

Determinants of FDI Survival: The Case of Korean Manufacturing Firms

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ABSTRACT

This study examines the determinants of FDI survival of Korean manufacturing firms. To identify the factors affecting FDI survival, transaction cost theory was employed in order to analyze the relationships of both the market transaction cost and organizational management cost with the survival length of affiliates. Results show that the factors derived from transaction cost theory have the effect of shortening the life of a joint venture compared to wholly-owned affiliates, and if the FDI is undertaken through acquisition, the more diversified the parent, the more likely it is for the investment to be terminated. Cultural distance, political risk, and exit barrier are found to have partial effects as well. Among control variables, market growth rate, company size, and exchange rates are shown to affect the survival of FDI.

1. Introduction

Studies on Foreign Direct Investment (FDI) have been researched concerning motives, determinants, entry mode and timing. However, this left little room for the process and termination of FDI although they are important in their own right. Of the process and termination of FDI, the performance of FDI in particular has largely been neglected despite its significance. In the 1990s global competition has become fiercer, leading to increased exits from foreign markets. Consequently, there is much interest in FDI survival, but studies in this field have been extremely limited.

Recent studies use the withdrawal and survival of FDI as one measurement of its performance (Hennart, Barkema, Bell, Benito, Larimo, Pedersen and Zeng, 1999; Hennart, Kim & Zeng, 1998). Nonetheless, the mortality rate of FDI is still hardly researched. The necessity now arises for FDI performance to be adequately assessed and to provide the basis for developing the direction and strategies of FDI – this is why the survival receives particular attention in this study. Hence, in this study the factors affecting FDI survival will be analyzed so that companies will have the foundation on which they can devise strategies for better FDI performance in the future.

Previous studies had focused on the determinants of FDI withdrawal at the time of its exit (Boddewyn, 1979) or the significance and characteristics of exits (Davidson & McFetridge, 1984; Chopra, Boddewyn & Torneden, 1978). But withdrawals are not the result of one decision at a particular time; rather, they are the result of a dynamic decision making process that occurs as a consequence of the changes in the environment and a company's internal factors after undertaking FDI. Lately, these dynamic factors are being taken into consideration in examining the survival of affiliates, which is a broader concept than withdrawals of FDI at a

given time (Hennart, Barkema, Bell, Benito, Larimo, Pedersen and Zeng, 1999; Hennart, Kim & Zeng, 1998).

However, such studies are limited to examining direct investment and divestment of companies of one national origin, or investment in one country by companies from two regions. These researches account for a company's equity share and its withdrawal method and set up elaborate models by differentiating a withdrawal into failure and a strategic exit. Unfortunately, the scope of data used in these studies is too limited for the model to be generalized, and the factors affecting the life of an affiliate are too static. Furthermore, there is the crucial weakness of being without a theoretical framework – hypotheses are drawn based on previous studies. Thus, in order to generalize previous models, the factors affecting affiliates' survival need to be analyzed within the context of dynamic changes. Moreover the data must be more comprehensive, and a theoretical approach needs to be developed. Therefore this study attempts to generalize the survival model of Korean companies' FDI by employing the transaction cost theory.

2. Determinants of FDI Survival

This study aims to develop a theory regarding the survival of FDI by employing the transaction cost theory. The selection of a governance structure is determined by the difference between the amount of market transaction cost from imperfect market and the amount of management cost¹ arising within the hierarchy. In other words, the difference between market transaction cost and management cost leads to the consideration of an exit. The amount of market transaction cost will lead to the decision whether to continue dealing in the market or internalize the transaction through FDI. If the amount of transaction cost exceeds management cost, the company will undertake FDI. If management costs related to the host country's environment, parent's performance, management strategy, industrial environment like competition, and the affiliate's internal management, surpass transaction cost, the affiliate will be withdrawn. In other words, internalization through FDI and withdrawal can be understood as the governance structure against the market and hierarchy as stated in the transaction cost theory. Hence a company's decision on withdrawal depends on market transaction cost as well as management cost.

2.1 Relationship Between Transaction Cost and Survival

Proprietary knowledge can be protected by such low-level control as licensing. Nevertheless, companies want stronger control, fearing loss arising from risks in transferring the knowledge, risks in valuation, and opportunism by transaction partners (Calvit, 1981). In case where the knowledge is embedded in the organization, market transaction becomes all the more difficult because the transfer itself will be challenging (Hennart, 1990; Kogut and Zander, 1993). Hence a company with proprietary knowledge will demand stronger control due to market transaction cost. Therefore, a company with proprietary knowledge will maintain the continuity of an affiliate to keep strong control over such knowledge.

