IMPACT OF OWNERSHIP LEVEL ON SUBSIDIARY SURVIVAL IN FOREIGN ACQUISITIONS

Abstract:

Foreign acquisitions play a significant role in international business. However, the failure rate of foreign acquisitions is surprisingly high. Thus, there is a great interest towards analyzing performance and survival of foreign acquisitions. In this study we analyze the general effect of acquirers' ownership level on foreign acquisitions' survival. Furthermore, we attempt to address potential moderating effects. The hypotheses were tested using 1345 Finnish acquisitions established in 59 countries during the period of 1980-2005. The results indicate in general ownership level of acquiring firms increases the probability of survival of foreign acquisitions. We further found that the impact of ownership level of acquiring firms is contingent on three variables: acquiring firms' international experience, cultural distance and host country development (that is, OECD vs. non-OECD countries). Along the theoretical contribution, this study provides important managerial implications.

Keywords: Foreign direct investments, foreign acquisitions, subsidiary survival, ownership level, Finnish acquisitions.

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1. INTRODUCTION

Foreign direct investments (FDIs) have been an important characteristic of globalization in the past decades (Tsang & Yip, 2007). Multinational enterprises (MNEs) are increasingly investing in foreign markets. Foreign acquisition has been an important entry mode for MNEs to establish a quick presence in their foreign markets (King et al., 2004). The value of foreign acquisitions increased from $78 billion in 1987 to $1045 billion in 2007. Although the amount of foreign acquisitions plummeted to $285 billion in 2009 due to global financial and economic crisis, the value of foreign acquisitions started to grow again in 2010 and reached to $349 billion in 2013. It has been reported that MNEs based in some European countries have undertaken significant divestments of their foreign subsidiaries (UNCTAD, 2014). Also, earlier studies have found that subsidiary survival is positively correlated with financial performance of foreign affiliates (Shaver, 1994; Geringer & Hebert, 1991; Vermeulen & Barkema, 2001). Thus, subsidiary survival has been of keen interests for both academicians and practitioners.

A crucial strategic decision of FDIs is foreign subsidiary's ownership level (Zhao et al., 2004; Brouthers & Hennart, 2007; Gaur & Lu, 2007). Ownership level is an important managerial decision, since it is associated with the level of control a firm can exercise over its foreign subsidiaries, the amount of resources a firm must commit to foreign markets and the degree of risk a firm must bear in host countries (Anderson & Gatignon, 1986; Hill et al., 1990). Furthermore, earlier studies have found that ownership level is significantly related with survival and financial performance of foreign subsidiaries. However, the exiting findings have been

mixed (e.g., Mata & Portugal, 2000; Chung & Beamish, 2005; Papyrina, 2007; Gaur & Lu, 2007). Furthermore, our literature review reveals that most of exiting subsidiary survival studies has included both greenfields and acquisitions into their empirical analysis. Survival of foreign acquisitions has not been particularly analyzed. It is expected that the lack of studies in foreign acquisitions may explains the mixed findings in current survival literature.

The overall goal of this study is to analyze the relationship between acquirers' ownership level and subsidiary survival in foreign acquisitions. In more detail, this study addresses: 1) the impact of acquirers' ownership level on survival of foreign acquisitions at the general level and 2) the moderating effects of four variables: acquirers' international and target country experience, cultural distance between home and host country and host country development (that is, OECD vs. non-OECD countries). Thus, this study is an attempt to show that the impact of ownership level on subsidiary survival in foreign acquisitions is contingent upon the levels of experience of acquiring firms and locations of acquired firms.

This study contributes to the FDI and in particular foreign acquisition literature in several ways. First, this study contributes to exiting literature by analyzing the impact of ownership level on subsidiary survival in foreign acquisitions. Second, existing studies have not sufficiently analyzed potential moderating effects. This paper addresses moderating effects of acquiring firms' experience and locations of acquired firms. It is expected that the moderating effects may help to explain mixed findings in current survival literature. Last but not the least, a majority of existing studies has focused their analysis on survival of Japanese (e.g., Delios & Beamish, 2001; Delios & Makino, 2003; Chung & Beamish, 2005; Ma & Delios, 2007; Papyrina, 2007) or Korean foreign subsidiaries (e.g., Park et al., 2011; Song, 2014a, 2014b, 2014c, 2015; Zeng et al., 2014). However, firms originating in Small and Open Economies (SMOPECs) have received

very limited attention in existing subsidiary survival literature (Vermeulen & Barkema, 2001; Nadolska & Barkema, 2007).

The structure of this study is as follows. This paper starts with theoretical discussions leading to study's hypotheses development (chapter 2). Then, this paper presents methodology and data collection followed by a discussion of major study findings (chapter 3 and 4). The current paper concludes with discussions concerning study limitations as well as managerial guidelines (chapter 5).

2. THEORY AND HYPOTHESES

2.1. Subsidiary survival

Subsidiary survival has received increasing interests in both the IB and strategic management literature. However, the conceptualization of subsidiary survival in existing literature has been inconsistent. Earlier studies included both wholly-owned subsidiaries and joint ventures have mainly considered foreign units that are closed down in the target country as non-surviving subsidiaries. This conceptualization of subsidiary survival was adopted in most of the earlier studies (e.g., Mata & Portugal, 2000, Gaur & Lu, 2007, Papyrina, 2007, Demirbag et al., 2011; Song, 2014a, 2014b, 2014c, 2015). However, the conceptualization of subsidiary survival is ambiguous for survival studies focusing on joint ventures.

