The Role of FDI Motives in the Link between Institutional Distance and Subsidiary Ownership Choice by Emerging Market Multinational Enterprises

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Abstract

This study advances the limited generalizability of previous studies that have focused on developed market multinational enterprises (DMNEs) and explores the link between institutional distance and ownership choice of emerging market multinational enterprises (EMNEs). Such studies in the EMNE context have been rare, and we provide key theoretical explanations for EMNEs' distinct FDI motives to act as important contingencies in the link between institutional distance and EMNEs' ownership choices. Analyses of longitudinal data of Chinese firms' internationalization from 2001 to 2017 reveals that the higher the institutional distance, the lower the level of EMNE subsidiary ownership control with market-seeking motives; while the higher the institutional distance, the higher the level of EMNE subsidiary ownership control with knowledge-seeking motives.

1. Introduction

Scholars of global strategy and international business (IB) have become increasingly interested in examining the impact of cross-national distance (Berry, Guillén and Zhou, 2010; Kostova *et al*., 2020; Werner, 2002) and foreign subsidiary ownership choice (Agarwal and Ramaswami, 1992; Ahammad *et al*., 2017; Ahammad *et al*., 2018; Baik *et al.*, 2013; Bhaumik, Driffield and Pal, 2010; Delios and Beamish, 1999; Moalla and Mayrhofer, 2020; Powell and Lim, 2017). The majority of previous studies on this topic have examined developed market multinational enterprises (DMNEs) by positing that such enterprises tend to choose low levels of foreign subsidiary ownership as distance increases in order to reduce market uncertainty and unfamiliarity (cf. Brouthers and Hennart, 2007; Hernández and Nieto, 2015; Morschett, Schramm-Klein and Swoboda, 2010; Slangen and Hennart, 2007; Tihanyi, Griffith and Russell, 2005). This perspective has generated a paramount but neglected research question: Whether and to what extent could this mechanism be equally applied to the context of emerging market multinational enterprises (EMNEs) given that such firms are in the early stage of internationalization and thereby different from DMNEs? EMNE possess distinct types of foreign direct investment (FDI) motives that are different from DMNEs (Ahammad *et al*., 2017; Arslan, Tarba and Larimo, 2015; Brouthers and Nakos, 2004; Dunning, 1993; Erramilli and D'Souza, 1993), such as, for example, EMNEs expand in foreign markets to overcome institutional constraints in their home markets (cf. Child and Marinova, 2014; Gaur and Kumar, 2010; Stoian and Mohr, 2016; Wang *et al*., 2012). These specific FDI motives make EMNEs react to the same institutional distance by adopting different strategies, which in turn is reflected in their subsidiary ownership choice (cf. Reinda *et al*., 2019)—a topic that has unfortunately received inadequate research effort (e.g., Ahammad *et al*., 2018; Dikova, Panibratov and Veselova, 2019; Li *et al*., 2018; Rienda, *et al*., 2019).

This study is designed to address this important question by examining the role of EMNEs' FDI motives in the effect of institutional distance on subsidiary ownership choice. As such, we aim to answer it that is critical in EMNEs' internationalization activities: How do FDI motives of EMNEs change the relationship between institutional distance and degree of foreign subsidiary ownership as opposed to what has been predicted based on DMNEs in regards to selecting subsidiary ownership? Our question is motivated not only by limited studies in the previous literature, but more essentially by its profound importance for advancing the existing literature in at least two major aspects. On the one hand, given that prior studies on institutional distance and foreign market expansions have been predominately concentrated on DMNEs (cf. Ahammad *et al*., 2017; Dikova, Arslan and Larimo, 2017; Hernández and Nieto, 2015; Moalla and Mayrhofer, 2020), the reality is that EMNEs are at a different stage of internationalization and characterized by more aggressive and springboard behaviors. In addition, the fact that EMNEs receive strong institutional support from their home markets (Bonaglia, Goldstein and Mathews, 2007; Luo and Tung, 2007, 2018) implies that previous studies on DMNEs cannot be easily generalizable in the case of EMNEs. EMNEs are also very different compared to DMNEs in the way that, for example, for EMNEs, institutional distance not only generates various costs that could be linked to institutional differences such as costs related to unfamiliarity hazards and relational hazards (Gaur and Lu, 2007), but they also create the opportunity of institutional arbitrage (Wu and Park, 2019). This choice of appropriate ownership status helps EMNEs to either mitigate such costs or take advantage of potential institutional arbitrage or both. On the other hand, although previous studies have considered the impact of MNEs' FDI motives on subsidiary ownership control (Ahammad *et al*., 2017; Dikova and van Witteloostuijn, 2007; Kim and Hwang, 1992; Wang and Larimo, 2020), these studies have not considered how different FDI motives interact with institutional distance to

influence subsidiary ownership choice, as well as their direct effect on subsidiary ownership control (Dunning and Lundan, 2008; Li *et al*., 2018; Powell and Lim, 2017). The empirical findings of previous studies have been mixed at best (Ahammad *et al*., 2018; Moalla and Mayrhofer, 2020; Zhao, Luo and Suh, 2004) and have also been complicated by different stages of EMNE internationalization, which naturally have distinct FDI motives from those of DMNEs. Such double motivations of theoretical intension make investigating the role of FDI in the link between institutional distance and EMNEs' ownership choice particularly important and timely.

In investigating the relationship, we take as our starting point FDI motives and ownership control between institutional distance for two reasons. First, although extant studies have suggested various dimensions of distance, the most attention has been paid to examining cultural distance and firm-level phenomena, including ownership choice (e.g., Ambos and Håkanson, 2014; Berry *et al*., 2010; Beugelsdijk *et al*., 2018; Hutzschenreuter, Kleindienst and Lange, 2015; Powell and Lim, 2017; Shenkar, 2001; Shenkar *et al*., 2020). Institutional distance is more particular for EMNEs, as extant research has suggested that escaping from poor home institutional environments is not the only motive behind Chinese firms' outward investment (Liu, Buck and Shu, 2005), which suggests that other motives such as knowledge and marketing seeking, as Child and Rodrigues (2005, p. 401) indicate, "institutional constraints such as legal uncertainties, obstruction of domestic acquisitions, and regional protectionism through license restrictions do remain a problem, but it seems that successful firms have found ways to accommodate or circumvent them." Second, in EMNEs' overseas expansion, institutional distance not only contributes more to uncertainty and cost, but it also provides the opportunity not applicable to other types of distance; that is, institutional arbitrage as EMNEs are rapidly expanding into foreign markets is due to a variety of motives such as escaping from poor institutional environments as well as acquiring strategic assets

(Child and Marinova, 2014; Child and Rodrigues, 2005; Stoian and Mohr, 2016; Wang *et al*., 2012). Hence, institutional distance has a profound impact on EMNEs' internationalization and ownership status (cf. Delios and Henisz, 2000; Powell and Lim, 2017).

In this study, we focus on two types of FDI motives—market-seeking motives vs. knowledge-seeking motives—that are highly relevant for EMNEs as they are expanding into both developed and developing markets, which is clearly illustrated by the case of Chinese investment in Africa and other developed economies. One the one hand, market-seeking FDI motives arise when EMNES seek to either sustain or protect existing markets in which they exploit advantages and capabilities. On the other hand, knowledge-seeking FDI motives arise when EMNES seek to access various types of knowledge to explore and develop a new set of capabilities (Chung and Alcacer, 2002; He, Khan and Shenkar, 2018). Moreover, it is exactly these two types of FDIs motives that make EMNEs distinct from DMNEs. For example, EMNEs' early rather than mature stage of internationalization gives them some advantages (e.g., high efficiency and low cost supplied by having a large cheap labor force) that encourage expanding sales to foreign markets where they can compete with local rivals. However, most EMNEs still lack cutting-edge knowledge and are motivated to expand to developed markets to acquire and develop highly advanced technologies (cf. Bonaglia *et al.*, 2007; Cuervo-Cazurra and Ramamurti, 2014; Kedia, Gaffney and Clampit, 2012). We thus investigate how these two types of FDI motives affect the link between institutional distance and EMNEs' ownership status, which is one of the important decisions in MNEs' international expansion (Hennart and Slangen, 2015; Zhao *et al*., 2004; Madhok and Keyhani, 2012; Rienda *et al*., 2019), and, equally importantly, they provide empirical purity due to its close association with institutional distance and FDI motives, because, for example, EMNEs adopting high levels of subsidiary equity ownership gain more control over a foreign

subsidiary than low levels of subsidiary equity ownership, which is more convenient for knowledge-seeking FDI, but less so for market-seeking FDI across borders.

We conduct our empirical analyses of these relationships on longitudinal data of Chinese MNEs for two reasons. First, Chinese MNEs have been described as having distinct FDI motives, and in particular, the abovementioned two motives have been mentioned frequently in extant studies (He *et al*., 2018; Wu *et al*., 2016). Second, Chinese MNEs have been very proactive in expanding into various foreign markets that are either institutionally distant, such as investment in developed markets (e.g., He *et al*. 2018), or proximate to the home country (Piperopoulos, Wu and Wang, 2018). The findings of the current study provide unique insights that shed light on the critical issue of whether existing understanding of the underlying effect of institutional distance on subsidiary ownership control based on DMNEs' patterns applies to the special case of EMNEs (Ahammad *et al*., 2017; Dikova *et al*., 2017; Moalla and Mayrhofer, 2020). Overall, we contribute to extant studies (e.g., Berry *et al*., 2010; Moalla and Mayrhofer, 2020; Shaver, 2013) by linking institutional distance with subsidiary control in which knowledge-seeking motives of EMNEs are not amenable to higher institutional distance.

