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Market entry decisions of U.S. small and medium-sized software firms

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ABSTRACT

Purpose − This paper investigates market entry decisions of the U.S. software SMEs by analyzing the impact of the most obvious factors (cultural distance, geographical distance, country risk, and three market size variables) in traditional internationalization theories to target country selection. By investigating the influence of these commonly cited macro-level factors, this study proposes the best indicator for market entry decisions of the U.S. small and medium-sized software firms.

Design/methodology/approach − This study uses quantitative research approach applied on a sample of 100 U.S. small and medium-sized software firms.

Findings − Empirical findings in this study indicate that vertical (software) market size in a target country is the best single indicator for market entry decision, explaining alone 63% of market entries. Thus, the findings in this study suggest that the vertical market size gives a better explanation for market entry decisions of software SMEs than the earlier widely used variables.

Research implications − Integrating earlier findings related to firm-level factors with findings of macro-level factors will help theory development and will facilitate obtaining a more holistic view of internationalization of knowledge-intensive SMEs.

Practical implications − Findings in this study imply that managers should take an active role when they develop network relationships for the market entry. If a firm takes a passive role in networking, it might lose market opportunities available in the leading markets and end up in countries where the real market potential is low.

Originality/value − This paper highlights vertical market size, which has been largely ignored in earlier studies, as the most important indicator for international market entry decision.

Keywords Market entry, Entry decisions, Market selection, SMEs, Software firms, Knowledge-intensive firms

Paper type Research paper

INTRODUCTION

Selecting the right target countries for foreign operations is an important managerial decision and has a major impact for success or failure in international operations. For this reason, several studies (see e.g., O'Farrell and Wood, 1994; Ojala and Tyrväinen, 2007a; Papadopoulos et al., 2002; Rothaermel et al., 2006) in the field of international management and marketing have investigated how firms choose their target countries. Although international market selection has attracted attention since the 1960s (Papadopoulos and Denis, 1988), there seems to be a lack of systematic quantitative research about what is the best indicator for market entry decision of knowledge-intensive small and medium-sized enterprises (SMEs).

Studies related to knowledge-intensive SMEs have investigated mainly the impact of firm-level factors, such as network relationships, knowledge, and resources (see e.g., Bell, 1995; Coviello, 2006; Coviello and Cox, 2006; Prashantham, 2005) to internationalization behavior and to foreign market entry decision. Although the influence of these firm-level factors is unquestionable, several authors (Bell, 1995; Chetty and Campbell-Hunt, 2004; Coviello and Munro, 1997; Moen et al., 2004; Rothaermel et al., 2006, among others) have also found support for the view that the major determinants of the international market selection, such as cultural or psychic distance, geographical distance, country risk, and market size have an important role to play when knowledge-intensive firms choose their target countries. However, most of these studies have focused mainly on case studies (Coviello and Munro, 1997; Moen et al., 2004; Zain and Ng, 2006) or surveys (Bell, 1995) without in-depth statistical analysis. The study of Oviatt and McDougall (1997) also noted this problem and called for more quantitative research on the internationalization of high-technology SMEs. To fill this gap, we investigate the influence of the cultural distance, geographical distance, country risk, and three market size variables to market entry decisions of U.S. software SMEs by conducting a quantitative study. In addition, we analyze the impact of vertical market size (size of the software market), which has been largely ignored in the previous studies (Ojala and Tyrväinen, 2007a). We also propose that by integrating earlier findings related to firm-level factors with findings of macro-level factors in this study will help theory development and obtain a more holistic view of internationalization of knowledge-intensive SMEs.

THEORY DEVELOPMENT AND HYPOTHESIS

The four most obvious macro-level factors influencing target country selection in international business theories (Dunning, 1992; Johanson and Vahlne, 1977; Johanson and Wiedersheim-Paul, 1975; Luostarinen, 1979; Miller, 1992) and the literature relating to internationalization of knowledge-intensive SMEs (Bell, 1995; Chetty and Campbell-Hunt, 2004; Coviello and Munro, 1997; Gregorio, 2005; Moen et al., 2004; Ojala and Tyrväinen, 2007a; Rothaermel et al., 2006) have been cultural or psychic distance, geographical distance, country risk, and market size. Although the impact of these factors on market entry decision seems to be obvious, findings in studies operationalizing these factors have been somewhat inconsistent. In addition, earlier studies have commonly tested the impact of only a few of these abovementioned factors instead of trying to test all of these factors in a single study. By investigating the influence of these commonly cited macro-level factors to the target country selection of the U.S. small and medium-sized software firms, we hope to find the best indicator for market entry decision.

