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WHY STRATEGIC FACTOR MARKETS MATTER: "NEW" MULTINATIONALS' GEOGRAPHIC DIVERSIFICATION AND FIRM PROFITABILITY

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This study examines firm profitability differences among "new" multinational enterprises (NMNEs) pursuing geographic diversification into two distinct types of geographic locations based on the development of strategic factor markets. Building on strategic factor markets theory, we propose that firm-specific advantages of NMNEs contribute differentially to firm profitability because they evolve differently given strategic factor market differences in host compared to home countries. Using a sample of Korean manufacturing MNEs during the 1993–2003 period, we find that geographic diversification into resource-poorer host countries has a positive relationship with firm profitability, whereas geographic diversification into resource-richer host countries has a U-shaped relationship with firm profitability. Our study demonstrates why strategic factor markets—an important and often overlooked contextual factor—matter in exploring rationales for geographic diversification. Copyright © 2014 John Wiley & Sons, Ltd.

INTRODUCTION

Research examining the relationship between geographic diversification and firm performance in general, and firm profitability in particular, has used two seemingly complementary but potentially competing views—i.e., resource-based theory (RBT) of the firm and organizational learning theory (OLT). Drawing on these two perspectives, the geographic diversification literature has created nuanced, and often curvilinear, predictions with regard to the relationship between geographic diversification and firm profitability (for a review, see Hitt *et al.*, 2006). Proponents of the RBT have argued that a multinational enterprise (MNE) can increase firm profitability by exploiting homegrown, firm-specific advantages even in the earliest stages of geographic diversification (e.g., Geringer, Tallman, and Olsen, 2000; Goerzen and Beamish, 2003; Hitt, Hoskisson, and Kim, 1997). In contrast, proponents of OLT (e.g., Contractor, Kundu, and Hsu, 2003; Lu and Beamish, 2004) have proposed that in the later stages of geographic diversification, MNEs increase profitability through two benefits: (1) organizational learning through continuous investments from one country to another, and (2) new resource exploration—the pursuit of location-specific advantages embedded in host countries.

Notwithstanding their important insights, these divergent perspectives about how and when MNEs are able to improve firm profitability reveal

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an important puzzle that remains unaddressed. If there is theoretical complementarity between the RBT logic (a positive relationship in early stages) and the OLT logic (a positive relationship in later stages), it might be logical to predict that firm profitability would increase monotonically with geographic diversification. As noted above, however, past research, with some notable exceptions (e.g., Goerzen and Beamish, 2003), has largely failed to find empirical support for this prediction. Given the competing rationales provided by key elements of both theories, a possible approach would be to reconcile these theories by defining a salient context associated with each rationale. Given that a theory has a "contextual" boundary condition in terms of the "where" of a theory (Whetten, 1989: 492) or a "spatial" boundary condition (Bacharach, 1989: 499), a question that may be posed is: Under what context is the RBT logic more or less applicable than the OLT logic? To examine potential salient contexts for each rationale (Whetten, 2009), our study uses strategic factor markets theory that establishes a contextualized, comparative cross-country perspective (e.g., Khanna and Palepu, 1997; Porter, 1990; Wan and Hoskisson, 2003).

Although proponents of the two theories presented above "have implicitly assumed either unitary international conditions or that differences between national environments are not important" (Goerzen and Beamish, 2003: 1291), our study challenges this assumption by suggesting that MNEs are nested in different national environments and that such differences in national environments have an enduring impact on MNEs' competitive advantage and firm performance. We propose that the two logics (i.e., RBT and OLT) of geographic diversification are likely to have more predictive power under different country environmental contexts, specifically where strategic factor markets of host countries are different from those of the home country. A *strategic factor market* is defined as a resource market where the output of the factors of production or the strategic resources necessary to implement a product market strategy—such as the labor market, the capital market, and the market for natural resources—are acquired by the MNEs (e.g., Barney, 1986; Khanna and Palepu, 1997; Porter, 1990; Ricardo, 1817). The nature of the strategic factor market matters for MNEs because it systematically influences the ability of MNEs not only to develop and exploit firm-specific advantages but also to augment them by exploring and developing location-specific advantages.

In building our contextualized perspective, we classify MNE host countries that are less or more developed than the home country in terms of strategic factor markets: resource-poorer (R-P) versus resource-richer (R-R) host countries. Our theoretical argument is that in R-P host countries, the RBT should be salient; however, because there is much debate about the predictive power of the RBT in the geographic diversification literature (e.g., Goerzen and Beamish, 2003; Hitt *et al.*, 1997), our study poses two competing hypotheses in part to seek resolution of this debate. In contrast, we argue that in R-R host countries, the OLT should be salient. We test this argument using a sample of "new" MNEs (NMNEs), which refer to "MNEs originating in countries that are not among the most advanced in the world" (Guillén and García-Canal, 2009: 23).[1]

Our approach to contextualizing theory, or "theories *in* context" in Whetten's (2009: 29, emphasis in original) terminology, is also critically important in understanding the trend toward geographic diversification among NMNEs and their performance outcomes. NMNEs—as compared to their established and developed economy-based MNE counterparts that conceivably possess absolute firm-specific advantages—generally lack absolute, firm-specific advantages. Accordingly, it is more salient for NMNEs to consider the comparative environmental context of both home and host countries to exploit and augment their advantages. Consequently, our focus on NMNEs offers a compelling setting to shed some light on the puzzle presented above. Using a single country sample makes it easier to compare the profitability results of geographic diversification into R-P host countries versus into R-R host countries. Therefore, we employ a sample of Korean manufacturing MNEs to test our hypotheses.

Our study contributes to the geographic diversification literature. First, our study applies the insights of strategic factor markets theory to the

[1] According to Guillén and García-Canal (2009), NMNEs come from (1) upper/middle income economies such as South Korea, Spain, Portugal, and Taiwan; (2) emerging economies such as Brazil, Chile, Mexico, China, India, and Turkey; (3) developing countries such as Egypt, Indonesia, and Thailand; and (4) oil-rich countries such as the United Arab Emirates, Nigeria, and Venezuela.

geographic diversification literature. Specifically, our study demonstrates the significance of strategic factor markets in advancing our understanding of the contextualized relationship between geographic diversification and firm profitability, providing fresh insights into this relationship among NMNEs. Our study suggests that firm profitability of NMNEs is in part contingent upon the stage of development of strategic factor markets in a host compared to the home country. Second, and relatedly, our approach helps set contextual boundary conditions for the RBT and OLT under which the former has more or less predictive power than the latter. In fact, our study responds to a call by Whetten (2009), who emphasizes the need to contextualize theory, by revealing the extent to which the RBT and OLT explicitly account for relevant contextual conditions.

