HOW CAN MNCS OVERCOME LIABILITY OF FOREIGNNESS?
LOCALIZATION AS A MODERATOR OF THE RELATION BETWEEN LOF AND PERFORMANCE

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How can MNCs overcome Liability of Foreignness?

Localization as a Moderator of the relation between LOF and Performance

Byoung-Goo Kim & Jae-Jin Kim

Abstract

Foreign subsidiaries of multinational enterprises face numerous challenges stemming from their lack of familiarity with local languages, cultures, legal/policy frameworks and embedded customs in the host country. As such, MNEs wishing to expand globally strategize on how to effectively curb and manage the Liability of Foreignness (LOF) – that is, the tangible and intangible costs incurred on foreign subsidiaries that place them at a disadvantage compared to domestic firms. The literature on LOF confirms the negative impact of LOF on foreign subsidiary performance, but few address how to successfully overcome these liabilities.

This study aims to further our understanding on foreign market entry by exploring the roles of LOF and localization as determinants of foreign subsidiary performance. Using a sample of 173 Korean companies in 34 countries, we empirically analyze LOF variables (cultural distance, local competition) and localization variables (market experience, hiring of local managers) to confirm their effects on subsidiary performance and corroborate the interplay between these variables. While cultural distance and local competition negatively affect subsidiary performance, our findings show that cultural distance can be bridged with market experience while hiring of local managers allows subsidiaries to more effectively compete against domestic rivals.
Keyword: Liability of Foreignness, localization, performance of foreign subsidiary
Introduction

Multi-national enterprises (MNEs) entering foreign markets face numerous challenges. Namely, foreign subsidiaries are incurred with additional costs, which place them at a competitive disadvantage vis-à-vis domestic firms and negatively affect subsidiary performance and survival (Delios and Beamish, 2001; Eden and Miller, 2004; Mitchell, Shaver and Yeung, 1994). Zaheer (1995) defines these costs as the “Liability of Foreignness (LOF).” Earlier stream of research considered LOF to be quantifiable costs, consisting mostly of information costs generated when learning about the host market and communication costs between headquarters and subsidiaries. Since the late 1990s, however, LOF is no longer viewed as a one-time cost, but a more permanent factor that hinders or impedes full utilization of firm-specific advantages in the host country (McCloughan and Stone, 1998; Mezias, 2002a; Nachum, 2003).

Subsidiaries of MNEs rely on firm-specific advantages learned and accumulated at their home country to yield results in the host market. However, these efforts are often frustrated as the firm-specific advantages fail to prove their full worth in the new environment (Barney, 1991). Entering a new market exposes MNEs to LOF, which hinders efforts to reap full gains from firm-specific advantages (Nachum, 2003). Under this logic, subsidiary performance can be viewed as the sum of firm-specific advantages of MNE subsidiaries and LOF (Luo and Mezias, 2002, Mezias, 2002a). Extant literature abounds in the analysis of LOF and its effect on firm-specific resources and subsidiary performance, but there is yet to be a thorough empirical study on factors that offset these liabilities. Existing studies exploring the rate of returns (Zaheer, 1995), efficiencies (Chang, Hasan, and Hunter, 1998), and survival (Zaheer and Mosakowski, 1997; Hennart, Roehl, and Zeng, 2002) of foreign subsidiaries in host markets only confirm the existence of LOF and fail to delve deeper into the complexities of these liabilities.
In short, while a number of empirical studies corroborate the adverse effects of LOF on subsidiary performance, few venture to explore factors that can minimize these liabilities and maximize subsidiary performances of MNEs. Some studies suggest the use of differentiated firm-specific resources, which sets the MNEs apart from domestic rivals and help them overcome their handicaps and improve subsidiary performance at the host country (Dunning, 1977; Porter, 1990). However, these studies have limited implications as they are not backed by empirical analysis. Empirical studies in this area has been difficult due to the wide spectrum of LOF patterns in different countries and the inaccessibility of financial data on subsidiaries that helps gauge subsidiary performance.

Since liabilities of foreignness continue to have taxing effects on foreign subsidiary performances, it is clear that MNEs need to continually formulate effective strategies and procure better firm-specific resources to overcome these obstacles. Hence, an in-depth study on management resources and activities that can help overcome LOF and boost performance is a matter of great interest not only for international management scholars but for CEOs and managers of MNE subsidiaries as well.

In this study, we endeavor to overcome limitations and fill the gap in extant literature as follows. First, we conduct a comprehensive analysis on the determinants of the performance of foreign subsidiaries by exploring Korean firms - with a particular focus on the relationship between subsidiary performance and LOF. Similar studies have been conducted in the past, but their findings are inconsistent to date.