It has been referred that IB as a research field is multidisciplinary in nature, where multiple theoretical foundations are applicable (Meyer & Peng, 2005; Brouthers & Hennart, 2007; Slangen & Hennart, 2007; Meyer et al., 2009). Existing literature have mainly applied transaction cost economics (TCE), resource-based (RBV) and institutional-based view (IBV) to

theoretically analyze subsidiary survival (Demirbag et al., 2011). TCE argues that firms opt for a particular governance structure which would minimize the total transaction and production costs (Williamson, 1975; 1985). Since TCE has been frequently used to analyze governance structure (Zhao et al., 2004; Brouthers & Hennart, 2007), TCE-based IB studies have linked various market entry modes with subsidiary survival (e.g., Pan & Chi, 1999; Mata & Portugal, 2000; Dhanaraj & Beamish, 2004; Gaur & Lu, 2007; Song, 2014a). RBV argues that the performance of MNEs' subsidiaries is attributable to firm specific resources and capabilities. Valuable, rare, imperfectly inimitable and non-substitutable firm level resources provide MNEs some types of sustainable competitive advantage which increases performance or survival of their foreign affiliates (Barney, 1991, 2001).

In recent years, drawing on both economic (North, 1990; Williamson, 2000) and sociological perspectives of institutions (DiMaggio & Powell, 1983; Scott, 1995), IB scholars have started to apply IBV (Peng, 2002; Peng et al., 2009) to investigate the effects of institutional variables on survival of MNEs' subsidiaries (Gaur & Lu, 2007; Dhanaraj & Beamish, 2009; Demirbag et al., 2011). IBV-based studies argue that firm strategy and performance are not only driven by firm specific resources and capabilities (Barney, 1991) and industry specific conditions (Porter, 1980), they are also shaped by institutional environment of the host country (Peng, 2003; Peng et al., 2009).

Subsidiary survival has received increasing attention in both the IB and strategic management literature. Existing literature has commonly considered subsidiaries that are completely withdrawn from the host country as non-surviving subsidiaries (e.g., Dhanaraj & Beamish, 2009; Demirbag et al., 2011). With regard to country of origin of parent firms, existing studies have mainly analyzed subsidiary survival of Japanese firms in the globe (e.g., Delios & Beamish,

2001; Delios & Makino, 2003; Chung & Beamish, 2005; Demirbag et al., 2011; Dai et al., 2013). Furthermore, subsidiary survival of Korean firms has also been considerably studied (Park et al., 2011; Song, 2014a, 2014b, 2014c, 2015; Zeng et al., 2014). There is a great variance with regard to the percentage of survived subsidiaries in the reviewed studies, ranging from less than 50% to more than 90%. In general, the literature review shows that the survival rate of Japanese and Korean subsidiaries is clearly larger than that of European MNEs' subsidiaries.

There are three lines of research in exiting subsidiary survival literature. The first line of studies has analyzed the impacts of firm specific variables on subsidiary survival. The firm characteristics included in the analysis are R&D/advertising intensity (Delios & Makino, 2003), levels of experience (Delios & Beamish, 2001; Gaur & Lu, 2007; Nadolska & Barkema, 2007; Zeng et al., 2013), product and geographic diversification (Delios et al., 2008), timing of entry (Pan & Chi, 1999; Delios & Makino, 2003; Papyrina, 2007) and subsidiary density (Silverman et al., 1997; Demirbag et al., 2011; Park et al., 2011).

The second stream of research has focused their analysis on location specific variables such as cultural distance (Peng & Beamish, 2014), institutional distance (Gaur & Lu, 2007), geographical distance (Peng & Beamish, 2014), economic distance (Tsang & Yip, 2007; Demirbag et al., 2011) and economic freedom distance (Demirbag et al., 2011), political and social openness (Dhanaraj & Beamish, 2009), market potential (Song, 2014a, 2014b, 2015), labour costs (2014c) and host country development level (Garg & Delios, 2007).

The third stream of research has linked foreign entry mode strategies including establishment (Mata & Portugal, 2000) and ownership mode strategy with subsidiary survival (Dhanaraj & Beamish, 2004; Chung & Beamish, 2005; Papyrina, 2007; Gaur & Lu, 2007; Song, 2014a). This

line of research has shown that foreign entry mode choice is an important determinant of subsidiary survival. However, the findings about the impacts of foreign entry modes on subsidiary survival have been mixed. Some studies found that higher levels of ownership are positively associated with subsidiary survival (Papyrina, 2007; Tsang & Yip, 2007; Kim et al., 2010), whereas others found non-significant or even negative impact (Pan & Chi, 1999; Mata & Portugal, 2000).

2.2. The general effect of acquirers' ownership level

There are opposing views about the impacts of ownership level on subsidiary performance or survival. Ownership level is an important managerial decision, since it determines the level of control a firm can excise over its foreign subsidiaries. Higher levels of ownership provides acquiring firms with greater levels of operational and management control (Anderson & Gatignon, 1986; Hill et al., 1990). Greater levels of ownership enable acquiring firms to appoint their own people in the key managerial positions. Furthermore, ownership level has also implications to the amount of resources a firm must commit to the foreign subsidiary. Greater level of ownership implies that a larger amount of resources is committed by acquiring firms (Anderson & Gatignon, 1986; Hill et al., 1990). Thus, it is expected that higher levels of ownership level increases the probability of foreign subsidiaries to survive.

On the other hand, several academicians have argued that since local firms are able to effectively manage idiosyncrasies of environment in the host country, lower levels of ownership are particularly useful for Western acquiring firms entering to foreign markets where the social and business cultures are different from their home country. Thus, it can be said that shared

ownership level increases the probability of subsidiaries to survive. Theoretical arguments associated with the impacts of ownership level on subsidiary survival seem to be ambiguous.

Existing empirical studies have found mixed results about the impact of ownership level on subsidiary survival. Pan and Chi (1999) and Mata and Portugal (2000) found that WOS are more likely to be divested than are JVs, whereas Song (2014c) found that ownership level is not a significant determinant of subsidiary survival and Papyrina (2007), Tsang and Yip (2007), Kim et al. (2010) and Song (2014b) even found that the probability of survival for higher levels of ownership than it is for lower levels of ownership. Furthermore, Song (2014a) found that full acquisitions increase the probability of subsidiaries to survive than partial acquisitions. Following both theoretical arguments and earlier empirical findings, we expect that:

Hypothesis 1: There is a positive relationship between acquiring firms' level of ownership acquired and survival of the unit in foreign acquisitions.