1.1 Subsidiary Ownership and Cross-national Distance

1.1.1 Institutional distance and MNE subsidiary ownership

How does institutional distance affect EMNEs' ownership status of subsidiaries? To answer this question, we draw on insights from two relevant research streams. Although both of these streams have been developed from their own theoretical logics in the DMNE context, they provide rather opposite predictions. We incorporate the insights from each to pinpoint a twin effect of the same coin—i.e., institutional distance for EMNEs.

On the one hand, institution and global strategy scholars have argued that greater distance is associated with an increased difficulty in coordinating and cooperating with local partners. This difficulty could influence the choice of high-level ownership and especially full ownership of the subsidiary (cf. Powell and Lim, 2017). For instance, in examining the ownership structure of Japanese MNEs in 36 countries from 1969 to 1991, Padmanabhan and Cho (1996) found that MNEs prefer total control to be partial or shared (as with a joint venture) when the cultural distance is significant. Similarly, in an 11-year sample of 1,389 acquisitions in India and China and acquirers from 33 nations, Contractor and colleagues (2014) found that the likelihood of minority acquisition (rather than the majority or full ownership) was higher when the acquisition involved low institutional distance. Similarly, the study by Reinda et al. (2019) suggested that Indian firms prefer acquisitions when the distance between the home and host country is low. Followers of the Uppsala School have argued that firms should reduce their ownership levels to minimize risk when the distance between host and home countries increases, especially in the early stages of internationalization (Johanson and Vahlne, 1977; Johanson and Wiedersheim-Paul, 1975).

Other scholars have tried to reconcile these conflicting results by investigating various moderators of the relationship between cross-national distance and foreign subsidiary ownership. For example, in a meta-analysis, Zhao et al. (2004) showed that the relationship between cultural distance and entry-mode choice is significantly moderated by location, country of origin, and industry type. Similarly, Tihanyi et al. (2005) found that the home country moderates the cultural distance-entry mode relationship. These findings are the least relevant in the case of EMNEs, as they do not take into account unique challenges and opportunities for EMNEs facing large institutional distance and limited internationalization experience. Specifically, we argue that a high level of institutional distance not only represents high uncertainty and costs for business activities,

but it also offers an opportunity for institutional arbitrage. On the one hand, a large institutional distance, which is defined as the contextual differences between countries (Kostova *et al*., 2020, p. 467), and managing the distance has been indicated to be vital in performing cross-border business activities (Zaheer, Schomaker and Nachum, 2012, p. 19). Such differences inescapably involves high costs such as institutional misalignment, coordination costs, and ideological conflicts. A large institutional distance is especially challenging for EMNEs that are expanding from less-developed markets with weak institutional environments to developed markets with efficient institutional environments and less government intervention. Such institutional differences pose greater challenges for EMNEs due to their latecomer status and unfamiliarity with the institutional environments of developed markets.

On the other hand, compared to DMNEs, many EMNEs are still in the early stages of internationalization and aggressively expanding into foreign markets to not only exploit their home based experience, but to also take advantage of strong and stable institutional environments in host markets (cf. Cuervo-Cazurra *et al.*, 2018; James, Sawant, and Bendickson, 2020; Meyer and Thaijongrak, 2013). A large institutional distance provides these EMNEs with an opportunity of institutional arbitrage in two ways. First, they utilize the institutional advantages of a host market (e.g., effective protection of properties and intellectual properties) to develop and grow their business assets and technologies. Second, these companies also engage in institutional arbitrage by taking advantage of institutional differences between the host and home markets or between the host and host markets that are unavailable and unimaginable for their counterparts that do not have such an exposure through which they can develop certain core competences embedded in this opportunity.

We thus resolve the intellectual tension between two literature streams by synthesizing their insights with the peculiarity of EMNEs in terms of relatively early stages of internationalization and proactive overseas expansion. This is not only to exploit their home-based experience, but also to capitalize on institutional merits/differences of host markets (cf. Cuervo-Cazurra *et al.*, 2018; James *et al.*, 2020; Meyer and Thaijongrak, 2013). In addition, a high level of uncertainty and costs associated with institutional distance offers the opportunity of institutional arbitrage for EMNEs. Such a double effect of institutional distance for EMNEs, though subtle, has profound theoretical implications not only for EMNE ownership choices in foreign markets, but also on the role of FDI motives in shaping the relationship between institutional distance and ownership status. We next develop the theoretical arguments and explain how different FDI motives relate to institutional differences.

1.1.2 Institutional distance and FDI motives of EMNEs

The EMNEs with marketing and production expertise for specialized niches, standardized production processes, managerial flexibility in an uncertain and institutionally immature environment, and unique networking capabilities (e.g., He *et al*., 2018; Madhok and Keyhani, 2012) are motivated to exploit these accumulated advantages in more new markets by expanding and investing abroad where they can earn more returns. This exploitation is well exemplified by many EMNEs (like Alibaba, Xiaomi) that have expanded to many less-developed markets such as Pakistan, India, as well as many African countries. On the other hand, other EMNEs are motived to expand to foreign markets to acquire new knowledge (Dunning and Lundan, 2008; Kedia *et al.*, 2012), which is clearly exemplified by many high-tech EMNEs (e.g., Tiktok, Huawei) that have expanded to developed markets such as the U.S. and the U.K. to acquire and develop highly

sophisticated technologies (e.g., high-speed computation with excellent accuracy). Regardless of the type of FDI motive, EMNEs, due to their relatively early stage of internationalization, usually lack the experience of operating abroad and thus expand to seek novel knowledge and capabilities in foreign markets that are otherwise unavailable in their home markets (Agarwal and Ramaswami, 1992; Luo and Tung, 2007). Scholars have focused on understanding such firms' outward investment motives and suggested that these firms have various motives for outward internationalization ranging from knowledge-seeking to escape from their poor home environments (cf. Child and Rodrigues, 2005; Gaur and Kumar, 2010; Kolstad and Wiig, 2012; Stoian and Mohr, 2016). Firms are also embedded in multiple institutional contexts (Meyer, Mudambi and Narula, 2011) that imply distinct FDI motives entailing distinct strategic priorities and concerns depending on the underlying motives (Lu, Liu and Wang, 2011), which unavoidably interact with the institutional distance. That is, EMNEs' distinct FDI motives will have a strong imprint on their choice of foreign subsidiary ownership level as a response to institutional distance when entering foreign markets to exploit home-accumulated advantages while managing opportunism and breach of contracts that can happen easily in joint ventures (JVs) type arrangements (Hennart, 1991).

How do distinct FDI motives interact with institutional distance? Although scholars have recognized the important role of motivation in FDI decisions, including its impact on location choices (Zhou and Guillen, 2016), few have considered the possibility that different types of such motives may influence the effect of distance on the foreign subsidiary ownership level in an opposite way (cf. Moalla and Mayrhofer, 2020; Rienda *et al*., 2019). There have been no studies on this question in relation to EMNEs. To fill this theoretical gap in the literature, we subsequently

develop theoretical arguments for the moderating role of FDI motives on the linkage between institutional distance and EMNE ownership status.

2. Theoretical Model and Hypotheses Development

2.1 Moderating Role of the Market-seeking Motive on the Distance Effect of Subsidiary Ownership Control Decisions

As institutional distance increases, EMNEs incur additional costs, such as unfamiliarity with host country institutional environments, as well as relational costs of establishing local connections and networks (cf. Gaur and Lu, 2007). MNEs must carefully choose ownership status because different types invovle various costs that could be linked to institutional differences, such as costs related to unfamiliarity hazards and relational hazards (Gaur and Lu, 2007). While a higher institutional distance creates more risk, market-seeking FDI helps reduce such costs due to its relatively low-risk nature. Market-seeking FDI should be considered low risk because many EMNEs are expanding to new markets to exploit their accumulated advantages (e.g. standardized production with high efficiency) in a broader customer base and they compete with local rivals in host markets (Dikova *et al*., 2019) by solely relying on their home-accumulated advantages. In this way, EMNEs have less worries about losing such home-based advantages to local rivals unable to imitate these advantages unless they can access a large cheap labor force embedded in the former's home market. Low-risk FDI greatly mitigates great uncertainty and costs associated with a large institutional distance, leading to low control of ownership. In addition, the marketing-seeking motive requires less experiential knowledge about the host markets, given that EMNEs must offer standard and low-cost products that require low control in greater institutional- distance markets. The demand conditions of marketing-seeking EMNE products also vary in greater institutional-

distance markets, and thus these firm may opt for low risk and low-resource commitment ownership control. These arguments are consistent with the extant literature that indicates greater risk exposure and uncertain demand conditions are conducive for firms to pursue low-control strategies (cf. Gatignon and Anderson, 1988; Kim and Hwang, 1992).

Nevertheless, how does the market-seeking motive interact with institutional arbitrage provided by great institutional distance? Even though market-seeking FDI is low risk, it does not mean zero risk, especially for those EMNEs expanding to less-developed markets where weak institutional infrastructure and high institutional risk exist, as well as stricter restrictions with respect to transferring the profits out of their countries. In such cases, EMNEs can seek special treatment by the host government and strong protection of their businesses and properties by counting on institutional ties between the host and home countries—currently exemplified by Chinese MNEs' investments in Pakistan that are well protected by local governments thanks to a strong long-term relationship between the two countries. Such institutional arbitrage greatly mitigates high costs and uncertainty associated with institutional distance.

While some scholars may argue that great institutional distance generates a high risk of exchange rate for MNEs that transfer their profits back to their home markets (cf. Lin, Chen and Rau, 2010), this argument neglects that these EMNEs, according to local regulations and policies, must re-invest most of their profits in host markets, thus making these EMNEs with market-seeking motives less likely to incur the risk of exchange-rate exposure associated with greater institutional distance. Thus, EMNEs with marketing seeking motives will seek a lower level of ownership control when the institutional distance is greater. This leads us to suggest that:

> *H1*: The higher the institutional distance, the <u>lower</u> the level of subsidiary ownership control by EMNEs with a market-seeking motive.

