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Entry Barriers of Small and Medium-sized Software Firms in the Japanese Market
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University of Jyväskylä

Executive Summary
The Japanese software market size was 131,773 million U.S. dollars in 2004. Due to limited domestic software production, Japan is highly dependent on imported software products. Despite the market potential for foreign software firms in Japan, almost no research exists on what kind of challenges foreign software firms encounter when they are entering the market. To fill this gap, this paper investigates the entry barriers of small and medium-sized software firms in the Japanese market by using a multi case-study. The findings suggest that most of the barriers are firm-specific and mainly related to firms’ resources and capabilities to operate in the market. The entry barriers encountered also seem to differ somewhat from those of earlier investigations, which have mainly targeted large-sized manufacturing firms. The new observations relate to the common barriers created by the intensive information flow due to customization and localization needs and market requirements for software products.

INTRODUCTION
The internationalization of small and medium-sized software firms has been of particular interest in international business literature since last decade. These studies have mainly examined the importance of network relationships (Bell, 1995; Coviello & Munro, 1997; Moen et al., 2004; Zain & Ng, 2006), foreign market channel decisions (McNaughton, 1996), and export problems (Bell, 1997) in the internationalization process of software firms. Despite these investigations,
there seems to be a lack of research focusing on the entry barriers of small and medium-sized software firms.

In the existing literature, the Japanese market is often characterized by various barriers to entering and doing business. Although these barriers have been actively researched and documented, earlier investigations focus mainly on large-sized manufacturing firms (Buckley et al., 1987; Kotabe & Wheiler, 1998; Yamawaki, 2004) and on their conflicts with distribution channels (Alpert et al., 1997; Min, 1996) or give only a general description of the barriers. Most of the previous studies are also cross-industrial and lack a specific industry focus. Due to the difference in business models between software firms and firms in the low-technology and manufacturing industries (Coviello & Munro, 1997), we can assume that the barriers which software firms have encountered in the Japanese market also differ. Earlier studies focus mainly on the entry barriers of large-sized firms, whereas a multitude of software firms belong to the category of small and medium-sized enterprises (SMEs). These SMEs in the software industry generally internationalize their business rapidly to leading software markets by using routes that are different from those that firms in the manufacturing and low-technology industries employ (Coviello & Munro, 1997). The software industry also differs from other industries due to the intangible nature of the product, high knowledge intensity, innovativeness, short product life cycles, and global markets (Nambisan, 2002), to name of few. For instance, in the production phase, software has a very high initial cost, whereas reproduction costs can be nearly nonexistent. This makes the pricing strategies of software products fairly different from those in other industries (Bakos and Brynjolfsson, 1999). Localization of products also differs from manufacturing industries (Collins, 2002) where localization can often be done merely by translating a product manual and not the whole product as in the software industry. In many cases,
software products can also be distributed electronically around the world without distribution costs (Moen et al. 2003).

In Japan, the information and communication technology (ICT) industry represents the largest market sector (JETRO, 2005). The total software market size in Japan was 131,773 million U.S. dollars in 2004 (U.S. Commercial Service, 2006). This means that Japan is the world’s second largest software market after the U.S. (EITO, 2006). In addition, due to the limited production of its domestic software firms, Japan is highly dependent on imported software products (Anchordoguy, 2000; Enterprise Ireland, 2005). For these reasons, several government-based organizations in various countries (Enterprise Ireland, 2005; JETRO, 2005; U.S. Commercial Service, 2006) have highlighted that the Japanese market offers good opportunities for foreign software firms to conduct business and significantly expand their market potential.

Considering the importance of the Japanese ICT market for foreign software firms, and the lack of earlier literature on this area, this study aims to fill this gap by focusing on small and medium-sized software firms’ entry barriers in the Japanese market. More particularly, this study tries to develop a suitable framework to categorize the barriers encountered in the market and seeks reasons for these barriers. The findings help practitioners to get a better understanding of the current entry barriers in the Japanese market and to plan suitable strategies to overcome or reduce influences of these barriers. For scholars this paper provides a new framework for analyzing micro-level entry barriers, by combining three internationalization theories.
EARLIER FRAMEWORKS FOR ANALYZING BARRIERS IN THE JAPANESE MARKET

Earlier literature related to the entry barriers in the Japanese market has discussed obstacles in the market usually from a general point of view without well-defined frameworks (see e.g. Buckley et al., 1987; Czinkota & Woronoff, 1993; Yamawaki, 2004). This conclusion became evident when suitable frameworks were searched from the major databases (EBSCO host, Emerald, JSTOR, ScienceDirect, ProQuest) using the keywords “entry barriers, FDI, Japan, Japanese market, trade barriers”. Overall, six different frameworks were identified. None of these frameworks have been widely adopted in the existing literature and there seems to be a lack of a common framework that could be used to analyze entry barriers in the market.

In their study, Samiee and Mayo (1990) focused on social and cultural influences behind the trade barriers in Japan. They divided the barriers in the Japanese market into visible and invisible ones. The invisible trade barriers were either related to social and cultural conditions or based on the government’s policy. Social and cultural conditions included buyer behavior towards foreign products, special characteristics of the Japanese distribution networks, and oligopolistic competition due to the keiretsu groups in Japan. Government-led policies included industrial targeting, procurement codes, regulations and standards, intellectual property rights, and custom valuation codes. The visible trade barriers concerned the tariff and non-tariff barriers, which were also influenced by social and cultural values as well as by government’s policies. The tariff barriers were related to high tariff rates of some products, whereas the non-tariff barriers included quotas, technical norms and consumer protection measures (Samiee & Mayo, 1990).

