to open a sales office immediately, instead of using a distributor for the market. In the same year, 2010, they opened their office in California. Since then they have managed to sell their products to several other companies thanks to this office. According to Mr. Park, they have not been able to enter the European market due to language difficulties when it comes to localizing their product and also, more importantly, regulatory environment for online banking is not as strict as in Japan or US, making it hard to find customers. The only exception is the United Kingdom, where the company is already discussing partnership with a local company, which was introduced to them through one of their network partner.

Mr. Park emphasized that the greatest challenge for the company in the internationalization process was the lack of experience in foreign market and the lack of market knowledge in the new markets. As he described, the market strategy was very similar every time when they entered a new market. First, they search for potential customers and once they research enough information about the market, then they start to localize and customize their software to the local needs. After all these, they start to make sales and marketing strategy. In addition, in the financial security segment, the company had hard time to find customers as they were "unknown" which was not what the company was used to in the domestic market or in the online gaming security segment. In order to overcome this issue the company had to invest heavily in marketing.

At the same time with the online gaming security and financial institution security solutions, the company has developed an ant-virus software for regular internet users which has been distributed globally through the internet.

4.1.3. Gamma

Gamma was founded in 2009 by the current CEO of the company. It has eleven employees. The company is focusing on mobile application development and tries to become a photo and video service company. The company's applications are focusing on professional photo enhancing but with an interface for regular, every day users. For the first two years the company was developing its first mobile application and entered the Korean market only in 2011 and experienced considerable growth only after 2012. At the same time the company is also trying to enter the mobile video game market and have a joint project with a partner company, which is also a Korean application developer. Their product in the video gaming sector is about to come out soon. The percentage of sales coming from international markets are around 90-95 percent. The interview at Gamma was conducted with Ms. Kim³ who is a project manager at the company. The general manager Mr. Sung was also present at the interview.

Gamma was established with the aim to enter international markets as soon as possible, although they realized that it is not possible until they finish developing their first product which took them around 3 years. Ms. Kim mentioned that the company wanted to build a strong Korean base first, however after releasing their product only in Korean, they found that the company would not be able to sustain itself and the only way to survive was to go international. Therefore the company came out with the English version of the software soon after the start. Going global was "easy" for the company by using the two most popular application store available for smartphones: App Store and Google Play. As Ms. Kim described, all they had to do was clicking on the countries where they want to make their application available. Through these global distributors their application was available in all the major markets, including US, Europe, Japan, Russia and also China at the same time. As Ms. Park claimed, for Gamma, cultural differences and geographical distance didn't play any role when selecting the markets.

³ The interview was conducted in January, 2015. Data on the profile and internationalization process of the company relies completely on the interview conducted with Ms. Kim.

Even though they could go global by using global distributors, Gamma wanted to penetrate deeper into certain markets. After creating the Korean and English version of the software, the company decided to support Chinese and Japanese language too, in order to enhance sales by localizing their software. Following these, they were focusing on European languages and right now they support 18 languages. Ms. Park emphasized that the company is building on creating the image for overseas customers that the company is maybe a local one, because it supports their language.

Penetrating local markets, however, were not limited to the translation of the software. Ms. Park described that using global distributors was only the first step in their process. They wanted to establish relationship with local market distributors. The first local distributor was located in Japan through their business network and a partnership with that Japanese company, which is a mobile carrier, was established in 2013. The company had its own mobile application market for its customers. In parallel with this, the company is also trying to establish relationship with companies in the US and Singapore. They believe that the US market has the biggest market potential, while Singapore was perceived as the “heart of the Asian market”, especially in terms of business networks. According to Ms. Kim, one of the companies which they had established relations with in Singapore introduced them to another Japanese mobile carrier company. Gamma is also about to sign a distributor agreement with that company in the near future.

Gamma has a close relationship with Samsung Electronics, they are one of the major partner of the company. Samsung supports the company to join conferences abroad and to introduce them to potential partners abroad. Ms. Park emphasized that support from Samsung is only about using its established networks to help Gamma. With the support of a big company, Ms. Park believed that the company had better opportunities and they were more recognized abroad when meeting with new business partners.