2.2 Moderating Role of the Knowledge-seeking Motive on the Distance Effect on Subsidiary Ownership Control Decisions

A different situation arises when EMNEs' with a knowledge-seeking FDI motive want to invest in a foreign market with large institutional distance. Many EMNEs invest in foreign countries with large institutional distances to acquire new knowledge and technologies that are otherwise unavailable at home (He *et al*., 2018; Kedia *et al.*, 2012; Kotabe and Kothari, 2016; Luo and Tung, 2007, 2018). In some cases, EMNEs that need advanced technologies and knowledge in their home operations will bear a high risk in terms of potential knowledge distortion and/or leakage along the way, compared to EMNEs transferring from a foreign market with a low institutional distance, as it is easier when there is greater familiarity with the source. It is difficult for an EMNE to transfer acquired knowledge without effective control over the process (Makino and Delios, 1996; Steensma *et al*., 2000). A high level of ownership over a foreign subsidiary helps an EMNE improve the efficiency of knowledge transfer within their global networks and avoid knowledge distortion, especially in transferring highly complex and tacit knowledge from a host country with a large institutional distance (Ambos and Ambos, 2009; Bresman, Birkinshaw and Nobel, 2010; Kostova, 1999).

EMNEs primarily acquire strategic assets through acquisitions of firms originating in greater institutionally distant markets (Ahammad *et al*., 2018; Dikova *et al*., 2019; He *et al*., 2018; Li *et al*., 2018) in order to develop capabilities. High-ownership control gives access to knowledge assets that might not be readily available through low-commitment entry mode options. As such, EMNEs prefer high commitment by acquiring firms from high-institutional distance markets (e.g., He *et al*., 2018; Nicholson and Salaber, 2013; Rienda *et al*., 2019). Similarly, Gaur and Lu (2007) indicated that an important means of mitigating higher transaction costs in markets that represent

higher institutional distance utilize a high level of ownership control that offers the firm greater control over foreign operations. This line of reasoning suggests that greater institutional distance leads to uncertainty and unfamiliarity for firms expanding into foreign markets and therefore incurs higher transaction costs and requires entry modes to consign resource commitments (Kim and Gray, 2008, Tihanyi *et al*., 2005; Zaheer *et al*., 2012) to benefit from local know-how and gain important foreign market knowledge. For example, Xie and Li's (2017) study of Chinese internationalizing firms between 1987 and 2008 suggested that such firms are less likely to acquire a high equity stake in markets with a lower institutional distance in terms of economic development that pose significant risk to firms' operations. EMNEs expanding to other developing and emerging economies encounter fragile institutions compared to developed markets and, as such, commit fewer resources. Therefore, EMNEs expanding to developed markets to acquire new technologies can utilize institutional advantages of the host market (e.g., effective protection of intellectual properties) to develop their core technologies and competence that enable them to effectively compete with their developed market counterparts.

With knowledge-seeking motives, EMNEs expanding into foreign markets with a large institutional distance prefer high levels of equity ownership that allow them to effectively manage knowledge acquisition and transfer across borders (Dikova *et al*., 2019; Estrin, Baghdasaryan and Meyer, 2009; He *et al*., 2018; Kim *et al*., 2019; Kostova, 1999; Li *et al*., 2018; Zaheer *et al*., 2012). Such arguments are in line with extant literature that has suggested high- control mode is preferred when a firm wants to quickly learn from foreign sources of knowledge (cf. Zahra, Ireland and Hitt, 2000). Based on the preceding discussion, we hypothesize:

> *H2*: The higher the institutional distance, the <u>higher</u> the level of subsidiary ownership control by EMNEs with knowledge-seeking motives.

3. Data and Analysis

3.1 Data

The study sample includes Chinese manufacturing MNEs listed on local stock markets from 2001 to 2017. Chinese MNEs grew rapidly in local and international markets during this period. We identified the EMNEs based on information available from the Shenzhen and Shanghai exchanges and the China Securities Regulatory Commission. Because our analysis is at the foreign subsidiary level, we relied on annual reports to collect information on the EMNEs' foreign subsidiaries, the degree of subsidiary ownership, and the location of foreign subsidiaries. Following guidelines from previous studies (e.g., Beamish and Inkpen, 1998), we dropped agencies or sales operations without substantive local operations. The sample is also limited to subsidiaries less than ten years old in order to remain consistent with the early stage of internationalization, given that most firms originating from emerging markets are latecomers on the global stage (e.g., Kedia *et al*., 2012).

To identify FDI motives for these foreign subsidiaries, we analyzed content of the selected MNEs' annual reports. To maintain consistency with our theoretical interest, we limited our analyses to two specific FDI motives as identified by prior studies to be highly relevant for EMNEs and have provoked theoretical debate (Piperopoulos *et al.*, 2018; Wu and Park, 2019). We subtracted the sample firms' performance and R&D investments from their FDI activities as listed in the Company Financial Dataset provided by the China Stock Market and Accounting Research Co Ltd. We extracted distance data from the database developed by Berry *et al*. (2010). After removing the cases with substantial missing information for the key variables, the final sample contained 9,305 subsidiary-year observations of 570 Chinese MNEs from 2001 to 2017.

3.2 Measures

3.2.1 Dependent variables

Consistent with our hypotheses, we measured the dependent variable as the ownership-holding ratio in foreign subsidiaries (Brouthers, Brouthers and Werner, 2003; Shaver, 1998) by reviewing each EMNE's annual report to collect the annual status of its equity ownership for each foreign subsidiary throughout the study period. To verify the data reliability, we compared the averaged value of equity control of Chinese subsidiary equity ownership with prior studies (e.g., Cuervo-Cazurra, 2012) and found consistent results in terms of EMNEs tending to exercise a high value of equity control over their overseas subsidiaries. These results could be due to a lack of advanced experience and skills that not only make managers incapable of protecting their resources and knowledge, but may also make them feel inferior when relying on external market institutions for protection.

3.2.2 Independent and moderating variables

Among the multiple sources of measuring institutional distance, we identified measures developed by Berry and colleagues (2010), as they calculated cross-national distance using the Mahalanobis method rather than the traditional Euclidean method. Although both measures satisfy five desirable aspects—symmetry, nonnegativity, identification, definiteness, and triangulation inequality—the Euclidean-based measure suffers from three shortages compared with the Mahalanobis-based measure. The first problem is that the Euclidean-based method ignores the correlation between the variable indicators used for computing, resulting in assigning more importance or weight to the characteristic measured by the correlated variables. The second problem is that this method neglects the variance of the variables. The third problem is that it is sensitive to the scale of measurement (Berry *et al*., 2010). The Mahalanobis-based measure does not have these problems. As such, we adopted the Mahalanobis-based measure of institutional distance. Specifically, the Mahalanobis distance between two countries is thus calculated as:

$$\sqrt{\left(C_{country1} - C_{country2}\right)^T W^{-1}\left(C_{country1} - C_{country2}\right)},$$ where W^{-1} is the inverse of the pooled covariance matrix, and C is a column vector representing the components of the distance dimension.

We measured institutional distance by the Mahalanobis-based measure of cross-national governance distance, referring to the differences in political stability, democracy, and policy-making uncertainty (Henisz, 2000; Henisz and Williamson, 1999; Whitley, 1992). This variable has two aspects of administrative distance and political distance and consists of five indicators: political stability, democracy scores, size of the state sector relative to that of the total economy, World Trade Organization (WTO) membership, and regional trade agreement (Berry *et al.*, 2010).[1] The internal consistency of this variable is relatively high (Cronbach's alpha = 0.94), bolstering our confidence in this measure of governance distance.

We relied on information from the sample firms' annual reports to determine their primary internationalization motives. For example, Hangzhou Hundsun Electronics Co., Ltd. explicitly states the primary goals of its subsidiary in Japan as software research and development and new product design, among others. On the other hand, Shenzhen Jiawei Photovoltaic Lighting reports the primary motive of its subsidiary in Canada is to promote sales and increase market share. Specifically, we first subtracted the detailed information on all of the sample Chinese MNE subsidiaries. We then identified the main purpose of each subsidiary based on the detailed description. If a subsidiary indicates accessing advanced technologies in a host market is the key FDI motive, we coded it a knowledge-seeking motive; if a subsidiary indicates that increasing sales in new foreign markets is the key FDI motive, we coded it a market-seeking motive.

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[1] Details of distance measures can be found in Table 2 and Table 3 in Berry, Guillen, and Zhou (2010, p. 1465-1466).

Accordingly, we categorized Chinese MNEs' FDIs into two types: (a) to increase sales in new markets (market-seeking); and (b) to seek knowledge or conduct R&D (knowledge-seeking). We thus created two dummy variables: *market-seeking motive* and *knowledge-seeking motive*. When a company stated multiple FDI motives, we used the most frequently mentioned motive as the primary one.[2]

3.2.3 Control variables

We also included several control variables that could affect EMNEs' ownership decisions. Regarding the parent-firm effect, we controlled for the parent-firm size (measured by the logarithm of its annual sales in Chinese *yuan*), age (years in operation), performance (return on assets), and R&D intensity (R&D expenditures divided by total sales) (Wu and Park, 2019). Second, we included the level of state ownership (shares owned by the Chinese government) and the initial ownership level, which we measured by the MNCs' level of ownership at the time of initial entry into the foreign market (set to 1 if the EMNE had full ownership) (Chen and Hennart, 2002). We extracted ownership data from the equity change database of publicly listed companies in China and gathered other information from the firms' annual reports (Piperopoulos *et al*., 2018). Third, we controlled for subsidiary age—the years elapsed since the firm's establishment. Moreover, we controlled for the subsidiary size, which is operationalized by the real capital of the subsidiary invested in a foreign market. This variable takes the logarithm transformation. In addition, we generated variable, *efficiency-seeking motives* if an EMNE indicates that a specific FDI is

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[2] When coding FDI motivations, we paid particular attention to the possibility of Chinese MNEs having multiple motivations and carefully checked those cases. More than 94% of Chinese MNEs have an unambiguous FDI motivation. For the remaining Chinese MNEs with multiple motivations, marginal motivations are obviously less critical compared to the dominant FDI motivation.

undertaken to improve efficiency, such as manufacturing with no professed sales function (efficiency-seeking).