Mason (1992) classified the reasons for the low rate of U.S. multinational firms’ investment to the Japanese market into home country and host country factors. The home country factors included the U.S. firms’ lack of understanding of specific characteristics of the Japanese market (such as distribution system, labor relations, and culture), unsuccessful choice of entry strategies, focus on short-term profits, as well as lack of patience, knowledge and effort. The host country factors included the Japanese government’s restrictions on foreign direct investments (FDI), inadequate protection of intellectual property, high cost of land, and difficulties of hiring skilled local employees. In the book “Foreign Direct Investment in Japan”, Yoshitomi (1996) summarized the articles by using a similar division into home and host country factors. The first category included the incapability of foreign firms to adapt to the Japanese market’s characteristics and mould their business to suit the Japanese market. The second category contained political and business barriers for foreign firms in Japan.
The Eclectic paradigm has been used to classify the barriers in the Japanese market (Dunning, 1996; Graham, 1996). The framework is made up of categories in the Eclectic paradigm that consist of ownership (O) advantages, location (L) advantages, and internalization (I) advantages. In the studies of Dunning (1996) and Graham (1996) these advantages were described as disadvantages in the market. O-disadvantages were related to the high cost of establishing a subsidiary, high fixed costs, competition assets of the Japanese firms, keiretsu groups, and limited possibilities to acquire or merge with Japanese firms. L-disadvantages were high production costs, high costs of land in Japan, consumers’ ‘buy Japanese’ attitude, and government restrictions for foreign direct investment. I-disadvantages were foreign firms’ incapability to adapt to local business practices and integrate their international operations efficiently with local operations.

Czinkota and Kotabe’s (1999, 2000) studies, based on 36 interviews with key participants of the Japan Marketing Association meeting in 1998, classified barriers in the Japanese market into four categories. The first category was ‘unique Japanese business practices’, including cultural barriers and close business linkages in the market, such as keiretsu groups. The second group was ‘rigid quality/standard expectation and regulations’ that contained quality expectations, unreasonable standards, inadequate import infrastructure, and delays in patent and trademark processes. The third category was ‘high cost of doing business in Japan’. It included high retail prices, lack of economics of scale, and high entry cost. The fourth group was ‘preference for Japan-made products’ that was related to Japanese unwillingness to purchase foreign products.
Maguire (2001) analyzed barriers in exporting to Japan by dividing these into the following areas: non-tariff barriers, negotiation process, and consumer culture. Non-tariff barriers were related to legislation, political system, and different practices in the market. Negotiating with the Japanese contained cultural concepts of the society. Japanese avoid loss of face, value importance of personal relationships, and respect precedence of the group. Consumer culture included Japanese consumer behavior, such as high requirements for quality and after sales services.

Table 1 gives an overview of the classifications used in earlier frameworks for classifying entry barriers in the Japanese market. As can be observed from the table, these frameworks are strongly oriented towards investigating macro-level variables and entry barriers originating from the Japanese market but do not investigate, in detail, strategies or resources of firms entering the market. There also seems to be lack of background theories used for analyzing barriers, except the Eclectic paradigm used in Dunning (1996) and Graham (1996). In addition, it should be also noted that studies of Namiki (1988, 1989), Samiee and Mayo (1990), and Mason (1992) were conducted already before the Uruguay Round in 1986 – 1994, the extension of the General Agreement on Tariffs and Trade (GATT) in 1994, and the establishment of the World Trade Organization (WTO) in 1995 (WTO, 2006). The main purpose of these activities has been to reduce both visible and invisible barriers addressed in the early studies. Furthermore, economic slowdown in Japan during the 1990s might have had some influence on the findings of these earlier studies.
Table 1. Summary of earlier frameworks.

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Classification</th>
<th>Theory used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Namiki (1988, 1989)</td>
<td>Government imposition based barriers</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Market difference based barriers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Competitive rivalry based barriers</td>
<td></td>
</tr>
<tr>
<td>Samiee and Mayo (1990)</td>
<td>Visible barriers</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Invisible barriers</td>
<td></td>
</tr>
<tr>
<td>Mason (1992)</td>
<td>Home country factors</td>
<td>-</td>
</tr>
<tr>
<td>Yoshitomi (1996)</td>
<td>Host country factors</td>
<td></td>
</tr>
<tr>
<td>Dunning (1996)</td>
<td>Ownership disadvantages</td>
<td>Eclectic paradigm</td>
</tr>
<tr>
<td>Graham (1996)</td>
<td>Location disadvantages</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Internalization disadvantages</td>
<td></td>
</tr>
<tr>
<td>Czinkota and Kotabe (1999, 2000)</td>
<td>Japanese business practices</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>High quality/standard expectations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High cost of doing business in Japan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Preference for Japan-made products</td>
<td></td>
</tr>
<tr>
<td>Maguire (2001)</td>
<td>Non-tariff barriers</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Negotiation process</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consumer culture</td>
<td></td>
</tr>
</tbody>
</table>

**RESEARCH METHOD**

The multiple case study method was selected to this study due to the exploratory nature of the research question. The case study method enables explaining the significance and cause-and-effect relationships of the phenomena under the investigation (Yin, 1994), which would not be possible by using quantitative research approaches. The guidelines proposed by Eisenhardt (1989) were followed as closely as possible using the ‘no theory and no hypotheses’-origin in the research process. The data analysis was conducted by using the following steps: 1) data reduction, 2) data display, and 3) drawing conclusions and verification to identify and match relevant patterns of encountered barriers of the case firms (Yin, 1994).

We selected small and medium-sized Finnish software firms with direct business operations in the Japanese market as the target group of this study. In this study, Finland was chosen as the country of origin due to its small and open economy with a very limited domestic market, which
makes of internationalization a common growth strategy for Finnish software firms. The estimated number of software product firms in Finland was 1,100, and 46 percent of them had foreign income in 2004. The turnover of the industry was 1.19 billion Euros and the annual growth was 21 percent in 2004 (Finnish Software Product Business, 2005). Moreover, choosing Finnish software firms in Japan enabled addressing the firms in the target group almost inclusively by using a qualitative case-study method. Japan was chosen as the target country for the study due to the size and attractiveness of the market for software products (EIITO, 2006; U.S. Commercial Service, 2006). In addition, due to its language, cultural differences, and psychic distance, Japan, in many ways, differs from European and North American countries (Karppinen, 2006; Luostarinen, 1979). Furthermore, Japan is commonly cited as a very challenging country to enter and conduct successful business (Czinkota & Woronoff, 1993; Reid, 1995; Shetty & Kim, 1995).