4.1.4. Delta

Delta is a software developer company for clinical trials. They develop software and service solutions to the clients which are clinical research organizations. The company was founded in 2010 and possesses 40 percent in the sector in South Korea. Delta has 31 employees. Even though the company has not yet entered to foreign markets, it is about to do it soon and preparations have

already been made for their first market entry. The interview was conducted with Mr. Lee⁴, who is the founder and the CEO of the company.

When Delta was founded, the aim of the company was to focus solely on the Korean domestic market. After reaching 40 percent market share in the domestic market, the CEO believed that in order to sustain growth they needed to go abroad. Growth was expected to come in two different ways. First, by the profit coming from the international market. Second, Mr. Lee emphasized that by gaining this experience they could increase their market share considerably in Korea, especially among larger business conglomerates which tend to use software from either foreign companies or from Korean companies with international experience. Mr. Lee underlined that even though they go global, their main focus will remain on the domestic market.

The first market Delta is about to enter in 2015 is Japan. As Mr. Lee mentioned, they wanted to enter one of the three largest markets in the clinical research sector. These markets are: USA, European Union and Japan. He claimed that out of these three market, they believed that Japan would be the easiest to penetrate as they perceived the country to be geographically and culturally closer to Korea than the other two big markets. Entry mode was also decided right after choosing their first market to enter. Delta believed that first they should try to establish partnership with a Japanese clinical research organization and use it as a distributor of their product. After that, by using it as a reference and also the network of that organization, Delta would open its own office in Tokyo for sales and to localize the software and to better fit the Japanese market. At the time of the interview in January 2015, Delta was about to sign a partnership agreement with a Japanese clinical research organization making it the distributor of Delta. The Japanese firm was interested in using the software of Delta making them the first customer of the company in Japan. Delta had no established business relationship with any company outside of Korea when they made the decision to enter the Japanese market. Realizing the importance of business networks, the company started to attend international conferences. In 2013, Mr. Lee participated in one of the biggest conference in the world related to clinical research and introduced himself to the CEO of one of the largest clinical research organization in Japan. After exchanging e-mails in the next few month, Mr. Lee was invited to meet the CEO and top managers of the company to discuss terms of their future relations and to conduct some initial projects together before they sign the

⁴ The interview was conducted in January, 2015. All data concerning Delta is based on the interview.

partnership agreement. During the process to develop relations with their potential partner, Mr. Lee was emphasizing the issue of language barrier as he cannot speak Japanese and he had to ask for someone who can interpret at the meetings. Therefore they hired a person who was fluent in Japanese and also had knowledge of the Japanese market and customs in order to enhance communication between the future partner companies.

Even though Delta is focusing on Japan right now, Mr. Lee mentioned that after establishing themselves in Japan and gain experience from abroad, they plan to enter further markets. He said that after Japan the top priority would be to penetrate markets in Africa, Middle-East or Latin America. He believed that companies such as Delta which develops software in Korea have an advantage in those markets as their product is usually cheaper than the solutions offered by American and European multinationals. In those regions clinical research companies cannot afford to buy software and the service related to it from those Western companies but they may buy it from Delta, especially if they can present references from Japanese companies, proving that their solution is equal to the ones offered by those western multinational companies. The company have already started gathering market information about potential customers but as it was mentioned before, they allocate most of their attention and resources to establish themselves in Japan first.

4.2. Analysis and Discussion

4.2.1. Market selection

As it was shown in the empirical part, Korean software companies had a big variety of market selection but Japan and US are the most popular one. This section will try to identify the most important influencing factors behind their market selection. **Table 3.** summarizes the markets that case companies have entered or about to enter.