WHY STRATEGIC FACTOR MARKETS MATTER

To better understand why strategic factor markets matter for MNEs, it is necessary to revisit Ricardo's (1817) comparative advantage perspective. Ricardo claimed that two countries (e.g., either R-R or R-P) could benefit from international trade even when they lacked absolute advantages as long as each had relative advantages in production activities. Specifically, the classic Ricardian theory of comparative advantage pointed to the role of the factors of production (or strategic resources) of land, labor, and capital used in the production of a product that are in relatively fixed supply and imperfectly mobile across countries. Strongly influenced by Ricardo (1817), global strategy scholars (e.g., Porter, 1990) have contended that many aspects of an MNE's competitive advantage reside outside the firm and are, in particular, rooted in geographic location, thus emphasizing the role of a nation's endowment of productive factors. Our study below extends this line of reasoning, recognizing the differential benefits and costs of strategic factor markets across countries.

The differential benefits of strategic factor markets

Countries heterogeneously develop strategic factor markets that may be relatively unique and persistent over long periods and from which MNEs—regardless of where they originate and operate—acquire necessary strategic resources. As a result, while a particular strategic resource may be readily available to all firms embedded in an R-R country, the same resource may not be readily available in an R-P country (Khanna and Palepu, 1997; Luo and Tung, 2007). Because firms located in a particular country share in the strategic resources associated with that country, Porter (1990) and Wan and Hoskisson (2003) claimed that MNEs would predominantly develop their competitive advantages in their home country.

Nevertheless, firms can overcome home country constraints by entering host countries where higher quality, superior strategic resources are available for purchase (e.g., Hoskisson *et al.*, 2004; Luo and Tung, 2007; Makino, Lau, and Yeh, 2002). The literature has argued that geographic diversification helps MNEs foster firm-specific advantages because they are able to use "the selective advantages of multiple countries" (Hitt *et al.*, 1997: 774), to gain "a richer knowledge structure and stronger technological capabilities than purely domestic firms will enjoy" (Barkema and Vermeulen, 1998: 10), and to develop "new capabilities in international markets" (Lu and Beamish, 2004: 601). Compared to the extant literature, our study proposes that because some host countries offer MNEs better developed and more munificent strategic factor markets than others, the extent to which MNEs are able to augment firm-specific advantages varies among host countries.

The differential costs of strategic factor markets

Although the two logics (i.e., RBT and OLT) of geographic diversification are largely concerned with the benefits (i.e., exploitation and exploration) associated with geographic diversification, there is explicit consideration of costs of doing business abroad (e.g., Contractor *et al.*, 2003; Hitt *et al.*, 1997; Lu and Beamish, 2004). Yet the extant literature has paid little attention to the differential costs of doing business abroad, suggesting that such cost differences may be negligible across countries. That is, geographic diversification research has assumed that these costs in general, and transaction costs in particular, merely increase with geographic diversification over time. However, the costs of acquiring the strategic resources necessary to implement product market strategies vary from country to country (Alston and Gillespie, 1989;

Barney, 1986; Coase, 1937; Khanna and Palepu, 1997).

In his seminal work, Coase (1937) argued that firms, which combine the factors of production to create products, exist to reduce not only external transaction costs (or transaction costs of the market such as search and information costs) but also internal transaction costs (or transaction costs of the firm including coordination costs). Coase (1937: 397) pointed out that the firm would become inefficient and suffer economic losses when there is an increase in the "spatial distribution" of the transactions organized internally and in the "dissimilarity" of the transactions. Building on Coase (1937), Williamson (1985: 22) acknowledged that the firm would accrue differing amounts of transaction costs "when moving from one culture to another." Based on the idea that transaction costs are deeply embedded in external environments in general (Coase, 1937; Williamson, 1985), and strategic factor markets in particular (Barney, 1986), Khanna and Palepu (1997) similarly put forth a perspective where the costs of strategy implementation vary across host countries because host country strategic factor markets are unevenly developed. While firms differ in the efficiency with which they gather and process information about the value of a strategic resource (Makadok and Barney, 2001), Khanna and Palepu (1997) suggested that the extent of imperfection of the strategic factor markets in a focal host country influences differences in efficiency among MNEs.

HYPOTHESES

We propose hypotheses about how and when, in pursuit of geographic diversification into R-P versus R-R host countries, the firm-specific advantages of NMNEs might contribute differentially to firm profitability. In doing so, our study sets theoretical boundary conditions (Bacharach, 1989; Whetten, 1989, 2009) for the RBT and OLT by taking into account contextual or spatial boundaries and associated strategic factor market development.

Theoretical boundary conditions

Our theorizing first predicts that the RBT is a more salient theoretical perspective for geographic diversification into R-P host countries than into R-R host countries, especially in the early stages (at lower levels) of NMNEs' geographic diversification. The general principle of competitive advantage is that "it is strengths *relative to competitors* that matter, and not absolute strengths" (Wernerfelt and Karnani, 1987: 192, emphasis added). From this perspective, firm-specific advantages of MNEs refer to the inferiority or superiority of MNEs' firm-specific advantages when compared to those of local competitors within host countries. Therefore, when the RBT is employed, NMNEs likely experience disadvantages when geographically diversifying into R-R host countries where local competitors have stronger, firm-specific advantages thanks to more highly developed strategic factor markets. However, the same NMNEs likely experience an advantage as they diversify into an R-P host country where local competitors generally possess less competitive firm-specific advantages due to underdeveloped strategic factor markets.

Hyundai Motor Company is a case in point. When the company entered North America, it struggled to face off against local competitors for a long period due to its inferior technology and poorer product quality than local competitors (Barnett, March, and Rhee, 2003; Kim and Lee, 2001). However, the same company enjoyed substantial competitive advantage in R-P host countries such as India and China because its technology and product quality were strong enough to compete against local firms (Barnett, Rhee, and Kim, 2008). However, Hitt *et al.* (1997) showed that the RBT might lose predictive power as firms pursue too much geographic diversification. As an anecdotal example, Daewoo Motor struggled and failed to improve firm profitability when it expanded farther from Asian countries such as the Philippines and India to Central and Eastern European countries like Romania, Czech Republic, and Poland (Kim and Lee, 2001; Pak, Lee, and An, 2002).