2.3. The moderating effect of international experience

International experience is one of the core concepts in Uppsala Model (Johanson & Vahlne, 1977). Both TCE-based and RBV-based studies have referred that international experience is an important determinant of FDI strategy (Anderson & Gatignon, 1986; Erramilli, 1991; Hennart, 1991; Larimo, 2003, Clarke et al., 2013). MNEs with no or limited international experience usually lack the general skills and knowledge in setting up and managing subsidiaries in a foreign market (Dow & Larimo, 2009; Li & Meyer, 2009). This knowledge is primarily developed through foreign presence, and therefore, it is embedded in the incumbent firms (Johanson & Vahlne, 1977; Slangen & Hennart, 2007). Furthermore, TCE-based studies have emphasized the important role of international experience in lowering internal uncertainty

(Anderson & Gatignon, 1986; Zhao et al., 2004; Brouthers & Hennart, 2007). Thus, existing literature has argued that firms with higher levels of international experience prefer to opt for higher levels of ownership in their foreign subsidiaries. Thus, we expect that:

Hypothesis 2a: The positive relationship between acquirers' level of ownership and survival of foreign acquisitions is stronger if the level of international experience is higher.

Hypothesis 2b: The positive relationship between acquirers' level of ownership and survival of foreign acquisitions is weaker if the level of international experience is lower.

2.4. The moderating effect of host country experience

Both TCE-based and RBV-based studies have considered host country experience as an important determinant of ownership level of parent firms. Firms with no or limited experience of operating in a particular target country usually possess limited knowledge of the local business environment and practices (Hennart, 1991; Hennart & Park, 1993; Hennart, 2009). Established firms have accumulated such knowledge through their presence in the local market over a long period of time. Knowledge of host country is therefore embedded in the local firms and is costly to duplicate internally or purchase externally (Chen, 2005; Hennart, 2009). One would therefore expect that in order for accessing local market knowledge, investing firms with limited host country experience are inclined to form and operate their subsidiaries jointly with local partners. On the other hand, firms with more experience in the target country have gradually accumulated local knowledge and therefore are less dependent on local partner, and hence, they are less likely to share the ownership of subsidiary with local partners. Zeng et al. (2013) found that the interaction effect of JVs and host culture experience on subsidiary survival was non-significant. We expect that:

Hypothesis 3a: The positive relationship between acquirers' level of ownership and survival of foreign acquisitions is stronger if the level of host country experience is higher.

Hypothesis 3b: The positive relationship between acquirers' level of ownership and subsidiary survival is weaker if the level of host country experience is lower.

2.5. The moderating effect of cultural distance

Cultural distance has been defined in the IB studies as the differences in national cultural characteristics between home and host country (Kogut & Singh, 1988; Hennart & Larimo, 1998). It has been found that cultural distance between the country of acquiring firms and that of acquired firms is an important determinant of foreign acquisitions performance (Slangen, 2006). Cultural distance increases the unfamiliarity and costs associated with doing business in the target country. Thus, it can be expected that cultural distance is positively related with exit of foreign acquisitions. Earlier empirical studies found that the impact of cultural distance on subsidiary survival is significantly negative (e.g., Barkema et al., 1997; Zeng et al., 2013).

The unfamiliarity and costs associated with doing business in foreign countries can be exacerbated if parent firms own higher levels of ownership. Higher levels of ownership are positively associated with the higher degrees of control acquiring firms can exercise over their acquired units (Andersson & Gatignon, 1986; Hill et al., 1990). However, it has also been referred that MENs are able to alleviate the costs and risks associated with operating in cultural dissimilar countries with the help of local partners. Slangen (2006) found that the interaction effect of national cultural distance and level of integration on acquisition performance was significantly negative. Nevertheless, we expect that:

Hypothesis 4a: The positive relationship between acquirers' level of ownership and survival of foreign acquisitions is stronger if the cultural distance to the target country is shorter.

Hypothesis 4b: The positive relationship between acquirers' level of ownership and survival of foreign acquisitions is weaker if the cultural distance to the target country is larger.

2.6. The moderating effect of host country development

Host country development is an important determinant of foreign subsidiary survival (Tsang & Yip, 2007; Demirbag et al., 2011). Existing studies have analyzed the impact of host country development on subsidiary survival from the resource exploitation and exploration theoretical framework. Tsang and Yip (2007) argued that MNEs exploit existing resources in less developed countries and explore new resources in more developed countries. The host country development of OECD countries is clearly higher than non-OECD countries. The distance between Finland and OECD countries is shorter than it is for non-OECD countries. The factor costs associated with wages and rents are generally lowers in less-developed countries (Tsang & Yip, 2007). Thus, it can be expected that the MNEs operating in less developed countries are more likely to survive. Thus, it can be expected that:

Hypothesis 5a: The positive relationship between acquirers' level of ownership and survival of foreign acquisitions is stronger if the host country development is lower.

Hypothesis 5b: The positive relationship between acquirers' level of ownership and survival of foreign acquisitions is weaker if the host country development is higher.

The developed hypotheses are summarized in a research model (figure 1).

Insert Figure 1 here

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3. DATA SOURCE, SAMPLE AND OPERATIONALIZATION OF VARIABLES

3.1. Data source and sample

The developed hypotheses will be tested on a sample of FDIs made by Finnish manufacturing firms around the globe during the period of 1980–2005. Finnish firms are chosen because both small home market and large international markets have fueled them to internationalize to global markets (Laanti et al., 2009). The main source of the data for the empirical analysis is an internal databank, focusing on FDIs made by Finnish firms collected over a period of several years. This internal databank is an extensive databank for Finnish FDIs and the data were mainly gathered from annual reports and press releases of the investing firms, but also complemented with the information obtained from external databases (that is, Thomson One and Orbis databases, IMD competitiveness Reports, Euromoney country risk), local business magazines and from direct contacts with several of the investing firms.