Cultural Distance and Target Country Selection

In many studies, the terms cultural distance and psychic distance have been used synonymously to explain differences in cultural values among countries either at a national or individual level (Sousa and Bradley, 2006). The term psychic distance came popular after Nordic studies by Johanson and Wiedersheim-Paul (1975) and Johanson and Vahlne (1977), which conceptualized the psychic distance between countries as differences in language, culture, political system, level of education, level of industrial development etc.

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Studies related to knowledge-intensive SMEs (Chetty and Campbell-Hunt, 2004; Coviello and Munro, 1997; Moen et al., 2004; Spence, 2003) have focused mainly on qualitative case studies and evaluated psychic distances between countries by using the concept of Johanson and Vahlne (1977) without trying statistically measure psychic or cultural distance. The common finding in these studies has been that SMEs favor countries with a low psychic distance when they start to internationalize their operations. For instance, the study of Chetty and Campbell-Hunt (2004) on SMEs in New Zealand proposed that entrepreneurial firms prefer countries within a low psychic distance (such as Australia and the United Kingdom). This finding is also consistent with other case studies (Coviello and Munro, 1997; Moen et al., 2004; Spence, 2003) and surveys (Bell, 1995). The reasons why knowledge-intensive SMEs favor countries with a low psychic distance include limited resources, market knowledge, and network relationships (Bell, 1995; Coviello and Munro, 1997). Although these studies (Chetty and Campbell-Hunt, 2004; Coviello and Munro, 1997; Moen et al., 2004; Spence, 2003) have investigated only the initial market entries, we can assume that target countries where cultural values (even culture is only one dimension of the psychic distance as noted in Dow and Karunaratna (2006)) are similar with the home country are easier to operate and increase the attractiveness of that country. Thus, we hypothesize:

Hypothesis 1: Cultural distance is negatively related to market entry decision of software SMEs.

Geographical Distance and Target Country Selection

Geographical distance has been found to be a significant factor when a firm selects its target countries; a short geographical distance can often be equated with a familiar business environment and lower operation costs (Chetty, 1999; Clark and Pugh, 2001; Dow, 2000; Luostarinen, 1979). In software industry, products itself can very often be delivered around the world without any significant distribution costs making physical distribution a less important. However, in many cases, software products still require an intensive cooperation with customers in pre- and after-sales phases (Ojala and Tyrväinen, 2006). Hence, studies related to internationalization of software firms (Bell, 1995; Coviello and Munro, 1997; Moen et al., 2004; Ojala and Tyrväinen, 2007a) have found evidence that software firms favor nearby countries in their internationalization process. The study of Bell (1995) which included 88 small software firms from Finland, Ireland, and Norway found that, for instance, Finnish' firms entered first to Sweden, Russia, and Norway whereas Norwegian' firms entered first to Sweden, UK, Finland, and Holland. These findings indicate that geographical proximity is an important determinant when software firms select their target countries. On the other hand, the study of Terpstra and Yu (1988) failed to find support for this. Their results, based on a sample of U.S. advertising agencies, indicate that these firms tend to favor countries with a large market size instead of geographical proximity. However, in line with those earlier studies investigating to the internationalization of software firms, we hypothesize:

Hypothesis 2: Geographical distance is negatively related to market entry decision of software SMEs.