Although the case firms selected for this study originate from Finland, the sample can be generalized to a large extent to represent small and medium-sized software firms globally due to the use of global industry standards and platforms for products and services (Gawer & Cusumano, 2002; Hoch et al., 2000). In addition, research results (Bell, 1995; Coviello & Munro, 1997; Loane et al., 2004; McNaughton, 1996; Moen et al., 2004; Spence, 2003; Zain & Ng, 2006) related to the internationalization of small and medium-sized software firms originating from Canada, Finland, Ireland, New Zealand, Norway, Malaysia, and the USA, imply that these firms are using similar routes, networks, and strategies in their internationalization processes.

In this study, to increase the generalizibility of the results, we selected the case firms by using the definition of SMEs as consisting of firms with 500 or fewer employees. The case firms identified
for this study fit also fairly well to the Finnish government’s and European Union’s definition for SMEs as being firms with less than 250 employees (OECD, 2003), because only one case firm had more than 250 employees at the time of the interviews. In fact, when this firm started their internationalization to the Japanese market, they had only 205 employees. Defining SMEs by the number of their employees is rational as SMEs do not usually want to reveal their sales data, as noted also in the studies of Julian (2003) and Brouthers and Nakos (2005).

Focusing on a single sector in this study helps to complement existing studies related to the software industry (Bell, 1995, 1997; Coviello & Munro, 1997; Moen et al., 2004; Zain & Ng, 2006) and reduces the potential for confusing results (Rouse & Daellenbach, 1999). In addition, covering a single sector enables comparing research results to earlier findings in the software industry, especially those focusing on challenges in the internationalization process (e.g. Bell, 1997). Suitable firms for this study were identified by using websites of the Finnish Chamber of Commerce in Japan and Finnish Software Business Clusters, as well as a list of firms in the publication “Software Product Business Cluster in Finland 2005”. By using these sources, altogether nine suitable firms were identified. These firms were contacted with an e-mail request to participate in the research. Eight of the nine firms answered and were willing to share their knowledge and experience of the Japanese market.

The semi-structured open-ended theme interviews were conducted with a total of 16 managers in firms’ headquarters in Finland and their units in Japan. Open-ended questions enable asking about respondents’ opinions and making further, more detail questions (Yin, 1994). The initial themes for the questionnaire were developed based on an in-depth literature review of entry barriers in the Japanese market. Due to the lack of earlier investigations on the entry barriers
encountered by small and medium-sized software firms in Japan, the relevance of the interview themes was tested with one case firm. This initial interview gave the necessary data to develop more focused themes for actual interviews. All themes (Appendix 1) were developed by following the guidelines of Yin (1994), trying to make the questions as non-leading as possible. This allowed the interviewees to give genuine answers to the themes during the interviews.

One of the authors conducted all the interviews with executives who had in-depth knowledge of their firms’ operations in the Japanese market. The interviewees included founders of companies and/or executives with titles such as President, Executive Vice President, Managing Director, Director, Chief Technical Officer, and Sales Administrator. During the interviews, the interviewer went through the themes asking the interviewees to explain how relevant the theme was for their business in Japan. After that, the interviewees were asked to evaluate why and how each particular theme either did or did not influence their business. In addition, the interviewees were asked to name any unmentioned issues they had encountered. The language used in most of the interviews was Finnish. However, English was used with two Japanese managers and with one manager whose native language was Hungarian.

The 60-90 minute long interviews were digitally recorded, carefully listened to, and transcribed verbatim with a word processor. A second listening was undertaken to ensure correspondence between the recorded and transcribed data. The complete case reports were sent back to the interviewees to ensure the validity and authenticity of the collected data. When interviewees in the case firms found some inaccuracies in the text, these were corrected based on their comments. In addition, some telephone and e-mail interviews were used to collect further information from
the interviewees. The collected data was also compared with other sources, including websites and annual reports of the case firms.

RESEARCH FINDINGS

All the case firms had been established between 1990 and 2000, except for firm ‘C’ which was established already in 1966 (see Table 2.). The firms’ experience in the Japanese market varied between three and seven years. The average number of employees in the case firms was 127. The units in Japan were rather small, with 1-25 employees, because they were established mainly for sales, marketing, and customer support purposes, corresponding to similar findings of Bell (1995) and McNaughton (1996). Firm ‘E’ diverged from this approach: they had more employees in their unit in Japan than in Finland since Japan was the main market area for their products. The firms used four different types of entry modes in the Japanese market. Four of the case firms (A, B, G, and H) used sales subsidiaries as their current entry mode. Firm ‘C’ had a representative who worked within their Japanese distributor, and firm ‘D’ had a representative office in the market. Firm ‘E’ penetrated into the Japanese market by selling their shareholding to a Japanese corporation, but they were still headquartered in Finland and operated as an independent unit. Firm ‘F’ had a joint venture relation with its Japanese partners. It should also be noted that firms ‘E’ and ‘F’ had only Japanese personnel in their units in Japan, and these firms sold their product to the Japanese consumer markets only. Five of the firms (A, B, C, G, and H) mentioned that the main reason for their market entry was the large size of the target industry for their products. Firms ‘E’ and ‘F’ entered the Japanese market due to the sophisticated industry structure for their products, and firm ‘D’ chose the market, because one of their most important customers was located in Japan. Almost all of the case firms produced their software for ICT-industries. These
industries include mobile phones, telecom networks, and data security, and were regarded as very attractive niches for foreign firms in Japan (JETRO, 2005).