The internal databank consists of information related to 2712 FDIs made by Finnish firms around the globe during the period of 1930-2014. Out of the total FDIs, 2123 FDIs were made during the observation period of 1980-2005. Finnish firms made 1345 acquisitions, whereas 778 FDIs were greenfields. It can be said that there was a clear preference for Finnish MNEs to choose acquisitions as opposed to greenfields to enter foreign markets. The sample included in the analysis is 1345 foreign acquisitions in 59 countries (see appendix). Out of the total acquisitions,

nearly 50 percent of the identified foreign acquisitions were sold out or closed down until 2014. This percentage of non-surviving subsidiaries is similar to the study by Vermeulen and Barkema (2001) focusing on investments made by Dutch firms, but it is clearly larger than several studies analyzing survival of Japanese (Kim et al., 2010; Dai et al., 2013) and Korean subsidiaries (Song, 2014a, 2014b, 2014c, 2015). The possible explanation is that MNEs originating in Asian countries such as Japan and Korea score higher on long-term orientation cultural dimension compared to European countries (Hofstede, 1980). The average length of the operation was 12 years.

The mean of the ownership level of acquiring firms at the entry and at the time of divestments were 81% and 87%, respectively. Thus, it seems that Finnish acquirers have increased ownership level in their acquired units. Furthermore, the average international experience of Finnish acquirers was 27 FDIs at the time of entry. With regard to host country experience, on average Finnish MNEs operated 2 years in the home country of acquired firms at the time of entry. The average annual sales of the acquiring firms was some Euro 2,214 million prior to the investment year. Of the total acquisitions, 433 were in low-tech branches, 285 in medium-low-tech branches, 507 in medium-high-tech branches and 120 in high-tech branches. Furthermore, 672 acquisitions were made in related fields, whereas 673 investments were made in unrelated fields. Half of the acquisitions were made during the period of 1980-1992 and the rest of the investments were made during the period of 1993-2005.

This study applies Cox proportional hazard model (Cox & Oakes, 1984) to examine the impacts of explanatory variables on survival of foreign acquisitions. This statistical analysis method was used in most of the earlier survival studies (Nadolska & Barkema, 2007; Dhanaraj & Beamish, 2009; Demirbag et al., 2011; Song, 2015). Cox proportional hazard analysis is chosen because it

is a reliable and effective way of analyzing the impacts of country, industry, foreign parent and subsidiary level factors on subsidiary survival (Dhanaraj & Beamish, 2009; Demirbag et al., 2011). The model is expressed as follows:

$$h_i(t) = h_o(t)\exp(\beta_1 x_{i1} + \beta_2 x_{i2} + \cdots + \beta_k x_{ik}),$$

where $h_i(t)$ is the dependent variable denoting hazard rate of subsidiary *i* exiting from the host country at time *t*. $h_o(t)$ is the baseline hazard function. x_{i1}, x_{i2} and x_{ik} are independent variables. β_1, β_2 and β_k are coefficients which will be estimated. The positive and significant coefficient indicates that an increase in independent or control variable as well as the interaction terms is associated with an increased probability of non-surviving foreign acquisitions.

3.2. Operationalization of variables

The dependent variable in the current study is survival of foreign acquisitions, where surviving foreign acquisitions are coded as 1 and non-surviving units are coded as 0. In this study, foreign acquisitions that are either divested or closed down are considered as non-surviving acquisitions. It should be noted that subsidiary survival is correlated with subsidiary performance (Geringer & Hebert, 1991; Vermeulen & Barkema, 2001). Thus, since accounting data are not available for subsidiaries, it is appropriate to study subsidiary survival. This operationalization of subsidiary survival was used in most of the earlier studies (e.g., Nadolska & Barkema, 2007; Dhanaraj & Beamish, 2009). The independent variable in the current study is acquiring firms' ownership level in foreign acquisitions at the time of exits or closure. It was measured by a continuous variable, ranging from 5% to 100%. It should be noted that earlier survival studies have mainly included ownership level at the entry into their empirical analysis (e.g., Mata & Portugal, 2000; Gaur & Lu, 2007).

This study analyzes four moderating variables. We measured international experience by the number of foreign manufacturing investments preceding the observed acquisition (Clark et al., 2013). Host country experience was measured by the number of years since the first manufacturing investment of the acquiring firm in the target country (Delios & Beamish, 2001). Cultural distance was operationalized using the methodology developed by Kogut and Singh (1988) based on Hofstede (1980)'s six cultural dimensions: power distance, individualism, masculinity, uncertainty avoidance, long-term orientation and indulgence (Delios et al., 2008; Demirbag et al., 2011). It is worth noting that earlier studies using the same methodology have mainly taken into account four out of six Hofstede (1980)'s cultural dimensions (Slangen, 2006; Peng & Beamish, 2014). We measured host country development with a dummy variable, which takes the value 1 if the acquired firms are located in OECD countries and 0 if they are headquartered in non-OECD countries (Garg & Delios, 2007).

Furthermore, we added several control variables that are likely to influence survival of foreign acquisitions. Technological intensity was measured by a classification of various four-digit Standard Industrial Codes (SIC) industries into four categories based on their value added figures (Hennart & Park, 1993; Larimo, 2003; Dikova & Witteloostuijn, 2007). We also measured the degree of product diversification by the number of four-digit SIC codes in which the acquiring company was operating based on the annual reports and websites of the firms (Vermeulen & Barkema, 2001; Delios et al., 2008). Furthermore, we controlled for ease of doing business in the host country. The main source of data for ease of doing business was IMD World Competitiveness Reports. It consists of three dimensions: the number of days and procedures needed to start-up a business as well as the costs associated with laying off a redundant employee.

We also added change in host country risk as a control variable. The host country risk was measured using the scores on Euromoney country risk (ECR). ECR scores are scaled from 0 to 100 with 100 means no risk at all and 0 means maximum risk. Furthermore, we controlled for relatedness of the investments, where 1 stands for unrelated investments and 0 for related investments. Firm size was proxied by worldwide annual sales of the company (in million euros) in the year preceding the investment (Song, 2014a, 2014b, 2014c, 2015). We also controlled for economic growth in the host country, which was measured by GDP growth.