We also controlled for other types of cross-national distance including economic, demographic, cultural, and geographic distance that were all extracted from Berry *et al*. (2010).[3] National economic distance refers to differences in economic development and macroeconomic characteristics (Caves, 1996; Whitley, 1992). We measured economic distance based on a pair-wise economic distance that consists of four components: GDP per capita (2000 US$), GDP deflator (% GDP), exports of goods and services (% GDP), and imports of goods and services (% GDP). We extracted national economic distance and other distances from Berry *et al*. (2010).

In addition, prior researchers have suggested that a possible concern is related to the distance directions, as cross-national distance can be positive or negative depending on the host country (De Beule, Elia and Piscitello, 2014; Shenkar, 2012; Zaheer *et al*., 2012). To address this concern, we created a control variable, *OECD*, which was 1 if the foreign market belongs to the Organization for Economic Co-operation and Development (OECD) and 0 otherwise. Moreover, we controlled for the financial crisis, which was coded 1 if the year is 2008 and 0 otherwise (Fainshmidt, Nair and Mallon, 2017). Finally, we included multiple dummy variables for industry (measured using China's four-digit SIC coding system) and year of establishment (see Appendix A for variable description).

3.2.4 Econometric modeling

We used a two-stage Heckman selection model (Heckman, 1979) to correct for potential self-selection bias. The first-stage analysis estimates the probability of an MNE's entry into a foreign

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[3] Details of distance measures can be found in Table 2 and Table 3 in Berry, Guillen, and Zhou (2010, p. 1465–1466).

market, and the second-stage analysis estimates the levels of subsidiary ownership incorporating the parameters estimated from the first- stage analyses.

Firms purposely choose their entry strategies based on the nature of firm-specific character, capabilities, and industry conditions (Shaver, 1998). As such, in the first-stage analysis that estimates the probability of an MNE's entry into a foreign market using the full sample (including firms that have and have not expanded overseas), we included the variables that potentially influence a Chinese MNE's entry into a foreign market, such as the level of state ownership (because a high level of state ownership is more likely to be pushed by the "Go Global" policy), past performance proxied by return on asset (ROA) (because a Chinese MNE with a good performance would like more slack resources that enable it to expand overseas), the level of foreign ownership (because a high level of foreign ownership facilitates access foreign market), distance variable (because a high distance increases the difficulty of market entry), FDI motives (because a firm with motives for either foreign markets or knowledge is more likely to expand overseas), industry dummy (because different industries have different propensities for expanding overseas), and year dummy (take account of different temporal effects).[4] After the first-stage regression, we generated an inverse Mills ratio λ, which was then inserted into the second-stage regression analyses. In the second stage, we estimated the level of subsidiary ownership control using the sample of EMNE subsidiary ownership (including Chinese firms that used high-ownership control mode and less-ownership control mode). The equation of the second stage is specified as: $S_j = \beta_0 + \beta_1 X_j + \beta_2 MS + \beta_3 KS + \beta_4 ID + \beta_5 MS \times ID + \beta_7 KS \times ID + \beta_9 \lambda_i + \epsilon_j$, where S_j is the firm j's subsidiary ownership, X_j is a vector of control variables (including subsidiary information, local institutional variables, and parent-firm performance), and λ_i is an estimate from the first-

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[4] The results of the first-stage analyses are available upon request.

stage model. The coefficient estimates of β_9 indicate a firm's probability of foreign expansion. Finally, ϵ_j is a random error term. We lagged the independent variables one year behind the dependent variable.

4. Results

Table 1 shows the descriptive statistics and correlation matrix for variables used in the analyses. As expected, firm age, firm size, past performance, and R&D intensity are all significantly correlated with subsidiary ownership. As significant correlations existed among some variables, we further investigated the potential multicollinearity by computing variance-inflation factors. The highest value was for firm age (4.21), and the average variance-inflation factor was 1.01, which are well below the accepted threshold of 5 and suggest that the data set does not have a serious multicollinearity problem.

[Insert Table 1 about here]

Table 2 presents the independent effects of both market- and knowledge-seeking, as well as the interaction with institutional distance on Chinese MNC subsidiary ownership. After the baseline model of firm-level control variables and institutional distance (Model 1), Model 2 presents the main effects of market-seeking FDI and knowledge-seeking FDI, and Models 3–5 present their interactions with institutional distance.

Of the control variables, firm size showed a significant and negative relationship with subsidiary ownership. This suggests that large Chinese MNEs tend to maintain relatively high levels of ownership over their foreign subsidiaries, while older MNEs may use a light approach in their foreign expansion probably due to their accumulated international experience. In addition, when encountering a large economic distance, Chinese MNEs tend to opt for relatively high levels

of ownership. Given that the results are consistent across the models, we used the full model (Model 5) to interpret the results of our hypotheses.

[Insert Table 2 about here]

Hypothesis 1 predicted that the higher the institutional distance, the lower the level of subsidiary ownership control by EMNEs with a market-seeking motive. The coefficient for the interaction term, MS * Institutional distance, was negative and significant (b = -0.224, p=0.035) with the confidence interval [-0.432, -0.015]. To better understand the interaction effect of between MS and institutional distance on levels of equity ownership, we plotted this relationship. As shown in Figure 1, the x-axis represents low and high levels of institutional distance; the y-axis represents levels of equity ownership by Chinese MNEs; the solid line represents the Chinese MNEs with a market-seeking motive; and the dotted line represents the Chinese MNEs without a market-seeking motive. In general, both lines have a negative slope, but the solid line is steeper than the dotted line with an increase in institutional distance, indicating that Chinese MNEs with market-seeking motives tend to adopt low levels of equity ownership with an increase in institutional distance. Thus, Hypothesis 1 is supported.

[Insert Figure 1 about here]

Hypothesis 2 predicted that the higher the institutional distance, the higher the level of subsidiary ownership control by EMNEs with a knowledge-seeking motive. The coefficient for the interaction term, KS * Institutional distance, was positive and significant (b = 0.781, p=0.000) with the confidence interval [0.423 1.140]. To better understand the interaction effect of between KS and institutional distance on levels of equity ownership, we plotted this relationship in Figure 2 similar to Figure 1 (i.e., the x-axis representing low and high levels of institutional distance and the y-axis representing the levels of equity ownership by Chinese MNEs; the solid line

representing EMNEs with the knowledge-seeking motive; and the dotted line representing Chinese MNEs without the knowledge-seeking motive). The solid line has a positive slope while the dotted line has a negative slope when the institutional distance increases, indicating that Chinese MNEs with a knowledge-seeking motive tend to adopt high levels of equity ownership with an increase in institutional distance. Hence, Hypothesis 2 is also supported.

[Insert Figure 2 about here]

4.2 Robustness checks

We performed several additional analyses for the robustness. First, we adopted an alternative measure of the dependent variable by constructing a new variable: WOS, which takes the value of 1 if a Chinese MNE has 100% of foreign subsidiary equity ownership and 0 if the percentage of the foreign subsidiary equity is less than 100%. We then used this dichotomous variable as the dependent variable and re-ran the analyses. The results are reported in Table 3. As shown in Model 5, the coefficient for the interaction term, MS * Institutional distance, was negative and significant ($b = -0.070$, $p=0.000$) with the confidence interval [-0.099, -0.040]. Also, the coefficient for the interaction term, KS * Institutional distance, was positive and significant ($b = 0.069$, $p=0.005$) with the confidence interval [0.021, 0.118]. These results are consistent with those using the continuous variable of levels of equity ownership.

[Insert Table 3 about here]

Second, we constructed another alternative measure of the dependent variable, majority-owned, which takes the value of 1 if a Chinese MNE has more than 50% of foreign subsidiary equity ownership and 0 if the percentage is below 50%. We then used this alternative dependent variable to re-run the analyses and report the results in Table 4. Again, the results are consistent with those reported in Table 2.

[Insert Table 4 about here]

Third, we split the analyses into two parts: EMNEs expanding to more-developed markets vs. EMNEs' expanding to less-developed markets. Following prior studies (e.g., Kim *et al*., 2019), we compared each host country's real gross domestic product per capita (GDPP), which was extracted from the Penn World Table (PWT), with the corresponding value for China. Based on this comparison, we divided host countries into two groups—developed and emerging countries. We then re-ran the analyses for the two parts separately. We found that the split results provide further support for our hypotheses.

[Insert Table 5 about here]

Fourth, prior studies have identified innovation distance as a key factor influencing MNEs' knowledge transfer across borders, which is largely due to institutional configurations that foster the development of technology and innovation (Nelson and Rosenberg, 1993). We thus replaced institutional distance by adopting an alternative measure, *national innovation distance*, which is relevant for this study. We followed prior studies (Furman, Porter and Stern, 2002; Nelson and Rosenberg, 1993) to measure national innovation distance by extracting the number of patents and scientific articles per capita, from United States Patent and Trademark Office (USPTO), World Development Indicators (WDI), and Independent Schools Inspectorate (ISI) Governance, separately. We used *national institutional distance* to re-run the analyses. The results are reported in Table 6. As shown in Model 4, the coefficient of the interaction term, MS * Innovation distance, is negative and significant (b = -2.295, p=0.000) with the confidence interval [-3.388, -1.201], while the coefficient of the interaction term, KS * Institutional distance, is positive and significant (b = 4.411, p=0.001) as well as the confidence interval [1.822, 7.000]. These results are highly consistent with those reported in Table 3, providing additional support for the hypotheses.