### Table 2. Key information of the case companies

<table>
<thead>
<tr>
<th>Firm</th>
<th>Year of foundation</th>
<th>Years of operation in Japan</th>
<th>Number of employees worldwide</th>
<th>Number of employees in Japan</th>
<th>Current entry mode in the Japanese market</th>
<th>Main reason for the market entry</th>
<th>Target industry segment in Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm A</td>
<td>1995</td>
<td>6</td>
<td>100</td>
<td>5</td>
<td>Sales subsidiary</td>
<td>Size of the target industry</td>
<td>Banks and financial institutions</td>
</tr>
<tr>
<td>Firm B</td>
<td>1966</td>
<td>6</td>
<td>300</td>
<td>6</td>
<td>Sales subsidiary</td>
<td>Size of the target industry</td>
<td>Building and construction industry</td>
</tr>
<tr>
<td>Firm C</td>
<td>1998</td>
<td>4</td>
<td>30</td>
<td>1</td>
<td>Representative</td>
<td>Size of the target industry</td>
<td>Mobile phone manufacturers, telecom operators, and electronics industry</td>
</tr>
<tr>
<td>Firm D</td>
<td>1992</td>
<td>4</td>
<td>90</td>
<td>1</td>
<td>Representative office</td>
<td>Key customer locates in Japan</td>
<td>Mobile phone and semiconductor manufacturers</td>
</tr>
<tr>
<td>Firm E</td>
<td>2000</td>
<td>3</td>
<td>35</td>
<td>25</td>
<td>Corporate</td>
<td>Sophisticated market</td>
<td>Video game players in broadband networks</td>
</tr>
<tr>
<td>Firm F</td>
<td>1998</td>
<td>7</td>
<td>12</td>
<td>2</td>
<td>Joint venture</td>
<td>Sophisticated market</td>
<td>Mobile game players</td>
</tr>
<tr>
<td>Firm G</td>
<td>1991</td>
<td>5</td>
<td>210</td>
<td>5</td>
<td>Sales subsidiary</td>
<td>Size of the target industry</td>
<td>Telecom operators and R&amp;D companies related to mobile networks</td>
</tr>
<tr>
<td>Firm H</td>
<td>1990</td>
<td>6</td>
<td>240</td>
<td>9</td>
<td>Sales subsidiary</td>
<td>Size of the target industry</td>
<td>Banks, financial institutions, and Internet operators</td>
</tr>
</tbody>
</table>

### Framework for Analyzing Barriers in the Japanese Market

Based on the research findings, it seems reasonable to analyze the barriers using categories grounded on the interview data (Strauss & Corbin, 1990) rather than using frameworks of earlier analyses. Moreover, the findings indicate that no single international business theory can be used to adequately investigate the entry barriers. Table 3 presents the barriers, encountered by each of the software firms, dividing them into three categories: barriers related to the organization, to the
sales process, and to the target industry segment, corresponding to the resource-based theory, network approach, and the Uppsala internationalization model respectively.
Table 3. Categories of the entry barriers in the Japanese market

<table>
<thead>
<tr>
<th>Category</th>
<th>Firm A</th>
<th>Firm B</th>
<th>Firm C</th>
<th>Firm D</th>
<th>Firm E</th>
<th>Firm F</th>
<th>Firm G</th>
<th>Firm H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization</td>
<td>Convincing the headquarters of the market requirements</td>
<td>Convincing the headquarters of the market requirements</td>
<td>High price level in Japan</td>
<td>Convincing the headquarters of the market requirements</td>
<td>Reading of Japanese web-sites</td>
<td>Slow decision making within the joint venture</td>
<td>Convincing the headquarters of the market requirements</td>
<td>Convincing the headquarters of the market requirements</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Lack of credibility</td>
<td></td>
<td>Lack of common language with the unit in Japan</td>
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<td></td>
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<td>Customization of the products</td>
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<tr>
<td>Sales process</td>
<td>Lack of common language with customers</td>
<td>Finding the right contact persons</td>
<td>Lack of common language with customers</td>
<td>Finding the right contact persons</td>
<td>Finding the right contact persons</td>
<td>Distributor giving little information about their customers</td>
<td>Length of the supply chain</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Target industry segment</td>
<td>Slow purchasing process</td>
<td>Slow purchasing process</td>
<td>Slow purchasing process</td>
<td>Slow purchasing process</td>
<td>Legal restrictions</td>
<td>Intellectual property protection</td>
<td>Intellectual property protection</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Loyalty to a supplier</td>
<td>Industry-specific requirements</td>
<td>Loyalty to a supplier</td>
<td>Competition</td>
<td>Loyalty to a supplier</td>
<td>Keiretsu groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Very little precaution for employees’ risk behavior</td>
<td></td>
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</tr>
</tbody>
</table>
The organization-related barriers are based on a firm’s strategic choices and the availability of sufficient resources. In the case firms this was obvious when they localized and customized products for the customers and hired capable employees to handle the business activities in the market. The importance of the resources (financial and human resources, intellectual property, etc.) is highlighted in earlier studies on software firms’ internationalization processes (Bell, 1997; Coviello & Munro, 1997). A resource-based theory also suggests that physical, human, and organizational resources are important competitive advantages in the market (Barney, 1991).

The barriers related to the sales process include problems that a firm encounters when it sells products to the customer, such as communication with customers and delivery of the product directly or through distribution channels. Selling software products requires good knowledge of the target customers (Alajoutsijärvi et al., 2000), distribution channels (McNaughton, 1996), and an ability to establish network relationships with important actors (Moen et al., 2004). The network approach also suggests that “suppliers and customers need extensive knowledge about each other if they are to carry on important business with each other” (Johanson & Mattsson, 1988, pp. 289). The lack of this knowledge can be a significant barrier in the sales process.