In contrast, we also theorize that OLT is the more salient theoretical perspective for geographic diversification into R-R host countries than into R-P host countries, especially in the later stages (or at higher levels of geographic diversification). Previous research employing OLT has implicitly assumed the universal beneficial effects of experiential learning and the augmentation of firm-specific advantages by capitalizing on host countries' unique resource endowments and location-specific advantages (e.g., Barkema and Vermeulen, 1998; Contractor *et al.*, 2003;

Lu and Beamish, 2004); however, such research has unfortunately failed to uncover distinct locational effects.

For MNEs to be successful in pursuit of geographic expansion, organizational unlearning often precedes organizational learning (cf. Barkema and Vermeulen, 1998; Bettis and Prahalad, 1995). Scholars have also suggested that learning outcomes cannot be decoupled from environmental conditions such as the competitive structure (Levitt and March, 1988) and institutional infrastructures (Hitt *et al.*, 2000). Therefore, the extent to which NMNEs need to unlearn to learn new knowledge may vary from R-P to R-R host countries (Zahra, Abdelgawad, and Tsang, 2011). Similarly, because strategic factor markets are unevenly developed between R-P and R-R host countries, the orientation of NMNEs to acquire new strategic resources may be unequal in these two distinct types of host countries.

More importantly, because R-R host countries provide NMNEs with better opportunities to augment firm-specific advantages than R-P host countries, firm profitability of NMNEs is more likely to improve with higher levels of geographic diversification into R-R host countries than into R-P host countries. Indeed, our theoretical prediction here is more in line with some comparative cross-country studies showing that MNEs prefer to acquire new technological knowledge in host countries whose country-level technological capabilities are superior to those of their home countries (e.g., Frost, 2001; Song and Shin, 2008).

A tale of two Korean automakers that pursued geographic diversification with different preferences for location in the 1990s illustrates the differential global learning outcomes. While Hyundai Motor Company strategically expanded into North America and Western Europe, Daewoo Motor focused heavily on Central and Eastern Europe (Kim and Lee, 2001; Pak *et al.*, 2002). Although both companies had persistently invested in technological capabilities to compete globally, Hyundai Motor Company, compared to Daewoo Motor, was better able to develop new technological capabilities and improve product quality, given that the company emphasized entrance into R-R host countries. As a result, Hyundai Motor Company gradually surged in the global automobile industry in the 2000s, whereas Daewoo Motor was abruptly acquired by General Motors in 2002.

Geographic diversification into R-P host countries

As already noted, we argue that in the early stages of geographic diversification into R-P host countries relative to the home country, NMNEs will likely exhibit increased firm profitability—a theoretical rationale largely based on the RBT. Anecdotal evidence suggests that in the early stages of geographic diversification into R-P host countries, NMNEs tend to initially focus either on the same geographic region as their home country or a region where they have natural advantages such as cultural similarities and connections (e.g., Black, Morrison, and Chang, 1999; Guillén and García-Canal, 2009). This tendency illustrates that in their efforts to immediately improve firm profitability, NMNEs might be motivated and enabled to exploit firm-specific advantages in R-P host countries.

Before exploiting firm-specific advantages, however, "firms must collect information about the competitive context within which they are operating" (Makadok and Barney, 2001: 1621). From this perspective, all MNEs may encounter difficulties in acquiring information about strategic factor markets, especially in R-P host countries (Khanna and Palepu, 1997). However, Hitt, Li, and Worthington (2005: 369–370) argued that NMNEs from more advanced emerging economies (e.g., Korea, Taiwan, etc.) entering less advanced emerging economies (e.g., China, India, etc.) may have "more similarities than differences ... in terms of resource conditions, the approaches to doing business, and their understanding of environmental conditions." As a result, NMNEs may not only gather and interpret new information about the true value of locally embedded resources more efficiently, but also use those resources to implement product market strategies more effectively (e.g., Cuervo-Cazurra and Gene, 2008; Guillén and García-Canal, 2009).

More importantly, the homegrown, firm-specific advantages of NMNEs entering R-P host countries could very well be superior to those possessed by local firms. In particular, the aforementioned similarities will likely make NMNEs—with their homegrown, higher-caliber, firm-specific advantages on account of superior home country strategic factor markets—more capable of exploiting their firm-specific advantages in R-P host countries (Dawar and Frost, 1999). For

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example, by leveraging its Korean R&D base, LG Electronics successfully expanded into less advanced Asian countries such as India and China and gained significant market shares against local competitors (van Hoesel, 1999; Ramaswamy, 2007).

If the RBT of geographic diversification is "essentially a linear argument that suggests no inherent natural limits" (Goerzen and Beamish, 2003: 1290–1291), this may well encourage NMNEs to enter culturally dissimilar and/or geographically distant host countries located in different geographic regions in the later stages of geographic diversification into R-P host countries (Black *et al.*, 1999; Deng, 2007). While these NMNEs may have more difficulty recognizing opportunities in different geographic regions that are less similar to their home country environments, there may be some learning-by-doing lessons from prior expansions that can be applicable to less familiar R-P host countries. As OLT suggests, MNEs may accrue experiential learning as a result of continuous foreign investments from one country to another and their gradual defeat of some of the challenges of time compression diseconomies (Dierickx and Cool, 1989), thereby improving firm profitability. Likewise, Barney (1986) suggests that learning by doing helps firms develop more accurate expectations about the future value of strategic resources made available by specific strategic factor markets.

It seems reasonable to conclude that larger amounts of external and internal transaction costs will likely accrue to NMNEs choosing to enter a greater number of R-P host countries with poorly developed and inefficient strategic factor markets. Nonetheless, as illustrated by LG Electronics, the benefits derived from geographic diversification into R-P host countries through the exploitation of superior homegrown, firm-specific advantages may be high enough for such NMNEs to offset the costs of implementing product market strategies, especially when such costs are reduced by the benefits of experiential learning. Building on the RBT of geographic diversification combined with an experiential learning perspective, we thus propose the following hypothesis.

Hypothesis 1a: Geographic diversification of NMNEs into R-P host countries as compared to the home country will have a positive relationship with firm profitability.