4. RESULTS

Before running cox proportional hazard analysis, a correlation analysis (table 1) was conducted to diagnose any multicollinearity between various variables. It has been argued that the bivariate correlation of 0.70 indicates a higher probability of multicollinearity (Pallant, 2007). As can be seen from table 1, the correlations between different variables are all below the cut-off point of 0.70. Following Wetherill (1986) and Allison (1999), additional multicollinearity diagnostic (variance inflation factor (VIF)) was also conducted. The VIF values for control, independent and interaction terms used in the cox regression analysis were all below the cut-off point of 2.50. Thus, multicollinearity is not likely to be a major concern in this study. The results for subsidiary survival are displayed in table 2. While model 1 includes control variables into analysis, model 2 analyzes the impacts of both independent and control variables on subsidiary survival. Model 3 to 6 in table 2 presents the results associated with the four interaction terms. The explanatory powers of all regression models are good, as the chi-square (x^2) values are good and highly significant at $p \leq 0.01$ level.

Insert table 1 here

The results show that several control variables exert significant influences on survival of foreign acquisitions. Degree of product diversification is negatively and significantly associated with subsidiary survival ($p \leq 0.01$). The impact of ease of doing business on survival of foreign acquisitions is negatively significant ($p \leq 0.01$). Consistent with our expectation, the impact of unrelated investment on survival of foreign acquisitions is negative and significant ($p \leq 0.05$). The coefficient associated with host country economic growth is negative and mildly significant ($p \leq 0.10$). Furthermore, less risky host countries are positively associated with survival of foreign acquisitions ($p \leq 0.01$). The other control variables including technological intensity, ownership restrictions and firm size are not significantly associated with survival of foreign acquisitions.

Insert table 2 here

Our findings depict that the parent's ownership level in foreign acquisitions increases the probability of survival of the unit acquired ($p \leq 0.01$), which is consistent with our expectation. Thus, hypothesis 1 is supported. Furthermore, the interaction effect of acquirers' ownership level and international experience on non-surviving subsidiaries is positive and highly significant ($p \leq 0.01$). Thus, both hypothesis 2a and 2b are not supported. Furthermore, the results show that the impact of joint effect of acquirers' ownership level and host country experience on subsidiary survival is not significant, thus, hypothesis 3a and 3b are not supported. Our results further indicate that the positive relationship between acquirers' ownership level on survival of foreign acquisitions is weaker if the cultural distance is large ($p \leq 0.01$). Hypothesis 4a and 4b are

therefore supported. Furthermore, the interaction of acquirers' ownership level and OECD countries is negatively associated with survival of foreign acquisitions ($p \leq 0.01$). Thus, hypothesis 5a and 5b are supported.

Since our sample consists of multiple target countries, we also performed additional analysis to compare five different sub-samples: Germany and USA, Nordic countries, BRICS, OECD countries and non-OECD countries (table 3). The positive impact of ownership level on survival of foreign acquisitions was consistent across different sub-samples. However, there is a great variance concerning the impacts of variables on subsidiary survival in different sub-samples.

Insert table 3 here

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5. CONCLUSIONS AND DISCUSSION

Acquiring firms face a critical decision concerning the ownership level of their subsidiaries when entering foreign markets (Chen, 2008). Ownership level of MNEs has received considerable scholarly attention in both the IB and strategic management studies (Zhao et al., 2004; Brouthers and Hennart, 2007). However, the impact of ownership level on subsidiary survival has received limited attention and the results have been mixed. In this study, we attempted to address: 1) the impact of acquirers' ownership level on survival of foreign acquisitions at the general level and 2) the moderating effects of four variables: acquirers' international and target country experience, cultural distance and host country development (that is OECD vs. non-OECD countries). The developed hypotheses were tested on a sample of 1345 acquisitions made by Finnish MNEs in 59 countries during the period of 1980–2005.

In this study, we found that in general Finnish acquirers' ownership level increased the probability of their foreign acquisitions to survive. This finding is similar with the study by Pan and Chi (1999) and Mata and Portugal (20 00), but is inconsistent with studies focusing on investments made by Japanese (Papyrina, 2007) and Korean (Song, 2014b) MNEs. Furthermore, we found that the general effect of ownership level of acquiring firms is contextual, depending on the levels of experience of acquiring firms and location of acquired firms. In more detail, we found that the relationship of ownership level and survival of acquired units was stronger in the presence of lower levels of international experience. Furthermore, we found that the positive impact of ownership level on survival of foreign acquisitions became weaker if the cultural distance between the home country of acquiring firms and that of the acquired firms is larger. We further found that the interaction effect of ownership level and OECD countries on survival of foreign acquisitions is significantly negative. The possible explanation is that the factor costs are lower in non-OECD countries (Tsang & Yip, 2007). Also, MENs are more likely to exploit their resources in less-developed countries (Tsang & Yip, 2007; Demirbag et al., 2011).

There are a number of contributions. First, this study contributes to existing literature by analyzing the survival of foreign acquisitions. Most of earlier survival studies have included both greenfields and acquisitions into their empirical analysis. Second, this study contributes to existing theory by analyzing the potential moderating effects. The traditional theoretical argument is that higher levels of ownership level are related with an increased probability of foreign subsidiaries to survive (Gaur & Lu, 2007). However, we found that the general impact of the ownership level is contingent on three variables: acquirers' international experience, cultural distance and host country development (OECD vs. non-OECD countries). Last, this study contributes to current survival literature by analyzing survival of Finnish MNEs. Earlier studies

have mainly analyzed Japanese or Korean MNEs (Papyrina, 2007; Song, 2014a, 2014b, 2014c, 2015).

