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# Internationalization Patterns of Finnish Software Firms in Asian Context

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#### **Abstract**

Since 90's research on firm internationalization has focused on firms belonging to new business areas like high-technology (Bell, 1995; Coviello & Munro, 1997; Oviatt & McDougall, 1994). However, internationalization of firms to and from Asia is still understudied, although, some resent studies can be found (Bin, Chen, & Sun, 2004; Ellis, 2007; Legewie, 2002). To fill this gap the objective of this paper is to answer to following questions is to study internationalization of Finnish software firms to Asian market.

#### 1. Introduction

Software business is growing industry, which has close connection to emerging markets. One of the most important software markets are in Asia incorporating developed countries like Japan and transnational countries like India. Even if these markets are very different, both of them have software production and potential customers for software products. Thus, it appears to right time to study firm internationalization in Asian context from the viewpoint of software business. Firm internationalization has been an important research field for decades and it has been studied from various perspectives. In the 1970' was introduced by Johanson and Wiedersheim-Paul (1975) introduced Uppsala's model, which was later extended by Johanson and Vahlne (1977). It became a corner stone for later studies on firm internationalization (Arenius 2005; Ellis 2007), even when they are criticizing it (Bell 1995; Luo, Zhao et al. 2005; Ojala 2008).

Based on Uppsala's model only mature firms have enough resources to internationalize. In order to expand to foreign countries, firms have to have stabilized customer base in their country of origin, as well as extra resources in the form of people, money and capacity. In a situation like this firm can separate one part of its operations to foreign markets, although it can still operate in its original market. In addition, Uppsala's model emphasizes the role of knowledge in international operations, since it claims that firms first expand to countries which are geographically and physically close to their home country. In these markets firms can use their market related knowledge, because the cultural, institutional and historical aspects are relatively similar. On the other hand low geographical distance facilitates logistics between the home and host country. Accordingly, Uppsala's model suggests that firms start their internationalization by exporting their product to other countries indirectly, because it has fewer risks than other forms of international operations. When firm has got some experience of international operations, it may expand to new countries and possibly start direct exporting, open marketing office or invest to foreign production facility. (Johanson and Wiedersheim-Paul 1975; Johanson and Vahlne 1977.)

In 1980' Uppsala's model (Johanson and Wiedersheim-Paul 1975; Johanson and Vahlne 1977) was criticized for ignoring firms, which start their internationalization at a relatively young age. As a answer to this network model was introduced by Johanson and Mattsson (1989). It explained that some firms can expand to foreign markets at a young age because they have connections to firms, which already operate in another country. Any many researches this theory has seemed to be suitable in the case of software firms. Coviello and Munro found that software firms often follow their customers to new market areas (Coviello and Munro 1997), and Bell (1995) got similar result in the case of Finnish software firms. However, some researchers, like Ojala (2008), have presented that firms can actively build networks to markets, which they are interested in.

In 1990's the new form of international firms were discovered and they were often called as "born globals" (Moen 2002; Knight and Cavusgil 2004). This term meant small and new firms which became international soon after their establishment. Oviatt and McDougall (1994) suggested that firms have better possibilities to enter foreign markets grace to advancements in communication technologies and increased efficiency of international markets. They named firms which start their internationalization from their inception as International New Ventures (later called as INVs). From their opinion these firms usually have alternative governance structure, internationally experienced leaders and sustainable unique resources. They are more focused on controlling their assets, like unique knowledge, than traditional international firms, which have concentrated on owning assets.

Oviatt and McDougall (1994) classified INVs to four categories based on their business activities and international scope. They divided firms belonging to

importer and exporter business as Export/Import Start-Ups and Multinational Traders. Export/Import Start-Ups are focused on few countries which their entrepreneur is familiar with, where as Multinational Traders are operating in several countries and always looking for new targets. Those firms which are more focused on exporting their own innovation are called as Geographically Focused Start-Ups and Global Start-ups. Geographically Focused Start-ups coordinate technological development, human resources, production and other value chain activities in certain geographical area, which is familiar for the entrepreneur. However, Global Start-ups operate in geographically dispersed countries and are interested in exploring new markets.