Hypothesis 1: The more knowledge a company has, the more its foreign affiliate is likely to survive.

A company with highly specialized products has the inherent advantage of reputation (Hennart and Park,

¹ Management cost in this study is used as the concept of internal organization cost (Hennart, 1990), and is different from market transaction cost. Management cost refers to all costs arising from the increasing size of a company as it proceeds with internalization.

1994; Hennart, 1988). Should the company license such reputation to a foreign company for the production and sales of its products with low level of control, it might suffer serious loss due to opportunistic behavior by local companies. Due to such concerns, the company tries to retain the reputation through internalization. It will also seek to strengthen its control in order to minimize the risk of opportunism by local companies trying to take a free ride on its reputation or offering similar products of lower quality. This indicates that a company with reputation will try to maintain strong control. Therefore, the more reputation a company has, the more likely it is for the affiliate to survive.

Hypothesis 2: The more reputation a company has, the more its foreign affiliate is likely to survive.

For the companies entering the industries with high entry barriers, these entry barriers can also be perceived as exit barriers. When a company enters a certain industry, it needs to make as much investment as necessary to eliminate entry barriers, and asserted that such high initial investment would work as an exit barrier when the company decides to pull out. Exit barriers include long-term investment in factories and facilities, advertising expenditure, firm-specific human resources, and R&D expenditure. These exit barriers bear costs when a company decides to withdraw, and assets generated by industry-specific investment will delay the withdrawal as they have low marketability due to high specificity. Hence, when exit barriers are high, they bear high exit costs, which will delay withdrawal and sometimes even become sunk cost and lead to bigger burdens. Therefore, the higher the exit barriers, the more likely it is for the affiliate to survive.

Hypothesis 3: The higher the industry's exit barriers, the more a foreign affiliate is likely to survive.

2.2 Relationship Between Management Cost and Survival

Previous studies already showed that joint ventures have high failure rates (Khanna, 1998; Larsson, Bengtsson, Herrickson and Sparks, 1998; Hamel, 1991; Blodgett, 1991; Kogut, 1989; Gomes-Casseres, 1987; Reich and Mankin, 1986; Killing, 1983), and this is explained by conflicts between partners regarding management of the venture and the expropriation of one partner's assets by the other. Hence joint ventures are easily disbanded and withdrawn due to the management costs of shared control. The increasing management cost leads to higher likelihood of the dissolution of the joint venture.

Hypothesis 4: A wholly-owned affiliate has a higher survival rate than a joint venture.

Managing an affiliate overseas is known to be more challenging than at home due to the "liability of foreignness" (Dunning and Rugman, 1985; Caves, 1971; Hymer, 1960). Furthermore, if the affiliate deals in different products from the parent, there are even more management problems (Pennings, Barkema and Douma, 1994). This stems from the disadvantage of needing different information to manage each business operation or affiliate. As a consequence, it will lead to the increase in management cost within the hierarchy. Therefore, an affiliate producing different products from its parent will have a lower chance of survival.

Hypothesis 5: An affiliate producing different products from its parent has lower survival rate.

When a company is entering a foreign market, the entry mode of acquisition leads to a lower chance of longevity than greenfield (Hennart, Kim & Zeng, 1998). When acquiring an already existing firm, its human resources and facilities must be acquired together. In such case, the acquired company's culture and operation methods are brought into the new affiliate. Much resource, effort, and experience are required to bridge the cultural gap between the old and new companies. In contrast, affiliates created through greenfield will require

relatively little cost since it will bring in new people and create a new corporate culture. In addition, affiliates created through acquisition is less likely to receive support from its parent than greenfield (Wilson, 1980). Therefore, a foreign affiliate created through acquisition will be less likely to survive than that created through greenfield.

Hypothesis 6: An affiliate created through acquisition is less likely to survive than greenfield.

Unlike at home, businesses overseas are more prone to be exposed to changes that are beyond the company's control, putting numerous constraints on implementing the company's strategies (Hennart, Kim & Zeng, 1998). The possibility of such changes arises from political risks, and these changes have a significant impact on the affiliate's management cost and performance. Therefore, if the host country's political risks increase since the time of entry, the company might withdraw its affiliate due to rising management costs and switch to market transaction such as licensing.