It is important to note several limitations of the study and future research avenues. First, this study focuses on analyzing the impact of ownership level on survival of foreign acquisitions. Future studies are encouraged to analyze how the impact of ownership level on subsidiary survival is moderated by different establishment modes (that is, greenfields and acquisitions). Second, the empirical part of this study analyzed the survival of Finnish foreign acquisitions. Future studies may include firms originating in other Nordic countries and SMOPECs. Finally, the empirical analysis included a sample of manufacturing industries. Earlier FDI studies pointed out that FDI behavior of service firms are significantly different from manufacturing firms (Brouthers & Brouthers, 2003). Thus, it is of great interests to include service firms into analysis in the future studies.

REFERENCES

Anderson, E. and Gatignon, H. (1986). Modes of foreign entry: A transaction cost analysis and propositions, *Journal of International Business Studies*, 17(3), 1–26.

Barney, J. (1991). Firm resources and sustained competitive advantage, *Journal of Management*, 17(1), 99–120.

Barney, J. (2001). Is the resource-based “view” a useful perspective for strategic management research? Yes, *Academy of Management Review*, 26(1), 41–56.

Brouthers, K.D. and Brouthers, L.E. (2003). Why service and manufacturing entry mode choices differ: the influence of transaction cost factors, risk and trust, *Journal of Management Studies*, 40(5), 1179–1204.

Brouthers, K.D. and Hennart, J.F. (2007). Boundaries of the firm: insights from international entry mode research, *Journal of Management*, 33(3), 395–425.

Chen, S.F.S. (2008). The motives for international acquisitions: capability procurements, strategic considerations, and the role of ownership structure, *Journal of International Business Studies*, 39(3), 454–471.

Chung, C.C. and Beamish, P.W. (2005). The impact of institutional reforms on characteristics and survival of foreign subsidiaries in emerging economies, *Journal of International Management*, 42(1), 35–62.

Dai, L., Eden, L. and Beamish, P.W. (2013). Place, space, and geographical exposure: foreign subsidiary survival in conflict zones, *Journal of International Business Studies*, 44(6); 554–578.

Delios, A. and Beamish, P.W. (2001). Survival and profitability: the roles of experience and intangible assets in foreign subsidiary performance, *Academy of Management Journal*, 44(5), 1028–1036.

Delios, A. and Makino, S. (2003). Timing of entry and the foreign subsidiary performance of Japanese firms, *Journal of International Marketing*, 11(3), 83–105.

Delios, A., Xu, D. and Beamish, P.W. (2008). Within-country product diversification and foreign subsidiary performance, *Journal of International Business Studies*, 39(4), 706–724.

Demirbag, M., Apaydin, M. and Tatoglu, E. (2011). Survival of Japanese subsidiaries in the Middle East and North Africa, *Journal of World Business*, 46(4), 411–425.

Dhanaraj, C. & Beamish, P.W. (2009). Institutional environment and subsidiary survival, *Management International Review*, 49(3), 291–312.

Dikova, D and Witteloostuijn, A.V. (2007). Foreign direct investment mode choice: entry and establishment modes in transition economies, *Journal of International Business Studies*, 38(6), 1013–1033.

Erramilli, M.K. (1991). The experience factor in foreign market entry behavior of service firms, *Journal of International Business Studies*, 22(3), 479–501.

Garg, M. and Delios, A. (2007). Survival of the foreign subsidiaries of TMNCs: the influence of business group affiliation, *Journal of International Management*, 13(3), 278–295.

Gaur, A.S. and Lu, W. (2007). Ownership strategies and survival of foreign subsidiaries: Impacts of institutional distance and experience, *Journal of Management*, 33(1), 84–110.

Hill, C.L., Hwang, P. and Kim, W.C. (1990). An eclectic theory of the choice of international entry mode, *Strategic Management Journal*, 11(2), 117–128.

Jakobsen, K. (2008). Foreign market entry in transition economies: Entry timing and mode choice. PhD Series 18, Copenhagen Business School, Copenhagen.

Jakobsen, K. and Meyer, K.E. (2008). "*Partial acquisition: The overlooked entry mode*". In Dunning, J. and P. Gugler (Eds.), Foreign Direct Investment, Location and Competitiveness: 203–226. Amsterdam: Pergamon Press.

Johanson, J and Vanlne, J.E. (1977). The internationalization process of the firm. A model of knowledge development and increasing foreign market commitment, *Journal of International Business Studies*, 8(1), 23–32.

Kim, T.Y., Delios, A. and Xu, D. (2010). Organizational geography, experiential learning and subsidiary exit: Japanese foreign expansions in China, 1979-2001, *Journal of Economic Geography*, 10(4), 579–597.

Kogut, B. and Singh, H. (1988). The effect of national culture on the choice of entry mode, *Journal of International Business Studies*, 19(3), 412–432.

Li, J.T. (1995). Foreign entry and survival, the effects of strategic choices on performance in international markets, *Strategic Management Journal*, 16(5), 333–351.

Ma, X. and Deliso, A. (2007). A new tale of two cities: Japanese FDIs in Shanghai and Beijing, 1979-2003, *International Business Review*, 16(2), 207–228.

Mata, J. and Portugal, P. (2000). Closure and divestiture by foreign entrants: the impact of entry and post-entry strategies, *Strategic Management Journal*, 21(5), 549–562.

Meyer, K.E. and Peng, M.W. (2005). Probing theoretically into Central and Eastern Europe: Transactions, resources, and institutions, *Journal of International Business Studies*, 36(6), 600–621.

Meyer, K.E., Estrin, S., Bhaumik, S.K. and Peng, M.W. (2009). Institutions, resources, and entry strategies in emerging economies, *Strategic Management Journal*, 30(1), 61–80.

Nadolska, A. and Barkema, H.G. (2007). Learning to internationalise: the pace and success of foreign acquisitions, *Journal of International Business*, 38(7), 1170–1186.

North, D.C. (1990). *Institutions, Institutional Change and Economic Performance*, Cambridge: Cambridge University Press.

Pallant, J. (2007). *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS for Windows*. Buckingham: Open University Press.

Park, Y.R., Lee, J.Y. and Hong, S. (2011). Effects of international entry-order strategies on foreign subsidiary exit: the case of Korean Chaebols, *Management Decision*, 49(9), 1471–1488.