Table 3. Market choices of examined firms in chronological order

		Market choice	Future market choices
Alpha		US, Japan	China, Europe
Beta⁵	Overall	Japan, Global, US, China	
	Online Gaming Security	Japan, US, China, Global	
	Financial institution security	Japan, US	UK
	Personal computer security	Global	
Gamma		Global, Japan	US, Singapore
Delta		Japan	Middle East, Africa,

According to previous findings both in the literature of internationalization of Korean firms (Erkamilli et al., 1999) and in the internationalization of smaller software firms in general (Bell, 1995, Ojala & Tyrväinen, 2009 Rönkkö & Peltonen, 2010) geographical and psychological distance from the domestic market should influence market selection, however not considerably. As it was suggested by Johanson and Wiedersheim-Paul (1975), geographical distance tend to have correlation with psychic distance. Erkamilli et al. (1999) suggested that this could be arguably true to South Korea⁶.

Findings of this research are rather mixed in this sense. Delta and two segments of Beta tend to support previous research by (Bell, 1995; Coviello & Munro, 1995,1997; Rönkkö & Peltonen 2010) as they entered Japan first through export and went or want to go to more distant markets only after that by gaining experiential knowledge in Japan first. For Alpha, which entered the US market first and then Japan, the distance from home market was less relevant in their market choice, however, the impact of psychic distance still seems to be valid at a certain level as they

⁵ As Beta is present in three very different segment, the market selection of the firm was separated according to that

⁶ It worth to mention that North Korea is geographically the closest country to South Korea, but due to the complicated relationship between the two nation and the unique political environment in North Korea, it is not a market for consideration

found Europe to be “too far away” from Korea, making it one of the main reason not to enter the market until now, suggesting that they need to gain more experiential knowledge in current markets before entering there. This issue was also present at Beta, as they perceived the diversity of languages as a considerable barrier for entering the market in continental Europe.

Compared to them Gamma felt that psychic distance was less relevant, however it worth to note that the product of this company is less complex and require less customer support compared to the other three firms. Also, even though on the surface Gamma does not seem to be affected by psychic distance in their market selection, the first country where they established a partnership with a local distributor was Japan.

Psychic distance is closely connected to experiential knowledge gained in international markets as companies tend to choose more distant markets after they gain experience in closer markets (Johanson & Vahlne, 1977). Therefore, findings indicate that prior international experience in closer markets for Korean software firms is not necessarily required before entering to a more distant market. These findings also seem to confirm the suggestion of the revised Uppsala model that psychic distance is no longer the main concepts for explaining market selection for internationalizing firms in the contemporary world economy. Even though the concept is still present in the revised theory, as it was mentioned earlier, it put more emphasis on the existence of business networks and opportunity seeking behavior as influencing factors in internationalization and market selection. The next paragraphs will analyze the findings according to that.

As it was shown in previous studies (Bell, 1995; Coviello & Munro, 1997, Moen et al., 2004) on companies from Western-Europe and New Zealand and as it is suggested by the business network version of the internationalization process model, network relationships play an important role in influencing the decision of which markets to enter. In case of Alpha, the large American multinational company and the strategic alliance that was established between the two firms had a considerable impact in deciding to enter the US market first and open a sales office there. Alpha was hesitating between Japan and US but their established relationships with the company played a decisive role in entering to this market first, even if Japan was geographically closer to Korea. Therefore network relationship overruled concerns about the greater distance between the two countries. Business networks were also important influencing factors for the market selection of Beta. The company’s decision to enter the US market in the financial security segment was

significantly influenced by the established relationship with the American bank prior to the entry. However, the first time Beta went abroad in the same segment and also in online gaming security, it was without established network relations and it had to find a distributor in Japan first. The same applies to Delta, which had no prior network relationship to Japan before deciding to enter into that market.