Target industry segment related barriers include factors that are not dependent on the organization or sales process. These include target industry-specific variables such as industry-specific regulations or customer behavior that may vary in different industry segments. Due to the niche market strategies of the small software firms, these industry-specific variables are remarkably important (Bell, 1997). These barriers seem to be related to a firm’s capability to learn how to act with a target industry. Learning about target industry has an important role in the Uppsala internationalization model (Johanson & Vahlne, 1977).
Organization Related Barriers

Five of the firms’ (A, B, D, G, and H) units in Japan had problems convincing the headquarters in Finland of Japanese customers’ specific requirements. Japanese customers have high quality requirements and strict delivery times for the products. If some requirements were not met or the product development ran late, it easily had a negative impact on firms’ business. In many cases, the firms’ development teams in the headquarters needed to estimate the kinds of changes they could make to the product and the costs and benefits of these changes. This problem was reported both in the firms' units in Japan and their headquarters in Finland. The other three firms (C, E, and F) did not face problems in convincing their headquarters, because their products for the Japanese market were mainly developed or localized in Japan.

Four of the firms (A, B, G, and H) had problems recruiting employees in Japan. The common challenge in the recruitment process was to find employees whose English proficiency would be at the required level to enable them to work in a Western firm using English as the common language of communication with other subsidiaries and the headquarters. The small number of available skilled employees in the firms’ (B, G, and H) business sectors also hindered the recruitment process. These firms operated in a niche market where competition over experienced employees was really hard and raised the cost of salaries. The other four firms (C, D, E, and F) did not face these kinds of barriers in Japan. Firms ‘C’ and ‘D’ used only representatives in the market and were not actively recruiting local employees. In cases ‘E’ and ‘F’, their Japanese partners handled the recruitment in Japan, and this facilitated the recruitment process remarkably.
Three of the firms (A, B, and C) had requirements to make customizations to the products due to the specific needs of their Japanese customers. This product modification caused additional work. Three of the firms (D, G, and H) did not face this barrier, because their products were targeted to the sectors which used global product standards. Firms ‘E’ and ‘F’ sold packaged software to the consumer market, thus their products did not require customization.

Localization of software products for the Japanese market was a problem in firms ‘A’ and ‘B’. The original products of these firms were targeted to the industry segments that used English as a common language, and it took additional resources to make needed changes to the products for the Japanese users. Also the products’ life cycles in these firms were very short, which created additional challenges for localizing the software for the market. Other firms did not have these problems with localization. Four firms’ (C, D, G, and H) customers in Japan used products in English rather than Japanese. Firms ‘E’ and ‘F’ used the assistance of their Japanese personnel in localizing their product for the market.

The high price level in Japan and lack of credibility were regarded as problems in firms ‘C’ and ‘D’. The lack of credibility arose from the “light” entry mode applied by both firms since they only used representatives in the market. When firms ‘C’ and ‘D’ acquired more customers in the market, their credibility increased, and the influence of the price level was not that significant. The firms who used other entry modes did not face these problems.

In the market entry phase, firm ‘E’ encountered problems in finding a suitable partner and customers in the Japanese market, because almost all the firms of the same size as firm ‘E’ had their websites in Japanese. This problem was solved when firm ‘E’ started to cooperate with
Japanese partners. In the beginning firm ‘E’ also had some problems with communication between the corporation units due to language differences.

Slow decision making within the joint venture was a barrier in firm ‘F’. In some cases, when they tried to launch mobile games related to some events such as football games, the decision making was so slow that those events would take place before the decision was reached. Firm ‘G’ encountered problems in networking and establishing relationships with some of their present customers after their earlier sales person changed employer. In these cases, incoming employees had to re-establish all the earlier relationships, which was a slow and time-consuming process.

**Sales Process Related Barriers**

In the sales process, three of the firms (A, C, and D) had difficulties in finding a common language with the customers. Later on, firms ‘A’ and ‘D’ solved this problem by recruiting local sales persons to handle communication in situations where using Japanese was required. Firm ‘C’ found a distributor who used English as a common language. Other firms did not face language problems in the market. Four of the firms (B, E, F, and G) had local employees already in the establishment phase of their units in Japan. Firm ‘H’ had a Finnish employee whose Japanese proficiency was good enough to handle business negations in Japanese.

Three of the firms (B, C, and D) had difficulties finding the right contact persons from the customer’s side due to the large size and complex organization structure of the target customers. Firms (E, F and, G) did not face these kinds of problems, because in the establishment phase of their units in Japan their Japanese employees already had good relationships with the local actors.
in the market. In cases ‘A’ and ‘H’, local distributors with good connections to the target customers handled all their sales activities in Japan.

Firms ‘B’ and ‘H’ had problems getting enough information on the distributors’ customers. In case ‘B’, the reason for this was the competitiveness of the situation between firm ‘B’ and their distributors, all of them selling products to the end users. In case ‘H’, the distributor thought that firm ‘H’ might make contacts with the customers and sell their product directly if they were to give too much information about the end users. Other firms (A, C, F, and G) who also used distributors in the market did not adduce this problem.

The length of the supply chain was a challenge in firms ‘A’ and ‘H’. Due to the long supply chain, they did not usually know the end users of their products. This caused problems in recognizing the end users in the market and in acquiring customer feedback. This also made it impossible to sell other related products to the same end users or to give customer support. In other cases, a firm (B, C, D, E, and G) and/or distributors (B, C, F, and G) sold products directly to the end users.

Firm ‘C’ had difficulties in finding a suitable distribution channel to handle the sales of their products in Japan. This was due to the complexity of the firm’s products that required in-depth technical knowledge of the distributor and close cooperation with the end users in the sales process. Other firms (A, B, F, G, and H) who used distributors in the market did not encounter this problem, because their products did not require that much modification relating to the customers' specifications.
Target Industry Segment Related Barriers

Four of the firms (A, B, C, and D) had difficulties with the slow purchasing process of the Japanese customers. This was mentioned to be due to the Japanese slow decision making process, but also long evaluation cycles of the products, especially in the data security sector, influenced the customers’ purchasing process. In case ‘B’, industry-specific issues, among them the long budgeting cycle of the customers, affected the purchasing decision. The other four firms did not encounter this problem in the market.