Country risk and Target Country Selection

The level of country risk has been recognized as having a major impact on market entry decision (Ellis and Pecotich, 2001; Miller, 1992; Quer et al., 2007, among others). Generally, firms avoid making direct investments to counties with a greater risk level (Quer et al., 2007; Rothaermel et al., 2006) and use entry modes which do not require high investments (Shrader et al., 2000). In his study, Brouthers (1995) found a significant relationship between the perceived risk in a target country and choice of entry mode in the software industry. Firms that perceived a higher level of risk favored independent entry modes such as licensing instead of integrated entry modes such as wholly owned subsidiaries. These findings are in line with Shrader et al. (2000) investigating the trade-offs between country risk and entry mode selection by U.S. international new ventures. In addition, the study of Ellis and Pecotich (2001) also emphasizes the strong impact that risk and uncertainty have on managers' market entry decision in SMEs. The conceptual study of Gregorio (2005), on the other hand, showed that entrepreneurial firms can use various strategies and exploit uncertainty and risk in the target country as an opportunity. However, in line with earlier empirical studies, we hypothesize that firms tend to avoid direct business operations in countries with a high risk level.

Hypothesis 3: Country risk is negatively related to market entry decision of software SMEs.

Market size and Target Country Selection

Several studies (Dunning, 1992; Rothaermel et al., 2006; Terpstra and Yu, 1988) propose that, in their market entry decision, firms tend to favor countries which provide large markets and a large customer base for their products and services. However, there has been disagreement over which of the factors provides the best measure to evaluate the market size in the target country. For instance, the findings of Rothaermel et al. (2006) suggest that a high level of GDP per capita in a target country is an important determinant of market entry decision when U.S. Internet firms select their target countries. On the other hand, the study of Terpstra and Yu (1988) found that a high level of GDP is the main determinant in U.S. advertising agencies' target country selection. Conceptual models related to knowledge-intensive firms also indicate that entrepreneurial firms tend to favor large markets for their products (Bell et al., 2003) due to their opportunity seeking behavior (Oviatt and McDougall, 1994). In summary, while studies in current literature provide clear evidence that market size in terms of GDP and GDP per capita has a strong impact on market entry decision; these studies ignore the impact of vertical market size. Thus, in accordance with the study of Ojala and Tyrväinen (2007a), we also hypothesize that large size of the software market in the target country has a positive impact on the selection of the target country.

Hypothesis 4a: Large market size (GDP) of the target country is positively related to market entry decision of software SMEs.

Hypothesis 4b: Affluence of the target country (GDP per capita) is positively related to market entry decision of software SMEs.

Hypothesis 4c: Large vertical market size of the target country is positively related to market entry decision of software SMEs.

METHODOLOGY

The software sector was selected as the target industry due to the fact that software firms are commonly used as the individual target sector in studies investigating knowledge-intensive SMEs (Bell, 1995; Coviello and Munro, 1997; Moen et al., 2004; Ojala and Tyrväinen, 2007a). Focusing on a single sector helps in theory development by complementing existing studies related to internationalization of software firms and enables the use of industry specific variables, such as vertical market size. Although this study focuses only on a single industry, the sample is generalizable to large settings due to the fact that the software industry shares common characteristics with other high-technology industries (Spence, 2003) and service sector (O'Farrell et al., 1997).

The sample of this study consists of secondary data extracted from the Software 500 publication (Software 500, 2006) ranking the 500 world's largest software and service firms in terms of annual revenue. We extracted the top 100 U.S. small and medium-sized firms by choosing firms with 500 employees or less with headquarters in the U.S. and an office or a subsidiary in at least one foreign country indicating direct business operations abroad. This additional data was gathered from the firms' web sites. Focusing on country specific investments instead of indirect operations such as exporting is a reasonable measure in the software sector due to the intangible nature of the product, which can be exported in an electronic form to almost anywhere around

the world. This is also in line with the definition of Rothaermel et al. (2006), who investigated Internet firms which deal with similar types of products.

The Dependent Variable

In the data analysis, we used the number of direct business operations (representative office, branch office, or subsidiary) in each country as the dependent variable. The sample includes overall 38 target countries entered by a U.S. software SME. The highest entry rates were in the UK (85 entries), Germany (54 entries), and France (47 entries) whereas Indonesia, Bulgaria, Thailand, Tunisia, Poland, New Zealand, Denmark, and Norway had only one entry.

The Independent Variables

Cultural Distance

In this study, we use cultural distance instead of psychic distance as the first independent variable due to the fact that there are no commonly accepted methods to objectively measure psychic distance between countries. For this reason, we use Hofstede's (2001) cultural dimensions and the composite index of Kogut and Singh (1988) in line with the study of Rothaermel et al. (2006) that investigated market entry decisions of U.S. Internet firms.