Second, we explore how foreign subsidiaries can effectively overcome LOF. Our main goal is to probe factors with moderating effects on LOF and subsidiary performance, with special attention paid to the offsetting effects of local experiential capability and localization. We believe building local experiential capability and localization are the best methods employed to overcome LOF and boost subsidiary performance, and try to back our
hypothesis by offering empirically demonstrated evidence using financial data on Korean MNE subsidiaries.

Third, we conduct a multi-level analysis by taking into account variables at the national, industrial and firm level, so as to offer a more comprehensive and integrated investigation on factors influencing foreign subsidiary performance. Firm performance is not one-dimensional; yet, existing studies take a narrow approach by limiting their variables to the national, industrial, or firm level, with the result being an incomplete picture that overlooks the diverse layers and interactions of factors influencing subsidiary performance. Furthermore, while some studies explore the separate effects of LOF and localization on subsidiary performance, few incorporate the combined effects of both LOF and localization. In this study, we try to broaden the scope of research on foreign subsidiaries by taking an integrated approach that factor in both LOF and localization strategies, while simultaneously analyzing the national/industrial/firm-level factors and their mutual interactions.

Finally, earlier attempts on providing an empirical study on how to overcome LOF face qualitative limitations in addition to quantitative limitations. The main reason for this shortcoming is the complication in acquiring necessary raw materials or surveys from subsidiaries. Financial data are even more difficult to access due to their sensitive nature. We were able to gain access to invaluable financial sources on subsidiaries of Korean MNEs in the machinery and electronics sectors, and will be using these data to offer a more detailed and feasible empirical study on overcoming LOF.

**Literatures and Hypotheses**

*Liability of Foreignness*

In extant literature, LOF (LOF) is defined as a wide range of additional costs imposed upon entry into a host country and consists of: initial costs of acquiring market information,
factors that prevent utilization of firm-specific advantages, and factors that generate gaps in the rate of returns, survival, efficiency between domestic firms and foreign subsidiaries. The definition of the term is divided into two categories. The first category considers LOF to be a one-time cost incurred on foreign subsidiaries at the host country, and as such, a factor independent from firm-specific advantage. This theory assumes that the inherent value of firm-specific advantages stays constant regardless of location, which is to say that as long as subsidiaries compensate for the losses incurred by LOF, they are able to reap the same gains from these firm-specific advantages as they would in their home countries.

Nachum (2003) offers a different interpretation by defining LOF as a factor with more direct bearing that can reduce the innate value of firm-specific advantages when the subsidiary relocates away from its home country. Under this assumption, LOF is no longer seen as a separate cost, but a factor that affects the entire equation by minimizing the value of the firm-specific advantages as well.

For the purposes of this paper, we refer to the latter definition since one of our main goals is to explore the interplay between LOF and firm-specific advantages that are frequently overlooked in existing studies (Mezias, 2002a). We will continue under Nachum (2003)’s line of reasoning that LOF are factors that hinder full utilization of firm-specific advantages of MNEs in the host country by directly modifying their inherent values.

LOF stem from insufficient information held by subsidiaries on host markets and discriminatory practices by the host country. Subsidiaries are not embedded into local networks (Luo, Shenkar, and Nyaw, 2002) and have yet to establish legitimacy in the host country’s institutional environment (Zaheer, 1995; Kostova and Zaheer, 1999; Luo, Shenkar, and Nyaw, 2002). However, these liabilities can be mitigated through corporate efforts and strategies such as: building overseas market experience and increasing extent of globalization (Johanson and Vahlne, 1977; Petersen and Pedersen, 2002), securing resource advantages (Aliber, 1970), building management capabilities (Zaheer, 1995; Miller and Parkhe, 2002),
standardizing performance assessments (Luo, Shenkar, and Nyaw, 2002), beefing up subsidiary size (Zaheer, 1995), and implementing localization strategies (Luo, Shenkar, and Nyaw, 2002; Matsuo, 2000; Mezias, 2002b). We concentrate on localization efforts and experiential capabilities as the key moderating variables in the LOF-subsidiary performance relationship.

**Localization**

MNEs make a decision on the desired extent of localization by balancing the conflicting goals of cross-border integration of subsidiaries, originating from corporate headquarters, with pressures to adapt and respond effectively to the host country market. This decision has a substantial impact on subsidiary performance, as localization can drastically improve the unit’s capability to consolidate host country advantage and rein in operation costs (Simon and Joseph, 2010).

Localization is a multi-dimensional concept. While adhering to the headquarter’s demand for global integration of all subsidiaries under one corporate flag, each subsidiary unit needs to reconstitute the strategic and managerial decision-making processes in line with local culture and environment to improve responsiveness to the local market (Ahn and Baek, 2006). Generally, localization strategies are based on establishing an autonomous unit in the host country that is capable of independent survival by launching local business operations in production, sales, hiring, procuring of raw materials and parts, and marketing (Perlmutter, 1969; Song and Yoon, 2006).