Hypothesis 7: The higher political risks in host country, the lower the chance for an affiliate to survive.

Generally the bigger the cultural difference, the more uncertain the investing company feels about its host country. Furthermore, the wider the cultural gap, the harder it is to coordinate the values between the parent and the affiliate, and the more likely it is to make management problems (Hennart, Barkema, Bell, Benito, Larimo, Pedersen and Zeng, 1999). There is also the likelihood of conflicts arising between the local staff and the management. As for external factors, there are customer tastes, customs, and purchase patterns that are different from those found at home. In addition to this the possibility of the company's management style being in conflict with local customs, and there is a significant chance of the affiliate creating frictions with the local consumers and other members of society. Problems triggered by cultural differences can be resolved somewhat by granting more authority to the local manager, but they cannot be completely eliminated (Hennart, Barkema, Bell, Benito, Larimo, Pedersen and Zeng, 1999). Therefore, the bigger the cultural distance, the less likely it is for an affiliate to survive.

Hypothesis 8: The bigger the cultural distance, the lower the chance for an affiliate to survive.

The less international experience a company has, the more uncertain it will be of overseas ventures. It will also be at a disadvantage to local firms in terms of knowledge and experience in the local market. The company and its management will also be short in international business know-how as this comes from experience as well (Barkema, Bell and Pennings, 1996). A company with overseas experience will be able to effectively control its foreign affiliate and have the know-how to reduce management costs arising from the affiliate. In reverse, a company without such experience will harbor bigger uncertainty about overseas businesses, make more management mistakes, and lack the necessary know-how. These difficulties will lead to increased management cost of the affiliate. Therefore, the affiliate is less likely to survive.

Hypothesis 9: The more international experience a company has, the more its affiliate is likely to survive.

2.3 Control Variables

Market Growth Rate: The higher the market growth rate, the lower the possibility of bankruptcy or sell-off. The reason is that the market's high growth rate also raises all companies' profitability, or "a rising tide lifts all boats" (Hennart, Kim & Zeng, 1998). When a parent concludes that the market where the affiliate entered has high growth rate and that it presents abundant business opportunities, it will not have the reason to terminate its

affiliate (Hennart, Barkema, Bell, Benito, Larimo, Pedersen and Zeng, 1999; Hennart, Kim & Zeng, 1998).

Market Size: The size of the market presents opportunities. Hence, the larger the market, the more the company wishes to maintain strong control. Therefore, the larger the market, the likelier it is for the affiliate to survive.

Parent's Size: There are conflicting views regarding the relationship between the size of the parent and the withdrawal of the affiliate. First, there is the assertion that the larger the parent, the easier it is for the company to decide to terminate an affiliate when faced with poor performance (Benito, 1997a). This is attributable to the fact that larger companies tend to have formal management style and formal criteria for evaluating affiliates. Another explanation is that one affiliate is less significant to larger companies than to small ones. In contrast, there is the view that the larger the company, the more patient it is with poorly performing affiliates. Larger companies are less constrained by resources and thus have the room to be patient and provide more support, and also, they have more complicated organizational structures and are slower to respond (Pennings, Barkema and Douma, 1994). Empirical tests revealed that the larger the parent, the less likely it is for the affiliate to survive (Hennart, Barkema, Bell, Benito, Larimo, Pedersen and Zeng, 1999; Hennart, Kim & Zeng, 1998; Li, 1995).

Exchange Rate: Exchange rates affect the timing of a company's entry into and exit from a foreign market (Blonigen, 1997; Rangan, 1997; Kogut and Chang, 1996). This is attributable to the fact that prices of the products sold in foreign markets will change dramatically according to fluctuations in exchange rates (Rangan, 1997). Previous studies disclosed that for multinational companies, local production and export are competing solutions to changes in exchange rates (Rangan, 1997). When the home country's currency value falls, its products will have price competitiveness, and export becomes the alternative to FDI. Therefore, it will be less likely for its affiliate to survive (Hennart, Barkema, Bell, Benito, Larimo, Pedersen and Zeng, 1999).

Financial Problems: The parent's financial problems can be considered as a factor affecting the decision for FDI withdrawal. In particular, when the parent has low regards for its foreign affiliate's current financial performance or future performance, it is likely to consider its dissolution.

