How Do Linking, Leveraging and Learning Capabilities Influence the Entry Mode Choice for Multinational Firms from Emerging Markets?

Abstract
Purpose – Based on the linkage-leverage-learning (LLL) framework developed by Mathews (2006), this study aims to examine how linking, leveraging and learning capabilities influence the foreign-entry mode choice and the way such influences are contingent on context factors in the emerging markets.
Design/methodology/approach – Contrary to prior literature applying the LLL framework, which mainly used case studies, this paper adopts a quantitative approach and is based on a sample of 321 Chinese listed companies to test hypotheses.
Findings – The results show that multinational firms from emerging markets (EMFs) with stronger LLL capabilities are more likely to choose the wholly-owned mode in foreign entries. Further, the relationship between linking capability and wholly-owned entry mode choice is weaker at higher levels of cultural distance between home and host country, whereas the relationship between learning capability and wholly-owned entry mode choice is weaker at higher levels of cultural distance between home country and host country and of institutional distance between prior entries and the focal entry.
Research limitations/implications – Recommend entry mode strategy for firms without ownership advantages and identify the boundary conditions for applying different LLL capabilities. The generalizability of the findings from a single country setting still need further validations with other emerging economies.
Originality/value – This paper treats internationalization of firms from emerging country in a different perspective. The underlying idea in this study is that internationalization is not only a process for EMFs to utilize externally accessible assets to overcome liabilities of foreignness abroad, but also a process of simultaneously combining internationalization with experiential learning and capability utilization in overseas markets. Further, we also contribute by providing strong empirical evidence for validating the LLL model and extending the existing entry mode studies.
Keywords Entry mode, Linkage, Leverage, Learning, Emerging economy
Paper type Research paper
1. Introduction

“Emerging multinational firms are shaking up entire industries, from farm equipment and refrigerators to aircraft and telecom services, and changing rules of global competition”.

—Business Week (2006, p. 42)

Unlike the “first wave” of internationalization dominated by developed countries (Kumar and Mcleod, 1981), the “second wave” of internationalization is characterized by the rise of emerging multinational firms (EMFs), which have become important global players in recent years (Bonaglia et al., 2007, Demirbag et al., 2009). According to the World Investment Report 2014, outward foreign direct investment (OFDI) from developing economies and transition economies reached 481 billion US dollars, accounting for 34.6% of total worldwide outward outflows and maintaining strong growth potential.

EMFs are different from multinational companies (MNCs) from developed countries in many aspects, especially as to motivation, strategy and behavior in the internationalization process (Buckley et al., 2007, Deng, 2004, Guillén and García-Canal, 2009). As claimed by the classical OLI framework, MNCs from developed countries enjoy ownership (O), location (L) and internationalization (I) advantages in foreign entries (Dunning, 1988, Dunning, 2006). In contrast, EMFs lack ownership advantages like superior technologies or marketing expertise (Demirbag et al., 2009, Luo and Wang, 2012). Thus, EMFs may be driven by asset-seeking rather than asset-exploiting motives in order to get access to advanced technologies and management expertise.

During the past decade, researchers have attempted to establish a theoretical framework beyond the OLI paradigm to explain the entry mode choice of emerging economies. One stream of research focusing on the internationalization strategy from emerging countries argues that FDI from emerging countries is used as a springboard or strategic move for acquiring desired assets (Luo and Tung, 2007). Another stream of research emphasizes that EMFs can also enjoy ownership advantages from their
home country such as low production cost bases, political ties, a preferential government policy, or a large domestic market (Cui and Jiang, 2010, Liu et al., 2015, Rugman and Li, 2007). These research streams often implicitly take internationalization as a process in which EMFs operate in foreign markets with different institutional and market characteristics from their home countries through acquiring externally accessible assets (host-country-based) or utilizing externally existing ownership advantages (home-country-based). In fact, internationalization is more than a process of exploiting externally existing capabilities and resources. More importantly, it is primarily a process for EMFs to utilize their internal capabilities, which are gradually built through experiential learning abroad, as well as a process of simultaneously combining internationalization with learning and catching up in globalization (Li, 2007, Li, 2010, Mathews, 2006). Compared with MNCs from developed countries, EMFs without advanced technical expertise and experience have a disadvantage (Li, 2007). Yet, increasing competition from MNCs in their domestic market sometimes gives EMFs no choice but to go abroad and to build capabilities adapting to the globalization trend (Rugman and Li, 2007).