In three of the cases (A, D, and G), loyalty of the target customers to their current suppliers was a barrier to selling products. This had negative impacts on their business, because if a potential customer already used products of some competitor, it was almost impossible to persuade the customer to use new products. Firms ‘E’ and ‘F’ did not encounter this problem because they sold their products to the consumer markets. Firms ‘B’ and ‘C’ had no competitors with corresponding products in the market. Firm ‘H’ used the first mover advantage and got a good position among the customers before competitors entered the market.

In cases ‘B’ and ‘F’, industry segment related regulations and laws hindered their business in Japan. The industry segment of firm ‘B’ had to comply with some regulations for the software products that are used in the building industry due to the seismic zone in Japan. Firm ‘F’ had to deal with legal regulations related to mobile games that include a financial prize. The highest possible amount of this prize money was considerably lower in Japan compared to other countries. This had a negative effect on the marketing of the game and made it less attractive for consumers. Other firms did not face any problems with regulations or legislation in Japan.
Firms ‘G’ and ‘H’ had problems with intellectual property protection. In case ‘G’ the firm’s name was already trademarked in Japan and, thus, they had to use a different firm and product name in Japan than what they used in other countries. For firm ‘H’, the problem was the name of their new product, which was already trademarked in Japan. These problems caused a great amount of legal negotiations, additional expenses, and hindered the firms’ business in the market. Other firms did not encounter any problems with intellectual property protection in Japan.

Other industry segment related barriers that existed only in individual cases were customers’ disregard of the security risks, favoritism of local production, competition, and keiretsu groups. Firm ‘A’ had difficulties in selling some of their security software products to their Japanese customers who take little precaution for employees' information security risks due to loyalty towards employers. Firm ‘D’, reported that, in some cases, Japanese firms favored other local firms because in problem situations, technical support was easier to get if the development team of the supplier was located nearby. Competition was a challenge for firm ‘F’ who sold mobile games to the Japanese consumer markets which were very saturated and competitive. Keiretsu groups in Japan created a barrier to firm ‘G’ because a local firm that had a corresponding product with firm ‘G’ belonged to a keiretsu group. This made it impossible to sell their product to firms that were members of the same keiretsu group.

**SHORTCOMINGS OF EARLIER FRAMEWORKS**

It is rather difficult to match the barriers presented in the case descriptions above and in the earlier frameworks (see Table 4.). These frameworks focus mainly on macro-level variables whereas the findings of this research suggest that it might be more reasonable to analyze the entry
barriers in the software industry by using micro-level factors. Micro-level analysis gives more detailed information on the entry barriers and the reasons behind them.

### Table 4. Summary of major weaknesses of earlier frameworks.

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Weaknesses in analyzing entry barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Namiki (1988, 1989)</td>
<td>Focus only on exporting activities of physical products</td>
</tr>
<tr>
<td>Samiee and Mayo (1990)</td>
<td>Ignores specific characteristics of the product</td>
</tr>
<tr>
<td>Maguire (2001)</td>
<td>Barriers originating only from the Japanese market environment</td>
</tr>
<tr>
<td>Mason (1992)</td>
<td>Division into home and host country factors is ambiguous</td>
</tr>
<tr>
<td>Yoshitomi (1996)</td>
<td></td>
</tr>
<tr>
<td>Dunning (1996)</td>
<td>Division of barriers is ambiguous</td>
</tr>
<tr>
<td>Graham (1996)</td>
<td>Most barriers found can be classified into a single category</td>
</tr>
<tr>
<td>Czinkota and Kotabe (1999, 2000)</td>
<td>Do not take into consideration intra-organizational issues</td>
</tr>
</tbody>
</table>

Studies of Namiki (1988, 1989), Samiee and Mayo (1990), and Maguire (2001) have mainly investigated the barriers encountered by firms that export physical products to the Japanese markets rather than firms who are establishing physical presence in the market. These classifications do not take into consideration specific characteristics of the software products, such as immaterial essence, which enables delivery of the product through the Internet. Thus, for instance tariff barriers do not have as significant a role as in the case of physical products. In addition, these frameworks do not include any characteristics related to a firm that is entering the market and all barriers seem to originate from the Japanese market. By using the aforementioned frameworks it is difficult to classify the research findings in this study. There are no categories for placing barriers such as recruiting capable employees, possibilities to localize and customize products for the market, or communication problems inside a firm.

Dividing the barriers into home country factors and host country factors (Mason, 1992; Yoshitomi, 1996) is difficult in these cases because there are barriers that can be classified into either category depending on the point of view. Firstly, the recruitment of skilled employees is
one example where division into home and host country factors is ambiguous. If there are no available employees in the market, this can be due to host country factors (Mason, 1992). In cases where there are available employees in the market, but a firm is incapable of recruiting suitable employees due to, for instance, the lack of resources, recruitment can be classified as a home country factor. Secondly, if foreign firms are unable to network with local distributors in the market, this seems to be a home country factor rather than a host country factor as classified in Mason (1992) and Yoshitomi (1996), being a result of the complex distribution system in Japan.

Although the Eclectic paradigm is a commonly accepted and used theory in the economic sciences, it is not widely applied in analyses of entry barriers in the market. In their studies, Dunning (1996) and Graham (1996) divide the barriers in the market into ownership (O), location (L), and internalization (I) disadvantages by using the Eclectic paradigm. However, this framework is insufficient for the case results in this study. It seems that most of the barriers found would fall into a single category, L-disadvantages, which does not enable rigorous analysis of the barriers. Furthermore, the classification is ambiguous. For example, finding a common language of communication with customers can be seen as lack of resources (O-disadvantage) needed for recruiting capable employees to communicate with customers or as a L-disadvantage due to the physical distance variable. Similarly, convincing the headquarters of the market requirements can be classified either as a L-disadvantage or as a result of the market orientation of the firm in the O-category.