3. Data and Methodology

3.1 Data

The population of this study included 2090 cases of Korean companies entering foreign markets as of Dec. 31, 1991. By 1997, 819 foreign affiliates had withdrawn, and among them 469 became the sample of the study. The sample consists of 128 withdrawals out of 469, showing a 27.3% termination rate. The number of entry through acquisition is 54(11.5%), and entry through joint venture is 282(60.1%). The age of foreign affiliates varied widely, from 1 year to 25 years, and as of Dec. 31, 1997, 90.2% are aged 10 years or lower. This demonstrates that foreign affiliates of Korean companies have lower ages² than those shown in studies in western countries (Hennart, Barkema, Bell, Benito, Larimo, Pedersen and Zeng, 1999; Hennart, Kim & Zeng, 1998).

The exit rate by age shown in the sample was similar to that of the population, showing high rate of termination until age 7. Those with age 10 or higher have noticeably lower rate of withdrawal. This illustrates that the tenth year of the implementation of FDI is an important turning point for its survival.

² In the study by Hennart, Kim & Zeng(1998), affiliates with 10-15 years of age recorded the highest exit rate, and there was also a significant number of those with over 50 years of age.

3.2 Methodology

Cox's proportional hazards model is used for analysis in recent studies on survival to eliminate some of the problems mentioned above (Hennart, Barkema, Bell, Benito, Larimo, Pedersen and Zeng, 1999; Hennart, Kim & Zeng, 1998; Kogut, 1989). The Cox regression analysis is based on the presumption that survival rate is not associated with specific distributions; its main advantage is that it can adjust the interactions between different independent variables that are expected to affect survival. The methodology used to measure longevity in this study is Cox's Proportional Hazard Regression (Cox, 1972). This method is best suited for survival analysis³ (Kotz and Johnson, 1981). It is also a model that accounts for the possible impact of numerous factors on the time interval between two events – thus, it will sufficiently account for the withdrawal possibility of those samples that have yet to do so. Cox's Proportional Hazard Regression is regarded as a model that can adjust the interactions between different independent variable (predictable factors) that are expected to affect survival.

3.3 Variables

This data is derived from Korea's Annual Statistical Report on Foreign Investment. Affiliates that disappear from the Report are regarded as withdrawn, and those remaining in the Report as of the end of 1998 are used as samples in this study. Other necessary variables will be obtained from another, different set of data.

Dependent variables are survival length and withdrawal possibility of foreign affiliates. Survival length is calculated by the equation of [withdrawal year – entry year], and the length of those samples yet to withdraw as of 1998 will be calculated by [1998 – entry year]. Withdrawal possibility is obtained by the rate of cases of withdrawal in the sample by each year after entry into the foreign market.

A company's knowledge is obtained by dividing the R&D intensity (RNDINT) in the year before withdrawal by industry average. R&D intensity is derived by dividing each company's R&D expenditure by sales and multiplying by 100. The R&D intensity and industry average in the year before withdrawal or 1998 are used. A company's reputation is calculated by the relative size of its advertising intensity (ADVINT) within the industry. ADVINT is obtained through the advertising expenditure in each company's financial statement. ADVINT is derived by dividing each company's advertising cost by sales and multiplying it by 100. The result of dividing by industry average is used. Data for exit barrier (BAREXIT) is obtained through the amount of facility investment in each industry as stated in the financial statement.

The joint venture status is measured by the equity share – if the share is 95% or higher, it is a wholly owned affiliate, and if it is 5% - 95%, it is a joint venture. Dummy variables are used; 1 for joint venture, 0 for wholly owned affiliate. The degree of product diversification (DIV) measures whether the products produced by the parent and the affiliate are the same. A dummy variable of 1 is used for same products, 0 for different. In acquisition versus greenfield (ACQ), a dummy variable of 1 is used for acquisition and 0 for greenfield.

Political risks (POLRISK) are obtained from *EUROMONEY*, which announces the political risk of each

³ Survival analysis is a statistical method that analyzes the data on time until the occurrence of the event (usually refers to the demise) that is of interest to the researcher. One of its distinctions is that it includes uncertain, or censored data on whether the event will occur.

nation every March and September. Data from the political risk index⁴ announced by *EUROMONEY* in the year before withdrawal has been obtained and revised. A dummy variable of 1 is for political risks higher than Korea, and 0 is for lower.