The first independent variable is based on the composite index of Kogut and Singh (1988) and on Hofstede's (2001) four cultural dimensions (uncertainty avoidance, individualism, masculinity,

and power distance). We first calculated the cultural distance score from the U.S. (u) for each of Hofstede's (2001) four cultural dimensions (i). Next we calculated a composite score Cultural Distance (CD_j) for each country j as an average of the four factors, each factor normalized with the variance of the dimension i (V_i) with respect to distance to the U.S. Algebraically:

$$(1) \quad CD_j = \sum_{i=1}^{4} \frac{(I_{ij} - I_{iu})^2}{4 * V_i}$$

The three target countries within the lowest cultural distance were Australia, UK, and Canada while the three most distant target countries were Russia, Malaysia, and South-Korea.

Geographical distance

Geographical distances between the U.S. and the target country were calculated based on the countries' latitude and longitude coordinates found in The World Factbook (2006). The independent variable, Geographical Distance ($GDist_j$), was taken as the distance in thousands of kilometers from country j to the U.S. This calculation provides a neutral way to measure the distance from the U.S. to the target country since delivery of intangible software products does not follow physical routes. The three geographically closest target countries were Mexico, Canada, and Brasilia while the three most distant targets were India, New Zealand, and Thailand.

Country risk

To evaluate each target country's risk rate, we used Euromoney's total score weighting to give a risk rate for each country entered by the U.S. firms. This measure is commonly used in earlier studies (see e.g., Magri et al., 2005; Rothaermel et al., 2006) and is in a fair agreement with the Institutional Investor's country risk rating (Cosset and Roy, 1991). The three least risky target countries were Switzerland, Norway, and Denmark while the three most risky target countries were Russia, Indonesia, and Bulgaria.

Software market size

The software market size of country j was used as the fourth independent variable. The source data was mainly based on the statistics of European Information Technology Observatory (EITO) from the year 2006 (EITO, 2007). The independent variable Software Market Size was operationalized as $SWMSize_j$ = Country j's software product market size in millions of USD. For countries not listed by EITO, the software market size estimates were collected from various data sources (Botelho et al., 2006; IDC, 2006; Strategis, 2007). The three largest software markets entered by a U.S. software firm were Japan, UK, and Germany and the three smallest targets were Tunisia, Bulgaria, and Indonesia.

Gross Domestic Product figures and the values for GDP per capita were obtained from The World Factbook (2006). The independent variables Gross Domestic Product (GDP_j) and GDP per Capita ($GDPperCapita_j$) were operationalized as GDP_j = Country j's cross domestic product in billions of USD and $GDPperCapita_j$ = Country j's GDP per capita in thousands of USD. The three largest target countries in terms of GDP were China, Japan, and India while the three smallest target countries in this respect were Bulgaria, Tunisia, and the United Arab Emirates. In terms of GDP per capita the three largest target countries were the United Arab Emirates, Norway, and Ireland while the smallest target countries were India, Indonesia, and China.

RESULTS

Regression Analysis

The goal of the data analysis was to find out which combination of the independent variables best predicts the number of direct business operations. For this purpose we used stepwise creation of linear multivariable regression models. The models were evaluated based on their statistical significance, ability to explain the variance in the dependent variable (R^2 and adjusted R^2 values) and F value. Due to expected collinearity effects of the market size indicators we used the Durbin-Watson test (see Savin and White 1977), monitored drop of F value, and allowed only VIF values below 4. The statistically significant coefficients (beta) were identified and recorded to Table 1. The Model 1 in Table 1 is used as a reference point. It includes all the

independent variables and explains 63% of the target population with F = 11 and suffers somewhat from collinearity effects.

Table 1: Regression Models for Entry Count

Model	1	2	3	4	5	6	7
R^2	.694	.644	.669	.682	.648	.205	.359
Adj. R^2	.632	.633	.650	.653	.627	.182	.322
F	11.314	63.222	34.368	23.539	31.267	9.03	9.54
Significance	.000	.000	.000	.000	.000	.005	.001
Standardized coefficients							
Cultural Distance	-.161		-.165	-.198			
Geographical Distance	.117			.118	.066		
Riskless	.233					.453*	.505**
Software Market Size	.722***	.802***	.758***	.772***	.815***		
GDP	.025						.396
GDP per Capita	-.163						

*p < .05.
**p < .01.
***p < .001.
The models 1-5 including Software Market Size as a criteria reach all significance level .001. When Software Market Size is excluded (Models 6 and 7) risk prevention predicts best Entry Count.