Against this background, unlike the importance to investigate how firms expand their existing advantages to foreign markets for MNCs, we rather want to provide evidence about what kind of capabilities EMFs need to mitigate liabilities of foreignness abroad and how they exploit such capabilities. These questions have not yet been well-explored in the literature. Thus, the Linkage-Leverage-Learning (LLL) framework proposed by Mathews (2006) provides a new perspective to answer such questions. This framework claims that EMFs develop specific capabilities by linking with local partners, leveraging the resources available across borders and learning to absorb and adapt to the local investment environment, in order to accelerate their expansion and catch-up. However, although the LLL model has been around for nearly a decade so far, there are still few empirical studies to test its validity in emerging countries. Hence, in this paper, we intend to decode internationalization as a mix of business operation and learning process for EMFs and establish an extended framework based on the LLL model to explain the entry mode choice of EMFs in
terms of wholly owned (WOS) versus joint venture (JV). Meanwhile, this study also provides an opportunity to empirically test the validity of the LLL model. In doing so, following the original effort by Mathews (2006), we define LLL as three different capabilities. Specifically, the *linking capability* is defined as the extent to which extensive firms are embedded in the local networks of a specific host country through various forms of collaborative partnerships or linkages; the *leveraging capability* is defined as the capability developed through transnational operations in different countries, while the *learning capability* refers to the degree to which a firm has accumulated knowledge through prior foreign entries and has developed competences that facilitate the running of existing operations and the establishment of new ones.

Furthermore, although many prior studies give rich insights into the determinants of entry mode, there are still some important gaps left to be filled. After reviewing papers on entry mode from the *Journal of International Business Studies, Strategic Management Journal, Academy of Management Journal, Journal of World Business, Journal of International Management, International Business Review, Management International Review, Asia Pacific Journal of Management and Journal of Business Research* during the period of 1995 to 2015, we find two gaps. First, although the role of capabilities (such as R&D capability, managerial expertise, or experience) has already been highlighted in the literature on entry mode (Chang and Rosenzweig, 2001, Chen and Hennart, 2002, Oehme and Bort, 2015), the leveraging and linking capabilities have been examined less, with a few exceptions discussing the role of political ties in determining the EMFs’ entry mode (Cui and Jiang, 2012). Second, only a few studies have investigated the contextual factors under which those capabilities can play a role. While a few exceptions emphasized that the relationship between firm-level capabilities and entry mode is contingent on institutional factors, these studies only treat contextual factors as constraints instead of facilitating conditions (Ilya et al., 2015, Dow and Larimo, 2011, Li and Meyer, 2009, Kouznetsov et al., 2014). Actually, EMFs may encounter both favorable and unfavorable contexts when going abroad, and both may have a distinctive influence on the relationship between capabilities and entry mode choices. Therefore, using a sample from Chinese
publicly listed companies during the period of 2000 to 2012, the present study attempts to fill in these research gaps by exploring how LLL capabilities influence the entry mode choice of EMFs and how context constraints and facilitating condition moderate the relationship between LLL capabilities and entry mode choice. More specifically, we argue that EMFs with strong LLL capabilities can reduce dependence on local partners in OFDI activities and thus choose WOS over JV. We further expect that cultural distance between home country and host country, market potential of host country and institutional distance difference will have different moderating effects on the relationship between LLL capabilities and entry mode choice.

The rest of paper is organized as follows. In section 2 we introduce the theoretical foundation and develop our hypotheses. In section 3, we show our methodology to test the hypotheses. In section 4 we present the results of our study. Finally, in section 5, we conclude with a discussion.

2. Literature review and theoretical background

As to the ownership/location/internalization (OLI) perspective, Dunning (1988) offers a holistic approach to explain why and how multinational firms with superior ownership advantages overcome liability of foreignness when operate in a foreign country His model is primarily based on large MNCs from developed countries and focuses on how to exploit the existing internal advantages to gain competitiveness abroad. However, EMFs actually don’t possess such superior technological or managerial resources. Thus, the lack of ownership advantages creates a puzzle to the OLI paradigm as it may be questionable in the context of emerging countries.

In response, another line of research attempts to extend the content of ownership advantages for emerging countries and thus offers explanations to EMFs’ internationalization behavior and strategies. EMFs with ambitious motivations to acquire strategic assets abroad always enjoy strong government support, have leverage on political capabilities, and exploit “open door” opportunities (Cui and Jiang, 2012, Rui and Yip, 2008). However, it is worth noting that this line of research
still emphasizes the motivation of exploiting externally available assets in conducting internationalization. Actually, EMFs undertake OFDI not merely for exploiting their existing advantages; they simultaneously strive for upgrading their technology and catching up (Mathews, 2006). Thus, it is more important to study how EMFs take their overseas investment as a process of experiential learning, as well as a process of utilizing experiential learning to mitigate internationalization risk. Against this background, Mathews (2006) adds to prior studies and posits a new LLL model in explaining the unique internationalization paths for EMFs.

2.1. Linkage-Leverage-Learning Model for emerging countries

Mathews (2006) accounts for a new internalization pattern of EMFs by introducing the LLL framework. Specifically, EMFs are less focused on their own advantages but more on forming various partnerships externally with different firms, especially from developed countries, in order to obtain local market intelligence and to reduce the uncertainty of going abroad (linkage). At the same time, they can leverage their established links everywhere and allocate resources optimally under a global fashion (leverage). Through these repeated investments abroad, EMFs learn from leaders and obtain an “economy learning”, which makes them operate effectively around the world (Mathews, 2003, 2006).