Cultural distance (CD) is obtained from Kogut and Singh's cultural distance index⁵ (Kogut and Singh, 1988) which quantified the four cultural dimensions identified by Hofstede (1980). International business experience (EXP) is obtained by using the log value of the result of subtracting the year of the company's first ever entry into the foreign market from the entry year of the affiliate. This indicates that the impact of the parent's international experience on the survival of the affiliate decreases.

The growth rate of each country's GDP in the year before withdrawal year or 1997 is used as market growth rate (GROWTH). GDP of host country in the year before withdrawal or 1998 is used as market size (GDP). Company size (SIZE) is obtained by the parent's annual sales in the year before the withdrawal year.

Exchange rate (EXCHANG) is obtained by the percentage rate of change in the foreign exchange rate in the withdrawal year from the previous year. Financial problems (FINPRBL) is the percentage rate of change in the parent's cash flow in the year before withdrawal from the previous year. It is summarized in Table 2:

4. Results

This section deals with the results of analyzing the hypotheses by Cox's Proportional Hazard Model and discuss their implications. Before conducting Cox's Proportional Hazard Analysis on FDI longevity, the interrelation between independent variables is examined. The purpose of this is to verify whether there exists a multicollinearity between these variables. Political risks (POLRISK) show relatively high interrelation with cultural distance (CD), market size (GDP), and market growth rate (GROWTH) (.793, .765, -.659), and CD shows high association with GDP and GROWTH (.720, -.644). However, country-level variances such as economic indicators (GDP) and political risks are generally highly related to each other; therefore, there is no problem of multicollinearity here. As for cultural distance, a big cultural distance from Korea means the country is an advanced nation, but these may not necessarily be country-level variables. But the interrelations of some of the results need to be fully considered when explaining the result of the study. In this study, therefore, political risks and cultural distance, which show close relations with other variables, are adjusted in the model to statistically analyze the problem of multicollinearity. The result of this analysis (see Table 1) reveals little change to the explanation of the overall model even when taking the impact of these variables into account.

⁴ With the highest score of 25, the higher the score, the more stable a country is politically.

⁵ There are many cases of entry into the markets of Guam, Bangladesh, and Sri Lanka in this study. But Hofstede's four cultural dimensions are limited to only a few countries – hence, the U.S. index is used here for Guam, and India's index is used for Bangladesh and Sri Lanka.

Table 1. Parameter Estimate for Cox's Proportional Hazard Regression

(+: Shorter Life)

Independent Variables	Predict	Coefficients(t-values)			
		Model 1	Model 2	Model 3	Model 4
RNDINT	-	-6.39E-04 (1.289)	-6.25E-04 (1.287)	-6.24E-04 (1.249)	-6.16E-04 (1.260)
ADVINT	-	.0010 (2.672) ***	9.892E-04 (2.611) ***	.0010 (2.618) ***	9.670E-04 (2.541) **
BAREXIT	-	-4.13E-06 (1.032)	-5.55E-06 (1.372)	-4.20E-06 (1.054)	-5.46E-06 (1.357)
JV	+	.6259 (3.112) ***	.6138 (3.078) ***	.6244 (3.105) ***	.6118 (3.067) ***
DIV	+	.4270 (2.141) **	4.882 (2.486) **	.4490 (2.271) **	.4952 (2.528) **
ACQ	+	.4176 (1.776) *	.4652 (2.015) **	.4218 (1.807) *	.4644 (2.017) **
POLRISK	-	-.6664 (1.925) *	-	-.5821 (1.714) *	-
CD	+	.1466 (1.076)	.0746 (0.585)	-	-
EXP	-	-.2465 (0.343)	-.2148 (0.300)	-.2670 (0.372)	-.2289 (0.320)
GROWTH	-	-.0913 (2.288) **	-.0683 (1.807) *	-.1103 (3.014) ***	-.0796 (2.449) **
GDP	-	-6.87E-05 (1.294)	-1.19E-04 (0.267)	-4.97E-05 (0.981)	-1.05E-04 (2.768) ***
SIZE	+	-3.73E-08 (2.068) **	-4.10E-08 (2.227) **	-3.89E-08 (2.157) **	-4.18E-08 (2.274) **
EXCHANG	-	-.0180 (4.000) ***	-.0164 (3.814) ***	-.0185 (4.205) ***	-.0168 (4.000) ***
FINPRBL	+	1.742E-05 (0.659)	1.790E-05 (0.670)	1.840E-05 (0.688)	1.844E-05 (0.687)
Model Chi-Square		73.745	65.838	70.459	65.089
p-value		.0000	.0000	.0000	.0000
Total Number of Samples		469	469	469	469
Number of Withdrawals		128	128	128	128