The most important influencing factors behind market selection were market size and expected opportunities on the selected market according to the interviews. Network relationships and psychic distance were only secondary to these two factors. This would support the findings of Oviatt and McDougall (1994) and Ojala and Tyrväinen (2008, 2009), that perceived opportunities in a potential market can overwrite concerns with geographical or cultural distance, especially for high-technology firms. However, the examples of Alpha and Delta show that market selection influenced by market size and expected opportunities can create a situation where more than one country is under consideration and the final decision is influenced by other factors. In case of Alpha it is network relationship and in case of Delta psychic distance. Technological advancement of the potential market was especially important for Alpha, which had to go international as Korea was not advanced enough for them at the time of formation. Moen et al.'s (2004) findings confirm this as they also argued that technological advancement of the potential country is rather important for software firms and market selection. For the financial institution security segment of Beta, a specific legal environment was very important, but they were present in two out of the three largest markets in the sector.

Overall, it seems that expected opportunities and the market size of a potential country are the major factors behind market selection among smaller Korean software firms. Psychic distance from the domestic market is the least influential factor, however in case of no established network relationship, companies tend to enter closer markets suggesting its validity for explaining market selection. Also, as Europe is still under consideration for many firms, it supports Johanson and Vahlne's (1977) proposition that psychic distance influence market selection. Network relationships seem to have a strong impact on market selection only after creating a "list" of potential countries. Therefore, the existence of network relationships in market selection is not the most important influencing factor but if they are present, they influence the decision and make companies to enter to more distant markets and overrule concerns about psychic distance. These

findings again seem to be in parallel with the suggestions of the Business Network Internationalization Process Model. Also, findings seems to indicate that smaller firms may follow different path than larger multinationals, which clearly tend to go to psychically closer markets first (Erkamilli, Srivastava, & Kim, 1999).

4.2.2. International expansion patterns

The internationalization process of case companies are summarized figures in **Appendix C**. In parallel with previous studies (Bell, 1997; Coviello & Munro, 1997; Ojala & Tyrväinen, 2008), the major driver for expanding overseas was the limited or non-existent size of the domestic market. Also, established operations on the domestic market seem to be common among smaller software firms before going international. With the exception of Alpha, all company started its operation on the domestic market, giving them experiential knowledge on operations before entering foreign markets. This would be in parallel with findings of Bell (1995) as he found that ten percent of the examined firms did not have operations in the domestic market before going international. However, Alpha went abroad immediately not because it wanted to internationalize “from inception” as it would be suggested by Oviatt and McDougall (1994) and the International New Venture theory but because of survival, as it could not enter the domestic market. In fact, only Gamma planned international expansion from its inception.

All examined companies entered their first overseas market three years within their foundation. Delta is about to enter this year, which means that it would do it within five years after the establishment of the company. All company chose a low risk entry mode form, export, to enter their first international market. The mode of export is rather different however. While Gamma decided to use indirect export through global distributors; Alpha, the online gaming segment of Beta and even Delta entered without distributor. Although it worth to note that for Delta the first customer is also about to become the distributor. The entry mode choice taken by the companies does not seem to be significantly affected by network relationships as even companies that had established relationships did not choose to take an entry mode that would require more commitment to the market. This could relate to the uncertainty in the new market and the behavior of the firm to minimize risk (Johanson & Vahlne, 1977).

As their next step in their internationalization, Alpha, Beta and Gamma increased its involvement in international markets. It would be difficult to analyze Delta from here as it has not reached this step and only has plans for future internationalization. Also, from here, companies take rather different internationalization path and the speed of increasing involvement in the international market vary considerably. Alpha entered a new market but at the same time increased its relationship commitment to its network partner and to the US market by opening a sales office a few years after its entry to the US market. After opening the sales office in Japan too, their internationalization slowed down as they neither committed more resources to the existing overseas market, nor increased the number of international markets. However, it entered into the domestic market, which also became an important market for the company.

Beta increased involvement in terms of the number of markets served through export and it established a production subsidiary in China, making it the biggest commitment that any of the examined companies took. According to the concept of establishment chain (Johanson & Vahlne, 1977), Beta should have opened a sales office first, the same way as Alpha did, but it decided to skip one step. This could be explained by the fact that the company wanted to increase its commitment to the network relationships in the market and perceived more opportunities by entering the market which could mitigate its perception of risk. However, the company did not follow this example in Japan and US where it entered first. Increased commitment was only present on the US market with the opening of the sales office that was related to the financial institution security segment.