Although there is an increasing literature emphasizing the LLL framework in understanding the strategy of EMFs going abroad, there are only a few empirical studies to test the validity of the LLL model in a broad range of firms. One of the few exceptions is Bonaglia et al. (2007), who document how emerging markets’ firms made use of the interconnected character of the globalizing economy to reach global competitiveness. However, the earlier empirical studies within the LLL framework are basically established by case studies. Although these can help us to gain some insights into the foreign entry behavior of EMFs, an empirical study on a large sample is badly needed to validate the generalizability of LLL model. This study will address this issue.
2.2. Entry mode choice for EMFs: WOS vs. JV

EMFs face various kinds of risks and uncertainty in their expansions into foreign countries (Zaheer, 1995). Two options are available for them to overcome these. First, firms’ entry mode choices determine the level of risks when “investing into unknown”. Thus choosing a local partner is an option worth considering for EMFs because they offer complementary knowledge on how to handle local rules and norms, understand local markets, and establish a legitimate image in doing business abroad (Yiu and Makino, 2002). Besides, joint venture partners also give EMFs access to various complementary resources, such as distribution channels and technical employees (Chang et al., 2013). Thus, for EMFs without much advantage in going abroad, joint venture mode is a good option.

A second option for EMFs is to build certain kinds of relevant capabilities to mitigate such a dependence on joint venture partners. We posit that if firms possess some related capabilities, they are less inclined to depend on local partners. Then, EMFs can choose the wholly-owned entry mode to gain the entire profit from investment and secure control over gains and expected risks (Anderson and Gatignon, 1986). For example, previous research in developed countries find that firms can engage in advertising investments in the host country or can develop strong R&D capabilities to overcome market barriers abroad (Chang and Rosenzweig, 2001). Firm also can exploit their prior experience to gain local knowledge for foreign operations (Delios and Henisz, 2000). However, these studies pay more attention to MNCs from developed countries, ignoring what kind of capabilities are needed for EMFs in order to substitute the necessity of choosing joint venture entry mode.

According to the LLL model, we expect that, although EMFs do not enjoy the same ownership advantages as firms from developed countries, they have their ways to build LLL capabilities to mitigate the dependence on the joint venture entry mode. Thus, we first test the main effect of LLL capabilities on the entry mode choice. Then, we introduce the moderators for the relationship between LLL capabilities and entry mode choices. According to North (1990), institutions are defined as “the rules of
game in a society” for which “the formal and informal constraints that shape human interaction”. Formal institutions are reflected in political rules, legislatures, legal decisions and economic issues (Schwens et al., 2011). In contrast, informal institution refers to values and norms that govern people’s behavior and decisions. Thus, in order to fully capture the moderating role of different dimensions of institutions, we follow the distinction of formal and informal institutions by North (1990) and take both of these two dimensions into consideration. In this study, cultural distance is treated as informal dimension of institution while institutional distance is treated as formal dimension of institution. In particular, as linking capability is more related to the communication efficiency between EMFs and external partners (Hofstede, 2001, Tanova and Nadiri, 2010) culture distance between home country and host country will directly affect the efficiency of communication between EMFs and linkages outside. Thus we will test the moderating role of culture distance between home country and host country on the relationship between linking capability and entry mode choice. In addition, as leveraging capability is mainly associated with the resource configuration for overseas operations across countries, the degree of need for leveraging capability to make efficient operations across countries is directly related to the market potential in the host country (Lee and Makhija, 2009). As learning capability comes with the replicated use of prior experience over time (Evans and Mavondo, 2002), we expect the effect of learning capability on entry mode choice to be moderated by the culture distance between home country and host country and the institutional distance difference between prior entry and focal entries. The research model is illustrated in the Figure 1.
3. Hypotheses

3.1. Linking capability and entry mode choice

Relational capital allows firms to access and deploy resources abroad and contributes to firms’ competitive advantage abroad (Chen and Hu, 2002). As suggested by Satta et al., (2014), building linkages in foreign markets offer a viable option for EMFs to enter into a new market and catch up quickly. Thus, EMFs can build strong linking capability by extensive embedding into a network of local linkages in past investment (Ghoshal and Bartlett, 1990, Satta et al., 2014). These linkages are mainly built through partnerships and joint ventures with established players, which facilitate resource sharing and resource pooling (Bonaglia et al., 2007). Alternatively, these linkages also can be built through prior greenfield presence in a specific location or through frequent interaction with local environment, thus a building close relationship with local stakeholders (Eriksson et al., 1997).

When EMFs possess a strong linking capability, they can reach out to extensive local networks to obtain local knowledge of markets. As a result, on the one hand, these local partners will help firms adapt to local rules and norms, and efficiently
obtain knowledge about the local consumer behavior, culture and the legal system (Roy and Oliver, 2009). On the other hand, extensive linkages with local connections give EMFs a more legitimate image, which is an important intangible resource in overcoming liability of foreignness in the foreign entry (Shi et al., 2014). As a whole, these two advantages for EMFs with strong linking capabilities can reduce their perceived risks and dependence on making joint venture partners when making a new foreign entry.