Papyrina, V. (2007). When, how, and with what success? The joint effect of entry timing and entry mode on survival of Japanese subsidiaries in China, *Journal of International Marketing*, 15(3), 73–95.

Peng, M.W. (2002). Towards an institution-based view of business strategy, *Asia Pacific Journal of Management*, 19(2-3), 251–267.

Peng, M.W. (2003). Institutional transitions and strategic choices, *Academy of Management Review*, 28(2), 275–296.

Peng, M.W., Sun, S.L., Pinkham, B. and Chen, H. (2009). The institution-based view as a third leg for a strategy tripod, *Academy of Management Perspectives*, 23(3), 63–81.

Peng, M.W. and Beamish, P.W. (2014). The effect of host country long-term orientation on subsidiary ownership and survival, *Asia Pacific Journal of Management*, 31(2), 423–453.

Silverman, B.S., Nickerson, J.A. and Freeman, J. (1997). Profitability, transactional alighment, and organizational mortality in the U.S. trucking industry, *Strategic Management Journal*, 18(summer special issue), 31–52.

Slangen, A.H.L. and Hennart, J.F. (2007). Greenfield or acquisition entry: a review of the empirical foreign establishment mode literature, *Journal of International Management*, 13(4), 403–429.

Song, S. (2014a). Entry mode irreversibility, host market uncertainty, and foreign subsidiaries exist, *Asia Pacific Journal of Management*, 31(2), 455–471.

Song, S. (2014b). Unfavorable market conditions, institutional and financial development, and exit of foreign subsidiaries, *Journal of International Management*, 20(3), 279–289.

Song, S. (2014c). Subsidiary divestment: the role of multinational flexibility, *Management International Review*, 54(1), 47–70.

Song, S. (2015). Exchange rate challenges, flexible intra-firm adjustments and subsidiary longevity, *Journal of World Business*, 50(1), 36–45.

Tsang, E.W.K. and Yip, P.S.L. (2007). Economic distance and survival of foreign direct investments, *Academy of Management Journal*, 50(5), 1156–1168.

Vermeulen, F. and Barkema, H. (2001). Learning through acquisitions, *Academy of Management Journal*, 44(3), 457–476.

Williamson, O.E. (1975), *Markets and Hierarchies: Analysis and Antitrust Implications*: *A Study in the Economies of Internal Organization*, New York: The Free Press.

Williamson, O.E. (1985). *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting*, New York: The Free Press; London: Collier Mac-millan Publishers, cop.

Zeng, Y., Shenkar, O, Lee, S.H. and Song, S. (2013). Cultural differences, MNE learning abilities, and the effect of experience on subsidiary mortality in a dissimilar culture: evidence from Korean MNEs, *Journal of International Business Studies*, 44(1), 42–65.

Zhao, H.X., Luo, Y.D. and Suh, T. (2004). Transaction cost determinants and ownership-based entry mode choice: a meta-analytical review, *Journal of International Business Studies*, 35(6), 524–544.

Figures and tables

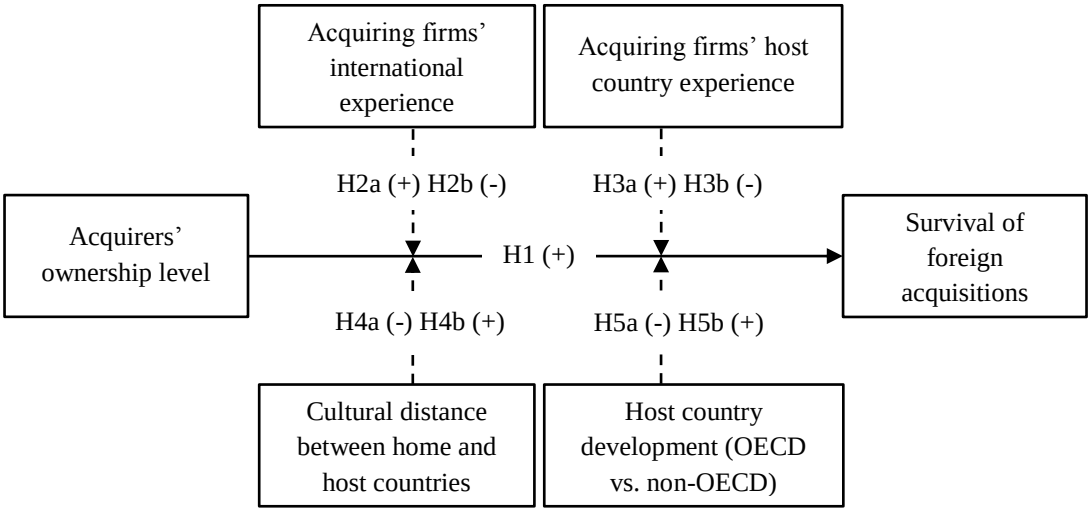

Figure 1. Research model (dotted lines = potential moderating effects)

Table 1. Correlation table

Variables	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	0.50	0.50	1.00													
2	87.39	23.67	-0.13**	1.00												
3	27.13	27.46	-0.18**	0.04	1.00											
4	1.89	2.53	0.03	0.06*	0.22**	1.00										
5	1.14	0.65	-0.04	-0.11**	0.13**	-0.04	1.00									
6	0.85	0.36	0.05	0.16**	-0.05	0.08**	-0.57**	1.00								
7	2213.88	3103.07	-0.06*	-0.01	0.56**	0.17**	0.04	-0.01	1.00							
8	2.23	1.00	-0.03	0.06*	0.02	0.02	-0.00	0.13**	-0.07*	1.00						
9	11.60	7.09	0.16**	-0.03	0.47**	0.25**	-0.06*	0.12*	0.34*	0.05	1.00					
10	0.07	0.26	0.10**	0.01	-0.12**	-0.06	-0.07**	0.09**	-0.08**	0.10**	0.00	1.00				
11	6.42	1.40	0.07*	0.13*	-0.12**	0.06*	-0.48**	0.26**	-0.03	0.11**	0.03	0.10**	1.00			
12	8.54	1.08	0.05	0.11**	-0.08**	-0.01	-0.58**	0.55**	-0.02	0.05	0.08**	0.06*	0.45**	1.00		
13	-2.62	10.192	0.32**	-0.15**	-0.10**	-0.08**	0.12**	-0.41**	-0.07**	-0.17**	-0.01	0.02	-0.19**	-0.21**	1.00	
14	0.08	3.88	0.06*	-0.11**	-0.10**	-0.03	0.10**	-0.28**	-0.07*	-0.14**	-0.06*	-0.03	-0.09**	-0.09**	0.38**	1.00

