

# The Influences of Foreign Operations Experience on Location Selections of Korean Firms

Sunghoon Hong

Honam University, Korea  
[shhong@honam.ac.kr](mailto:shhong@honam.ac.kr)

## Abstract

*This study aims to investigate how foreign-operations experience influences the decisions of Korean firms to select host countries. Our results demonstrate that, as compared to first-time investors, experienced firms are less willing to invest in host countries where other Korean firms are already operating or in the EU member countries. This indicates that experienced firms take more risks of operating in unfamiliar countries, as they are more knowledgeable of the European market. However, no significant differences between the locational decisions of independent firms and group-affiliated firms are observed. This implies that the Korean firms do not sufficiently share experiential knowledge on the foreign market with their affiliates in the same business group.*

**Keywords:** Korean manufacturing firms, Location decision, Conditional logit model

## 1. Introduction

As emphasized among academics in international business, multinational enterprises need to select appropriate host countries to successfully implement their global strategies. There are a variety of economic and cultural factors that can influence their decisions to select host countries. This study aims to investigate how foreign-operations experience influences their locational decisions. It is generally assumed that, as compared to less experienced firms, more experienced ones are more likely to undertake risky projects in unfamiliar markets. The reason is that more experienced firms are capable of interpreting and reducing the risk of foreign operations. Most academic research in international business has focused on the relationship of experience and survivals of foreign operations [7]. However, the relationship of experience and locational decisions of multinational enterprises have remained largely unaddressed. In this respect, the present study is expected to contribute to the literature.

## 2. Literature review

As is well known among academics in international business, it is necessary to overcome the liability of foreignness when multinational enterprises operate their subsidiaries in foreign markets [1] [5]. Through his empirical analysis, Zaheer provides evidence in support of the liability of foreignness by emphasizing the difficulty that firms face in copying local organizational practices of other firms [10].

To overcome the liability of foreignness, multinationals need to possess some firm-specific advantages, such as educated employees, advanced technology, marketing capabilities,

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organizational skills, and other related competence. These advantages would enable multinational enterprises to compensate for the disadvantages of operating subsidiaries in a foreign market. Besides these abilities, operational experience in a foreign market is also considered to be an important resource to overcome the liability of foreignness. However, it is relatively difficult to find previous studies on the relationship between international experience and locational behaviors of multinational enterprises. First of all, Davidson tested the hypothesis that the presence of an existing subsidiary in a foreign market will increase the firm's propensity to make subsequent investments in that market [3]. The author reports that prior experience in a host country tends to increase the firm's preference to invest in that country and that inexperienced firms exhibit a great preference for the markets similar to their home countries, as compared to the firms with broad international experiences. Another finding is that there is a significant relationship between market size and position in investment sequence. Overall, the results of Davidson demonstrate that U.S. multinationals are generally risk-averse in selecting foreign markets. However, the author recognizes that markets that are perceived as less attractive are assigned a higher priority as the firm becomes more experienced. That is, firms in the initial stage of foreign expansion show a strong preference for the markets that are culturally or economically similar to the home country; however, as they gain international operations experience, they start to ground their investment decisions on more objective criteria. Their results also support the argument that a firm's experiential knowledge of a foreign market tends to accelerate its commitment to that market. Furthermore, Culem demonstrated that there is a positive relationship between prior experience in a country, either on the industry or the country level, showing also that the extent to which a country becomes a recipient of FDI [2]. Yu argued that a firm's knowledge about a country increases with the increase of its commitment to operations in that country and its sales [9]. This knowledge tends to encourage the firm to engage in further investment in that country. Furthermore, Culem categorized the foreign-operations experience into the general international-operations experience and country-specific experience and argued that the former type of experience is more influential on the activities of multinational enterprises. It appears to be that general international operations experience not only enhances a firm's ability to expand internationally but also enables the firm to more objectively evaluate foreign opportunities. Johanson and Vahlne also suggested that there is a direct relation between market knowledge and market commitment. Knowledge can be considered one of a firm's valuable resources [6]. Thus, the deeper a firm's knowledge about a given market, the more valuable its resources are and the stronger its commitment to the market is. This is particularly true of experiential knowledge, which is associated with the particular conditions of the market at stake and, thus, cannot be transferred to other organizations.

### **3. Hypotheses development**

In general, less experienced Korean firms are likely to invest in the countries where they can benefit from the scale economies of the large market size or where other Korean firms have been successfully operating. It is because they try to minimize operational risks in unfamiliar markets. However, as firms accumulate more experience, they are expected to expand their activities to unfamiliar markets. That is, as a firm's experience rises, it starts to be capable of approaching unfamiliar markets that others consider less attractive due to high uncertainty. This suggests that experienced firms are more able to take high risks in selecting host countries or to expand their activities from core areas to periphery areas. It is conjectured that the Korean firms are also likely to show this tendency for their locational decisions, as

they are more experienced in operating offshore projects. Therefore, the following hypothesis is suggested.