In contrast, EMFs with weak linking capabilities will be more likely to be subject to an uncertain environment, given the unknowns of operating in setting different from their home countries. As such, they are more inclined to choose a joint venture partner to secure their operations in a foreign entry. Following this, we posit that,

*Hypothesis 1.* EMFs with a stronger linking capability are more likely to choose wholly-owned mode, as opposed to joint venture mode.

### 3.2. Leveraging capability and entry mode choice

For multinational firms, every subsidiary unit in a certain country is not an isolated node but a part of a portfolio of networking units (Ghoshal and Bartlett, 1990). Resources or information in one country can be transferred to another country in order to gain operations efficiency at a lower cost. Hence, it is important for EMFs to have a strong leveraging capability so as to actively manage interdependencies across subsidiaries in different countries (Lee and Makhija, 2009).

EMFs with strong leveraging capabilities have good access to global resources inside and outside their organizations and can mobilize different resources in a flexible fashion (Singh, 2008). If one subsidiary in a country lacks some kind of resources, such as technical employees or raw materials, EMFs can react quickly to these shortfalls and efficiently reallocate resources in order to balance the production and supply across borders (Chung and Isobe, 2010). Besides, leveraging capabilities can help EMFs to achieve economies of scale and scope in operations (Berry, 2014).
However, in contrast, EMFs with weak leveraging capabilities will rely a lot on their local joint venture partners to obtain the resources they are lacking.

In addition, EMFs with strong leveraging capability can exploit transnational information channels (Fisch and Zschoche, 2012). Although large uncertainties and risks may exist in foreign markets, such information channels provide EMFs with broad knowledge from different host countries about the institutional environment, the way of doing business, and the way of handling relationships with local stakeholders. Hence, we expect that:

_Hypothesis 2._ EMFs with stronger leveraging capabilities are more likely to choose wholly owned mode, as opposed to joint venture mode.

### 3.3. Learning capability and entry mode choice

Knowledge is one of the important barriers for EMFs’ expansion across countries (Johanson and Vahlne, 1977). Through engaging in multiple investments over time, repeated application of business practice is assimilated into organizational memory and is institutionalized into organizational routines (Levitt and March, 1988). Gradually, such routinization of activity helps a firm to efficiently develop learning capabilities to overcome obstacles in making a new entry (Chang, 1995). Thus, _learning capability_ allows a firm to accumulate knowledge through prior foreign entries and develop competences that facilitate the running of existing operations and the establishment of new ones.

While foreign entries may have disadvantages over local firms, EMFs with strong learning capability will be familiar with the specific knowledge of their industrial, institutional and socio-cultural environment (Kogut and Zander, 1993), have a well-established marketing and distribution network, and can conduct their business according to the local practices (Pedersen and Shaver, 2011, Åkerman, 2014). In this case, the need to acquire information on the host country through joint venture partners is less critical. In the meantime, routines built up before save EMFs efforts
when investing abroad, thereby reducing the time spent on the knowledge exploration and calculation (Nadolska and Barkema, 2007). In this way, EMFs can efficiently scan, process and analyze information about the circumstances to do business equipped with a strong local knowledge base, and can adapt prior business practices to the local environment (Lu et al., 2014). Thus, EMFs will be less likely to depend on local partners through joint venture entry mode. Hence,

**Hypothesis 3.** EMFs with stronger learning capability are more likely to adopt wholly owned mode, as opposed to joint venture mode.

3.4. The moderating role of cultural distance

Culture can be seen as “programming of the mind that distinguishes the members of one human group from another” (Hofstede, 1980). It shapes people’s perceptions, beliefs and behaviors when interacting with each other (Kirkman et al., 2006). When the cultural difference between home and host country is large, it creates a large communication barrier and knowledge gap between EMFs and local linkages (Quer et al., 2012). As the way of doing business is based on different norms and values, cultural conflicts will occur and result in misunderstanding and mistrust between EMFs and local linkages. Consequently, information provided by local linkages will be misinterpreted and EMFs may come to doubt the authenticity of local information (Zeng et al., 2013). This is often the case that the implicit part of culture can often not be translated, and then implicit communication breaks down. Then, the quality of information flow from linkages is reduced and this restricts EMF’s ability to exploit their linking capability when making the entry mode choice. Furthermore, when EMFs exploit their local linkages to establish a legitimate image in a host country, they still face higher legitimate challenges when the cultural distance is large (Quer et al., 2012). Thus, it is less useful for EMFs to exploit their linking capability. Conversely, in a similar cultural context, efficient communication and interactions with local linkages will benefit EMFs considerably in mitigating uncertainty. Hence, we posit that:
Hypothesis 4a. The relationship between linking capability and entry mode choice (wholly owned mode over joint venture mode) will be weakened when cultural distance between home country and host country is large.