Even though all three firms that went abroad seem to have very comprehensive foreign operations and orientation towards international markets the percentage of sales coming from international markets are different. Beta, which has the most to international markets in terms of the variety of operation only get 25-30 percent of its total sales from abroad, indicating that domestic market is still important to them. Alpha, which didn't even have domestic sales in the first years of its operations get 50 percent of sales from international markets. Gamma is an exception here as sales coming from international markets account for 90 percent, meaning that it is completely reliant on overseas sales.

Overall, the international expansion patterns of South Korean SMEs seem to indicate that even though they can have a wide variety of market selection, their involvement in one market more or

less follows a step by step process with increasing involvement. However, this process is happening in an accelerated way as all firms entered or about to enter an overseas market within five years after establishment, qualifying them to be an early or rapidly internationalizing company (Madsen, 2013). Only half of the firms entered to a psychologically close market as the first step, but as it was argued in the previous section the dynamics behind market selection is more complex and psychic distance is only one influencing factor among many. Also, expansion on an individual market seems to slow down after reaching a certain point, which is sales office as the case of Alpha showed. Subsidiary for production was only present among one firm, and even younger firms did not indicate that their aim would be to open a subsidiary for production in an overseas market. Even though network relationships did not necessarily influence the entry mode choice of the case companies, their role became very important in increasing the involvement on the individual markets. Sales offices and the production subsidiary were opened to enhance cooperation with the network partners and to increase their commitment to the network relationships. Furthermore, these implications support again the applicability of the business network version of the Uppsala model over the original version. Additionally, the international expansion patterns of South Korean software SMEs seem to be very similar with the findings of Coviello & Munro (1997) on New Zealand firms, as out of four companies two opened sales office and only one a production subsidiary.

4.2.3. Impact of chaebols on the internationalization process

As it was mentioned in the previous section, the internationalization of South Korean software SMEs were more or less in accordance with previous findings. The presence and dominant role of chaebols in the domestic market, rather unique characteristic of the South Korean economy (McKinsey, 2013) did not seem to have a considerable impact on the internationalization process of the examined firms. However, the lack of certain choices for firms in the process, especially in the early phases of internationalization, could be attributed to the existence of chaebols on the domestic market.

First, as chaebols prefer to do trade internally, including the software sector (ibid.), smaller software firms could not internationalize by following them abroad which was a popular option for smaller software firms from Northern European economies (Bell, 1995). None of the examined firms used domestic client followership as a way to go international. The only company that had

established partnership with a chaebol was Gamma. However, the partnership with Samsung was mostly about using the network relationships of the company and cannot be categorized as domestic client followership. Another explanation for the lack of domestic client followership among the examined firms could be that chaebols prefer to buy software solutions from foreign multinationals or from Korean companies that already have international experience, as it was suggested by Mr. Lee from Delta. This would be supported by findings on Alpha, whose major clients in Korea are chaebols and it entered the domestic market after gaining experience in international markets.

Second, as operations of the chaebols makes it harder for foreign multinational companies to enter the Korean market (McKinsey, 2013), it could be harder for smaller Korean software firms to find a foreign multinational company and establish partnership with them. This limited the possibilities of South Korean software firms to use the intermediate mode of internationalization that was observed among smaller software firms in Ireland and India (Terjesen et al., 2008). Alpha was the only one that had strong ties with an American company before deciding to go abroad but it did not use the multinational company as a distribution channel for its product. Although Gamma was also using American IT giants to distribute its product globally from the beginning, this is related more to trends in the mobile application sector where it is easy and necessary to access the distribution channels of those American companies as they account for the dominant share of the market (Forrest, 2014).