[Insert Table 6 about here]

Fifth, one potential concern could be whether some sample firms did not declare their motives regarding internationalization, and if (or how) these firms could affect the robustness of the findings. To address this concern, we examined the detailed descriptions of the sample firms' annual reports. This step allowed us to further identify such firms' motives in a definitive way. In less than seven firm cases in which we could not identify motives, we took two steps to ensure that these firms would not affect our results. We included the firms in the analyses, classified them as neither belonging to market-seeking nor knowledge-seeking motives, and ran the analyses. We also excluded such cases from the analyses and re-ran the analyses. The results excluding these few cases are highly consistent with the results, including them.

In addition, given the use of the variety of institutional distance indices to check if the results still hold using an alternative measure of institutional distance, we made great efforts to collect additional variables from the Worldwide Governance Indicators (WGI) about governance score from 1996–2019. WGI's governance score is a composite variable consisting of six dimensions (i.e., voice and accountability, regulatory quality, political stability and absence of violence, rule of law, government effectiveness, and control of corruption). A higher score of this composite variable represents a higher level of governance and country or market institution market (Kaufmann, Kraay and Mastruzzi, 2010). We then used this variable to construct an alternative measure of institutional distance by subtracting the value of each of six dimensions of a host country from that of China before taking the averaged value of the summation of their absolute values, which is specified: $Institutional\ Distance_i = \frac{1}{6}(|VA_i - VA_{China}| + |RQ_i - RQ_{China}| + |PSAV_i - PSAV_{China}| + |RL_i - RL_{China}| + +|GE_i - GE_{China}| + |CC_i - CC_{China}|)$, where $Institutional\ Distance_i$ represents the institutional distance between country i and China;

$|VA_i - VA_{China}|$ represents the absolute value of difference between country i and China in terms of voice and accountability; $|RQ_i - RQ_{China}|$ represents the absolute value of difference between country i and China in terms of regulatory quality; $|PSAV_i - PSAV_{China}|$ represents the absolute value of difference between country i and China; $|RL_i - RL_{China}|$ represents the absolute value of difference for rule of law score between country i and China in terms of political stability and absence of violence; $|GE_i - GE_{China}|$ represents the absolute value of difference between country i and China in terms of government effectiveness; and $|CC_i - CC_{China}|$ represents the absolute value of difference between country i and China in terms of control of corruption. We then substituted the institutional stance with this variable, re-ran all the analyses, and report the results in Appendix B. As clearly shown (see Model 5), the coefficient of the interaction term, MS * Institutional distance, was negative and significant (b = -0.744, p=0.000) with the confidence interval [-0.984, -0.504]. Also, the coefficient of the interaction term, KS * Institutional distance, was positive and significant (b = 0.574, p=0.008) with the confidence interval [0.150, 0.998]. These results are highly consistent with the results reported in Table 2, indicating the robustness of the analyses.

5. Discussion and Conclusions

There has been increasing interest in examining institutional distance and subsidiary ownership choice (cf. Ahammad *et al*., 2017; Dikova *et al*., 2017; Powell and Lim, 2017; Rienda *et al*., 2019). Although studies have shown the significance of national distance in MNE internationalization strategies (Contractor *et al.*, 2014; Dikova *et al*., 2019; Eden and Miller, 2004; Gaur and Lu, 2007; Moalla & Mayrhofer, 2020; Xu, Pan and Beamish, 2004), less attention has been paid to FDI motives, which are an important predictor of a firm's international performance (Dunning and Lundan, 2008; Lu *et al*., 2011). In this study, we examine the potential moderating role of FDI

motives in the relationship between institutional distance and subsidiary ownership control, which has not been well examined in prior studies (e.g., Dikova *et al*., 2019; James *et al.*, 2020; Moalla and Mayrhofer, 2020). We theoretically argued and empirically showed that different FDI motivations can amplify or buffer the influence of institutional distance on subsidiary ownership control, especially in the context of EMNEs. Specifically, a knowledge-seeking FDI motive negatively moderates the relationship between institutional distance and levels of subsidiary ownership, while a market-seeking FDI motive has an opposite moderating effect—that is, it positively moderates the relationship between institutional distance and levels of subsidiary ownership. These findings provide important insights to the current literature that has examined institutional distance and entry mode choice (cf. Dikova *et al*., 2017; Dikova *et al*., 2019; Moalla and Mayrhofer, 2020; Rienda *et al.*, 2019).

5.1 Theoretical Contributions and Implications

First, this study contributes to the literature on the relationship between cross-national distance and subsidiary ownership. We identified FDI motivations as a boundary condition for the impact that cross-national distance has on subsidiary ownership control, which has been neglected in previous studies (Ahammad *et al*., 2017; Berry *et al*., 2010; Dikova *et al*., 2019; Powell and Lim, 2017; Xu and Shenkar, 2002; Zhao *et al*., 2004). Our findings show that different FDI motivations play different roles. Knowledge-seeking FDI positively affects the relationship between institutional distance and degree of subsidiary ownership, while market-seeking FDI negatively affects the relationship between institutional distance and degree of subsidiary ownership. These findings enrich theoretical and managerial insights on EMNE internationalization strategy and subsidiary ownership control by pinpointing critical boundary conditions.

Second, this study extends prior studies on cross-national distance and subsidiary ownership controls (Gaur and Lu, 2007; Xu and Shenkar, 2002) from a context of DMNEs to EMNEs with distinct FDI motives. Although a large body of scholarship has provided plenty of evidence on the role of national distance in cross-border international strategies and performance (Berry *et al*., 2010; Jackson and Deeg, 2008; Pajunen, 2008), relatively insufficient effort has been devoted to distinct FDI motives of EMNEs, which may shed important insight into the role of distance in ownership choices. The findings of this study suggest that as a host country's institutional distance increases, EMNEs with a knowledge-seeking FDI motive opt for greater equity ownership over local subsidiaries, which is useful for knowledge transfer back to home and foreign operations in order to develop capabilities (He *et al*., 2018). On the other hand, as the host country's institutional distance increases, EMNEs with a market-seeking FDI motive opt for lower equity ownership over local subsidiaries. Based on these findings, we caution against generalizing on the relationship between national distance and subsidiary ownership control to EMNEs, because their FDI motivation could make them unique in regards to a large institutional distance. As a result, ENMEs could adopt ownership equity control that is different than what has been predicted based on DMNEs with regards to selecting the proper subsidiary ownership (e.g., Ahammad *et al*., 2017; Moalla and Mayrhofer, 2020).

Third, this study further contributes to the literature related to EMNE firm-specific advantages (FSAs). Over the decades, international business scholars have debated whether EMNEs possess certain FSAs that facilitate their international activities (Cuervo-Cazurra, 2012; He *et al*., 2019; Ramamurit, 2012). This study addresses this debate by examining EMNCs' FDI motives, institutional distance, and ownership decisions. We acknowledge that EMNEs face different constraints and legitimacy issues than DMNCs and are thus likely to pursue different FDI

goals and strategies. As many EMNEs lack sufficient managerial capabilities for global operations, they tend to rely on a light-touch approach to integrating foreign operations with their home-country operations (cf. Liu and Woywode, 2013), thus maintaining relatively weaker ownership over local operations (Cuervo-Cazurra, Newburry and Park, 2016). These firms also give greater autonomy to their foreign acquired firms, which supports learning and capabilities development efforts (e.g., He *et al*., 2018). However, such firms seem to reverse this approach when it comes to accessing or searching for advanced technologies or innovation capabilities. Our findings suggest that EMNEs' ownership strategies are complex and rely on the specific nature of a firm's challenges and goals. While this study provides new insights on EMNE subsidiary ownership and FSAs, researchers should also explore other potential contingencies; for example, the nature of EMNEs' capabilities and other firm-level strategic issues, such as the orientation and scope of firm growth, to unlock this complex issue.

Fourth, this study contributes to the internationalization literature (Johanson and Vahlne, 1977; Vahlne and Johanson, 2017). The positive moderating effect of a knowledge-seeking FDI motive on the relationship between institutional distance and ownership control suggests knowledge-seeking EMNEs commit more resources when institutional distance is high. The internationalization theory has suggested that during internationalization process, MNEs tend to make fewer commitments to a foreign market with a large institutional distance given the unfamiliarity arising from operating in foreign markets. These findings add to this literature by suggesting that while such a gradual internationalization process still holds for EMNEs with market-seeking motives, EMNEs with knowledge-seeking motives tend to embrace more commitments to a foreign market with large institutional distance. This study sheds light on the internationalization theory by pinpointing FDI motives as a key component for theoretical

development and refinements. These findings are especially useful as scholars strive to expand the internationalization process to EMNEs with distinct FDI motives.

5.2 Practical Implications

Our results should alert practicing managers to the idea that successful global expansion hinges on the fit between specific FDI motives, institutional distance, and the appropriate level of subsidiary equity ownership. When establishing a subsidiary in a foreign market with a large institutional distance, EMNEs face challenges of effective operations, communications, integrations, and coordination across borders—all of which result in high transaction costs. An appropriate degree of ownership helps EMNEs achieve their intended goals, minimize transaction costs, and ensure the long-term growth of foreign operations. Successful internationalization begins with a careful assessment of the nature and extent of the cross-national distance, the specific motivations for foreign investments, and the appropriate selection of subsidiary equity ownership. For example, the fact that a negative effect of institutional distance appears to be stronger in market-seeking FDIs suggests that if an EMNE's primary goal is international market growth, it must empower and localize foreign operations as much as possible with a lower level of subsidiary ownership. On the other hand, if an EMNE pursues a knowledge-seeking goal in a country with a large institutional distance, it needs to maximize control over foreign operations to manage efficient knowledge acquisition and transfer. In sum, it is critical and important that managers are aware of these motivation-specific implications of subsidiary equity ownership and ensure that a host country's institutional distance from the home country is taken into account.

