

# Location Choices of Korean Multinationals in Europe

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## Abstract

This paper aims to investigate what economic factors Korean firms consider when they select host countries in Europe. The empirical results demonstrate that chaebol firms and independent firms show different behaviors in selecting host countries. Compared to independent ones, chaebol firms consider a fewer number of economic factors and implement aggressive strategies by actively investing in countries that have not joined the EU or in which other Korean firms are less present. In contrast, independent firms tend to consider a wider range of economic factors and show more conservative behaviors by investing in major EU countries. It is also found that operational experience in the European market has more impacts on the location decisions of chaebol firms than independent ones.

**Keywords:** Chaebol, FDI, Korean Firms, Location

## 1. Introduction

The European Union is one of major host regions to attract Foreign Direct Investment (FDI) of Korean firms, accounting for 17% of total direct investments of Korean firms in 2013. According to the data obtained from the Korea Exim Bank, Korean firms conducted 515 cases of direct investment during the period of 1990-2011, of which 36.1percent was undertaken in the manufacturing sector<sup>8</sup>. Considering Europe as a major host region of Korean direct investment, this paper will be focused on what economic factors Korean firms significantly consider to select host countries. More specifically, this study is designed to compare country selection behaviors of chaebol-affiliated firms (hereafter chaebol firms) and independent firms (i.e., non-chaebols). This study will be contributory to the literature since it is very hard to find studies comparing the location choices of chaebol and independent firms.

## 2. Literature

As one of major academics in international business, Dunning emphasizes the importance of locational

advantages that multinational enterprises can exploit to operate successfully in foreign countries. Multinational enterprises need to select strategic locations to absorb location-bound knowledge as well as to exploit their monopolistic advantages<sup>5,6</sup>. Makino et al. emphasized the importance of host countries by examining the performance of Japanese affiliates in overseas markets<sup>10</sup>. Their findings suggest that host country does matter for foreign affiliates' performance, and that country effects have as great an impact on foreign affiliates' performance as do industry effects. It implies that the choice of host country is as important as the choice of industry in determining the performance of foreign operation. Enright investigated the locational activities of manufacturing firms of European, American, and Japanese firms in the Asia-Pacific region<sup>7</sup>. He found that multinational enterprises are more likely to operate manufacturing facilities in host countries with larger market size and higher market growth rate. By using the framework of the game theory, Alcacer showed that in oligopolistic industries, firms make location choices strategically to limit their competitors' growth potential and to increase their own competitive advantages against competitors<sup>1</sup>. That is, a firm's location choices are closely related to its reactions

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to competitors whether they are domestic or international rivals. Chen and Chen examined Taiwanese FDIs in the USA, China, and Southeast Asia and found that network linkage is an important determinant of location choices of Taiwanese firms<sup>3</sup>.

Some academics emphasized the importance of experience in foreign direct investment. Davidson suggested that firms become increasingly rational with the increase in experience<sup>4</sup>. As they gain more international operations experience, they tend to make investment decisions on the base of more objective criteria. Yu mentioned two types of experience: general international operations experience and country-specific experience<sup>13</sup>. The former not only enhances a firm's ability to expand internationally, but also enables the firm to evaluate foreign opportunities more objectively. The latter also has a positive and significant impact on multinational corporations' investment in both of developed and less developed countries. In addition, a firm becomes more knowledgeable with a host country if it operates subsidiaries in neighboring countries. Shaver et al. examined the survival rates of foreign firms in the United States<sup>12</sup>. They found that foreign direct investments by firms with experience in a host country are more likely to survive than investments made by first-time entrants, and that there is a positive relationship between investment success and other foreign firms that already have a presence in the host country. This implies that late entrants often can learn from earlier entrants because much of the information generated by investing foreign firms becomes public knowledge that other foreign firms can use. The opinions of the above scholars commonly suggest that in order to increase the survival rates in overseas markets, firms are expected to invest in a host country which they are familiar with or in which other foreign firms are already operating their subsidiaries.

It is not easy to find previous studies relating to the location selection patterns of Asian firms, especially Korean firms. As the chaebol is a unique business organization in Korea that is not similar to conglomerate in Western countries, only a few of previous studies are closely related to our topic. Park et al. investigated whether Korean firms preferred developed or less developed countries when they made decisions for foreign direct investment during the period of 1999-2004<sup>11</sup>. According to their empirical results, there are some differences in locational patterns of chaebol and independent firms. For instance, chaebol firms that have substantial experiences in host countries

or operate large subsidiaries prefer to invest in developed countries while independent firms show the opposite tendency. But when parent firms are larger in size, chaebol firms prefer to invest in less developed countries whereas the case is opposite in independent firms. It seems that chaebol firms are more likely to survive in developed countries by exploiting their experiences and subsidiary scales. On the contrary, independent firms have experiences and subsidiary scales more suitable for less developed countries. Nonetheless, it is not clear why chaebol firms prefer less developed countries when their parent firms are larger.