Recent discourse has been emphasizing the role of localization as host markets grow in importance in international business practices. Subsidiaries face the challenge of dealing with local pressures – which include demand from host country authorities for investments or technology transfers, and stricter local regulations on contents – while striving to meet exacting consumer expectations on local responsiveness. In addition to quantitative
expansion in the number of subsidiaries, localization also calls for a qualitative expansion which includes active technology transfers by subsidiaries, greater dependence on local sourcing of parts, hiring of local managers, and establishment of local R&D centers (Morris, 1991; Itami, 1994; Song and Yoon, 2006).

**Local experiential capability**

Foreign subsidiaries are also capable of reducing LOF (LOF) through market experience, which it allows these units to acquire familiarity on local customer preference, supplier networks, and institutions (Johanson and Vahlne, 1977; Tschoegl, 1987; Zaheer and Mosakowski, 1997). Market experience also enables subsidiaries to make swifter decisions with greater accuracy (Johanson and Vahlne, 1977; Tschoegl, 1987), while the knowledge accumulated through these experiences enables the unit to become better embedded in the local environment and gain legitimacy (Kostova and Zaheer, 1999; Zaheer and Mosakowski, 1997). Thus, market experience reduces LOF and improves subsidiary performance by facilitating information gathering on local market conditions, building local networks, and enabling subsidiaries to become embedded in the local market. While a substantial amount of prior research has explored the effects of LOF on subsidiary performance, there are few empirical studies on the role of experiential capability and its effects on the LOF-subsidiary performance relationship. We address this gap by including local experiential capability as a key moderating variable in our analysis of the LOF-subsidiary performance relationship.

**Hypothesis and conceptual framework**

**Liability of Foreignness and subsidiary performance**

LOF has a broad definition that covers all additional costs incurred while doing business abroad, which includes costs of acquiring market information, factors that hinder full utilization of firm-specific advantages, and factors that generate performance gaps in rate of
returns/survival/efficiency relative to domestic firms. In short, LOF stands for all additional costs nonexistent in the home country that are imposed when entering the host country. There are a number of sources for such costs, but the main causes are found in cultural difference and intensity of local competition (Zaheer, 1995; Eden and Miller, 2001). Hence, in this study, we assess LOF in terms of cultural distance between the home country and host country and intensity of competition in the host country.

Cultural distance is gaining greater attention as a key LOF in international management discourse (Dow and Karunaratha, 2006). Simply put, cultural distance is the environmental difference between the home country and the host country. Greater cultural distance between headquarters and subsidiaries will result in greater information asymmetry between the two units, which will eventually encumber effective business activities (Dikova, 2009).

Generally, firms are socialized by the values of their home countries and the common values and norms shared by its constituents. Since MNEs grow within the social bounds of a given environment, they are inevitably influenced by social norms of their geographic location, which tend to affect the manager’s attitude (Chen, Chen and Mein, 1998) and foreign direct investment strategies. Though MNEs tend to develop their own corporate culture and principles distinct from their national backgrounds (Mcgrath, Yang and MacMillan, 1992), national culture is still considered an important factor in explaining variances and tendencies among global firms. Firms learn and share the cultural values embedded in their environments. In the age of globalized business practices, these dissimilar cultural values are brought into direct contact, which can generate disadvantages in the host market that are absent in the home country that negative affects subsidiary performance.

As MNEs expand abroad and find themselves in unfamiliar territories, they are bound to suffer drawbacks from cultural differences while domestic firms remain unencumbered by these concerns. Such environmental unfamiliarity fosters uncertainty, which in turn deters effective decision making and generates complications in dealings with local authorities and
firms (Pedersen and Petersen, 2004). Cultural variances in language and business customs also impose additional expenses in the form of learning costs. Prior research on the subject confirms that firms entering a market with cultures similar to their home country have a higher success rate (O'Grady and Lane, 1996). Following this logic, entering a culturally similar market generates lower management barriers, which indicates there is a significant negative relationship between cultural distance and subsidiary performance (Ellis, 2008).

Our second source of LOF is local competition (Miller and Eden, 2006). As competition intensifies in the host country, foreign subsidiaries try to lure consumers away from rivals by lowering prices or cutting costs. These pressures cause subsidiaries to post lower performance when compared to business environments where such pressures are absent (Miller and Parkhe, 2002). Furthermore, competition in the host country spawns greater uncertainties than competition back home, as subsidiaries are engaged in rivalry with unfamiliar domestic firms. While struggling to adapt to a new mode of competition, foreign subsidiaries are weighed down by additional costs of analyzing their rivals and business environment and formulating new marketing strategies. As a result, intense competition in the host market makes it difficult for foreign subsidiaries to maintain or achieve above-average performances. Based on these observations, we propose the following hypotheses:

\textit{Hypothesis 1-1:} The performance of subsidiary declines with greater cultural distance.

\textit{Hypothesis 1-2:} The performance of subsidiary declines with intense local competition.