The framework of Czinkota and Kotabe (1999, 2000) divides barriers in the Japanese market into the following categories: unique business practices, rigid quality/standard expectation and regulation, high cost of doing business, and preference for Japanese-made products. This
framework is quite similar with categories of Namiki (1988, 1989), Samiee and Mayo (1990), and Maguire (2001), but it also includes barriers related to market entry cost. Thus there are also some factors related to establishing physical presence in the market. This framework still lacks emphasis on factors related to intra-organizational barriers, such as the capability of a firm to customize and localize their products for the market and convincing the headquarters of the market requirements.

**DISCUSSION OF THE RESEARCH FINDINGS**

The case firms encountered altogether 24 different entry barriers which varied remarkably from one case to another (see Table 3). This implies that firms are encountering rather heterogeneous set of barriers in the Japanese market. Next, the barriers that existed in three or more cases are discussed and compared to earlier literature.

Firstly, convincing the headquarters of market requirements was a barrier in five cases. This barrier seems to be related to Japanese customers’ quality requirement for the products and services (Buckley et al., 1987; Czinkota & Kotabe, 1999, 2000). However, it was also related to a firm’s capabilities to meet the requirements that it encountered in the market. In addition, this problem can also be characterized as a small firm’s internal communication issue between remotely located units, the headquarters usually having the responsibility for product development and the other units for focusing on marketing and sales activities. Secondly, slowness of the purchasing process of the customers was a barrier in four firms. This finding supports the concept of the Japanese decision making process called “ringi”. This process is based on the Japanese culture and it is common among Japanese firms (Nishiyama, 2000; Nonaka & Johansson, 1985). However, some firms also highlighted that slow decision making
was part of products’ evaluation processes or budgeting system of the customers. Thus, there were some industry segment related differences in decision making processes. Thirdly, the recruitment of employees was a barrier in four cases. However, difficulties in recruiting employees were usually not related to a small number of applicants or labor shortage as cited in Mason (1992). One of the reasons for this might have been the economic slowdown in Japan during the 1990s which increased unemployment (OECD, 2005). Instead of labor shortage, the main barriers in the recruitment process were applicants’ poor command of English and the specific skills that case firms’ niche market segments required. Fourthly, customization of the software products was a barrier in three cases, two of which also reported problems related to localization of the software. This seems to be a software industry related barrier and has not been reported in earlier studies concerning entry barriers in the Japanese market. Depending on the product strategy of the firm in question, the software requires localization and customization according to customers needs. In traditional industries, localization has usually been limited to the translation of manuals, while in software industries also the product has to be translated and localized. This typically includes also other aspects, including localization of currency units, tax percentages and practices, measurement units, and adopting local regulations, such as regulations on financial prizes in mobile games, as mentioned by firm ‘F’. Fifthly, lack of a common language of communication with customers was a barrier in three cases. Barriers relating to language differences are widely documented in the earlier literature (Karppinen, 2006; Namiki, 1989; Nishiyama, 2000). However, in all these cases, this was a problem only in the market entry phase and it was solved later on by recruiting local employees or by networking with distributors who handled the sales activities. Sixthly, finding the right contact persons in the customer’s side was a barrier for three of the firms. The reason for this might lie in the small size of the case firms compared to their large-sized customers in Japan and differences in the management styles
(Nonaka & Johansson, 1985) and business practices (Czinkota & Kotabe, 1999, 2000) between the Japanese firms and their Western counterparts. Seventhly, the loyalty of the target customers to their current suppliers was a barrier in three cases. This finding is supported by an earlier study of Alpert et al. (1997) reporting the preference of the Japanese for established connections with suppliers and avoidance of unfamiliar suppliers.

In addition to the identified entry barriers, there were other very interesting findings. Firstly, the firms who only had local personnel in their units had the least problems in the market. This finding suggests that well established network relationships with the right people in the target country (Coviello & Munro, 1997) and using local knowledge (Luostarinen & Welch, 1997) reduce entry barriers remarkably. This also gives some support to the assumption that these barriers exist almost exclusively for foreign firms in the Japanese market. Secondly, most of the entry barriers seem to be related to the organization and the sales process, which depend on firms’ capabilities and resources to act in the market. This is consistent with the study of Bell (1997) who found that most of export problems of small software firms are related to financial resources and marketing. Thirdly, only firms that used representatives in the market encountered barriers with high price level and lack of credibility, otherwise their entry barriers were substantially similar with those that had a subsidiary in the market. Fourthly, differences in firms’ size also produced some insights. Firms (C, E, and F) which had 35 or fewer employees did not encounter problems, common among the larger case firms, in convincing the headquarters of the market requirements. The reason for this was that their products for the Japanese market were mainly developed or customized in their Japanese units. Another reason might be smaller size which enables more direct communication between the headquarters and the unit in Japan. Finally, case findings highlight that there seem to be only three barriers, which can be
characterized as specific to Japanese markets: 1) slow purchasing and decision making process, 2) loyalty to a supplier, and 3) keiretsu groups. Interestingly, three of the firms (E, F, and H) which did not encounter these barriers only used Japanese employees in their Japanese units. Firm ‘H’ had a foreign manager in the subsidiary, but he also had proficiency in the Japanese language and knew the local culture before joining the firm (other employees in the subsidiary were Japanese). In addition, firm ‘F’ had problems with slow decision making within the joint venture, but this was an intra-organizational problem not related to the activities in the market.