The presence of cultural barriers can also harm organizational learning. When the cultural distance is large, cultural practices in a focal host country may not relate to the EMFs’ existing knowledge base. Such cultural differences tend to limit the ability of EMFs to learn from prior experiences in foreign markets (Cho and Padmanabhan, 1995). Further, a large difference in norms and values will increase uncertainty and the chance of failure in the application of learning capability in a focal country (Slangen and van Tulder, 2009). Under this circumstance, EMFs badly need local partners to help them in getting rooted in the local culture environment and to be locally responsive. In contrast, EMFs prefer to invest in culturally close countries, thereby efficiently applying their learning capability to the new place. Thus we posit that:

Hypothesis 4b. The relationship between learning capability and entry mode choice (wholly-owned mode over joint venture mode) will be weak when the cultural distance between home country and host country is large.

3.5. The moderating role of market potential

EMFs with strong leveraging capability can flexibly transfer and allocate resources across borders. However, the extent to which EMFs can fully exploit such leveraging capabilities is contingent on the level of market potential in the focal country. Market potential in a certain country indicates the level of purchasing power and market potential (Berry and Zhou, 2010). When there is a high market potential in the host country, local consumers can afford to purchase more of the EMFs’ products (Cavusgil et al., 2004). Therefore, for EMFs, in order to win the local market over local competitors and meet the increasing demand of local customers, they need to exploit their leveraging capability across borders (Kogut, 1983). EMFs with strong
leveraging capability can leverage different sources of information and expertise around its global production networks to monitor production and market trends in all host countries. They can not only transfer skilled workers between countries but also allocate production factors or products at a low cost and in a rapid reaction to catch the market opportunity (Geishecker, 2010). So, market potential strengthens the necessity and chance of exploiting leveraging capability inter-organizations, thereby decreasing the dependence on joint venture entry mode. Hence,

_Hypothesis 5._ The relationship between leveraging capability and entry mode choice (Wholly owned mode over joint venture mode) will be strengthened when the market potential of the host country is higher.

### 3.6. The moderating role of institutional distance

As discussed above, EMFs with strong learning capability are less likely to rely on the joint venture entry mode. The basic assumption that prior experience can be exploited is in a similar context otherwise prior experience may be applied wrongly to a new situation (Evans and Mavondo, 2002). Against this background, the institutional difference between countries can be a contextual factor influencing the exploitation of learning capability on entry mode choice (Xu et al., 2004).

In this paper, we deliberately focus on the institutional distance between prior entries and focal entry instead of the institutional distance between home country and host country. Prior studies often examine the influence of the latter (Eden and Miller., 2004, Salomon and Wu, 2012). However, as Zhou and Guillén (2015) show, MNCs global expansion is not only shaped by the home country; instead, they propose a concept of “home base” to denote the combination of countries in which the firm has accumulated through prior operations until a given point in time. The underlying assumption is that EMFs can learn from different host countries over time by prior entries (Barkema and Drogendijk, 2007). So, institutional concern is not the EMFs main concern but rather the institutional distance between home base and host country.
When this difference is large, EMFs find it harder to assess and predict government regulation, local expectations and governance structures of the focal country (Gaur and Lu, 2007, Karhunen et al., 2014). This makes it more difficult for EMFs to use prior strategic routines abroad (Ang et al., 2015). The resulting uncertainty will weaken the exploitation of learning capability from earlier entries. One way to get adapted locally is to involve local partners to help EMFs obtain the required knowledge about institutions and reduce the salient liability of foreignness faced by EMFs.

In contrast, when institutional distance difference is low, EMFs can exploit their learning capability efficiently in a new entry as they are better able to predict institutional conditions in the host country. Hence,

_Hypothesis 6._ The relationship between learning capability and entry mode choice (wholly owned mode over joint venture mode) will be weakened when institutional distance difference between prior-entry countries and focal-entry country is large.

4. Methodology

4.1. Sample and Data

Our study is based on two data sources. One is the set of Chinese companies listed on the Shanghai and Shenzhen Stock Exchanges. The data come from the China Stock Market and Accounting Research database (CSMAR) which is accepted as a reliable database for Chinese listed companies (Kato and Long, 2006, Xia et al., 2014). The other source is the list of OFDI projects, obtained from the Ministry of Commerce of China (MOC). We have merged these two datasets by company name and cross-checked them by annual reports, board announcements and websites. The firm-level variables that we use come from annual reports or the CSMAR database which is accepted as the reliable database for Chinese listed companies (Kato and Long, 2006, Xia et al., 2014).
We select our research samples based on the following procedure. First, we exclude: (1) foreign-entry projects in the form of branch offices and representative institutions, because they are not exactly OFDI and need very little commitment, and (2) investments projects in Hong Kong and Macao or other tax havens because OFDI in these destinations will primarily be driven by tax considerations (Hampton and Christensen, 2002). We have also omitted projects where the listed firm holds less than 10% of the equity. Finally, the dataset consists of 321 firms, which together had 1043 projects during the period of 2000-2012.