\textit{Moderating effects of localization}

Localization is the process of establishing the unit as a local firm by gradually relocating core business operations such as production, sales, hiring, procurement of raw materials and parts, and marketing to the host country. The main goal of these efforts is to enable the
subsidiary unit to establish itself locally and survive as an independent unit similar to domestic firms in the market (Perlmutter, 1969; Song and Yoon, 2006). Localization is gaining prominence as a key strategy in foreign subsidiary management due to two reasons. First, localization enhances the subsidiary’s capability to integrate host country advantage and cut operational costs (Simon and Joseph, 2010). Second, localization places greater emphasis on reconstituting the strategic and managerial decision making process based on local culture and environment – as opposed to a uniform global standard issued by the headquarters – which allows greater responsiveness to the local market. Thus, greater localization allows foreign subsidiaries to conduct business practices as a local firm instead of a foreign firm, which reduces LOF associated with being a foreign entity.

Due to its complex nature, a comprehensive measurement of localization takes into account local hiring, production, part procurement, marketing, and a wide range of business practices. In this study, we gauge localization levels by investigating hiring practices of the subsidiary. Staff localization can serve as a valuable resource for foreign subsidiaries doing business at a host country, as it allows more accurate understanding on local markets, provides greater accessibility, and helps built stronger local business networks (Hailey, 1996; Wall, 1990; Wernerfelt, 1984). Furthermore, replacing costly expatriates with local staff cuts down on operational costs (The EIU Limited, 1997). Hiring of local managers can also help raise morale, as local managers share social and cultural backgrounds with other local employees of the subsidiary and are thus better equipped for effective communication (Hailey, 1996).

Localization is also effective in addressing LOF in the form of institutional pressures. Subsidiaries entering a host country face unfamiliar laws and regulations unlike the laws and regulations of their home countries, which disrupt business activities (Boisot & Child, 1999; Rosenzweig & Singh, 1991; Scott, 1995). These pressures can be eased through localization. Numerous MNEs overcome these institutional hurdles through localization, which also helps
actualize firm-specific advantages at the host market (Lam and Yeung). Based on these observations, we propose the following hypotheses:

\textit{Hypothesis 2-1: Greater staff localization weakens the negative relationship between cultural distance and foreign subsidiary performance.}

\textit{Hypothesis 2-2: Greater staff localization weakens the negative relationship between local competition intensity and foreign subsidiary performance.}

\textit{Moderating effects of experiential capability}

MNEs can mitigate LOF by establishing foreign subsidiaries and building market experience to accumulate better understanding on local customer preference, suppliers, and institutions (Johanson and Vahlne, 1977; Tschoegl, 1987; Zaheer and Mosakowski, 1997). Market experience in the host market also hones the decision-making capabilities of subsidiaries by enabling them to make swifter decisions with greater accuracy (Johanson and Vahlne, 1977; Tschoegl, 1987). Furthermore, foreign subsidiaries use knowledge accumulated through local market experience to become embedded in the local market and gain legitimacy. (Kostova and Zaheer, 1999; Zaheer and Mosakowski, 1997).

To sum up, local market experience reduces LOF and boosts foreign subsidiary performance by facilitating accumulation of host market knowledge, building stronger local networks, and embedding the subsidiary in the local market. While past studies have made numerous attempts to shed more light into the impact of market experience on LOF and subsidiary performance, there are few empirical studies conducted in this regard. In this study, we take an empirical approach to investigating the role of local experiential capability as a moderating variable in the LOF-subsidiary performance relationship and postulate the following hypotheses:
Hypothesis 3-1: Greater market experience weakens the negative relationship between cultural distance and foreign subsidiary performance.

Hypothesis 3-2: Greater market experience weakens the negative relationship between local competition intensity and foreign subsidiary performance.

Taken together, the conceptual framework of this study is shown in Figure 1. We are going to discuss the methodology of this framework in the next.

![Conceptual Framework Diagram]

**Figure 1: Conceptual framework**

**Methodology**

**Sample and Data**

We test our hypotheses by examining statistical data on foreign direct investments provided by the Export-Import Bank of Korea (EXIM). The EXIM Bank holds a vast database of overseas investment reports and yearly surveys, submitted by foreign subsidiaries of Korean firms with annual investment exceeding $10 million. We implement our investigation in a sample of 173 foreign subsidiaries of Korean firms based in 34 host countries (excluding subsidiaries based in China) for the year 2007. We initially obtained the financial data from the year 2007 for all Korean subsidiaries in the electronics and machinery industries, which included 572 samples from 35 countries. We excluded China as the number...
of companies entering the Chinese market is almost 400 and takes nearly 70% of the entire sample, which is more likely to introduce statistical bias and misleading interpretation of the result. Thus, in the end, we tested our hypotheses on the remaining 173 subsidiaries based on 34 countries.