***: p<0.01, **: p<0.05, *: p<0.1

4.1 Analysis on Transaction Cost Factors

Companies' proprietary knowledge (RNDINT) is found to have no meaningful impact on its affiliate's survival. Hypothesis 1 is rejected. Previous studies on FDI by Korean firms also concluded that Korean businesses' proprietary knowledge had little impact on their FDI, attributing this to the lack of clearly superior technology to be transferred to the host country (Park 1998). Similarly, it can be inferred that propriety knowledge has little notable impact on foreign affiliates of Korean firms due to the lack of apparent technological superiority by the parents.

The parent's reputation is proved to have statistically significant impact on foreign affiliates' mortality rate

in all models, but the result is in direct contrast to that predicted in hypothesis 2. Such unexpected result might stem from problems with the advertising intensity used in this study to gauge a company's reputation. Unlike foreign companies, firms in Korea have reverse relationship between their size and the level of advertising, indicating the higher the level, the smaller the firm. Nevertheless, since reputation can be affected by not only the company's advertising but also by the absolute size of advertising cost and the company's size, different measurements need to be developed. Hence hypothesis 2 is rejected.

Exit barriers (BAREXIT) as pointed out in hypothesis 3 are turned out to be insignificant. With fiercer competition among corporations, increasing number of companies fall behind and exit the market. Still, exit barriers do not pose much of a problem to affiliates' withdrawal because corporate sell-off has become easier with the more and more companies carrying out M&As. Hence hypothesis 3 is rejected.

4.2 Analysis on Management Cost Factors

Previous studies concluded that joint venture status, degree of diversification, and entry mode have critical impact on the survival of a foreign affiliate (Hennart, Barkema, Bell, Benito, Larimo, Pedersen and Zeng, 1999; Hennart, Kim & Zeng, 1998; Li, 1995). In this part, the impact of management cost on the survival of FDI by Korean companies will be discussed based on the above-mentioned factors.

In previous studies, joint ventures were found to be highly unstable and easily disbanded (Hennart, Barkema, Bell, Benito, Larimo, Pedersen and Zeng, 1999; Hennart, Kim & Zeng, 1998; Kannah, 1998; Larsson, Bengtsson, Herrickson and Sparks, 1998; Li, 1995; Blodgett, 1991; Hamel, 1991; Kogut, 1989; Gomes-Casseres, 1987; Reich and Mankin, 1986; Killing, 1983). The model in this study also finds the factors to have significant impact. ANOVA is performed to conduct simple comparison of the longevity of joint ventures and wholly-owned affiliates, and it revealed significant differences both in the population and the sample (see Table 5). This can be taken to support the conclusion by previous studies that joint ventures are more unstable than wholly-owned affiliates (Hennart, Barkema, Bell, Benito, Larimo, Pedersen and Zeng, 1999; Hennart, Kim & Zeng, 1998; Kannah, 1998; Larsson, Bengtsson, Herrickson and Sparks, 1998; Li, 1995). Therefore, hypothesis 4 is supported.

The commonality of the affiliate's products with those of its parent is also found to be significant. Hypothesis 5 is supported. The affiliate producing products that the parent has experience in producing is more likely to survive than otherwise. Affiliates created through acquisition is, as predicted in Hypothesis 6, found to be less likely to survive than greenfields. Therefore, hypothesis 6 is supported. This is also found to be significant in all models using different samples, suggesting that it has an actual effect on the survival of an affiliate.

Political risks are revealed to have meaningful impact on foreign affiliates' survival as well. This supports the hypothesis that those affiliates in politically unstable countries are less likely to survive. Hypothesis 7 is supported. Cultural distance (CD) does not have significant impact on the survival of foreign affiliates. Previous studies on the effects of cultural distance on foreign affiliate longevity did not find any noteworthy impact either. This can be understood as indicating that in a normal environment, if economic and strategic variables are controlled for, cultural distance does not present particular changes to the survival of affiliates (Hennart, Barkema, Bell, Benito, Larimo, Pedersen and Zeng, 1999). Moreover, when making the decision for

and implementing FDI, cultural differences are sufficiently considered. Therefore, Hypothesis 8 is rejected.