These issues related to the chaebols highlights that the characteristic of the domestic market can influence internationalization, however its role in the overall process is not necessarily significant. In case of South Korea, the presence of chaebols on the domestic market was mostly affecting the early steps of internationalization, limiting the options to start the internationalization process. However, the dynamics behind the process and the overall international expansion pattern does not seem to differ considerably from previously examined firms from mostly European economies.

5. CONCLUSION

5.1. Conclusion

Literature on the internationalization process of smaller software firms has been expanding as these companies seem to challenge traditional internationalization theories such as the Uppsala model, by entering distant markets soon after their foundation and internationalize in an accelerated way. However, literature on the topic has been focusing on firms from mostly European countries and no research was conducted on software SMEs on South Korea prior to this thesis. As characteristics of the domestic market and the particular business system of the home country can influence the internationalization process of a firm (Whitley, 2007), the internationalization of South Korean firms could have differed from those previously examined. Therefore, the aim of this thesis was to investigate the internationalization process of South Korean software SMEs by identifying the most important influencing factors behind their market selection and examining their international expansion patterns. Additionally, the thesis tried to determine whether the presence and dominant role of chaebols in the domestic market, a unique characteristic of the South Korean economy, had any significant impact on their internationalization process.

Based on the findings, this thesis argues that the most important influencing factors in the market selection were the size of the potential overseas market and the expected opportunities in these countries. However, these factors often left companies with multiple choices. In these cases, the existence of established network relationships could overrule concerns about psychic distance from the home economy, allowing firms to select markets that were more distant from South Korea. However, without established business networks, psychic distance seemed to be an important influencing factor behind their market selection. These findings were in line with previous research that market size and network relationships are more influential in market selection than psychic distance from the home market (Coviello & Munro, 1997; Ojala & Tyrväinen, 2008; Ojala, 2009; Rönkkö & Peltonen, 2010).

Furthermore, this thesis also found that the international expansion of these companies are happening in an accelerated pace. Operations on the domestic market prior to entering foreign markets did not seem to be necessary for these firms, however the majority of them still started

their operations in South Korea before expanding overseas. Their increased involvement on individual markets, with a few exceptions, followed more or less a step by step process, however, as it was mentioned earlier, the process was happening in an accelerated pace. Furthermore, network relationships were arguably the main drivers behind their international expansion.

Finally, findings also suggest that the dominant role of chaebols in the domestic market could not considerably influence the internationalization process of South Korean software SMEs. However, the lack of domestic client followership as a way to internationalize was not present among South Korean firms which could be attributed to the high level of internal trade among chaebols and their preference of sellers with international experience in the software industry. Additionally, as it is harder for foreign multinationals to enter the Korean market due to the presence of the chaebols, establishing relationships with these multinational firms and internationalize by using their networks and distribution channels was also limited for the examined firms.

5.2. Alternative Approach and Implication for Further Research

This thesis was using the revised, business network version of the Uppsala model in order to understand the internationalization of software SMEs from South Korea. Focus was on the firm itself as an entity which included the entrepreneur in it. However, other approaches, such as international entrepreneurship and also the international new venture theory points out the importance of the entrepreneur in the whole process. Therefore, it could be interesting to explore the topic from that perspective as cultural background of the founder can impact the whole process, especially in Korea, as it was argued by Zhang and Dodgson (2007) with his case study on a failed internationalization in Korea which identified nationalism an obstacle in the process.

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7. APPENDIX

7.1. Appendix A – Interview Questions for Alpha, Beta and Gamma

Questions regarding the company and the interviewee

1. Could you give a brief introduction about yourself? (education, experience, position at the company)
2. Could you give a brief overview of the profile and the history of the company?
3. How many employees do you have?
4. What is your total annual sales?
5. What is the percentages of sales coming from international market?

Questions regarding the domestic business environment and landscape in Korea

6. How would you describe the domestic market before going international?
7. How would you describe your company's position in this market right before going international and how is it today?
8. How has the business landscape in the sector changed since the foundation of the company?
9. How would you describe your company's relationship with large companies or chaebols in the domestic market?
10. Who were the main competitors of the company in the domestic market before going international? Who are the main competitors today? (chaebols; MNCs; SMEs, etc.)