**Measurement of variables**

*Independent variable*

This study uses 2 methods to measures the LOF as an independent variable: cultural distance and local competition. The cultural distance between Korea and the host market is determined by using Kogut and Singh(1988)’s measure of cultural distance based on Hofstede(1980)’s aggregate scores. Hofstede’s cultural dimensions offers a comprehensive model of cultural dimensions endorsed by different nations. Kogut and Singh(1988)’s cultural distance index is calculated by finding the deviation along each cultural dimensions listed by Hofstede. In this study, we calculate the deviation for each cultural dimension for all host markets included in the sample by holding Korea as a constant.

**[The Formula for Cultural Distance]**

$$CD = \text{Where: } \sum_{i=1}^{k} \left[ \frac{(I_{ij} - I_{ik})^2}{vi} \right] / 4$$

$CD$: cultural distance between Korea and the country in which the subsidiary is located

$I_{ij}$: index for the ith cultural dimension and jth country

$vi$: variance of the index of the ith cultural dimension

$k$: indicates Korea

To gauge local competition, the survey was conducted to the manager of foreign subsidiary to record their sentiments regarding the competition intensity. It means the competition managers feel where they are playing including foreign and local competitors. It was subjective evaluation of the manager in each subsidiary.
Other independent variables, regarding subsidiary’s capability, included localization and experiential capability. Localization is measured by examining the subsidiaries’ hiring practices, namely, the percentage of local managers retained by subsidiaries (Gong, 2003; Lam and Yeung, 2010). Delegating decision-making to local managers who are more familiar with local market environments allows subsidiaries to make swifter assessments on local markets, and thus improves the unit’s local responsiveness. In short, higher share of local manager indicates greater delegation of decision-making and is associated with greater localization.

The local experience of subsidiary is measured by taking the year that marks the start of business rather than the year of establishment. Experiential capability is accumulated as subsidiaries actively participate in the host market and compete against rivals to entice consumers. By that logic, subsidiaries that have yet to engage in any meaningful business activities can hardly be expected to have accumulated experience in the local market. The date of establishment used by subsidiaries includes such dormant periods and is an inaccurate measure of the level of the true experience. Thus, we refrain from using these dates, which could confound efforts to introduce local experience as a significant factor.

**Dependent and Control Variable**

In this study, we measure foreign subsidiary performance, the dependent variable, by using the return on assets (ROA) of the subsidiary in a given year. ROA is an indicator of the unit’s profitability relative to its total assets, and is calculated by dividing the unit’s annual earnings by total assets. It shows how efficient the unit is in utilizing its assets to generate profits, while its accurate reflection of financial gains and close association with the MNE’s stock value makes it a popular choice for foreign subsidiary research (Jacobson, 1987).

Four control variables are used in the prediction of subsidiary performance (ROA): GDP growth, industry, firm size, ownership, and geographical distance. GDP growth is measured
by taking the GDP growth rate of the host country during 2007-2008. Industry is divided into 2 sectors, electronics and machinery, which are coded by dummy variable. Firm size is measured total number of employees of the subsidiary and taking it into natural logarithm. The subsidiary performance is also controlled for the type of subsidiary ownership in the host market, namely, whether the subsidiary is wholly-owned or jointly invested. It is also coded by dummy variable, if the firm is in wholly-owned, then 1, otherwise 0. Finally we use geographical distance for supplement with the cultural distance score. It was calculated that the difference of physical distance between the capital of Korea and each country and and taking the figure into natural logarithm as well.

We use multiple regression analysis to explain the variability of independent variable parameters, significance of each variable, and the mutual interaction among these variables and their effects on the dependent variable, the ROA ratio.

**Result**

Our sample consists of 173 subsidiaries at 34 countries, Among those countries, US is the most popular choice with a 15% share of the sample, as 27 MNEs chose to establish local subsidiaries in the US, followed by Vietnam (16 MNE subsidiaries) and India (13 MNE subsidiaries). The descriptive statistics of the samples are summarized in Table 1. We can also see the each figure of cultural distance to Korea in the Table 1 below. There are 6 missing figures among the cultural distances in this study. Myanmar, Sri Lanka, U.A.E., Honduras, Kazakhstan, Papua New Guinea, Those have not in the list of Hofstede’s cultural dimensions, so we were not able to calculate the each cultural distance at all.
We can also see the descriptive statistic in the Table 2 as below. The average ROA, the dependent variable, is about -7% and that a number of subsidiaries post losses. The GDP growth rate of host countries average 5.9% for 2007, which is a relatively high figure - mostly because our sample includes a number of high-growth emerging markets and developing countries with government-sponsored development projects. Regarding ownership type, 85% subsidiaries in this study are wholly owned by headquarters. The average pressure from competitors in the market they are playing looks medium. Finally, the average year of market experience of subsidiaries is about 6.3, while the hiring of the local manager takes roughly 20% of overall managerial position in the each subsidiary.
We perform a hierarchical multiple regression, which offers a base model that includes only the control variables first, and then conduct regression analysis steadily with various independent and moderating variables. Table 3 presents the statistic results.