International experience(EXP) is found, as predicted by Hypothesis 9, to strengthen the survival chance of an affiliate. However, this variable is not deemed significant in the model. This result is in line with that of the study by Hennart, Kim and Zeng(1998) which concluded that the parent's international experience has little effect on its foreign affiliate's longevity. In particular, for Korean companies, this is probably attributable to the relative dearth of experience in overseas businesses. Hypothesis 9 is rejected.

4.3 Analysis on Control Variables

There are more factors affecting foreign affiliates longevity other than transaction cost factors. In this chapter, the impact of control variables on the survival of FDI will be investigated. Previous studies uncovered significant effects of market growth rate on the mortality of foreign affiliates (Hennart, Barkema, Bell, Benito, Larimo, Pedersen and Zeng, 1999; Hennart, Kim and Zeng, 1998). This study also concludes that the higher the market growth rate (GROWTH), the better the chance of survival for a foreign affiliate. This is taken to support the assertion by Hennart, Kim and Zeng (1998) that the high growth rate of a market raises the profitability of all its participants ("a rising tide lifts all boats").

The size of the host country's market (GDP) is not deemed to be significant to the survival of a foreign affiliate. A noteworthy discovery is that countries with a high GDP growth rate has high political instability and a small market⁶, suggesting that advanced nations have comparatively low growth rates and developing nations have high growth rates. Therefore, high GDP growth rate indicates a developing status of the host country. The fact that market growth rate, instead of market size, has significant impact on foreign affiliates might be attributed to the preference by Korean firms to enter developing markets as advanced markets are already taken up by world-class companies. In other words, Korean firms' strategy seems to be avoiding direct competition and generating profits by securing developing markets through early entry.

In previous studies, it was concluded that the parent's large size (SIZE) actually reduced the survival chance of foreign affiliates (Hennart, Barkema, Bell, Benito, Larimo, Pedersen and Zeng, 1999; Hennart, Kim & Zeng, 1998; Benito, 1997b; Li, 1995). One explanation was that a large company can more easily reach the decision to terminate its affiliate since it is likelier to have formal management structure and style and formal evaluation criteria. Another explanation was that the larger the company, the less importance it put on one affiliate. This study, however, produces opposite results. All models demonstrate that a parent's size supports the survivability of an affiliate. This hints that the competing assertion that a large company can exercise more patience for poorly performing affiliates particularly applies to Korean firms. In other words, the larger the company, the less resource-constrained it is, and therefore it is slower to respond to poor performance by affiliates. Another cause might be that the Korean companies pooled in this study are small compared to those sampled in studies in western countries.

Exchange rate (EXCHANG) is found to have statistically significant impact on affiliate survivability. Models, which analyze the longevity of Korean firms' FDI before 1997, show the lower the exchange rate (or the

⁶ The relationship between GDP growth rate and national risk recorded $-.659$, and GDP growth rate and market size, $-.451$.

higher the value of Korean currency), the better the survival chance of foreign affiliates. Financial problems(FINPRBL) of the parent were regarded as the only factor leading to the decision to withdraw in past studies on Korean firms' FDI. This study, however, failed to find statistically significant effects.

5.Conclusions

The purpose of this study is to identify, based on the transaction cost theory, the factors affecting FDI survival and to analyze the survival of Korean manufacturing firms' FDI using these factors. Management cost factor on FDI survival yields the conclusion that wholly- owned affiliates have a better chance of longevity than joint ventures. The commonality between the parent and the affiliate in products is also found to have statistically significant impact, as well as entry mode. Such findings indicate that entry mode and ownership stake are critical factors of the survival and performance of foreign affiliates.

Political risks have significant effects on FDI mortality, but cultural distance does not. Political risks suggest an uncertain environment which dramatically raises management costs of an affiliate. Such unforeseen hike in management costs might lead to the exit of the foreign entity. Cultural distance increases management cost (Hennart, Barkema, Bell, Benito, Larimo, Pedersen and Zeng, 1999; Davidson, 1982), but normal management activities can eliminate this problem; thus, management cost arising from cultural distance in an otherwise normal environment seemingly has no impact on the longevity of foreign affiliates. In other words, as Hymer(1960), Caves(1971), and Dunning and Rugman (1985) contended, when companies make inroads into a foreign market they have the competitive advantage to overcome the "liabilities of foreignness," meaning many companies have the capacity to deal with such liabilities in a normal business environment.