### 3. Research Hypotheses

Chaebol firms are affiliated with major Korean business groups that are tightly controlled by their founding families. For instance, Samsung Group controls more than 70 affiliated firms in a wide range of industrial sectors including electronics, chemicals, insurance, and retailing. Thus individual firms within the group cooperate with each other just like business units within a firm, sharing a large pool of financial, technological, and human resources through their well-developed networks. In addition, their subsidiaries in overseas markets cooperate with each other to implement group-level strategies in the global market. In comparison, independent firms have less resources and networks to share with their affiliates and thus have to try to survive on their own in overseas markets. In this respect, the following hypothesis is suggested.

*Hypothesis 1: Chaebol and independent firms consider different economic factors when they select host countries in Europe.*

A firm's location decisions are usually influenced by its experience in overseas markets. Korean firms are expected to show different strategies as they become more experienced in the European market. For instance, chaebol firms with substantial experiences are expected to show more aggressive behaviors in selecting locations compared to less experienced ones. When they become familiar with the European market, they are willing to take more risk-taking strategies by selecting countries other than major EU countries. It is because they are capable of combining their experiences with their resources and networks. In comparison, independent firms have a relatively short history of operating subsidiaries in Europe

and also possess less resources and networks to combine with their experiences. Thus, even though they become more experienced in Europe, their experiences would be less influential on their decisions. Based on this reasoning, the following hypothesis is suggested.

Hypothesis 2: *The location choices of chaebol and independent firms are differently influenced by their operational experiences in the European market.*

## 4. Data and Methodology

The data for this study are based on the 601 cases of Korean direct investment in Europe during the period of 1990–2011. However, as some data on host countries and parent firms are not complete, 515 cases will be finally used for this study. Among these, chaebol and independent firms account for 43.3 and 56.7 percent respectively. Data on the establishments of Korean subsidiaries in Europe can be obtained online from the Korea Exim Bank.

The Conditional Logit Model (CLM) by McFadden is used to estimate the impacts of independent variables on location decisions of Korean firms<sup>9</sup>. This method is highly useful to find how decision-makers choose an option considering the characteristics of each option in the choice set. The basic equation of CLM can be expressed as follows<sup>2</sup>.

$$\Pr(y_{ij}=1)=e^{Bx_{ij}}/(e^{Bx_{i1}}+e^{Bx_{i2}}+...+e^{Bx_{ik}}),$$

Where decision maker  $i$  chooses  $j$ th option among  $k$  alternatives. This model is based on the assumption that the odds of choosing  $j$ th option over another option are not influenced by what other alternatives are available in the choice set. This assumption will not be violated in this study because decision makers face choice sets consisting of the same alternatives.

The dependent variable is binary since it has a value of one for the chosen country and zero for the other countries in the choice set. In this model, the characteristics of decision makers cannot be included as independent variables because those characteristics are equally applied to every option. However, characteristics of decision makers can be incorporated into the model as interactive variables that might strengthen or weaken the impacts of independent variables.

Seven independent variables are included in this study. The market size (MARKET), market growth (GROWTH), and consumer's purchasing power (INCOME) of each host country are measured as GDP, real GDP growth rate,

and per capita income in U.S. dollar term respectively. Annual average data during the observation period will be used for these variables. And the variable of KOENTRY indicates how many Korean firms are already operating in the target country when a decision maker chooses that country. This variable is designed to find the tendency of following the investments of other Korean firms in Europe. The variable of TRADE is obtained by annually averaging the ratios of each country's trade volume with Korea to its GDP, which shows how actively the country has been engaged in exporting to and importing from Korea. The variable of EUMEMBER indicates whether each country in the choice set has already joined the EU or not at the time of decision making, having a value of one for the EU membership and zero otherwise. The variable of EUROZONE demonstrates whether each country in the choice set uses euro or her own currency, having a value of one for countries using the common currency and zero otherwise. Three more variables will be incorporated in order to investigate the moderation effects of characteristics of Korean investors. CHAEBOL represents a value of one when a Korean firm is affiliated with chaebol and a value of zero otherwise. FIRM\_EXPER indicates firm-level experiences of Korean investors, being calculated by the number of subsidiaries of the investing firm operating in the European market at the time of decision making. And CHA\_EXPER represents group-level experiences of Korean firms, taking the number of subsidiaries in the European market controlled by the chaebol with which the investing firm is affiliated.