4.2. Statistical Model

Because the dependent variable in our study Entry mode choice WOS or JV, is dichotomous, a binary logistic regression model is appropriate for our analysis. The logistic regression model is,

\[ P(y_i = 1) = \frac{1}{1+\exp(-\alpha - X_i\beta)} \]

where \( y_i \) is the dependent variable and \( X_i \) is the vector of independent variables for \( i \)th observation, \( \alpha \) is the intercept parameter, and \( \beta \) is the vector of regression parameters. The model was estimated with Stata 17.0. In order to obtain robust estimated standard errors, we follow Slangen and Hennart (2008) and Xu et al. (2004) and report clustered standard errors.

4.3. Measurements

4.3.1. Dependent variable

The dependent variable, entry mode choice, equals 1 if the project is a wholly owned mode and 0 otherwise. Wholly owned is defined as the parent firm owning over 95% of the equity of the foreign firm, and joint venture is defined as the parent firms have ownership share in 10%-95% of the foreign firm (Chen and Hennart, 2002, Brouthers, 2002).
4.3.2. Independent variables

We establish a set of proxies for LLL capabilities based on Mathews’s (2006) research. As discussed above, linking capability involves the number of local linkages in a specific host country. When EMFs invest in a certain country for many times, they are likely to establish more linkages with local stakeholders than EMFs without any prior investment (Guler and Guillén, 2010). Thus, the number of prior investments in a specific country can serve as a proxy for linking capability. In the same vein, leveraging capability emphasizes EMFs’ ability to transfer, allocate and reconfigure business operations resources across borders and in different countries (Chakrabarti et al., 2009). If EMFs have operated in geographically diverse countries, they are more capable of configuring and adapting their resources and capabilities across multiple locations and thus have more flexibility to mobilize the resources across countries when compared to firms operating in a single country (Lee and Song, 2012). So we measure leveraging capability as the numbers of different host countries in which firms have invested before the focal entry. Finally, as learning capability is typically developed through a process of “learning by doing”, which is a positive function of the length of presence in the foreign countries. If firms have invested abroad for a long time, they are more familiar with local institutions, suppliers and business environment. Therefore, we use time length as a proxy for learning capability and count the number of years that the EMFs have been operating in foreign countries (Brouthers, 2002, Luo, 1999).

4.3.3. Moderating variables

Cultural distance in this study is measured using the Hofstede (1980) items (power distance, collectivism versus individualism, femininity versus masculinity, and uncertainty avoidance) and replicating the methodology used by Kogut and Singh (1988).

GDP growth rate indicates the market potential and market attractiveness of the focal country (Reuer et al., 2005). Thus, following previous studies (Hou et al., 2013), we use GDP growth rate, as supplied by the World Bank, as a proxy.
We test the moderating role of institutional distance between prior entries and focal entry based on governance indicators established by the World Bank (WGI) (Kaufmann et al., 2006). The WGI have been utilized in a wide range of studies of the impact of institutions on firms’ internationalization decisions (Ang et al., 2015, Lu et al., 2014). The dimensions of WGI include voice and accountability, political instability and violence, government effectiveness, regulatory quality, rule of law, and control of corruption. We use the average value of the six dimensions to measure institutional distance, because principal component analysis results show that all six dimensions are more than 85% explained by one factor. We measure institutional distance as the difference of WGI value between China and the host country in question. We take absolute values of difference scores. In this study, we also control for institutional distance between home and host country.

As to institutional distance difference between prior entries and focal entry, we use the value of institutional distance between home country and host country as discussed before, and calculate it using the following formula:

\[
\text{Institutional distance difference}_{\text{prior entries vs. focal entry}} = \left| \frac{\sum_{i=1}^{k} ID_i}{k} - |ID_{focal}| \right|
\]

In the formula, \( ID_i \) is the institutional distance between China and the focal country for the \( i_{th} \) investment and \( k \) is total number of investments prior to the focal investment. \( ID_{focal} \) stands for the institutional distance between China and the focal country. Hence, we calculate a difference between the former part and later part and take absolute value. The larger the value of this measurement, the higher difference between the prior entries and focal entries.

4.3.4. Control variables

We also control for some differences at the country, industry and firm level. At the country level, there are various kinds of cross-national distances affecting a firm’s
overseas preference (Holburn and Zelner, 2010). We include different distance measures from two sources. **Administrative distance, Demographic distance, and Geographic distance** are obtained from a database developed by Berry and Zhou (2010). **Institutional distances** between home country and host country is measured according to the WGI's database. In addition, we include a dummy with value one if China and the focal country have signed a trade agreement before the focal year, and zero otherwise. We obtained the trade agreement list from MOC. At the industry level, we control for the influence of industry characteristics using eleven dummies for the **industry** variable, coded as one if the subsidiary was in a specified industry and zero otherwise, based on the National Industry Classification Standard. At the firm level, we control for **Firm size** as the logarithm of the total assets of the firm in the year before the focal year. We control for **Firm age** as the firm’s founding year subtracted from the focal year (Xia et al., 2014). In addition, as prior joint venture experience will enable the focal firm to obtain knowledge and to deal with risks (Delios and Henisz, 2000), we control for **Prior joint venture experience**, which is measured as the total number count of investments conducted through joint venture before the focal year. Finally, we include a dummy **State ownership**, which equals one if the firm’s ultimate controlling shareholder is a state entity or is owned by a state entity and equals zero otherwise. To control for the time effects, we include year dummies in our model.