In this paper the internationalization of Finnish software firms is discussed in Asian context. The special interest of this study is software firms which have or are operating in Asian market. Some of these firms are producing software products and others are concentrated on software projects. Our primary goal is to study, what characterizes how these firms could be classified. Hence, our research question is which previously mentioned theory best describes internationalization of Finnish software firms operating in Asian market. In order to answer this question we study, where Finnish software firms export and when they have started exporting. We enlighten the reasons, why these firms have expanded to Asia and how they differ from other Finnish software firms. Special attention is given to China as a foreign market area of Finnish software firms.

#### 2. Research Methods

This research combines quantitative and qualitative research methods. Quantitative research data is collected by a survey, which was send to Finnish software firms. It got answers from 668 firms of which 124 are studied in this paper because they are international and answered to questions about their first foreign market areas. From these firms 29 had important export destination in Asia or had started its internationalization from Asia.

In order to understand, how widely Finnish software firms export and when they have started exporting, we analyzed their firsts foreign markets, their most important markets and the years of entering these markets. Based on this analysis we can conclude which theory best describes the internationalization of Finnish software firms.

Our qualitative research consists of four interviews which were made to Finnish software firms operating in Asia during year 2007 (Table 1). All interviews were semi-structured and they were recorded. Interviewees belonged to management group of these firms. Research data from these interviews has been analyzed by the principles of open coding presented by Strauss and Corbin (1998).

**Table 1:** Interviewed companies

Company	Size	Business model	Major markets
Company A	Large	Software product	India, China,
			United Arab
			Emirates
Company B	Small	Software project	South Africa,
			China
Company C	Small	Software product	India,
			Great Britain,
			Arabic countries
Company D	Medium	Software product	Turkey,
			Saudi-Arabia,
			Germany

### 3. Analysis of Research Data

Generally Finnish software firms export to Europe and to North America, although, Asia is also a significant market area for them. It is more popular than South America, Africa or Australia altogether.

Finnish software firms prefer to start their internationalization from nearby countries, like Sweden or Estonia (Figure 1), however, for those Finnish software firms, which export to Asia, United States is usually the first foreign market area (Figure 2). This is interesting because geographical and psychological distance between Finland and United States is large. Other popular entry markets are Sweden, United Kingdom and Russia, from which the later ones are geographically close but psychologically far from Finland. Those firms, which operate in Asia, have faster pace of internationalization than other Finnish software firms. They have often moved rapidly to geographically and psychologically distant countries, like China or India. There are even some firms which started their internationalization from Japan, China or South Korea. In addition, they usually export to several countries which can situate in Asia, Europe or North America.

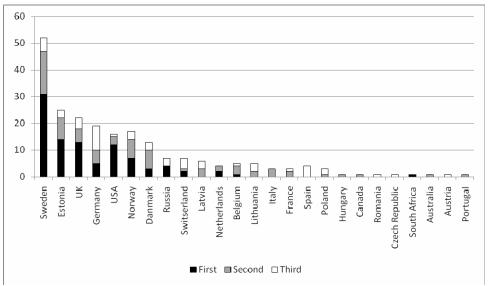


Figure 4: Entry markets of Finnish software firms (n = 95) not exporting to Asia

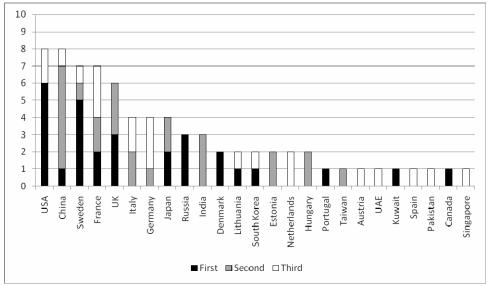


Figure 5: Entry markets of Finnish software firms (n = 29) exporting to Asia

From Asian countries China is the most popular destination for Finnish software firms and it is followed by Japan. This is interesting, because Japan is the most developed country in Asia, thus, this finding is in contradiction with previous studies, which indicate that software firms are more interested in developed markets with good infrastructure, high income rate and large customer base for higher technology (Luo, Zhao et al. 2005; Ojala 2008). One reason, why Finnish software firms expand to China, can be that their key customers already operate

there. This is the case of Company B, which did software project in China from the request of their domestic partner.