### Table 2: Descriptive Statistics and Correlation

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>S.D.</th>
<th>ROA</th>
<th>GDP Growth</th>
<th>Industry (Mach.)</th>
<th>Industry (Elec.)</th>
<th>Firm Size</th>
<th>Ownership Type</th>
<th>Geographical Distance</th>
<th>Cultural Distance</th>
<th>Local Compt.</th>
<th>Local Exp.</th>
<th>Local Manager</th>
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</thead>
<tbody>
<tr>
<td>ROA</td>
<td>0.071</td>
<td>0.547</td>
<td>1.000</td>
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<tr>
<td>GDP Growth</td>
<td>3.970</td>
<td>2.727</td>
<td>0.023</td>
<td>1.000</td>
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<tr>
<td>Industry (Mach.)</td>
<td>0.393</td>
<td>0.490</td>
<td>0.108</td>
<td>1.000</td>
<td></td>
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<tr>
<td>Industry (Elec.)</td>
<td>0.607</td>
<td>0.490</td>
<td>-0.108</td>
<td>-1.000</td>
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<tr>
<td>Firm Size</td>
<td>5.086</td>
<td>1.964</td>
<td>0.227</td>
<td>0.100</td>
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<tr>
<td>Ownership Type</td>
<td>0.855</td>
<td>0.353</td>
<td>-0.016</td>
<td>-0.135</td>
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<tr>
<td>Geographical Distance</td>
<td>0.196</td>
<td>1.000</td>
<td>0.009</td>
<td></td>
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<td></td>
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<tr>
<td>Cultural Distance</td>
<td>-0.089</td>
<td>-1.000</td>
<td></td>
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<td></td>
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<tr>
<td>Local Competition</td>
<td>2.615</td>
<td>0.000</td>
<td>-0.043</td>
<td>-0.065</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Local Manager</td>
<td>0.199</td>
<td>0.230</td>
<td>-0.187</td>
<td>-0.002</td>
<td></td>
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<td></td>
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<tr>
<td>Local Experience</td>
<td>0.497</td>
<td>1.751</td>
<td>0.135</td>
<td>-0.155</td>
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</table>

Note: Sig. $\dagger = p < .10$, ** = $p < .05$, *** = $p < .001$

### Table 3: Hierarchical Multiple Regression

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
<td>t-value</td>
<td>Beta</td>
<td>t-value</td>
<td>Beta</td>
<td>t-value</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.963</td>
<td>-1.051</td>
<td>-2.600</td>
<td>-2.047</td>
<td>-2.099</td>
<td>-2.286</td>
</tr>
<tr>
<td>GDP Growth</td>
<td>0.009</td>
<td>0.675</td>
<td>0.011</td>
<td>0.845</td>
<td>0.024</td>
<td>2.002</td>
</tr>
<tr>
<td>Industry Dummy</td>
<td>-0.132</td>
<td>-2.027</td>
<td>-0.142</td>
<td>-2.161</td>
<td>-0.151</td>
<td>-2.448</td>
</tr>
<tr>
<td>Firm Size</td>
<td>0.053</td>
<td>2.925</td>
<td>0.038</td>
<td>2.077</td>
<td>0.040</td>
<td>2.095</td>
</tr>
<tr>
<td>Ownership</td>
<td>0.057</td>
<td>0.648</td>
<td>0.101</td>
<td>1.161</td>
<td>0.196</td>
<td>2.331</td>
</tr>
<tr>
<td>Geographical Distance</td>
<td>0.021</td>
<td>0.380</td>
<td>0.068</td>
<td>1.247</td>
<td>0.111</td>
<td>2.120</td>
</tr>
<tr>
<td>Cultural Distance</td>
<td>-0.072</td>
<td>-3.060</td>
<td>-0.078</td>
<td>-3.520</td>
<td>-0.114</td>
<td>-3.901</td>
</tr>
<tr>
<td>Local Competition</td>
<td>-0.054</td>
<td>-1.380</td>
<td>-0.089</td>
<td>-2.354</td>
<td>-0.097</td>
<td>-2.564</td>
</tr>
<tr>
<td>Local Experience</td>
<td>0.021</td>
<td>3.814</td>
<td>0.008</td>
<td>1.096</td>
<td>0.015</td>
<td>0.867</td>
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<tr>
<td>Local Manager</td>
<td>0.075</td>
<td>2.342</td>
<td>0.056</td>
<td>0.745</td>
<td>-0.211</td>
<td>-1.920</td>
</tr>
<tr>
<td>Cultural Distance x Local Experience</td>
<td>0.009</td>
<td>2.231</td>
<td>0.008</td>
<td>1.909</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural Distance x Local Manager</td>
<td>0.003</td>
<td>0.116</td>
<td>0.013</td>
<td>0.454</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Competition x Local Experience</td>
<td>0.002</td>
<td>0.277</td>
<td>-0.005</td>
<td>-0.729</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Competition x Local Manager</td>
<td>0.103</td>
<td>2.710</td>
<td>0.100</td>
<td>2.634</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|                      | 0.106  | 0.167  | 0.277  | 0.301  | 0.313  | 0.332  |
|                      | 0.078  | 0.130  | 0.235  | 0.251  | 0.264  | 0.275  |
|                      | 3.763  | 4.500  | 6.564  | 5.993  | 6.347  | 5.774  |
|                      | 1.898  | 1.837  | 1.783  | 1.777  | 1.839  | 1.823  |
| N                    | 167    | 167    | 167    | 167    | 167    | 167    |