## 5. Empirical Results

It is necessary to examine linear relationships between independent variables before we estimate the parameters in models. As shown in Table 1, the correlation coefficient between MARKET and KOENTRY shows the highest figure of 0.61. But this level of linear relationship does not seem to impose a serious problem in estimating parameters. Table 2 shows the empirical results of eight different models. Model 1 is estimated by including all firms. Although all of the seven independent variables are statistically significant, the variables of INCOME and EUROZONE have negative signs. For more detailed interpretation, the entire sample is split, and Models 2 and 3 are estimated by using chaebol firms and independent firms respectively. Model 2 demonstrates that only

two variables of MARKET and TRADE are positively significant. That is, chaebol-affiliated firms are likely to select host countries with larger GDP or higher trade activities with Korea. They seem to exploit economies of scale in the European market, which reflects the fact that they operate larger facilities in Europe compared to independent firms. And they tend to exploit trade experiences with the EU countries as a stepping stone to foreign direct investment. Model 3 demonstrates the result based on the sample of independent firms. All of the seven independent variables are statistically significant, which is the same as Model 1; the result of Model 1 must have been heavily influenced by the behaviors of independent firms. This result implies that independent firms are more likely to invest in the countries with large domestic market, higher economic growth, more previous Korean investments, higher trade activities, and membership of the EU. However, the negative signs of INCOME and EUROZONE imply that independent firms are less likely to invest in the countries where consumers have higher per capita incomes or euro is commonly used. The interpretation would be that, compared to chaebol firms, most of the independent firms are small and medium enterprises that are sensitive to labor costs. Therefore, they showed a high tendency of invest-

ing in countries where consumers have lower incomes and use their own currencies rather than euro. Compared to chaebol-affiliated ones, independent firms are likely to consider more economic factors to select host countries in Europe. The reason seems to be that they have fewer resources to support their subsidiaries, which have to survive on their own in the EU. Thus it is necessary to consider the economic conditions of host countries in more details and in a more strict way. In contrast, chaebol firms have a larger pool of resources and a wider network of overseas subsidiaries, and thus they do not have to consider as many factors as independent firms.

Model 4 includes the entire sample and shows some interaction terms between the independent variables and the dummy variable of chaebol affiliation. It is shown that chaebol affiliation weakens the influences of trade activities of host countries and prior entries of Korean firms, but strengthens the influence of euro zone membership of host countries. However, there is no interaction between EU membership and chaebol affiliation. As chaebol firms possess more resources and wider networks, they don't need to actively exploit previous trade experiences with host countries as a stepping stone to foreign direct investment. Furthermore, they do not need

**Table 1.** Descriptive statistics

Variables	Simple Statistics				Correlation Coefficients						
	No. of data points	Mean	Mini	Maxi	1.	2.	3.	4.	5.	6.	7.
1. MARKET	11330	0.58	0.01	2.89	1.00						
2. GROWTH	11330	2.39	-0.03	5.39	-0.42	1.00					
3. INCOME	11330	29.71	1.73	99.56	0.23	-0.45	1.00				
4. KOENTRY	11330	10.95	0	79	0.61	-0.10	0.04	1.00			
5. TRADE	11330	8.82	2.19	22.87	-0.02	-0.05	0.11	0.18	1.00		
6. EUMEMBER	11330	0.71	0	1	0.36	-0.10	0.04	0.35	0.03	1.00	
7. EUROZONE	11330	0.28	0	1	0.40	-0.43	0.23	0.32	0.18	0.40	1.00