Variables: 1 = Non-surviving subsidiaries; 2 = Acquiring firms' ownership level; 3 = Acquiring firms' international experience; 4 = Acquiring firms' host country experience; 5 = Cultural distance; 6 = OECD vs. non-OECD countries; 7 = Acquiring firms' size; 8 = Technological intensity; 9 = The degree of product diversification of acquiring firm; 10 = Unrelated acquisitions; 11 = Ease of doing business; 12 = Ownership restrictions; 13 = Change in country risk; 14 = Change in the economic growth of the target country.

Table 2. Results of survival of Finnish foreign acquisitions (Cox Proportional Hazard Model: non-surviving acquisitions=1)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Technological intensity	0.01	0.01	0.01	0.01	-0.01	0.01
Degree of product diversification	0.03***	0.04***	0.03***	0.04***	0.04***	0.04***
Ease of doing business	0.10***	0.13***	0.14***	0.13***	0.15***	0.11***
Ownership restrictions	0.07	0.02	0.02	0.01	0.01	0.05
Unrelated investments	0.42***	0.28**	0.27**	0.28**	0.27**	0.30**
Host country economic growth	-0.03***	-0.02*	-0.02*	-0.02**	-0.02*	-0.03***
Host country risk	0.05***	0.06***	0.06***	0.06***	0.06***	0.05***
Firm size	0.01*	0.01	0.00	0.01	0.01	0.01
International experience		-0.01***		-0.01***	-0.01***	-0.01***
Target country experience		0.02	0.02		0.02	0.02
Cultural distance		0.30***	0.30***	0.30***		0.21**
Host country development (OECD vs. non-OECD countries)		1.05***	1.05***	1.05***	1.10***	
Ownership level		-0.01***	-0.01**	-0.01***	-0.01***	-0.01***
Ownership level × international exp.			0.01***			
Ownership level × target country exp.				0.01		
Ownership level × cultural distance					0.01***	
Ownership level × OECD countries						0.01***
-2 Log Likelihood	8754.31	8653.32	8655.09	8653.47	8645.99	8668.51
Chi-square (x^2)	187.87***	266.583***	263.25***	266.08***	272.80***	256.00***
Degree of freedom	8	13	13	13	13	13
No. of acquisitions (non-surviving acquisitions)	1475 (673)	1475 (673)	1475 (673)	1475 (673)	1475 (673)	1475 (673)

Level of significance: *** p<0.01, ** p<0.05, * p<0.10

Table 3. Additional analysis of survival of Finnish foreign acquisitions (Cox Proportional Hazard Model: non-surviving acquisitions=1)

Variables	Germany and USA	Nordic (Sweden, Norway and Denmark)	BRICS countries	OECD countries	Non-OECD countries
Technological intensity	0.17**	-0.06	0.39	0.01	-0.03
Degree of product diversification	-0.02	0.01	-0.10	0.02***	0.04**
Ease of doing business	0.15*	-0.72	-0.24	0.23***	-0.04
Ownership restrictions	0.17	-0.72***	0.21	0.07	0.12
Unrelated investments	0.32	0.04		0.21	1.86***
Host country economic growth	0.06*	-0.12***	0.10**	-0.02	0.04**
Host country risk	0.13***	0.09***	-0.09***	0.08***	-0.03***
Firm size	0.01	0.01	0.01	0.01**	0.01
International experience	0.01	0.01	-0.01	-0.01***	-0.01
Target country experience	-0.06*	0.02	0.20**	0.01	0.08*
Cultural distance	-0.97*	2.92	0.13	0.41***	0.16
GDP per capita	0.01	0.01***	0.01	0.41**	0.01
Ownership level	-0.01***	-0.01**	-0.02*	-0.01***	-0.01**
-2 Log Likelihood	1540.26	2093.99	141.17	7269.23	753.78
Chi-square (x^2)	233.71***	82.84***	34.93***	390.245***	40.02***
Degree of freedom	12	13	12	13	13
No. of acquisitions (non-surviving acquisitions)	338 (161)	359 (202)	69 (22)	1139 (583)	206 (90)

Level of significance: *** p<0.01, ** p<0.05, * p<0.10

Appendix. Host country of Finnish acquisitions (1980-2005)

Host country	Number of Finnish acquisitions	Host country	Number of Finnish acquisitions
Argentina	3	Luxembourg	1
Australia	5	Malaysia	7
Austria	15	Malta	2
Barbados	1	Mexico	11
Belgium	19	Morocco	1
Brazil	9	Netherlands	50
Canada	43	New Zealand	2
Chile	4	Norway	36
China	19	Poland	30
Colombia	1	Portugal	6
Czech	5	Romania	2
Denmark	56	Russia	30
Ecuador	1	Singapore	5
Egypt	1	Slovakia	1
Estonia	43	Slovenia	1
France	65	South Africa	7
Germany	127	South Korea	3
Greece	3	Spain	21
Haiti	1	St. Vincent & the Grenadines	1
Hong Kong	5	Sweden	267
Hungary	15	Switzerland	18
India	4	Taiwan	2
Indonesia	2	Thailand	5
Ireland	8	Trinidad & Tobago	1
Italy	46	Turkey	4
Japan	5	UK	89
Kazakhstan	1	Ukraine	5
Latvia	7	USA	211
Lebanon	1	Venezuela	2
Lithuania	9	**Total**	**1345**