Note: D V = ROA/ Sig. $\dagger = p < .10$, ** = $p < .05$, *** = $p < .001$

Model 1 accounts only for the control variables. Here, we control for the GDP growth rate of host countries, industry dummy variables, subsidiary size, ownership type, and geographical distance. The regression results confirm the statistical significance of industry type and subsidiary size, while showing an high positive relationship between firm size and performance ($p < 0.01$). The ownership type and geographical distance do not show any
statistical significance in Model 1. In the Model 2, two variables are added, cultural distance and local competition. Analysis results show that cultural distance, which is one factor of liabilities of foreignness, has a negative relationship with subsidiary performance with 0.01 significant level in all the stage. The other factor is the intensity of the local competition. It does not show significant in Model 2. But it can be seen by Models 3, 4, 5 show a highly negative relationship – which are able to tell that they support our hypothesis H1-1 and cautiously H1-2.

Model 3 has shown how many they have local experience and local manager as a part of the subsidiary capability on localization. The local experience has a positive relationship with subsidiary performance (p < 0.01). The percentage of local manager hiring, which presents the extent of localization of the subsidiaries, has a positive relationship (p < 0.05) as well. This supports our previous assumption that local managers are better equipped to manage opportunities and crises by better adapting to the local market, improving responsiveness to local market changes, and establishing stronger local networks.

In Models 4 and 5, we investigate the interaction effects of cultural distance, local competition, local experience, and local managers on subsidiary performance. First, in the Model 4, the interaction of cultural distance with local experience has a positive effect on the subsidiary performance, but the pairing of cultural distance and local managers show no significance. In general greater cultural distance means greater liability of foreignness, which negatively affects subsidiary performance and this view is highly supported with the statistic evidence in this study. This result shows additionally that the accumulation of local experience can help overcome the cultural distance by allowing the subsidiary to gain familiarity on local culture, policies, and customs and thus to have better financial performance. However, local managers has no impact on the reduce the impact of cultural distance on the financial performance.

In looking at the effects of local experience and local managers on addressing the intensity
of the local competition in the Model 5, the results show a positive relationship in local manager and performance with high significant level, but local experience offers no significant. According to the result, it may expect that better performance of the subsidiary in the high competition cannot be accomplished only by accumulating local experience, and proves that hiring of local manager is the most effective response. Thus, this result supports our hypotheses H2-2 and H3-1. Model 6 takes into account all variables. Interest thing is that the geographical distance has positive relationship with subsidiary performance which is opposite direction to what the cultural distance shows. It can be interpreted that although geographical distance and cultural distance, the both are positive correlated with the high level of significant as seen in Table 2, thus, we can say the possibility that in general the further geographical distance is, the bigger cultural distance is, but not to all the cases. As the cultural distance of the closest country may be bigger than the one of the long distance country (e.g. comparing 2.657 to Japan and 0.755 to Indonesia), the interpretation about the both distances need to be careful.

According to the result of moderating effect, we conducted a simple slope test for the cultural distance by local experience and the local competition by local manager. It can be shown well in Figure 2 as below and the slopes express the interaction between local experience and cultural distance, local manager and local competition.

Figure 2: Local Experience and Local manager as a Moderator of Cultural Distance and Local Competition
In conclusion, our results empirically prove that cultural distance and local competition weigh down subsidiary performance as liability of foreignness. Our findings also show that these liability of foreignness can be overcome through localization efforts; more specifically, our results demonstrate the effectiveness of local experience against cultural distance and local manager as an effective remedy for local competition.

In a review of the autocorrelation, the Durbin-Watson statistics of the study posted 1.824, which is closer to the base line 2 and not leaning towards the extreme ends of the spectrum (0 or 4). This indicates that there is no autocorrelation in the residuals from our regression analysis. And when comparing Model 3 with Models 4, 5, and 6, we can see that the R-square value progressively improves, which confirms its moderating effect on the p-value (p<0.01 each). In short, our findings show that local experience and local manager, as localization variables, have a moderating effect in the relationship with liability of foreignness and subsidiary performance.