5. Data Analysis

Table 1 gives the descriptive statistics of all variables and their correlations. All correlations are below 0.5, except for the correlation between cultural distance and institutional distance ($r=0.57$). To assess the potential threat of collinearity, we estimate the variance inflation factors and find they are below 3, indicating that multicollinearity is not a concern given the recommended ceiling of 10 (Belsley et al., 1980).

Table 2 shows the results of the logistic model. Model 1 is the base line model that includes control variables. Model 2 to 4 separately test the main effects of the
LLL capabilities on entry mode choice. Model 5 adds moderating variables. Model 6 to Model 9 separately test the moderating role of context constraints and facilitating condition. Model 10 is the model that includes all variables.

Insert Table 1 and 2 about here

In Model 1, it appears that institutional distance between home country and host country ($p<0.1$), bilateral agreement ($p<0.1$) and firm age ($p<0.05$) have significantly positive influences on wholly-owned mode choice while EMFs with higher joint venture experience will be more likely to choose joint venture. The coefficients for the linking capability variable in Model 2 ($p<0.001$) and Model 3 ($p<0.001$), 4 ($p<0.01$), 5 ($p<0.05$) are positively significant. The coefficients of learning capability are also positively significant in Model 4 ($p<0.05$). The coefficients of leveraging capability are positively significant in model 3 ($p<0.05$), 4 ($p<0.05$) and 5 ($p<0.05$). Therefore, Hypothesis 1, 2 and 3 are supported. It suggests that EMFs with strong LLL capabilities are more likely to choose wholly owned mode over joint venture mode.

As seen in Table 2, the coefficient of interaction term of linking capability and cultural distance in Model 6 is negative and significant ($p<0.05$), supporting our hypothesis 4a. The results indicate that when cultural distance between home country and host country is large, EMFs would rather not choose wholly owned entry mode. Similarly, hypothesis 4b states that the positive relationship between learning capability and wholly owned mode choice will be weakened when cultural distance is large. It is marginally supported in Model 7 ($p<0.1$). However, the coefficient for the interaction between leveraging capability and market potential in Model 8 is positive but insignificant, which suggests that hypothesis 5 is not supported. Hypothesis 6 suggests that institutional distance between prior entries and focal entry will negatively moderate the relationship between learning capability and wholly owned mode. The coefficient of the interaction term between learning capability and institutional distance difference between prior entries and focal entry in Model 8 is significantly negative ($p<0.001$), supporting our hypothesis 6. Overall, all hypotheses have been supported except hypothesis 5.
To examine the sensitivity of our results to the specification of the dependent variable, we have also estimated the models where the dependent variables simply is the percentage of ownership. Since it lies between zero and one, we now have a Tobit model. From table 3, the results as to the hypotheses appear to be the same.

6. Discussion and Conclusion

This study empirically tests how LLL capabilities influence EMFs’ entry mode choice and how context constraints and facilitating conditions moderate these relationships. Our results suggest that EMFs with strong linking capability, leveraging capability and learning capability are more likely to choose the wholly owned mode over the joint venture mode. In addition, the relationship between linking capability (or learning capability) and wholly-owned entry mode choice is negatively moderated by cultural distance between home country and host country, whereas the relationship between learning capability and wholly-owned entry mode choice is negatively moderated by institutional distance between prior entries and focal entry.

However, we do not find empirical support for hypothesis 5. A possible explanation for a firms’ foreign entry decisions are interdependent. Firms have to consider the focal entry against their global operations in order to maximize their total efficiency (Kim and Hwang, 1992). Thus, the exploitation of leveraging capability will not just focus on the market potential of one host country. If other countries have higher market opportunities, the impact of market potential of the focal country will be weakened.

6.1. Contributions to LLL model

This study makes important contributions to the LLL model in helping us to better understand the internationalization behavior of multinational firms from emerging countries. Firstly, the adaptability of the OLI paradigm has been doubted (Li, 2010, Mathews, 2006). Our exclusive focus on the influence of LLL capabilities on entry mode differs from earlier entry mode studies in the context of developed countries,
which assumed that MNCs should possess advanced technology or sophisticated market expertise (Luo and Tung, 2007). However, possessing ownership advantages ex ante is not a prerequisite for EMFs that started internationalization very late and suffer from competitive disadvantages. Instead, our study finds that EMFs with a higher level of LLL capabilities also can mitigate uncertainties and choose wholly owned mode. In doing so, we complement the traditional OLI paradigm by emphasizing how EMFs exploit LLL capabilities other than traditional ownership advantages to overcome liability of foreignness.