India is also an important market area for Finnish software firms. We interviewed two firms which are operating in India. Company A's products are more popular in India than in China, and it has less problems with piracy in India than in China. Grace to English skills of Indian people, India is one of the biggest market areas for Company C. It sells should increase even more when 3G connections and advanced mobile phones are become more common in India. For the same reason China will probably be more important market area for Company C in future.

There appears to be many possibilities for new software firms in Arabic countries. Based on the survey, two firms operate in Arabic countries. In addition we interviewed three firms which export to Arabic countries. Accordingly, interviewee of Company C told that Arabic markets are emerging, because there is demand for software products designed for Arabic language and culture.

#### 4. Results

Our findings about the entry markets of Finnish software firms are in accordance with Uppsala's model. Often these firms have started their internationalization from countries which are geographically and psychologically close to Finland, like Sweden or Estonia. However, this argument does not apply to firms which operate in Asia. Among these firms United States was the most common entry market where as Sweden was the second. These firms have also been eager in expanding to several countries or continents. Among them China was the most common country to be second entry market. These findings give some support to Arenius' (2005) claims that Finnish software firms still follow Uppsala's model but in faster pace. He suggests that firms still expand from geographically and psychologically close countries to more distant ones, although, this happens more rapidly than before. Also the internationalization in general starts at younger age than before.

However, we found some firms whose internationalization contradicts with Uppsala's model, even from Arenius' (2005) point of view. These firms have started their internationalization from geographically and psychologically distant countries, like United States, China, Japan or Korea. Then they may have expanded to other continents or stayed in the same country all the time. 60 % of these firms can be classified as New International Ventures because they have started exporting to foreign countries during their first six years (Table 2).

**Table 2:** Internationalization of Finnish software firms to Asian market

	Age at the beginning of internationalization	
Amount of export destinations	≤6 years	> 6 years
> 3 countries	13 %	13 %
3 – 10 countries	33 %	17 %
> 10 countries	17 %	8 %

#### 5. Discussion

It seems that internationalization of Finnish software firms question Uppsala's model (Johanson and Wiedersheim-Paul 1975; Johanson and Vahlne 1977). From those software firms, which operate or have been operating in Asia, majority started their internationalization in early age of their life-cycle and they have quickly expanded from one foreign market to other countries or continents.

Partly this could be explained by Arenius' (2005) theory. Many firms have started exporting from geographically and psychologically close areas and then moved to geographically and psychologically distant markets, although, the shift from nearby markets to offshore markets has happened in short time. It is possible that part of Finnish software firms still follow Uppsala's model but in faster pace than before. On the other hand there are even firms, which started their internationalization from geographically and psychologically distant country.

Analysis of network model is more difficult, because there were no question about reasons of internationalization in our survey. However, one interviewed firm reported that they have expanded to Asia from the request of their partner organization. On the other hand, most of the interviewees explained that internationalization is important for Finnish software firms, because Finnish markets are too small. Sometimes firms can operate for a long time solely in Finnish market before it becomes too mature for them, like in the case of Company A. Instead, some firms are directly aiming to international markets. For example, Company C has more customers and better reputation outside than inside Finland.

In most of the cases Oviatt's and McDougall's (1994) theory on International New Venture appears to be suitable for describing internationalization of Finnish software firms, which are or have been operating in Asia. Most of these firms can be classified as Global start-ups, because they have started their internationalization before they were 6 years old and they operate in several market areas. At least one of these markets is in Asia, and others can be either in Europe or in North America. In addition we found one firm, which suits to description of Geographically Focused Start-ups, because it has also started exporting at a young age but it operates only in one country outside Finland. However, it is unclear are all these firms truly International New Ventures, because we do not know their internationalization strategies. It is possible that

some of these firms have become international in early age even if they did not plan it. Thus, they would not be international since their inception, which means they would not be International New Ventures.

In order to better define internationalization of Finnish software firms; we should study the reasons to export. Thus, we planned to interview greater amount of firms which are or have been operating in Asia. In future we also intend to investigate the definition of international firm more precisely. For example we question, is firm international if it has done only one project abroad and this project was ordered by its major domestic client?

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