Hypothesis 1: As compared to first-time investors, experienced Korean firms are more likely to invest in unfamiliar host countries.

The Korean multinational enterprises have a shorter history of foreign operations, as compared to those from advanced regions, such as Western Europe or North America. However, most large corporations in Korea belong to business groups (called chaebol) where they share valuable resources and experiential knowledge. As is widely known, a chaebol in Korea is a conglomerate that comprises a large number of affiliates operating in a broad range of industries, is tightly controlled by its founding family. The Korean firms belonging to the same business group usually cooperate with their affiliates as closely as business units do within a single company. Therefore, the Korean firms are expected to have sufficient opportunities to share experiential knowledge on the foreign market with their affiliates within the same business group. Furthermore, they may conduct more risk-taking strategies in selecting host countries, when they learn about foreign markets through their affiliates. Therefore, the following hypothesis is suggested.

Hypothesis 2: As compared to independent firms, the Korean firms affiliated with business groups are more likely to invest in unfamiliar host countries.

#### 4. Methodology and data

This paper will use the Conditional Logit Model (CLM) developed by McFadden [8]. This model can be used to investigate what economic factors Korean firms consider when they choose host countries in the European market. The CLM can be expressed as follows:

$$\Pr(Y_{ij}=1) = \exp(\beta X_{ij}) / [\exp(\beta X_{i1}) + \exp(\beta X_{i2}) + \dots + \exp(\beta X_{in})] \quad (1)$$

where  $\Pr(Y_{ij}=1)$  is the probability that firm  $i$  chooses country  $j$  among  $n$  options,  $\beta$  is a vector of coefficients to estimate, and  $X_{ij}$  is a vector of characteristics representing country  $j$ . Different from the multinomial model, this model requires that there is only one coefficient vector but different  $X$  vectors for each outcome. Thus the characteristics of a firm need to be incorporated only as interaction terms.

In this model, the dependent variable is binary, taking the value of 1 when a firm chooses one particular country in the choice set, but the value of 0 otherwise. Each choice set comprises eighteen European countries. The explanatory variables include six economic factors of each host country, namely: market size (SIZE), economic growth (GROWTH), the purchasing power of consumers (INCOME), trade relation with Korea (TRADE), membership in the EU (EU), membership of Eurozone (EURO), and the presence of other Korean firms in the host country at the time of entry (PREENTRY). The variables of SIZE, GROWTH, INCOME, and TRADE are measured by Gross Domestic Product (GDP), growth rate of GDP, per capita GDP, and proportion of trade with Korea in the total trade volume of each host country, respectively. The annual average figures during the period of 1990-2011 are used for these variables. The variables of EU and EURO are binary, since they take the value of 1 when each country in the choice set belongs to the European Union and Eurozone, respectively, at the time of entry, and the value of 0 otherwise. PREENTRY is represented by the number of Korean subsidiaries that were already operating in the chosen country when a firm established its subsidiary in that country. Finally, the variable of MULTIPLE is introduced to investigate the interaction effects of experience and other explanatory variables. This variable is also binary, being the value of 1 for the firms that invested in Europe twice or

more and the value of 0 for first-time investors. All data in the present study are related to the Korean manufacturing firms that have established subsidiaries in Europe between 1990 and 2011. The data have been collected mostly from the Korean Statistical Information Service, the Export-Import Bank of Korea, and the International Monetary Fund.

## 5. Empirical analyses

Table 1 shows the empirical results estimated by the CLM. Models 1 and 2 compare the locational patterns of the firms that invested in Europe for the first time and those that invested twice or more. These two models commonly show that the four variables of SIZE, GROWTH, and TRADE have the same positive signs with similar levels of significance. This suggests that Korean firms prefer to invest in host countries that have larger domestic markets, higher economic growth rates, and/or higher levels of trade activities with Korea. Consistently with our expectation, these results indicate that the Korean firms generally take risk-minimizing strategies by seeking stable demands and potential market growth in several European countries. Moreover, most of these countries are relatively familiar to the Korean firms through previous exporting and importing activities. By contrast, the variable of INCOME is negatively significant, indicating that Korean firms are reluctant to invest in European countries that have a high consumer purchasing power. The reason seems to be that some countries, such as Austria, Belgium, and Norway, have very higher income levels, but relatively smaller market sizes.