5.3 Limitations and Future Directions

This study paves a way for future studies in several directions. First, this study represents one of first to explore the role of EMNEs' FDI motives in the role of distance in ownership choice. In

doing so, this study considers two important types of FDI motivations (i.e., market-seeking and knowledge-seeking). However, it should be recognized that EMNEs' have other FDI motivations than the two we examine (e.g., efficiency-seeking, resource-seeking, and escape motives). Although the central interest of this study is in showing the opposite roles of market-seeking vs. knowledge-seeking FDI motives in the effect of institutional distance on the levels of subsidiary ownership, it would be a worthwhile and potentially promising avenue for future studies to look more broadly at other types of FDI motives and delve deeper into their interactions. Second, in this study, we utilized large-scale panel data on EMNEs' internationalization activities including their FDI motives, institutional distance, and subsidiary ownership to test our hypotheses, and we performed a range of robustness checks with rigorous and consistent results. However, it remains important to be cautious in generalizing the findings to other emerging market contexts. Although China represents the biggest emerging market, such markets are highly idiosyncratic. The field would benefit greatly if future studies extend, replicate, and compare issues examined in this study across a broader set of emerging markets. Cross-emerging market studies could also reveal the role of country- or firm-specific strategic orientations in understanding EMNE subsidiary ownerships. Future studies could also examine the timing of entry and ownership choice adopted by firms from different emerging markets. Lastly, future studies could integrate both formal and informal institutional distance and examine their role in EMNE subsidiary ownership choices as well as their post-entry performance.

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Figure 1. Interaction of market-seeking and institutional distance.
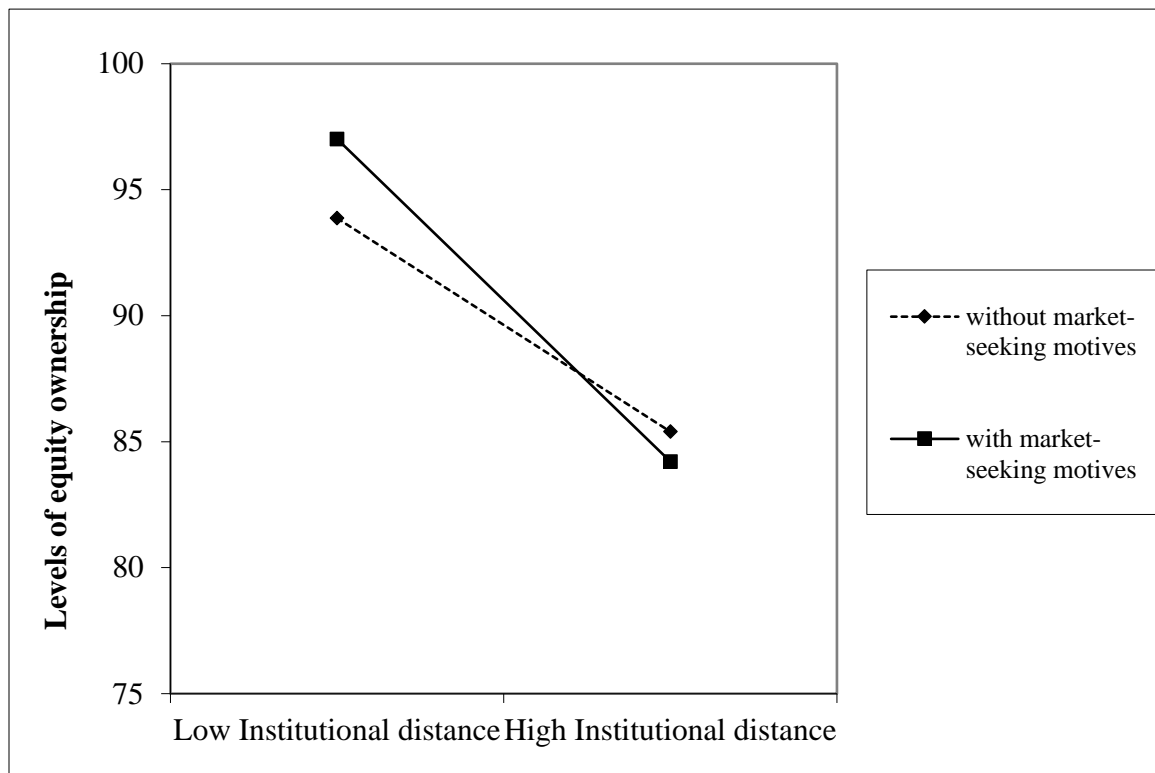
Figure 2. Interaction of knowledge-seeking and institutional distance.
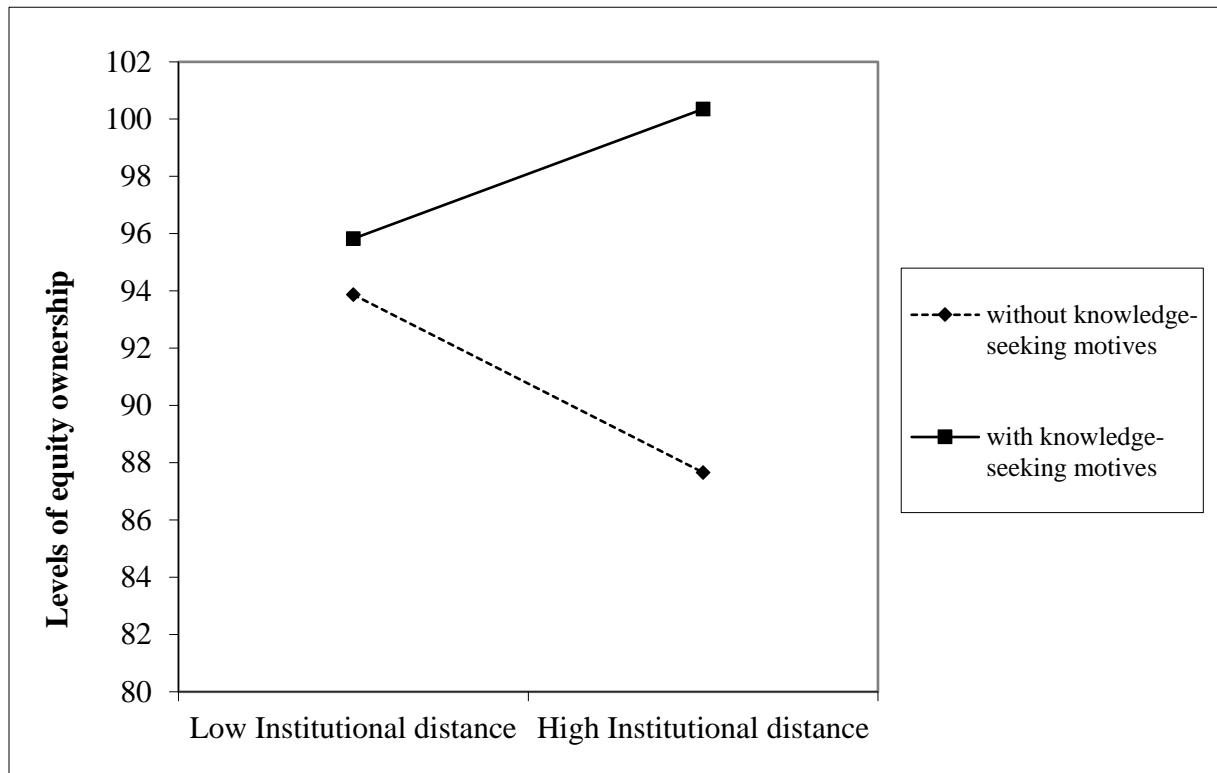
Table 1. Means, Standard Deviations, and Correlation Matrix

	Variables	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Equity ownership	90.369	18.944	1.00																
2	Firm age	10.601	4.602	0.139	1.00															
3	Firm size	21.648	1.980	-0.246	-0.001	1.00														
4	State ownership percent	0.136	0.214	-0.072	-0.075	0.257	1.00													
5	Past performance	0.698	0.557	-0.174	-0.161	0.616	0.042	1.00												
6	R&D intensity	0.022	0.354	0.033	-0.046	-0.179	-0.023	-0.191	1.00											
7	Subsidiary age	1.773	0.511	-0.029	0.518	0.154	0.047	-0.136	0.010	1.00										
8	Subsidiary size	4.567	3.139	0.022	0.010	0.00	0.103	-0.085	-0.019	0.072	1.00									
9	Demographic distance	0.156	0.157	0.001	-0.030	0.139	-0.019	0.090	-0.010	0.010	-0.131	1.00								
10	Culture distance	23.006	7.387	0.001	-0.021	-0.010	-0.092	0.066	-0.001	-0.010	-0.117	0.022	1.00							
11	Geographic distance	6.998	5.536	-0.038	-0.043	0.113	-0.051	0.081	0.020	-0.010	-0.187	0.409	-0.074	1.00						
12	Economic distance	0.265	0.223	0.018	-0.037	-0.030	-0.027	0.023	0.010	-0.048	-0.116	0.035	0.618	-0.291	1.00					
13	OECD	0.531	0.499	0.031	0.040	-0.032	0.037	-0.073	0.010	-0.010	0.062	0.099	-0.551	0.405	-0.629	1.00				
14	Correction for self-selection (λ)	0.007	0.028	-0.063	-0.050	0.081	0.034	0.109	-0.028	-0.063	0.130	-0.010	0.038	0.010	0.036	-0.073	1.00			
15	Institutional distance (ID)	2.269	0.330	-0.078	-0.076	0.060	0.041	0.086	-0.032	-0.010	0.150	-0.031	-0.066	-0.134	-0.145	-0.220	0.023	1.00		
16	Market-seeking (MS)	0.854	0.353	0.044	0.010	0.054	0.017	0.052	-0.085	0.001	-0.092	-0.096	0.058	-0.036	0.110	-0.131	-0.284	-0.026	1.00	
17	Knowledge-seeking (KS)	0.505	0.386	0.066	-0.010	-0.057	-0.022	-0.053	0.051	-0.043	-0.235	-0.057	0.027	0.127	-0.040	0.060	-0.466	-0.146	-0.010	1.00

Notes: N = 9,305. Significant at the 0.05 level (two-tailed test) when the absolute value of the Pearson correlation is ≥0.027.