Hypothesis 1a assumes that the combined benefits of the exploitation of superior firm-specific advantages and experiential learning would exceed external and internal transaction costs associated with growing geographic diversification into R-P host countries. As schematically illustrated in the left diagram of Figure 1, however, one may not be able to rule out the alternative idea that too much geographic diversification may not improve firm profitability; that is, the predictive power of the RBT may become lower in the later stages of geographic diversification (Hitt *et al.*, 1997). There can be two possible explanations for declining firm profitability associated with the later stages of geographic diversification into R-P host countries.

First, the marginal benefits of superior firm-specific advantages may decline in more culturally and/or geographically distant R-P host countries. Experiential learning may be quite limited in the later stages of geographic diversification into R-P host countries, as global strategy scholars (e.g., Frost, 2001; Song and Shin, 2008) have suggested; that is, MNEs find it more challenging to augment firm-specific advantages in R-P host countries because they generally lack strategically valuable resource endowments. In fact, Meyer and Sinani (2009) find that knowledge spillovers from more resource-endowed MNEs to less resource-endowed local firms are more likely to take place in less developed host countries. Therefore, NMNEs' superior firm-specific advantages may be diluted to some extent and thus generate smaller economic profits.

Second, the NMNE may end up with substantial transaction costs because strategic factor markets are not only less developed and less efficient but also embedded in culturally and/or geographically distant geographic regions (Alston and Gillespie, 1989; Coase, 1937; Khanna and Palepu, 1997; Williamson, 1985). In the later stages of geographic diversification, NMNEs may be less competent in collecting and processing market information about the local resources of host countries because there may be more differences than similarities in terms of their understanding of environmental and resource conditions and the approaches to doing business. Therefore, albeit endowed with superior firm-specific advantages, with information processing limits being stretched, NMNEs may be more likely to acquire bad, rather than good, local resources

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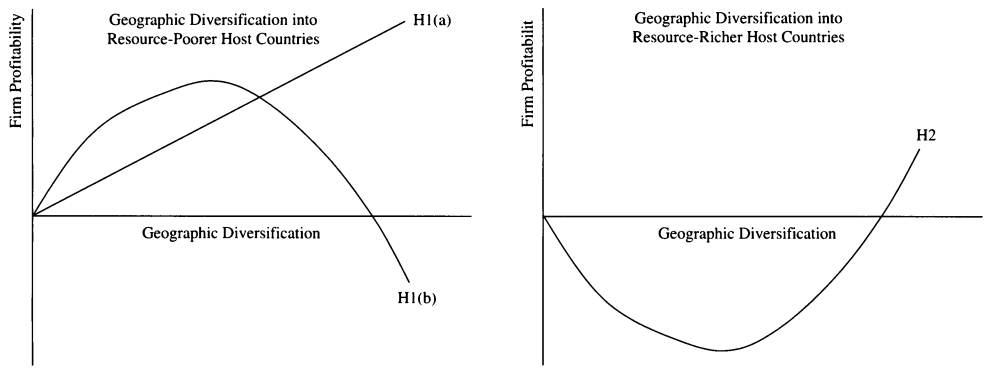

Geographic diversification into resource-poorer host countries		Geographic diversification into resource-richer host countries	
Early stages	Later stages	Early stages	Later stages
Positive: • Firm-specific advantages are superior to those of local firms - A little unlearning is required	Positive: • Superior firm-specific advantages are sustainable - Efficient experiential learning or Negative: • Declining marginal benefits of superior firm-specific advantages - Limited experiential learning - Little exploration of location-specific advantages • Substantial transaction costs	Negative: • Firm-specific advantages are inferior to those of local firms - Costly unlearning is essential	Positive: • Firm-specific advantages are accumulated and augmented - Exploration of location-specific advantages - Effective experiential learning

Figure 1. Key rationale for hypothesized relationships between geographic diversification and firm profitability

(Makadok and Barney, 2001). More importantly, as Coase (1937) and Williamson (1985) indicated, the NMNE would incur significant transaction costs and suffer economic losses when it organizes transactions internally in geographically and culturally distant host countries that are likewise associated with R-P host countries.

In sum, due to the accrued transaction costs of and the declining marginal benefits of too much geographic diversification in relatively poor strategic factor markets, NMNEs will likely face a negative turning point as geographic diversification into R-P host countries crosses a certain threshold. Thus, we propose the following competing hypothesis.

Hypothesis 1b: Geographic diversification of NMNEs into R-P host countries as compared to the home country will have an inverted U-shaped relationship with firm profitability.

Geographic diversification into R-R host countries

In contrast with our logic leading to competing Hypotheses 1a and 1b, we argue that NMNEs choosing to expand into R-R host countries as compared to the home country in the early stages of geographic diversification will likely exhibit decreasing firm profitability. From the RBT logic combined with strategic factor markets theory, because of the inferiority of NMNEs' homegrown, firm-specific advantages relative to those of the relevant competition in R-R host countries, NMNEs may find it extremely challenging and very costly to compete with many local firms endowed with higher-quality, superior strategic resources.

In fact, costly organizational unlearning may be a necessary precondition for NMNEs to attend to and adapt to R-R strategic factor markets successfully and to subsequently promote organizational learning and enhance firm profitability (Zahra *et al.*, 2011). According to Makadok and Barney (2001: 1624), the ability of firms to assess correctly the potential value of strategic resources depends on "sophisticated routines" and "the preexisting stock of resources that are already controlled by that firm." As our theorizing suggests, however, NMNEs whose resource base evolved from their home country's strategic factor markets may be less sophisticated than that of more resource-endowed local firms. Worse, interpreting the potential value of strategic resources that local

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firms have utilized is a challenging task because NMNEs—especially from Asian countries—often internationalize in larger and radical rather than smaller and incremental steps when venturing into more advanced host countries (e.g., Deng, 2007; Luo and Tung, 2007). For NMNEs, therefore, organizational unlearning (Bettis and Prahalad, 1995) may be essential to have a better understanding of the potential value of target resources.

NMNEs confront unprecedented challenges of having to compete fiercely against resource-rich local firms while also facing the need to upgrade critical strategic resources (e.g., managerial skills, R&D capabilities, corporate reputations, etc.) necessary for implementing product market strategies in R-R countries. Moreover, NMNEs in the early stages of geographic diversification into R-R host countries will likely not only need to go through a costly organizational unlearning phrase, but also sustain economic losses by paying more for strategic resources than the marginal productivity of those resources when used in combination with internally accumulated resources (Barney, 1986; Makadok and Barney, 2001).