Hypothesis Evaluation

Based on linear multivariable regression analysis (Table 1.), software market size in the target country is the best single indicator to market entry decision having statistically significant correlations in all the models and explaining alone 63% of market entry decisions in the target population (Adj. R^2) and 64% of the sample (R^2) with F = 63. The model including all independent variables explained 69% of the sample. The low rate of entries to Japan (being the world's second largest markets for software products) was compensated by cultural distance and other independent variables.

DISCUSSION

Based on empirical findings in this study, the vertical market size seems to give the best explanation to market entry decisions of the software SMEs instead of earlier widely used variables. Thus, small and medium-sized software firms tend to favor countries which provide large markets for their software products. This is in line with the empirical findings of Ojala and Tyrväinen (2007a) and the conceptual model of Bell et al. (2003) suggesting that knowledge-intensive firms tend to enter the leading markets for their products. Thus, the entry decisions of the software SMEs seem to be related to their opportunity seeking behavior. This supports the theoretical model of Oviatt and McDougall (1994) related to international new ventures. In addition, an elaborated analysis of the source data reveals that distant countries were entered only if they had large software markets. This observation gives some support to geographical and cultural proximity highlighted in earlier studies related to the internationalization of SMEs in the software sector (Bell, 1995; Coviello and Munro, 1997; Moen et al., 2004; Ojala and Tyrväinen, 2007a). Further investigation of the source data also reveal that there are five countries (Japan, Australia, Singapore, Hong Kong, and India) which deviate from this trend (Figure 1). If Japan were to be excluded from the source data, software market size alone would explain 76% of the variation in the remaining target population. In addition, exclusion of all these five countries would extend the explanation of software market size to 89% of the remaining target population. These projected deviations can be explained by using other factors. Firstly, although Japan has the world second largest software market after the U.S. the Japanese market attracted fewer entries than its market would warrant. This may be due to that Japan is a fairly distant country culturally from the U.S. and as it is commonly known, the Japanese market has been

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characterized with a low rate of foreign direct investment (Yoshitomi, 1996). Furthermore, Japan is a quite demanding country to enter for foreign software firms (Ojala and Tyrväinen, 2007b). Secondly, Australia, Singapore, Hong Kong, and India attracted substantially more entries than expected in relation to their market size. The high number of entries to the Australian market can be explained by the similarities in culture, language, and business practices. Singapore and Hong Kong my be seen as attractive countries for software firms due to their geographical location and easy access to other East and Southeast Asian markets, which are culturally more distant from the U.S. The high number of market entries to the Indian market despite its small software market size can be explained by the fact that India is a common destination for software outsourcing due to its cheap labor costs. The reasons for non-occurrence of other variables are discussed below.
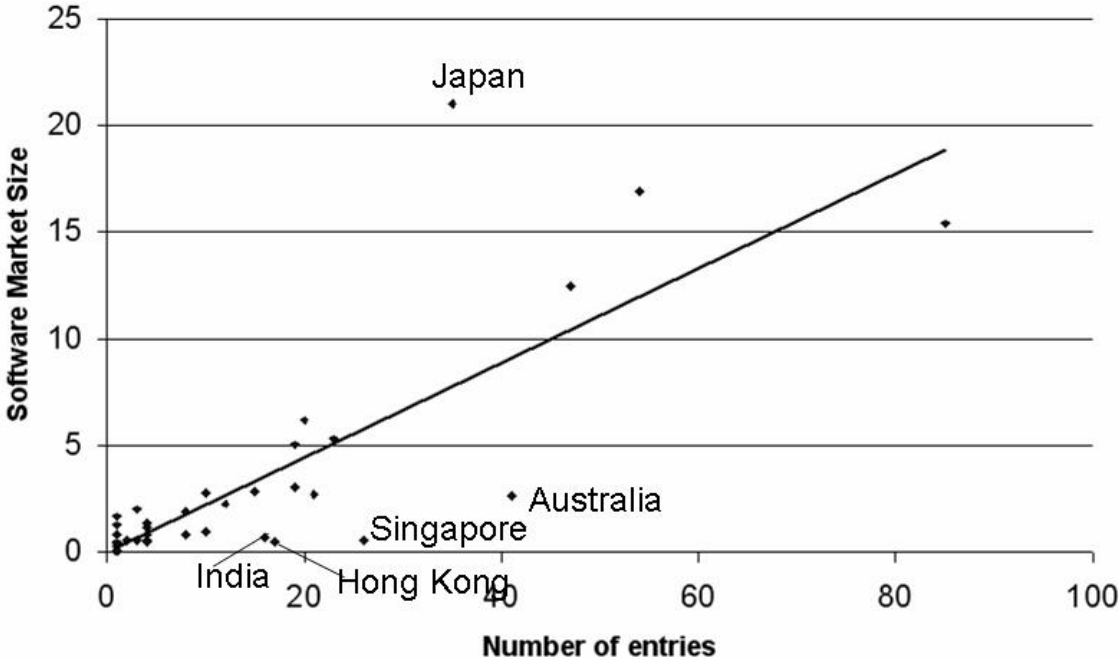
Figure 1 Software market size and number of entries