**Table 2.** Empirical results

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
MARKET	0.45***	0.72***	0.24*	0.45***	0.44***	0.70***	0.69***	0.24*
GROWTH	0.11**	0.03	0.15**	0.11**	0.11**	0.02	0.02	0.14**
INCOME	-0.01***	-0.01	-0.01***	-0.01***	-0.01***	-0.01*	-0.01	-0.02***
KOENTRY	0.02***	-0.01	0.03***	0.02***	0.02***	0.01	-0.01	0.04***
TRADE	0.06***	0.04***	0.07***	0.08***	0.06***	0.03	0.03*	0.07***
EUMEMBER	0.45***	0.32	0.50***	0.38**	0.62***	0.75***	0.69**	0.39**
EUROZONE	-0.29**	0.06	-0.52***	-0.74***	-0.39***	0.15	0.01	-0.52***
KOENTRY*CHAEBOL				-0.02***				
TRADE*CHAEBOL				-0.06***				
EUMEMBER*CHAEBOL				0.11				
EUROZONE*CHAEBOL				1.13***				
KOENTRY*FIRM_EXPER					-0.32***	-0.27***		-0.71
TRADE*FIRM_EXPER					-0.09	0.21		-6.65
EUMEMBER*FIRM_EXPER					-0.01**	-0.01**		0.11
EUROZONE*FIRM_EXPER					0.01**	-0.01		-0.02
KOENTRY*CHA_EXPER							-0.01	
TRADE*CHA_EXPER							0.04	
EUMEMBER*CHA_EXPER							-0.01**	
EUROZONE*CHA_EXPER							0.51	
Sample	All	Chaebol firms	Independent firms	All	All	Chaebol firms	Chaebol Firms	Independent firms
No. of Choice sets	515	223	292	515	515	223	223	292
Likelihood Ratio	250.03	86.37	222.98	288.42	285.61	113.30	92.56	230.81
Degree of freedom	11	11	11	11	11	11	11	11
(Pr>Chi-square)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)

Note: (1) Asterisks \*, \*\*, \*\*\* indicate the significance levels of 0.1, 0.05, and 0.01 respectively.

to prefer major European countries where other Korean firms have already settled down. This implies that they try to avoid direct competition with other chaebol rivals as they have already experienced stiff competition with each other in the domestic market. Rather, they need to invest in periphery countries prior to their domestic competitors in order to take first-mover advantages. In contrast, independent firms seem to show relatively risk-averting strategies by investing in countries with which they have already shared trade experiences or where other Korean firms have successfully settled down. That is, chaebol firms are more aggressive and risk-taking strategies than independent ones when they select host countries in Europe.

Models 5 to 8 investigate how the moderating variables are influential on the impacts of independent variables. Model 5 shows that firm-level experiences of Korean investors negatively moderate the impacts of KOENTRY and EUMEMBER, but positively moderate the impact of EUROZONE. In order to analyze this result in more details, the entire sample is split into sub samples for chaebol and independent firms in which the impacts of moderating variables will be tested separately. Models 6 and 7 analyze the sub samples of chaebol firms to assess the moderations of firm-level and group-level experiences. Model 6 demonstrates that firm-level experiences of chaebol firms negatively moderate the impacts of KOENTRY and EUMEMBER. That is, overseas experi-



ences of chaebol firms weaken the preference of selecting countries where other Korean firms have already invested and also the preference of selecting countries that have already joined the European Union. As an implication, when chaebol firms are highly experienced in major EU countries, they tend to show more risk-taking strategies by investing in countries where Korean firms are less present or in countries that do not belong to the EU at the time of location decisions. They also try to avoid the rivalry of domestic competitors and achieve first-mover-advantages by investing in unfamiliar markets. For instance, more experienced firms are willing to actively invest in East European countries compared to less experienced ones. In contrast, less experienced chaebol firms show risk-averting strategies by preferring to invest in major EU countries. Model 7 demonstrates that group-level experiences of chaebol firms moderate the impact of only one independent variable: EUMEMBER. As previously explained, chaebol firms with substantial experiences at the group-level tend to invest in non-EU countries more aggressively than their counterparts. This strategy enables chaebol firms to avoid direct competition with other Korean firms and local competitors in major EU countries and also achieve first-mover-advantages in non-EU countries. Or they try to expand their target markets to periphery countries as they are already present in major EU countries. Generally, group-level experiences of chaebol firms are less influential than firm-level ones, which is not consistent with our expectation. According to Model 8, the experiences of independent firms do not significantly moderate the impacts of independent variables. This result indicates that operational experiences in the European market do not play a noticeable role in the location decisions of independent firms. The reason might be that they have a relatively short history of operating in the European market and their amounts of experiences are not considerably different.

## 6. Conclusion

The empirical results in this paper have shown that chaebol and independent firms demonstrate different behaviors in selecting host countries in Europe. Chaebol firms consider a small number of economic factors and

show more aggressive patterns while independent firms examine a wide range of factors and show conservative patterns. It is not clear whether this type of location decisions can be also applied to other firms from other countries. Therefore, it will be necessary to analyze location behaviors of other Asian firms including Japan and China. In particular, it will be desirable to examine if business groups and other firms in Japan demonstrate any significant differences in selecting host countries in Europe.

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