The aforementioned argument leads us to posit that within the early stages of geographic diversification into R-R host countries, NMNEs that possess relatively weak homegrown, firm-specific advantages due to inferior home strategic factor markets are likely to benefit less and will incur substantial costs in doing business in these host countries, and thereby experience a sharp decline in firm profitability. However, we argue below that a positive turning point may come as geographic diversification into R-R host countries crosses a certain threshold.

As noted earlier, the learning outcomes are substantially determined by environmental conditions (Hitt *et al.*, 2000; Levitt and March, 1988). Specifically, Levitt and March (1988: 332) claim that "[i]n competitive situations, small differences in competence at learning will tend to accumulate through the competency multiplier, driving slower learners to other procedures. If some organizations [which correspond to local firms in our study context] are powerful enough to create their own environments, weaker organizations [which are likened to NMNEs] will learn to adapt to the dominant ones." Such experiential learning through diverse exposure to a large number of R-R host countries helps NMNEs adapt to new resource environments better (Porter, 1990). Therefore, NMNEs may become increasingly effective at selecting good resources and avoiding bad resources in strategic factor markets in the later stages of geographic diversification.

In addition to the experiential learning effect, global strategy research has indicated that NMNEs are better able to gain long-term competitive advantages in R-R host countries in which they have a strategic intent on augmenting firm-specific advantages by exploring location-specific advantages (e.g., Guillén and García-Canal, 2009; Hoskisson *et al.*, 2004; Makino *et al.*, 2002). A case in point is Hyundai Motor Company. Its harsh setback in North America, viewed as tuition for the learning experience, ardently motivated the company to concentrate more seriously on improving technological capabilities and product quality to compete more directly with resource-rich local firms (Kim and Lee, 2001). While North American and other advanced countries offered Hyundai Motor Company difficult competitive environments, they presented the company with learning environments endowed with rich external technological knowledge as well. As a consequence, NMNEs, as they build absorptive capacity (Cohen and Levinthal, 1990) and gain the advantage sought, will substantially improve their profitability in the later stages of geographic diversification into R-R host countries.

While strategic factor markets in R-R host countries are likely to provide NMNEs with rich opportunities to acquire higher-quality, superior strategic resources, these strategic factor markets are still imperfect (Barney, 1986; Coase, 1937). Therefore, NMNEs operating in these host countries may be unable to fully avoid transaction costs arising from imperfect information when implementing product market strategies (Hitt *et al.*, 1997). However, because strategic factor markets are relatively more efficient than the home country, it is possible for these NMNEs to, at least partly, limit transaction costs (e.g., Alston and Gillespie, 1989; Khanna and Palepu, 1997). As a result, the total costs arising from geographic diversification into R-R host countries in the later stages will likely increase at a decreasing rate in R-R host countries. Internalization of coordination costs will be lower as well because of the more efficient strategic factor market. Thus, we posit a U-shaped relationship between geographic diversification into R-R host countries and firm profitability of NMNEs, as illustrated in the right diagram of Figure 1.

Hypothesis 2: Geographic diversification of NMNEs into R-R host countries as compared to the home country will have a U-shaped relationship with firm profitability.

METHODS

Sample: Korean manufacturing MNEs

We began by identifying a full sample of publicly traded manufacturing firms listed on the Korea Stock Exchange. We collected financial and other corporate information from the Korea Investors Services and the WISEfn and Worldscope databases. In doing so, we used 1993 as a starting point. This was the year the Kim Young Sam administration took office and declared it would no longer protect Korean firms against foreign MNEs, often imbued with considerably more resources, and embarked on its Five-Year Plan for the New Economy including *segeyhwa*, which in English means globalization (Ungson, Steers, and Park, 1997). In addition, many Korean firms affected by the 1993 Uruguay Round associated with world trade agreements experienced increased rivalry from foreign entrants in their home market, embracing globalization to improve their global competitiveness. Thus, we are more likely to observe active geographic diversification of Korean firms from the year 1993 onward. We chose 2003 as the ending year due to availability of data on foreign direct investment.

Following Gatignon and Anderson (1988), we then identified all firms that had made at least one foreign direct investment with 5 percent or more equity ownership between 1993 and 2003. We sourced information regarding foreign direct investment of Korean firms from the government-owned Export-Import Bank of Korea to which Korean firms pursuing foreign direct investment must report by law. The bank maintains a database of names of firms and host countries, entry and exit dates, and the like. After dropping some Korean manufacturing firms that had reported abnormal financial information, we had a usable sample of 436 Korean manufacturing firms with an unbalanced panel dataset ($N = 3{,}855$ observations). Of these 436 firms, 186 were classified as MNEs that had made at least one foreign direct investment with 5 percent or more equity ownership and 250 firms domestic ones.

Our use of South Korean manufacturing MNEs is meaningful for several reasons. First, South Korea ranked first in total foreign direct investment outflows among newly advanced or emerging economies between 1992 and 2001 (Deng, 2007), and South Korean MNEs had been widely acclaimed as successful NMNEs (e.g., Guillén and García-Canal, 2009). Second, because South Korean MNEs were headquartered in an upper-middle-income economy, their home country-level strategic factor markets were more developed compared to other emerging economies; however, their strategic factor markets were still less munificent, as compared to those of developed economies. Accordingly, a sample of Korean MNEs provides a useful empirical setting to test our hypotheses examining R-P versus R-R host countries as compared to the home country.

Dependent variable

With regard to our dependent variable, Holzmann, Copeland, and Hayya (1975) point out that because corporate diversification decisions are made generally based on profitability data derived from financial statements, it would be more appropriate to use accounting-based firm performance than market-based firm performance to examine the outcome of diversification strategy. Therefore, our study used *firm profitability* as the dependent variable. Because firm profitability is a multidimensional construct (Venkatraman and Ramanujam, 1986), we measured it as the principal component of return on assets (ROA), return on sales (ROS), and return on invested capital (ROIC). ROA was captured as the ratio of net income to total assets, ROS as the ratio of net income to total sales, and ROIC as the ratio of net income before tax plus interest payments to total assets.

Following Hitt *et al.* (1997) and Vermeulen and Barkema (2002), we calculated a three-year moving average of ROA, ROS, and ROIC to smooth out fluctuations. To mitigate the concern over reverse causality between the independent and control variables and the dependent variable, we used a time-lag structure for the dependent variable. As an example, when the values for the independent and control variables covered the year 1993, those for the dependent variable covered the years 1994–1996. The factor loadings for the three measures were 0.97, 0.84, and 0.93,

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respectively, and the factor's eigenvalue was 2.51 with a Cronbach alpha of 0.90.