Firstly, the three culturally closest target countries Australia, the UK, and Canada were selected frequently, but the next culturally close countries New Zealand, South Africa, and Ireland attracted very few entries. In addition, countries with very high cultural differences, such as China, and Singapore, attracted many entries despite of high cultural distance. This finding is not consistent with findings of earlier case studies related to knowledge-intensive SMEs (Bell, 1995; Coviello and Munro, 1997; Moen et al., 2004). The reason for this might be that earlier case studies investigated initial market entries (first one to three entries) and evaluated psychic distance between countries instead of using statistical measurement of cultural distance. This finding is also contrary to the findings of Rothaermel et al. (2006), who investigated U.S. Internet firms. However, Internet firms usually do business with consumers (B2C) whereas software firms mostly sell their products to other firms (B2B). Thus, one may assume that, in consumer markets, cultural values play a more important role.

Secondly, the three target countries with the lowest geographical distance to the U.S. were Mexico, Canada, and Brazil. Within these countries, only Canada attracted a reasonable number of entries. The low explanation rate of geographical distance might also be due to the fact that the U.S. has a very limited number of neighboring countries and is somewhat isolated from the majority of other countries by its geographical location. This might be one reason why the results here do not support earlier findings (Bell, 1995; Moen et al., 2004; Ojala and Tyrväinen, 2007a) related to European software firms, which have a greater number of possible target countries within a short geographical distance than the U.S. has.

Thirdly, the three less risky target countries, Switzerland, Norway, and Denmark, attracted very few entries whereas these countries were followed by countries such as, France, Germany, and the UK giving some explanation power to country risk. The three most risky target countries, Russia, Bulgaria, and Indonesia, attracted only one to four entries. The study of Gregorio (2005) suggested that entrepreneurial firms may regard a risk as an opportunity, making the country risk less important. Thus, entering countries with a high risk might give competitive advantages, such as the 'first mover' advantage, against competitors. Entrepreneurial firms are also able to manage their internationalization risks by using an adequate entry mode in a target country (Shrader et al., 2000).

Fourthly, compared to vertical market size, the market size variables GDP and GDP per capita seem to be less important as indicators for country selection. Although countries with a high GDP such as Japan, Germany, and the UK were selected frequently, there were a high number of entries also into countries with a very low GDP such as Singapore and Hong Kong. In addition, China, having the largest GDP of the sample, attracted fewer entries than Singapore although Singapore's GDP is 70 times smaller than China's GDP. The target countries with the highest GDP per capita, the United Arab Emirates, Norway, and Ireland, attracted very small number of entries compared to, for instance, China and India, which both have a very low GDP per capita. Findings in earlier studies (see Rothaermel et al., 2006; Terpstra and Yu, 1988), have not been very clear about which of the market size factors (GDP or GDP per capita) indicates better the attractiveness of the target country. The results in this study imply that vertical market size gives a much better explanation to market entry decision than either GDP or GDP per capita.