DISCUSSION AND CONCLUSION

When entering a foreign market, the MNEs’ primary goal to is maximize growth and profits. Yet, lack of familiarity with the host market and cultural distance stemming from doing business abroad tend to weigh down subsidiary performance. The added costs of hiring and managing local staff, overcoming cultural and language barriers, and coping with unfamiliar legal/policy frameworks and customs prevent the subsidiary from fully utilizing its firm-specific advantage as it would at home. As such, MNEs harboring ambitions of global expansion must find ways to effectively control and manage tangible and intangible costs associated with the doing business abroad as a foreign unit, which have been thus far referred to as the LOF.
Extant literature on the subject confirms the negative effect of LOF on subsidiary performance, but falls short of shedding light on how to overcome these liabilities. Few research that touch on how to offset LOF are theoretical models based on case studies or technical/statistical analysis on limited samples, and face limitations in their implications. Above all, empirical studies on determinants of Korean subsidiary performance moderated by LOF and localization are conspicuously lacking. This study aims to broaden the scope of research in this field by filling in these gaps.

This study extends the following implications and contributions. First, we give empirical evidence to support the negative effect of cultural distance and local competition on subsidiary performance, which proves that these factors act as LOF. Our findings suggest that penetration of overseas markets need strategic countermeasure that take into account the cultural differences between the two countries and the competition the MNE subsidiary will most likely encounter in the host market.

Second, cultural distances can eventually be overcome by accumulating experience in the host market. By gaining knowledge on the local market, the subsidiary can reduce its errors and effectively become embedded in the local environment while also gaining legitimacy in the market. Thus, when a firm enters a new market, it is important that it makes an earlier entry than its rivals to gain earlier exposure and thus faster adaptation to local culture. This allows the unit to overcome the cultural differences at a swifter pace and post better results vis-à-vis rivals. However, a distinction must be made between cultural distance and local competition; the former can be overcome with accumulation of market experience, while market experience is insufficient to address disadvantages stemming from local competition.

We offer localization of management as the best solution to overcoming local competition. As mentioned earlier, the localization of staff is an important resource and strategy used by the foreign subsidiaries to gain an upper hand in the host market. Local managers have extensive knowledge on local market conditions, can better understand the subtleties of the
local market environment, and are better equipped for an effective network building. (Hailey, 1996; Wall, 1990; Wernerfelt, 1984). Also, replacing expatriates with local workforce can reduce costs by replacing higher cost of maintenance of expatriates with regular local wages (The EIU Limited, 1997). Local managers also share common social and cultural backdrop with the local staff, and can more effectively communicate with their subordinates (Hailey, 1996). In other words, hiring local managers not only facilitates and accelerates information acquisition, but also raises staff morale and helps the unit to be viewed as a local instead of a foreign player.

In this study, we explore the determinants of foreign subsidiary performance by using LOF as a causal factor and measuring the moderating effects of market experience and localization on the LOF-subsidiary performance relationship. Our use of real financial data from MNE subsidiaries helps differentiate our study from previous research by offering a rare empirical analysis on market experience and localization.

Unfortunately, we also face the following limitations. First, this study can be seen as a cross-sectional research, as we were unable to procure necessary financial material from a wider time frame and our data collection is limited to a single year, 2007. Considering the relative scarcity of financial record-based empirical studies on the subject, however, our study - even when restricted to a single year - offers a significant and valuable contribution to the general body of research. That being said, future efforts should employ panel analysis and offer a more longitudinal study design to reinforce the strength and causality of the relationships listed herein.

Second, for the purposes of this research, we limited our measurement of localization variables to market experience and local management. In reality, localization is a complex concept which embodies diverse variables which we overlooked in this study. For instance, localization could also be measured by gauging the share of local sales and local purchases. Our limited access to extensive secondary financial sources prevented us from conducting a
more inclusive analysis of localization. Future research will need to address these shortcomings by securing additional data to provide a more multifaceted representation of localization.

Third, as mentioned earlier, this study has limited industrial scope as we explore only the electronics and machinery industries. Future research should be expanded to include a wider range of industries so as to broaden the applicability of the findings. Our investigation of the two industries offer significant insight, especially considering their contribution Korea’s GDP. However, a more thorough study that includes the chemical, metal, food, and other key manufacturing industries will help further advance the framework of analysis.

Finally, this study uses ROA, a commonly used financial indicator that shows the profitability of the unit, to assess subsidiary performance. Yet, financial gain is just one aspect of subsidiary performance and is not able to reflect all the other strategic goals of headquarters. The MNEs have various strategic motives in establishing a subsidiary: to accumulate strategic information on the host market, secure local supplies, build local assembly lines to export back to headquarters, or enter a new market to keep rivals in check. A purely financial assessment neglects these non-financial objectives and provides only a one-dimensional understanding of subsidiary performance. Future research will need to consider these factors and expand the scope of investigation for a more meaningful and comprehensive understanding on the subject.
Reference