Independent variable

With regard to our independent variable, researchers have used the number of host countries where an MNE has its foreign subsidiaries and/or the number of foreign subsidiaries to represent its level of *geographic diversification* (e.g., Goerzen and Beamish, 2003; Lu and Beamish, 2001; Vermeulen and Barkema, 2002; Wan and Hoskisson, 2003). Because we are primarily concerned with the geographic scope of foreign operations, the use of the number of host countries is justifiable. As Goerzen and Beamish (2003) demonstrated, this could also be a robust operationalization of geographic asset dispersion. Previous research has generated an aggregate, single variable to measure the level of geographic diversification. This aggregate, single variable approach, however, may complicate our understanding of the context-dependent relationship between geographic diversification and firm profitability, especially among NMNEs. As our theorizing and hypotheses suggest, this is because the use of an aggregate, single variable overlooks the issue of geography and location of foreign operations. Because "separate locations may impact a firm's performance" (Berry, 2006: 1125), we disaggregated the construct of geographic diversification by using two conceptually distinct geographic diversification variables as our independent variables—i.e., one measured as the number of host countries that were R-P than South Korea and one as the number of host countries that were R-R than South Korea.

To measure the level of geographic diversification, it was important to classify host countries into R-P and R-R host countries as compared to the home country in terms of the development of strategic factor markets. Scholars in different disciplines (e.g., Khanna and Palepu, 1997; Porter, 1990; Ricardo, 1817; Wan and Hoskisson, 2003) have not reached a consensus as to the key components of and archival proxies for strategic factor markets. However, they have tended to classify factors of production, which provide the basis for the development of strategic factor markets, into three broad categories: endowed, advanced, and human factors.

We used energy production and labor productivity for endowed factors. Physical infrastructure (roads + railroads + air transportation), technological infrastructure (R&D investments + new information technology), and financial infrastructure (stock market + venture capital market) were the items used for advanced factors. These items were excerpted from the 2001 *World Competitiveness Yearbook*. Human factor was measured with an education index and a comparative measure of R&D personnel, both of which were obtained from the 2003 *United Nations Human Development Reports*. We then divided each of the values of the items identified above by the highest value of the respective item to convert the original value to a ratio. We finally summed and averaged the ratios to obtain one composite value constituting the factor market endowments index (FMEI), as shown in Table 1.

Based on the FMEI, we classified host countries as R-R or R-P host countries as compared to the home country (i.e., South Korea). The t-test showed that the difference between the means of these two broad categories of host countries in terms of the FMEI was greater than that expected by chance (t-statistic = 11.58, $p < 0.001$). In other words, while countries were characterized by heterogeneous factor market endowments, the category of R-R host countries was meaningfully different from that of R-P host countries. It should be noted here that country-level data were not available for all countries around the world, and limits on the availability of appropriate data substantially reduced the number of countries compared in our study. As a result, we could not report the FMEI for many countries such as Taiwan and Vietnam because these countries were not listed in the *World Competitiveness Yearbook*. Yet, these countries were arguably viewed as R-P countries than South Korea, so they were classified as R-P host countries.

We are keenly aware that the widely used measure of geographic diversification noted above did not allow us to reflect the variation of country-level strategic factor markets in R-P or R-R host countries. As an alternative, we developed the index of geographic diversification that takes into account both the number of host countries in which the MNE operated and the extent to which country-level strategic factor markets varied among host countries. In doing so, we used the following formula to calculate

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Table 1. The factor market endowments index

Resource-richer host countries		Home country		Resource-poorer host countries	
Country	Index	Country	Index	Country	Index
United States	0.662	South Korea	0.439	Hungary	0.425
Belgium	0.645			Italy	0.417
Netherlands	0.606			Czech Republic	0.414
Germany	0.602			Spain	0.413
Finland	0.594			Hong Kong	0.403
Sweden	0.590			New Zealand	0.390
Norway	0.568			Portugal	0.385
Denmark	0.556			Greece	0.378
Switzerland	0.545			Poland	0.372
Japan	0.540			South Africa	0.355
Singapore	0.539			Russia	0.312
United Kingdom	0.534			Malaysia	0.301
France	0.532			Brazil	0.296
Austria	0.512			Argentina	0.290
Ireland	0.486			Chile	0.289
Canada	0.474			India	0.281
Australia	0.474			Turkey	0.268
				Philippines	0.257
				China	0.256
				Mexico	0.251
				Venezuela	0.245
				Thailand	0.235
				Indonesia	0.227
				Colombia	0.225
	0.556	Mean			0.320
	0.055	S.D.			0.070

the index of geographic diversification into R-P or R-R host countries than the home country, respectively:

$$\text{Index of geographic diversification} = \sum_{i=1}^{n} I_{SK} - I_i \text{ or } \sum_{i=1}^{n} I_i - I_{SK}$$

where I_{SK} represents the FMEI of South Korea, I_i represents the FMEI of a host country in which a Korean MNE has at least one foreign subsidiary, and n is the number of R-P or R-R host countries. When I_i is smaller (larger) than I_{SK}, a host country is considered an R-P (R-R) host country than South Korea. The former formula represents the index of geographic diversification into R-P host countries than the home country, while the latter formula represents the index into R-R host countries. As a result, each MNE had two geographic diversification indexes—i.e., one for R-P host countries and one for R-R host countries.

For example, as a Korean MNE had expanded into China and India during our sample period, its index of geographic diversification into R-P host countries was 0.404 [(0.480 – 0.269) + (0.480 – 0.287)]. On the other hand, as another Korean MNE had entered the United States and Canada, its index of geographic diversification into R-R host countries was 0.251 [(0.706 – 0.480) + (0.505 – 0.480)]. If an MNE had not entered any of R-P or R-R host countries, then its index of diversification into R-P or R-R host countries was coded 0. Because three firms out of 186 sample firms had entered R-P host countries such as Vietnam where FMEI was not available, we could not calculated the index of geographic diversification into R-P host countries for them, and they were dropped from the analysis.

Control variables

We first controlled for the effect of *intangible resources* on firm profitability. We measured intangible resources of technological and

marketing knowledge as the sum of the R&D (R&D expenditures/total sales) and advertising (advertising expenditures/total sales) intensities (Lu and Beamish, 2004). We next controlled for the influence of *firm leverage*. To avoid artificial correlations with the dependent variables (i.e., ROA and ROIC), we measured firm leverage as total liabilities over total sales. Korean firms often actively pursued product diversification (Chang and Hong, 2000). To control for the effect of *product diversification* on firm profitability, we used the imputed weighting method to measure product diversification (Gedajlovic and Shapiro, 1998).