It is also worth noting that there are some differences between the two models. First, in Model 2, the variable PREENTRY shows a negative sign at the significance level of 0.05. This means that experienced firms are less likely to invest in major European countries, including Germany, the Netherlands, Spain, and the UK, where a large number of other Korean firms are already operating their subsidiaries. They are more willing to expand their business territories to non-major EU countries, which suggests that they are more capable to deal with the liabilities of foreignness in the European market. This result is not consistent with the argument of Davidson, according to which a firm experienced in a particular host country is more likely to invest in that country [3]. The variable of EU is positively significant in Model 1, but not in Model 2. This indicates that as compared to experienced firms first-time investors are more willing to invest in the EU countries. That is, they pursue more conservative and less risky strategies in selecting host countries.

Models 3, 4, 5, and 6 compare the locational patterns of independent and group-affiliated firms. In Models 3 and 4, the variables of SIZE, GROWTH, INCOME, TRADE, and EU show the same signs with similar levels of significance. Thus, the Korean firms commonly prefer to invest in the host countries that have larger domestic markets, higher economic growth, higher trade activities with Korea, and/or EU membership. However, they are less willing to invest in the countries that have higher consumer income levels, since some countries with a higher purchasing power have relatively smaller domestic markets. Overall, the similarity of the results in Models 3 and 4 is congruent with the results reported by Henisz and Delios that a firm's affiliation with a business group does not significantly influence its locational decisions [4]. Models 5 and 6 demonstrate the interaction effects of the main variables with MULTIPLE. It is worthwhile to note the variable of EU\*MULTIPLE is negatively significant in Model 6, but insignificant in Model 5. In other words, group-affiliated firms are less willing to invest in the EU countries and try to expand to the non-EU countries, when they become more experienced in the European market. The main reason is

that they are more capable to deal with the risks of operating subsidiaries in unfamiliar non-EU countries.

Table 1. Results of conditional logit model

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
SIZE	0.44** (0.18)	0.90*** (0.19)	0.44** (0.20)	0.79*** (0.17)	0.34 (0.21)	0.64* (0.36)
GROWTH	0.68*** (0.15)	0.59*** (0.19)	0.77*** (0.16)	0.45** (0.18)	0.69*** (0.17)	0.72 (0.46)
INCOME	-0.02* (0.01)	-0.02** (0.01)	-0.02* (0.01)	-0.02** (0.01)	-0.02* (0.01)	-0.02 (0.03)
PREENTRY	0.01 (0.02)	-0.05** (0.02)	-0.01 (0.02)	-0.03 (0.02)	0.01 (0.02)	-0.02 (0.06)
TRADE	0.91*** (0.21)	1.14*** (0.24)	0.94*** (0.23)	0.91*** (0.24)	0.97*** (0.23)	0.34 (0.61)
EU	1.26*** (0.36)	0.56 (0.39)	0.90** (0.38)	0.73* (0.37)	0.77** (0.38)	3.17** (1.31)
EURO	-0.43 (0.28)	0.27 (0.33)	-0.22 (0.29)	0.18 (0.33)	-0.42 (0.30)	0.92 (1.12)
SIZE*MULTIPLE					5.93 (5.33)	0.17 (0.41)
GROWTH*MULTIPLE					8.23 (9.70)	-0.30 (0.50)
INCOME*MULTIPLE					0.02 (0.46)	-0.01 (0.04)
PREENTRY*MULTIPLE					-0.37 (0.29)	-0.01 (0.06)
TRADE*MULTIPLE					-0.28 (7.41)	0.72 (0.66)
EU*MULTIPLE					14.91 (838.73)	-2.89** (1.37)
EURO*MULTIPLE					11.45 (10.50)	-0.77 (1.18)
choice sets	154	95	140	109	140	109
Likelihood ratio (Pr>chi-square)	135.35 (0.0001)	53.46 (0.0001)	129.97 (0.0001)	48.45 (0.0001)	147.43 (0.0001)	58.68 (0.0001)
Characteristics of parent firms	First-time investors	Experienced firms	Independent Firms	Group- affiliated firms	Independent Firms	Group- affiliated firms

Note: (1) Figures in parentheses represent standard errors. (2) The asterisks of \*, \*\*, and \*\*\* represent the significance levels of 0.10, 0.05, and 0.01 respectively

## 6. Conclusions

Some conclusions can be drawn from the analyses of the empirical results. Firstly, as compared to first-time investors, experienced firms take riskier strategies in selecting host countries by investing in unfamiliar markets. This means that experience helps the Korean firms learn how to reduce the liabilities of foreignness in unfamiliar markets, such as the non-EU or periphery countries. Secondly, independent and group-affiliated firms do not exhibit considerable differences in selecting host countries in Europe. This finding would imply that Korean firms do not seem to share substantial knowledge and information on foreign operations with their affiliates within the same business group. As a practical implication, our results suggest that the Korean firms need to effectively share experiential knowledge with

their affiliates within the same business group to overcome the liabilities of foreignness in unfamiliar markets.

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