Finally, an analysis of the remaining variation suggests that entry to a small, culturally distant or remote country was in some cases avoided by entering, in the same region, to another culturally closer country with a larger software market and lower risk level. This kind of 'hub strategy' enables setting up a direct business operation, to a country in a region, that can be used to export and localize products to nearby countries with a smaller market size and a higher cultural distance and risk.

CONCLUSIONS

This study investigates foreign market entries of U.S. software SMEs. Findings in this study indicate that large size of the software market in a target country is the most significant determinant for market entry decision, giving a less important role to other indicators suggested in earlier studies. Software market size alone explains more than 63% of the variation in the market entries. This gives support to the findings of Ojala and Tyrväinen (2007a) and the conceptual model of Bell et al. (2003) suggesting that knowledge-intensive firms tend to internationalize their operations early on to the leading markets in the field. Furthermore, their internationalization behavior seems to be opportunity seeking (Oviatt and McDougall, 1994), keeping in mind that these markets offer the greatest sales opportunities for the products of these firms. Cultural distance and tendency to choose one market entry for each region can explain some of the remaining variance complementing software market size. Out of the other indicators, only small country risk was a statistically significant indicator when software market size was not used.

Statistical findings in this study complement earlier studies investigating internationalization of knowledge-intensive SMEs. These earlier studies have mainly focused on network relationships, and on the knowledge or resource-based view (see e.g., Bell, 1995; Coviello, 2006; Coviello and Cox, 2006; Coviello and Munro, 1997; Prashantham, 2005). Integrating findings in this study with earlier studies, we can propose that successful knowledge-intensive SMEs develop their network relationships and focus their resources in order to enable them to enter the leading markets for their products. Although the initial market entries might be related to networks available and be targeted to geographically and/or psychically nearby markets (Coviello, 2006; Coviello and Munro, 1997; Moen et al., 2004; Zain and Ng, 2006), the findings here imply that subsequent market entries seem to follow the firms' strategic decisions to enter the leading markets. This might be due to the opportunity seeking behavior of knowledge-intensive firms (Oviatt and McDougall, 1994) as they actively develop new network relationships (Loane and Bell, 2006) to realize opportunities in the leading markets. From the viewpoint of the network model of internationalization (Johanson and Mattsson, 1988), this indicates that network development changes from passive to active network development. From a managerial point of view, this implies that managers should take an active role when they develop their network relationships and focus their resources to enable market entry to the leading markets. If a firm takes a passive role in networking, it might lose market opportunities available in the leading markets and end up in countries where the real market potential is low.

Limitations and Further Study

In this study, we focused only on macro-level factors which do not give the actual reasons for firms' entry decisions. However, integrating the findings of this study with earlier case studies and surveys we can propose that firms focus on leading markets for their products when they select their target countries. We may also assume that correctly managed resources and network relationships enable firms to enter these markets. The sample of this study consisted of U.S. software firms with 500 employees or less. This also can be seen as a limitation because earlier studies (Bell, 1995; Coviello and Munro, 1997; Moen et al., 2004; Ojala and Tyrväinen, 2007a; Zain and Ng, 2006) have mainly focused on much smaller software firms. Nevertheless, unlike in earlier studies which mainly focused to first market entries, the purpose of this study was to find out an indicator which would best explain market entry decisions. Focusing only on initial market entries in this study could skew the results, because initial market entries are commonly influenced by knowledge limitations, resources, and network relationships available (see e.g., Bell, 1995; Coviello, 2006; Coviello and Munro, 1997; Jones and Coviello, 2005).

In addition, further research would benefit from cluster analyzes (see e.g., Porter, 1998), in which market entry decisions might be divided into those related to innovation potential (access to industry clusters) and those with lower input costs (access to low cost countries). In other words, we would like to know how many of the knowledge-intensive SMEs' entry decisions are related to industry clusters which enable access to relevant knowledge, greater innovation potential, and higher growth (Gilbert, in press; Porter, 1998; Tallman et al., 2004), and how many of those entry decisions are related to access to low cost countries. As suggested in the

study of Porter (1998, 87), entry decisions should be based on "…total systems costs and innovation potential, not on input costs alone".

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