In countries where business groups are ubiquitous, business group affiliation can affect firm profitability. Because some firms in our sample were members of business groups (or chaebols in Korea) that not only share resources internally but also engage in intragroup business transaction (Chang and Hong, 2000), we controlled for *business group affiliation* by coding a dummy variable (1 if they belonged to a chaebol, 0 otherwise). We identified chaebol membership through a list of business groups that the Korea Fair Trade Commission compiled every year based on the size of the total assets of all group-affiliated firms. Because *sales growth* can affect firm profitability, we used this variable, measured as the percent change in annual total sales, as a control variable (Wan and Hoskisson, 2003).

To capture demand conditions in domestic and foreign markets, we controlled for *export intensity*, measured as the ratio of foreign sales to total sales. Although export intensity has been used to measure the level of internationalization in previous studies, Lu and Beamish (2004) suggested that export intensity and foreign direct investment can represent two different constructs. We thus decided to control for export intensity. Because government ownership can influence profitability (Dewenter and Malatesta, 2001), we controlled for it. While the lagged value of firm profitability (or lagged firm profitability) was employed to measure our dependent variable, we also controlled for the effects of *(current) firm profitability* using the focal year's average of ROA, ROS, and ROIC. Because we deflated all of our dependent profitability variables by firm size indicators, we did not add an additional control variable for size. Additionally, in a robustness check, firm size was found to be an insignificant indicator and thus was not included to save degrees of freedom.

Using dummy variables, we controlled for *industry effects*. Drawing from Geringer *et al.* (2000), we divided firms into five industry groups based on their two-digit SIC codes: Consumer, Transport, Electronics, Industrial Materials, and Chemicals. In addition, we included 10 dummy variables for the different years in the sample to control for time trends.

Analytical approach

Because we used repeated measures data to test our hypotheses, there existed the possibility of within-firm serial autocorrelation and cross-sectional heteroskedasticity that would violate basic assumptions of ordinary least squares (OLS) models. Accordingly, we used generalized least squares (GLS) models. The Hausman test suggests that the null hypothesis of the random-effects approach not be rejected. This means that the random-effects approach produces efficient and consistent estimates (Greene, 2003). Therefore, we used the random-effects approach over the fixed-effects approach. Following Hamilton and Nickerson's (2003) suggestion, we used the cluster option in STATA 10 to address autocorrelation and heteroskedasticity.

Recent studies have emphasized the importance of correcting for selection bias and endogeneity because "managers make strategic organizational decisions not randomly, but based on expectations of how their choices affect future performance" (Hamilton and Nickerson, 2003: 51). Following Hamilton and Nickerson's (2003) and Bascle's (2008) guidelines, we employed a two-stage Heckman (1979) estimation procedure in examining the effect of geographic diversification on firm profitability because of the first-stage limited dependent variable.[2] We estimated the first-stage equation as an independent probit model to predict whether or not firms had pursued geographic diversification. As such, the dependent variable, which is a dummy variable in the first-stage probit equation, took 1 if a firm had pursued geographic diversification and 0 otherwise. Of the 436 firms we identified, 186 were classified as MNEs and coded 1 and 250 firms as domestic firms and coded

[2] We appreciate one anonymous referee's suggestions to improve empirical rigor.

0. We included the inverse Mills ratio generated in the first-stage probit regression in the second-stage regression to adjust for potential selection bias.

It should be recognized here that reverse causality is likely to take place. In other words, while our study posits the impact of geographic diversification on firm profitability, it is also possible that firm profitability can influence a firm's decision to pursue geographic diversification. Although we use a time-lag structure for the dependent variable, we also take additional steps to deal with reverse causality. It is important to ensure that the first-stage Heckman selection equation includes at least one instrumental variable that influences selection but not the subsequent outcome of interest (Bascle, 2008; Hamilton and Nickerson, 2003). In our study, we choose two instrumental variables (i.e., time since listing as a public company or post-listing duration and mimetic global expansion) that can potentially correct for endogeneity (see online Appendix S1).[3] While post-listing duration and mimetic global expansion are included in the first-stage selection model, they are excluded in the second-stage outcome model.

RESULTS

We report the means, standard deviations, and correlations of the variables used for the second-stage regression in Table 2. To avoid the problem of multicollinearity, we examined the variance inflation factors (VIFs). All VIFs were less than 1.70, much lower than the threshold value of 10 (Cohen *et al.*, 2003). Therefore, we concluded that our results were unlikely to suffer from the problem of multicollinearity.

Table 3 presents the results of our two-stage Heckman regression analysis testing the hypotheses. Model 1 reports the results of the first-stage selection model, whereas Models 2–7 show those of the second-stage outcome model. We use Models 4 and 7 to test our hypotheses because the chi-square (χ^2) test statistic shows that these two models have the best goodness of fit. The results in Models 4 and 7 support Hypothesis 1a while failing to support Hypothesis 1b. That is, geographic diversification of NMNEs into R-P host countries is positively associated with firm profitability. In Model 4, the coefficient of the linear term for geographic diversification into R-P host countries, measured as the number of R-P host countries, is positive and statistically significant ($p < 0.05$, $r = 0.14$).[4] The marginal effect indicates that a one-country increase in geographic diversification into R-P host countries leads to a 0.82 percent increase in firm profitability. With average firm profitability of 2.75 percent in our sample, this figure represents a 29.82 percent increase in firm profitability and suggests that the results are materially significant besides being statistically significant. Likewise, Model 7 shows that the coefficient of the linear term for geographic diversification into R-P host countries, measured as the index of this variable, is positive and statistically significant ($p < 0.05$, $r = 0.13$).

Hypothesis 2 posits a U-shaped relationship between geographic diversification into R-R host countries and firm profitability of NMNEs. The results support Hypothesis 2. As shown in Model 4, the coefficient of the linear term for geographic diversification into R-R host countries, measured as the number of R-R host countries, is negative and statistically significant ($p < 0.01$, $r = 0.18$). The coefficient of the squared term for this variable is positive and statistically significant ($p < 0.05$, $r = 0.16$). The inflection point is 3.84, which is within the range [0, 10] of this variable in our data. This means that firm profitability begins to increase only after geographic diversification into R-R host countries reaches a minimum of four different host countries.[5] The same findings are observed in Model 7. The coefficient of the linear term for geographic diversification into R-R host countries, measured as the index of this variable,

[3] The former is measured as the duration elapsed in years between the listing year and the current year, whereas the latter is measured as the ratio of the number of firms that have already pursued geographic diversification to the total number of firms within a focal firm's industry group.