Unlike in earlier studies regarding manufacturing and low-technology firms’ entry barriers in Japan, the case firms in this study did not face some of the commonly cited barriers. Firstly, tariff barriers (Namiki, 1988, 1989; Samiee & Mayo, 1990) were not a problem in the case firms. This supports the findings of Bell (1997) suggesting that tariff barriers in the software industry are generally low. Secondly, none of the case firms encountered problems with weak intellectual property protection in Japan as cited in Anchordoguy (2000). Two of the firms encountered barriers with intellectual property protection, but these were only due to the normal trademark practice according to which a firm cannot trademark an already existing name. However, the absence of these tariff and intellectual property barriers can be attributed to the harmonization of tariff and intellectual property regulations achieved in the Uruguay Round, GATT agreements, and the establishment of WTO, which all aimed at lower tariffs and standardized intellectual property protection (WTO, 2006). Thirdly, none of the firms brought forward problems originating from the Japanese government’s restrictions for FDI (see e.g. Czinkota & Woronoff, 1993; Dunning, 1996; Mason, 1992; Samiee & Mayo, 1990). Two of the firms had legal restrictions for their business but these arose from normal legislation in their target industry segments, not from restrictions actually targeted to foreign firms. On the contrary, many of the
firms emphasized the fact that the Japanese government had supported their market entry through the Japan External Trade Organization that offered partnering events and assistance in the market entry phase.

Table 5 presents the differences of the commonly cited entry barriers in earlier frameworks (listed in Table 1.) focusing on large manufacturing/low-technology firms and small and medium-sized software firms in this study. Entry barriers encountered by the case firms in this study were different from those of large manufacturing/low-technology firms and included convincing the headquarters of the market requirements, finding the right contact persons, and customization/localization. These barriers were related to the small size of the case firms and different industry background. The barriers that large manufacturing/low-technology firms encountered, on the other hand, were exclusively related to target industry segments such as tariffs, weak intellectual property protection, and the Japanese government restrictions for FDI.

Table 5. Differences of entry barriers between large manufacturing/low-technology firms and small and medium-sized software firms

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Manufacturing / low-technology firms</th>
<th>Small and medium-sized software firms</th>
<th>Category of barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convincing the headquarters of the market requirements</td>
<td>-</td>
<td>X</td>
<td>Organization</td>
</tr>
<tr>
<td>Customization/localization</td>
<td>-</td>
<td>X</td>
<td>Organization</td>
</tr>
<tr>
<td>Recruitment</td>
<td>X</td>
<td>X</td>
<td>Organization</td>
</tr>
<tr>
<td>Common language of communication</td>
<td>X</td>
<td>X</td>
<td>Sales process</td>
</tr>
<tr>
<td>Finding the right contact persons</td>
<td>-</td>
<td>X</td>
<td>Sales process</td>
</tr>
<tr>
<td>Loyalty to current suppliers</td>
<td>X</td>
<td>X</td>
<td>Target industry segment</td>
</tr>
<tr>
<td>Tariff</td>
<td>X</td>
<td>-</td>
<td>Target industry segment</td>
</tr>
<tr>
<td>Weak intellectual property protection</td>
<td>X</td>
<td>-</td>
<td>Target industry segment</td>
</tr>
<tr>
<td>Japanese government restriction for FDI</td>
<td>X</td>
<td>-</td>
<td>Target industry segment</td>
</tr>
<tr>
<td>Slow purchasing process</td>
<td>X</td>
<td>X</td>
<td>Target industry segment</td>
</tr>
</tbody>
</table>
SUMMARY AND IMPLICATIONS

This paper investigates the entry barriers for small and medium-sized software firms in the Japanese market by conducting an empirical multi-case study. The barriers observed differed somewhat from the entry barriers of earlier investigations which have targeted large-sized manufacturing and low-technology firms prior to the harmonization of international regulation, such as tariff barriers, weak intellectual property protection, or Japanese government restrictions for FDI. The general implication is that managerial focus on entry barriers of small and medium-sized software firms should be shifting from the traditional regulation-related barriers to the business execution capability of the firm.

The framework developed in this study divides the diversity of entry barriers into organization, sales process, and target industry segment related barriers. The division reveals that most of the entry barriers are related to the organization and the sales process. These depend on firms’ capabilities and resources to act in the market, which should be a major concern for the managers. The results imply that hiring local personnel in Japanese units can reduce problems in the market. Successful firms with local personnel seem to be able to use local knowledge in the market and network with people who are capable of handling their Japanese operations almost independently.

The new barriers found were related to problems specific to software firms and include convincing the headquarters of the market requirements, finding the right contact persons, and customization and/or localization. The firms in which customization and/or localization took place in Japan were able to avoid the most common barrier, i.e., that of convincing the
headquarters of the market requirements. This implies that managers should strongly consider positioning software localization and customization operations in a local unit in Japan.

The next implication for management is that using local personnel should be considered in order to mitigate the two other common barriers observed, the slow purchasing process of the customers and recruiting employees with required skills and English proficiency, as well as the previously mentioned problem of finding the right contact persons. The combination of using local personnel and executing the customization and/or localization operations in Japan seems to work out well. On the other hand, having customization and/or localization in the home country seems to cause barriers either in communicating the requirements from customers to the unit in Japan or from the unit to the headquarters. Due to the intensive flow of customer-specific and market-specific information in software markets, organizing this communication and analyzing rapid changes in market data requires special attention from the managers of software firms.

Finally, although this study includes eight small and medium-sized software firms operating in various segments of the Japanese software markets, the research findings can be generalized only to some extent. More research is needed to investigate the entry barriers of software firms in the Japanese market and other important software markets. The framework of the entry barriers developed in this study also requires further validation and theoretical development.

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REFERENCES


Appendix 1. Themes used in semi-structured open ended interviews

Has your business in Japan experienced issues related to:

- The cost of doing business
- Taxation
- Keiretsu groups
- Language / Culture
- Competition
- Distribution systems
- Recruiting employees
- Product regulations
- The time required for revenue
- The decision-making process in Japan
- Legal issues
- Intellectual property protection
- Access to the market
- Favoritism of foreign / local products
- Quality standards
- The role of references from other firms
- Communication with the headquarters
- After-sales support
- Other issues, not mentioned?