Questions regarding internationalization

11. Did the company consider going international from day one or it came as an idea/opportunity later?
12. What were the major drivers behind internationalization?
13. Did the owner or anyone in the top management have previous international business experience?

14. Which foreign markets did you choose to enter? What are the reasons for choosing those countries?
15. How important were socio-cultural similarities and geographical distance when choosing new markets?
16. What types of entry mode did you choose for entering foreign markets?
17. How would you describe the internationalization process of your company? Can you divide it into different steps? and if yes please specify those stages
18. What were the major challenges/difficulties your company faced in the process of entering foreign markets?
19. What resources do you consider to be the most important for internationalization?
20. Compared to the domestic market, what kind of new resources did you need to enter markets? (networks, knowledge, market investments, financial, etc)
21. How would you describe the degree of resource commitment for internationalization?
22. What role do you think networks play in the process of internationalization, how important is it for your company?

Question regarding the role and support of the government/other external agencies

23. Has your company ever received any type of help or external support from the government or other types of agencies such as KOVA, SMBA, KOTRA, etc.?
24. If yes,
 - a. What type of support?
 - b. How was the process of accessing this support?
 - c. How important was it in the internationalization process?
 - d. How would you evaluate this support?
25. If not,
 - e. What are the reasons for not applying or receiving support?
26. Have you noticed any change in the government's attitude towards IT SMEs since the introduction of the "Creative Economy"?

Closing question

27. What do you consider the major obstacles and challenges that your company faces today?

7.2. Appendix B – Interview Questions for Delta

Questions regarding the company and the interviewee

1. Could you give a brief introduction about yourself? (education, experience, position at the company)
2. Could you give a brief overview of the profile and the history of the company?
3. How many employees do you have?
4. What is your total annual sales?
5. After you go international, what would be the desired percentage of overseas sales (out of the total?)

Questions regarding the domestic business environment and landscape in Korea

6. How would you describe the domestic market before now?
7. How would you describe your company's position in this market now, before going international?
8. How has the business landscape in the sector changed since the foundation of the company?
9. How would you describe your company's relationship with large companies or chaebols in the domestic market?
10. Who are the main competitors of the company in the domestic market now? (chaebols; MNCs; SMEs, etc.)

Questions regarding internationalization

11. Did the company consider going international from day one or it came as an idea/opportunity later?
12. What are the major drivers behind internationalization?
13. Does the owner or anyone in the top management have previous international business experience?

14. Which foreign markets are you going to enter? What are the reasons for choosing those countries?
15. How important were socio-cultural similarities and geographical distance when choosing new markets?
16. What types of entry mode are you going to use to entering foreign markets?
17. How would you describe the internationalization process of your company? Can you divide it into different steps? and if yes please specify those stages
18. What were the major challenges/difficulties your company is facing in the preparation of going international
19. What resources do you consider to be the most important for internationalization?
20. Compared to the domestic market, what kind of new resources do you need to enter markets? (networks, knowledge, market investments, financial, etc.)
21. How would you describe the degree of resource commitment for internationalization?
22. What role do you think networks play in the process of internationalization, how important is it for your company?

Question regarding the role and support of the government/other external agencies

23. Has your company ever received any type of help or external support from the government or other types of agencies such as KOVA, SMBA, KOTRA, etc.?
24. If yes,
 - f. What type of support?
 - g. How was the process of accessing this support?
 - h. How important is it in the internationalization process?
 - i. How would you evaluate this support?
25. If not,
 - j. What are the reasons for not applying or receiving support?
26. Have you noticed any change in the government's attitude towards IT SMEs since the introduction of the "Creative Economy"?

Closing question

27. What do you consider the major obstacles and challenges that your company faces today?

7.3. Appendix C – Internationalization Process of Case Companies

The internationalization processes of the case companies are summarized in the following figures. The process is visualized in a chronological order from the left to the right. Darker colors indicates bigger commitment to an individual market.