Table 2. Main Results of Hypotheses Testing

	(1)	(2)	(3)	(4)	(5)
Firm age	10.512	9.953	9.613	9.601	9.626
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Firm size	-9.920	-9.649	-9.403	-9.439	-9.406
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
State ownership percent	0.463	0.279	0.355	0.363	0.377
	(0.398)	(0.606)	(0.506)	(0.496)	(0.480)
Past performance	-0.554	0.218	-0.126	-0.084	-0.097
	(0.499)	(0.788)	(0.875)	(0.916)	(0.903)
R&D intensity	0.508	0.923	0.769	1.254	1.142
	(0.785)	(0.614)	(0.669)	(0.486)	(0.526)
Subsidiary age	-7.105	-6.714	-6.459	-6.479	-6.510
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Subsidiary size	0.176	0.326	0.335	0.348	0.338
	(0.007)	(0.000)	(0.000)	(0.000)	(0.000)
Demographic distance	2.164	3.527	3.947	4.692	4.554
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Culture distance	-0.285	0.162	0.323	0.283	0.389
	(0.635)	(0.786)	(0.586)	(0.632)	(0.512)
Geographic distance	0.028	-1.283	-1.669	-2.265	-2.209
	(0.963)	(0.033)	(0.005)	(0.000)	(0.000)
Economic distance	0.887	0.389	0.042	-0.082	-0.115
	(0.004)	(0.197)	(0.889)	(0.784)	(0.702)
OECD	0.465	0.878	0.453	0.657	0.593
	(0.435)	(0.139)	(0.440)	(0.264)	(0.313)
Financial crisis	-0.000	-0.000	-1.661	-1.516	-1.597
	(0.100)	(0.100)	(0.053)	(0.077)	(0.063)
Correction for self-selection (λ)	-34.325	13.724	13.289	10.124	10.662
	(0.000)	(0.111)	(0.119)	(0.236)	(0.212)
Institutional distance	-0.122	-0.247	-0.086	-0.553	-0.452
	(0.039)	(0.000)	(0.277)	(0.000)	(0.000)
MS		3.207	2.455	2.314	2.210
		(0.000)	(0.000)	(0.000)	(0.000)
KS		5.601	5.193	4.662	4.880
		(0.000)	(0.000)	(0.000)	(0.000)
MS * Institutional distance			-0.198		-0.224
			(0.063)		(0.035)
KS * Institutional distance				0.759	0.781
				(0.000)	(0.000)
Constant	98.086	91.419	91.796	92.205	92.178
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Industry dummy	Included	Included	Included	Included	Included
Year dummy	Included	Included	Included	Included	Included
Log-likelihood	-4.10e04	-4.05e04	-4.00e04	-4.00e04	-4.00e04
AIC	82085.721	81040.560	80066.318	80052.413	80049.961
Prob. > F	0.000	0.000	0.000	0.000	0.000

N=9,305. P-values are in parentheses.

Table 3. Results of Robustness Analyses: WOS

	(1)	(2)	(3)	(4)	(5)
Firm age	0.992	1.024	1.098	1.094	1.106
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Firm size	-1.142	-1.046	-1.030	-1.039	-1.035
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
State ownership percent	0.255	0.190	0.211	0.211	0.217
	(0.000)	(0.005)	(0.002)	(0.002)	(0.002)
Past performance	0.484	0.421	0.402	0.398	0.406
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
R&D intensity	0.187	0.250	0.141	0.211	0.160
	(0.507)	(0.380)	(0.622)	(0.462)	(0.575)
Subsidiary age	-1.020	-1.022	-1.087	-1.083	-1.099
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Subsidiary size	0.046	0.066	0.062	0.064	0.062
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Demographic distance	0.122	0.306	0.257	0.340	0.309
	(0.083)	(0.000)	(0.001)	(0.000)	(0.000)
Culture distance	-0.241	-0.271	-0.194	-0.229	-0.187
	(0.001)	(0.001)	(0.015)	(0.004)	(0.019)
Geographic distance	0.330	0.166	0.173	0.125	0.127
	(0.000)	(0.033)	(0.029)	(0.121)	(0.117)
Economic distance	0.226	0.190	0.146	0.152	0.131
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)
OECD	-0.029	0.019	-0.021	0.003	-0.013
	(0.700)	(0.797)	(0.782)	(0.972)	(0.864)
Financial crisis	-0.371	-0.310	-0.356	-0.328	-0.356
	(0.001)	(0.008)	(0.002)	(0.005)	(0.003)
Correction for self-selection (λ)	-2.836	1.739	1.734	1.439	1.612
	(0.001)	(0.114)	(0.115)	(0.195)	(0.146)
Institutional distance	-0.025	-0.042	-0.014	-0.062	-0.040
	(0.001)	(0.000)	(0.198)	(0.000)	(0.005)
MS		0.343	0.292	0.287	0.272
		(0.000)	(0.000)	(0.000)	(0.000)
KS		0.628	0.716	0.638	0.702
		(0.000)	(0.000)	(0.000)	(0.000)
MS * Institutional distance			-0.061		-0.070
			(0.000)		(0.000)
KS * Institutional distance				0.045	0.069
				(0.067)	(0.005)
Constant	2.273	1.640	1.764	1.799	1.805
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Industry dummy	Included	Included	Included	Included	Included
Year dummy	Included	Included	Included	Included	Included
Log-likelihood	-5159.244	-5028.809	-4939.280	-4946.170	-4935.368
AIC	10380.488	10123.617	9946.561	9960.340	9940.737
Prob. > F	0.000	0.000	0.000	0.000	0.000

N=9,305. P-values are in parentheses.

Table 4. Results of Robustness Analyses: Majority-owned

	(1)	(2)	(3)	(4)	(5)
Firm age	2.023	1.956	1.786	2.068	2.066
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Firm size	-2.219	-2.200	-2.455	-2.615	-2.617
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
State ownership percent	0.506	0.512	0.489	0.497	0.495
	(0.000)	(0.000)	(0.001)	(0.002)	(0.003)
Past performance	-0.310	-0.362	-0.278	-0.283	-0.273
	(0.088)	(0.057)	(0.172)	(0.189)	(0.207)
R&D intensity	-0.425	0.004	-0.409	-0.498	-0.510
	(0.491)	(0.995)	(0.575)	(0.517)	(0.505)
Subsidiary age	-1.318	-1.176	-0.958	-0.931	-0.928
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Subsidiary size	0.084	0.144	0.153	0.171	0.169
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Demographic distance	1.120	1.385	1.960	2.454	2.440
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Culture distance	0.425	0.310	0.208	-0.051	-0.039
	(0.005)	(0.054)	(0.236)	(0.785)	(0.837)
Geographic distance	-0.200	-0.552	-1.037	-1.571	-1.576
	(0.203)	(0.001)	(0.000)	(0.000)	(0.000)
Economic distance	-0.324	-0.334	-0.480	-0.527	-0.541
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
OECD	-0.212	-0.123	-0.150	0.024	0.022
	(0.119)	(0.390)	(0.317)	(0.873)	(0.883)
Financial crisis	0.028	0.015	-0.092	0.057	0.053
	(0.904)	(0.951)	(0.721)	(0.833)	(0.846)
Correction for self-selection (λ)	-7.661	1.365	0.017	-3.486	-3.216
	(0.000)	(0.532)	(0.993)	(0.107)	(0.138)
Institutional distance	-0.207	-0.244	-0.180	-0.366	-0.351
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
MS		0.594	0.438	0.090	0.132
		(0.000)	(0.000)	(0.519)	(0.354)
KS		1.390	1.273	1.396	1.423
		(0.000)	(0.000)	(0.000)	(0.000)
MS * Institutional distance			-0.083		-0.083
			(0.034)		(0.136)
KS * Institutional distance				0.217	0.292
				(0.008)	(0.003)
Constant	5.569	4.231	4.204	4.558	4.525
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Industry dummy	Included	Included	Included	Included	Included
Year dummy	Included	Included	Included	Included	Included
Log-likelihood	-1746.242	-1614.811	-1459.639	-1326.829	-1325.704
AIC	3550.483	3291.623	2983.279	2717.658	2717.408
Prob. > F	0.000	0.000	0.000	0.000	0.000

N=9,305. P-values are in parentheses.