Secondly, we also contribute to the increasing number of studies of EMFs’ internationalization strategies by extending the LLL paradigm. We find that EMFs can develop LLL capabilities over time in the internationalization process. It extends existing studies of EMFs’ global strategies that focusing either on acquiring externally accessible assets (host-country-based) or on utilizing externally existing ownership advantages (home-country-based) (Cui and Jiang, 2012, Rugman and Li, 2007). In our study, we elaborate the idea that internationalization is beyond the traditional process of the exploitation of externally existing capabilities and resources, and is a process to both exploit internal capabilities that are incrementally built through experiential learning abroad, and combine internationalization with learning and catching up (Mathews, 2006). Through developing and accumulating capabilities by linking with external ties, leveraging resources across borders and learning over time, EMFs can mitigate the dependence on joint venture partners.

Thirdly, we provide strong empirical evidence for Mathews’ (2006) LLL model in the context of emerging economies and extend this model by identifying the boundary condition of LLL model. Prior studies related to the LLL model are mostly based on case studies. For example, Tan and Mathews (2015) test the importance of resource leveraging by Chinese wind turbine manufactures to explain the phenomenon of accelerated internationalization by EMFs. Si et al. (2013) review the pros and cons of the OLI model and the LLL model and test the plausibility of these two models by using Chinese cases. Although case studies can help us gain some insights into the reality and provide details on how the capability-building process
helps EMFs entering foreign entries and catching up, the generalizability of these findings still requires further validation. China, as one of the greatest economic powers in the world, is one of the largest sources of OFDI among the emerging economies, providing an appropriate empirical setting to test LLL model. Our study has looked into the validity of the LLL model using a large data set. In addition, the overarching studies using case studies mainly emphasize the direct influence of capability on international strategy, ignoring the influence of contextual factors on the relationship between firm capability and international strategy under the LLL framework. Our theory and empirics—with emphasis on how the value of firm’s capabilities varies depending on different levels of context constraints, rather than only focusing on capabilities that enable firms to utilize—distinctly place our work under the existing studies.

6.2. Contributions to entry mode studies

This study also adds to the existing knowledge about the determinants of foreign entry mode choice. Prior studies in testing the influence of capability on entry mode choice primarily focus on functional-based capabilities, such as R&D capabilities (Yiu and Makino, 2002), proprietary know-how (Schwens et al., 2011), or marketing capabilities (Chen and Hennart, 2002). There are still but a few studies discussing the role of linking capability and leveraging capability in determining entry mode choice of EMFs. Our results add to the existing entry mode studies by incorporating the impact of linking capability and leveraging capability into the potential set of capabilities EMFs should build in internationalization process.

Furthermore, we add to the existing entry mode studies by exploring the interaction mechanism between firm capabilities and contextual factors. Most prior studies either focus on direct firm-level, industry-level, or country-level determinants or examine the contingent factors in the relationship between host country environment and entry mode choice (Oehme and Bort, 2015, Slangen and Hennart, 2008, Yiu and Makino, 2002). Only a few exceptions have attempted to investigate the boundary condition of exploitation of firm capability factors. For example, Li and
Meyer (2009) address home country environment as the boundary condition in disentangling the mixed relationship between experience and ownership strategies. Schwens et al. (2011) find the moderating role of informal and formal distance in the relationship between experience, R&D and entry mode choice. Thus, we make the additional effort to examine the contingent factors in influencing the relationship between LLL capabilities and entry mode choice.

6.3. Managerial relevance

By empirically extending and testing the LLL framework, our study also has several practical implications. Firstly, although EMFs often don’t possess advanced technologies or rich managerial experience, their managers still can choose the wholly-owned entry mode by developing certain linkages in potential host countries, establishing facilities for flexible operations across markets, or accumulating international experience in overseas management. Second, contextual difference across countries matters when managers make their entry mode decisions. This is consistent with previous studies, which indicate that managers who recognize country differences are in a better position to decide on the entry mode (Eden and Miller., 2004). Managers from EMFs should be aware of the weakening moderating role of both cultural distance and institutional distance. Furthermore, our results also show that the reference point of country difference is not only based on the difference between home country and host country. As firms accumulate experience and capabilities, the real distance faced by the EMFs’ managers also includes the institutional difference between prior entries and focal host country entry. More specifically, our study reveals that, when the institutional distance between prior entries and focal entry is high, firms with higher levels of learning capability are more likely to rely on joint venture partners so as to lower the ownership of entry mode.

7. Limitations and future research

As with all empirical studies, we have several limitations that may provide
opportunities for future research. First, the research sample is restricted to Chinese multinational firms. Although China is the largest emerging economy and experiences the second wave of internationalization, there is still a concern about whether the findings from a single country setting can be generalized to other emerging economies. As recently mentioned by Hilmersson (2013), there is a “third wave of firm internationalization” in which there is a constantly increasing number of small- and medium-sized enterprises (SMEs) from the Western world starting up business in the newly-opened economies like Eastern Europe and China. We hope that our model, developed in the context of second wave of internationalization, will in the future be tested in the third wave of internationalization. Second, due to the availability of dataset and the difficulty of building measurement scales with strong reliability and validity, it would be better to measure LLL capability through a survey. We expect that future studies can focus on developing a more refined measurement of LLL capabilities and validating our findings in this study.
Reference


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