International experience is categorized as a management cost factor, and proprietary knowledge and reputation as transaction cost factors, but the impact of all three factors is found to be of little significance. Signs of regression coefficients of international experience and proprietary knowledge are found to have the effects as projected in the hypotheses, but with no statistical significance. Reputation does show statistical importance, but is revealed to have negative impact on the survival of foreign affiliates. Advertising intensity must be considered in association with the size of the company. In other words, a company's reputation must be viewed in a comprehensive context as it is influenced by not only its advertising intensity but also by the size of the company and the absolute amount of advertising cost. Exit barriers are found to have no significant impact on foreign affiliates. This leads to the conclusion that exit barriers make little difference in the decision by the parent regarding the possible withdrawal of a poorly performing foreign affiliate.

Among control variables, market growth rate, the company's size, and exchange rate are found to have significant impact. Market growth rate pulls up an affiliate's survival chance, and this is attributable to the fact that Korean companies seem to prefer entering new markets with high potential future marketability, rather than compete head-on with world-renowned companies in advanced markets. Contrary to previous studies, this study finds the parent's size to have a proportionate relation to the survivability of an affiliate. In all models, it is illustrated that the larger the parent's size, the better the chance of an affiliate's survival. This can be explained by the fact that larger companies are less constrained by resources and are therefore slower to respond to poor performance by an affiliate. Another explanation is that Korean firms are smaller in size than western companies pooled in studies in that region. Analysis on exchange rate produces the same result as previous studies

(Hennart, Barkema, Bell, Benito, Larimo, Pedersen and Zeng, 1999). In sum, management cost factors are found to have significant impact while transaction cost factors have little.

References

- [1] Barkema, H. G., J. H. Bell, and J. Pennings, "Foreign Entry, Cultural Barriers, and Learning," *Strategic Management Journal*, vol. 17, 1996, pp. 151-166.
- [2] Blodgett, L. L., "Partner Contribution as Predictors of Equity Share in Joint Ventures," *Journal of International Business Studies* vol. 21, no. 1, 1991, pp. 63-78.
- [3] Boddewyn, J. J., "Foreign Divestment: Magnitude and Factors," *Journal of International Business Studies*, vol. 10, no. 1, 1979, pp.21-27.
- [4] Davidson W. H., "The Location of FDI: Country Characteristics and the Theory of the Firm," *Journal of International Business Studies*, vol. 11, 1982, pp. 9-22.
- [5] Davidson, W. H. and D. G. McFetridge, "Recent Direction in International Strategy: Production Rationlization of Portfolio Adjustment?," *Columbia Journal of World Business*, vol. 19, Issue 2, 1984, pp. 95-101.
- [6] Gomes-Casseres, B., "Joint Venture Instability: Is it a Problem?," *Columbia Journal of World Business*, Summer 1987, pp. 97-102.
- [7] Hennart, J.-F., "A Transaction Cost Theory of Equity Joint Ventures," *Strategic Management Journal*, vol. 9, 1988, pp. 361-74.
- [8] _____, "The Transaction Cost Theory of the Multinational Enterprise," C. N. Pitelis and R. Sugden (eds.), *The Nature of the Transactional Firm*. Routledge, London and New York, 1990, pp.81-116.
- [9] _____, H. Barkema, J. Bell, G. R. G. Benito, J. Larimo, T. Pedersen and M. Zeng, "The Comparative Survival of European and Japanese Affiliates in the United States," presented at the 1999 Korean Academy of International Business Meeting, 1999.
- [10] _____, D-J Kim, and M. Zeng, "The Impact of Joint Venture Status on the Longevity of Japanese Stakes in U.S. Manufacturing Affiliates," *Organization Science*, vol. 9, 1998, pp. 382-395.
- [11] _____ and Y-R Park, "Greenfield vs. Acquisition: The Strategy of Japanese Investors in the United States," *Management Science*, 39, 1993, pp. 1054-1070.
- [12] Killing, J. P., *Strategies for Joint Venture Success*, New York: Praeger, 1983.
- [13] Kogut, B., "The Stability of Joint Ventures: Reciprocity and Competitive Rivalry," *Journal of Industrial Economics*, vol. 38, 1989, pp. 183-198.
- [14] Li, J., "Foreign Entry and Survival: Effects of Strategic Choices on Performance in International Markets," *Strategic Management Journal*, vol. 16, 1995, pp. 333-351.
- [15] Wilson, B. D., *Disinvestment of Foreign Subsidiaries*, Ann Arbor, MI: UMI, 1980.