Table 5. Results of Robustness Analyses: Separating Markets

	(1)	(2)	(3)	(4)
	Less developed countries		Developed countries	
Firm age	15.970	16.041	7.378	6.999
	(0.000)	(0.000)	(0.000)	(0.000)
Firm size	-8.847	-8.905	-8.532	-8.154
	(0.000)	(0.000)	(0.000)	(0.000)
State ownership percent	-1.688	-1.605	2.014	1.876
	(0.115)	(0.133)	(0.001)	(0.002)
Past performance	-2.705	-3.209	0.505	-0.195
	(0.069)	(0.031)	(0.584)	(0.831)
R&D intensity	5.500	4.736	-0.500	-1.303
	(0.231)	(0.301)	(0.787)	(0.476)
Subsidiary age	-11.109	-10.878	-5.231	-5.030
	(0.000)	(0.000)	(0.000)	(0.000)
Subsidiary size	0.136	0.133	0.382	0.449
	(0.292)	(0.307)	(0.000)	(0.000)
Demographic distance	5.366	5.076	3.203	3.537
	(0.000)	(0.000)	(0.003)	(0.001)
Culture distance	3.247	3.646	0.257	1.028
	(0.008)	(0.004)	(0.720)	(0.152)
Geographic distance	-5.368	-5.594	5.049	5.120
	(0.000)	(0.000)	(0.000)	(0.000)
Economic distance	0.765	0.678	-2.503	-2.949
	(0.194)	(0.251)	(0.000)	(0.000)
OECD	3.850	3.796	-9.197	-9.777
	(0.002)	(0.002)	(0.000)	(0.000)
Financial crisis	18.087	17.139	4.223	3.974
	(0.000)	(0.000)	(0.061)	(0.074)
Institutional distance	-0.315	-0.292	-0.248	-0.550
	(0.007)	(0.060)	(0.001)	(0.103)
MS	6.688	7.523	-1.747	-1.696
	(0.000)	(0.000)	(0.000)	(0.000)
KS	7.027	6.740	2.548	2.222
	(0.000)	(0.000)	(0.037)	(0.066)
MS * Institutional distance		-0.447		-0.422
		(0.036)		(0.001)
KS * Institutional distance		0.637		0.011
		(0.158)		(0.980)
Constant	80.769	81.137	96.054	96.390
	(0.000)	(0.000)	(0.000)	(0.000)
Industry dummy	Included	Included	Included	Included
Year dummy	Included	Included	Included	Included
Log-likelihood	-1.49e04	-1.47e04	-2.54e04	-2.52e04
AIC	29762.568	29489.886	50950.681	50376.973
Prob. > F	0.000	0.000	0.000	0.000

P-values are in parentheses.

Table 6. Results of Robustness Analyses: Innovation Distance

	(1)	(2)	(3)	(4)
Firm age	11.104	10.680	10.739	10.703
	(0.000)	(0.000)	(0.000)	(0.000)
Firm size	-9.839	-9.855	-10.293	-10.162
	(0.000)	(0.000)	(0.000)	(0.000)
State ownership percent	0.529	0.580	0.832	0.771
	(0.333)	(0.284)	(0.125)	(0.154)
Past performance	-0.152	0.219	0.151	0.247
	(0.852)	(0.787)	(0.853)	(0.761)
R&D intensity	1.181	1.252	0.709	1.027
	(0.523)	(0.493)	(0.698)	(0.574)
Subsidiary age	-7.237	-7.171	-7.078	-7.140
	(0.000)	(0.000)	(0.000)	(0.000)
Subsidiary size	0.250	0.253	0.273	0.269
	(0.000)	(0.000)	(0.000)	(0.000)
Demographic distance	8.901	8.113	10.014	9.281
	(0.000)	(0.000)	(0.000)	(0.000)
Culture distance	-1.569	-1.664	-2.298	-2.094
	(0.010)	(0.006)	(0.000)	(0.001)
Geographic distance	5.650	6.070	6.488	6.419
	(0.000)	(0.000)	(0.000)	(0.000)
Economic distance	1.004	1.048	0.830	0.906
	(0.001)	(0.000)	(0.004)	(0.002)
OECD	-2.458	-3.294	-4.075	-3.857
	(0.000)	(0.000)	(0.000)	(0.000)
Financial crisis	-0.000	-1.543	-1.357	-1.477
	(0.100)	(0.076)	(0.121)	(0.091)
Correction for self-selection (λ)	25.665	20.693	16.284	16.965
	(0.003)	(0.017)	(0.066)	(0.055)
Innovation distance	-4.387	-1.110	-7.793	-5.181
	(0.000)	(0.105)	(0.000)	(0.000)
MS	4.111	2.795	3.354	3.123
	(0.000)	(0.000)	(0.000)	(0.000)
KS	6.931	6.819	8.358	7.904
	(0.000)	(0.000)	(0.000)	(0.000)
MS * Innovation distance		-3.784		-2.295
		(0.000)		(0.000)
KS * Innovation distance			5.904	4.411
			(0.000)	(0.001)
Constant	92.998	93.270	92.494	92.772
	(0.000)	(0.000)	(0.000)	(0.000)
Industry dummy	Included	Included	Included	Included
Year dummy	Included	Included	Included	Included
Log-likelihood	-4.06e04	-4.01e04	-3.98e04	-3.98e04
AIC	81212.642	80335.846	79688.793	79673.818
Prob. > F	0.000	0.000	0.000	0.000

N=9,305. P-values are in parentheses.

Appendix A. Variable Definitions

Variables	Measures
Dependent Variable	
Equity Ownership	Ownership of equity holding in a firm's foreign subsidiary (in percentage).
WOS	Coded as 1 if a Chinese MNE has 100% of foreign subsidiary equity ownership and 0 if the percentage of the foreign subsidiary equity is less than 100%.
Majority-owned	Coded as 1 if a Chinese MNE has more than 50% of foreign subsidiary equity ownership and 0 if the percentage is below 50%.
Independent Variable	
MS	Coded as 1 if a subsidiary indicates that FDI was one of the motives to increase sales in new foreign markets (i.e., market-seeking motive) and 0 otherwise.
KS	Coded as 1 if a subsidiary indicates its FDI was one the key motive to access advanced technologies in a host market (i.e., knowledge-seeking motive) and 0 otherwise.
Moderators	
Institutional Distance	Mahalanobis-based measure of cross-national political distance developed by Berry and colleagues (2010), which consists of five indicators: political stability, democracy scores, size of the state sector relative to that of the total economy, World Trade Organization (WTO) membership, and regional trade agreement.
Innovation Distance	Difference in the number of patents and scientific articles per capita between two countries.
Controls	
Firm Age	The number of years since the parent firm established.
Firm Size	The logarithm of parent firm's annual sales in Chinese *yuan*.
State Ownership Percent	Ownership of equity holding owned by Chinese government.
Past Performance	Return on Assets of parent firm.
R&D Intensity	R&D expenditures divided by total sales of parent firm.
Subsidiary Age	The number of years elapsed since the subsidiary firm's establishment.
Subsidiary Size	The logarithm of the real capital of the subsidiary invested in a foreign market.
Demographic Distance	Mahalanobis-based measure of cross-national demographic distance developed by Berry and colleagues (2010), which consists of four components: life expectancy at birth (total years), birth rate, crude (per 1000 people), population ages 0-14 (% of total), population ages 65 and above (% of total).
Culture Distance	Mahalanobis-based measure of cross-national cultural distance developed by Berry and colleagues (2010), which consists of four components: obedience and respect for authority, trusting people and job security, independence and the role of government in providing for its citizens, the importance of family and work.
Geographic Distance	The great circle distance between two countries according to the coordinates of the geographic center of the countries.
Economic Distance	Mahalanobis-based measure of cross-national economic distance developed by Berry and colleagues (2010), which consists of four components: GDP per capita (2000 US$), GDP deflator (% GDP), exports of goods and services (% GDP), and imports of goods and services (% GDP).
OECD	Coded as 1 if the foreign market belongs to the Organization for Economic Co-operation and Development (OECD) and 0 otherwise.
Financial Crisis	Coded as 1 if the year is 2008 and 0 otherwise.

Appendix B. The Results of Robustness Analyses: WGI Institutional Distance

	(1)	(2)	(3)	(4)	(5)
Firm age	2.478	2.374	2.337	2.379	2.341
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Firm size	-2.124	-1.838	-1.847	-1.835	-1.844
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
State ownership percent	0.010	0.043	0.039	0.041	0.035
	(0.947)	(0.776)	(0.798)	(0.787)	(0.815)
Past performance	-0.184	-0.334	-0.384	-0.312	-0.354
	(0.380)	(0.110)	(0.066)	(0.136)	(0.090)
R&D intensity	-0.144	0.014	-0.078	0.061	-0.015
	(0.750)	(0.975)	(0.861)	(0.892)	(0.974)
Subsidiary age	-1.561	-1.507	-1.488	-1.516	-1.501
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Subsidiary size	0.027	0.017	0.015	0.016	0.013
	(0.109)	(0.307)	(0.376)	(0.333)	(0.425)
Demographic distance	0.803	0.804	0.867	0.774	0.827
	(0.006)	(0.006)	(0.003)	(0.008)	(0.005)
Culture distance	-0.137	-0.027	-0.042	-0.019	-0.030
	(0.412)	(0.870)	(0.802)	(0.910)	(0.856)
Geographic distance	0.611	0.644	0.859	0.624	0.844
	(0.006)	(0.003)	(0.000)	(0.004)	(0.000)
Economic distance	0.331	0.325	0.377	0.323	0.376
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
OECD	-0.254	-0.307	-0.436	-0.292	-0.422
	(0.164)	(0.090)	(0.017)	(0.107)	(0.021)
Financial crisis	1.829	1.864	1.825	1.883	1.851
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Correction for self-selection (λ)	0.541	0.660	0.718	0.682	0.755
	(0.057)	(0.019)	(0.011)	(0.016)	(0.007)
WGI Institutional distance	-0.440	-0.350	-0.440	-0.334	-0.423
	(0.005)	(0.025)	(0.005)	(0.033)	(0.007)
MS		1.064	1.056	1.047	1.031
		(0.000)	(0.000)	(0.000)	(0.000)
KS		0.939	0.908	0.943	0.911
		(0.000)	(0.000)	(0.000)	(0.000)
MS * WGI Institutional distance			-0.699		-0.744
			(0.000)		(0.000)
KS * WGI Institutional distance				0.391	0.574
				(0.069)	(0.008)
Constant	3.117	2.252	2.389	2.260	2.410
	(0.000)	(0.001)	(0.000)	(0.001)	(0.000)
Industry dummy	Included	Included	Included	Included	Included
Year dummy	Included	Included	Included	Included	Included
Log-likelihood	-14609.69	-14565.36	-14548.59	-14563.68	-14545.02
AIC	29353.38	29268.72	29237.17	29267.37	29232.04
Prob. > F	0.000	0.000	0.000	0.000	0.000

N=9,305. P-values are in parentheses.