[4] We calculated the effect size (r) by dividing the z-statistic of the independent variable by the square root of the sample size on which it is based. The effect size reported in our study is quite reasonable. In their meta-analytic study, Kirca *et al.* (2011) reported that the magnitude of effect or association between geographic diversification and firm profitability was 0.09. As such, we conclude that the magnitudes of effects of geographic diversification into R-P host countries and geographic diversification into R-R host countries on firm profitability are substantial.

[5] The marginal effect of geographic diversification into R-R host countries on firm profitability is as follows: -1.098 + 0.286*(number of R-R host countries).

Table 2. Descriptive statistics and correlations

Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Lagged firm profitability$_{(t+1,\, t+3)}$	2.75	8.31														
2. No. of resource-poorer host countries$_t$	1.57	1.93	0.13													
3. No. of resource-richer host countries$_t$	1.15	1.46	0.00	0.57												
4. Index of geographic diversification into resource-poorer host countries$_t$	0.29	0.32	0.13	0.98	0.50											
5. Index of geographic diversification into resource-richer host countries$_t$	0.18	0.20	−0.01	0.50	0.95	0.43										
6. Intangible resources$_t$	2.17	2.73	0.01	0.24	0.24	0.20	0.21									
7. Firm leverage$_t$	0.77	0.53	−0.20	−0.06	0.10	−0.06	0.10	0.04								
8. Product diversification$_t$	0.86	0.44	−0.00	0.10	0.10	0.09	0.06	0.04	0.01							
9. Business group affiliation$_t$	0.21	0.41	−0.01	0.32	0.38	0.32	0.36	0.08	0.23	0.14						
10. Sales growth$_t$	10.20	32.04	0.05	−0.00	0.05	−0.01	0.05	−0.02	−0.14	−0.04	0.05					
11. Export intensity$_t$	39.78	28.77	0.01	0.13	0.11	0.14	0.08	−0.27	−0.11	0.04	0.13	0.02				
12. Government ownership$_t$	1.05	2.84	0.01	0.03	0.02	0.04	0.03	0.05	0.01	0.02	0.04	0.01	−0.04			
13. Firm profitability$_t$	2.86	12.84	0.14	0.07	−0.01	0.07	−0.02	0.03	−0.35	−0.02	−0.04	0.12	0.02	0.01		
14. Post-listing duration$_t$	16.42	9.11	0.02	0.19	0.25	0.17	0.23	0.17	0.08	0.06	0.15	−0.07	−0.15	0.04	−0.01	
15. Mimetic global expansion$_t$	0.46	0.09	−0.04	0.07	−0.02	0.07	−0.01	−0.15	−0.09	0.07	−0.13	0.02	0.15	−0.04	−0.04	−0.12

Correlations greater than or equal to 0.06 are significant at $p < 0.01$.
Correlations greater than or equal to 0.05 are significant at $p < 0.05$.

Table 3. Results of two-stage Heckman regression analysis

	First stage selection equation (DV: propensity to pursue GD)	Second stage outcome equation (DV: lagged firm profitability)					
		IV: No. of host countries			IV: Index of GD		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Constant	−7.145***	4.812*	5.262*	4.959*	4.574*	5.190*	4.863*
	(1.169)	(2.174)	(2.119)	(2.130)	(2.194)	(2.182)	(2.205)
Intangible resources	0.000	−0.055	−0.062	−0.063	−0.029	−0.050	−0.047
	(0.030)	(0.150)	(0.149)	(0.149)	(0.142)	(0.142)	(0.140)
Firm leverage	−0.090	−2.605***	−2.555***	−2.535***	−2.683***	−2.651***	−2.651***
	(0.176)	(0.657)	(0.670)	(0.672)	(0.669)	(0.673)	(0.676)
Product diversification	−0.338	0.030	0.014	−0.081	−0.016	−0.077	−0.155
	(0.216)	(0.674)	(0.670)	(0.696)	(0.680)	(0.675)	(0.699)
Business group affiliation	0.985**	−0.123	0.144	0.214	−0.007	0.238	0.298
	(0.304)	(0.887)	(0.936)	(0.905)	(0.880)	(0.879)	(0.852)
Sales growth	0.001	0.010	0.010	0.010	0.011†	0.011	0.010
	(0.002)	(0.006)	(0.006)	(0.006)	(0.007)	(0.007)	(0.007)
Export intensity	0.024***	−0.008	−0.009	−0.009	−0.007	−0.008	−0.008
	(0.004)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
Government ownership	−0.024	0.055	0.064	0.060	0.060	0.074	0.069
	(0.024)	(0.060)	(0.060)	(0.059)	(0.060)	(0.062)	(0.061)
Firm profitability	0.005	0.035	0.034	0.033	0.035	0.034	0.033
	(0.005)	(0.041)	(0.041)	(0.041)	(0.041)	(0.040)	(0.040)
GD into resource-poorer host countries		0.754***	0.580*	0.821*	4.149***	2.907*	4.189*
		(0.216)	(0.253)	(0.423)	(1.318)	(1.331)	(2.427)
GD into resource-poorer host countries squared				−0.027			−0.943
				(0.025)			(1.058)
GD into resource-richer host countries		−0.447*	−0.931*	−1.098**	−2.856†	−7.674**	−8.748**
		(0.238)	(0.451)	(0.466)	(1.795)	(3.257)	(3.687)
GD into resource-richer host countries squared			0.095*	0.143*		8.471**	11.202*
			(0.057)	(0.064)		(3.627)	(5.029)
Inverse Mills ratio (λ)		−0.181	−0.180	−0.099	−0.091	−0.064	0.014
		(0.475)	(0.471)	(0.482)	(0.483)	(0.482)	(0.497)
Post-listing duration	0.095***						
	(0.015)						
Mimetic global expansion	6.230**						
	(2.156)						
Wald chi-square (χ^2)	346.96***	111.96***	165.47***	182.39***	109.64***	133.92***	143.77***
No. of firms	436	186	186	186	183	183	183
No. of observations	3,855	1,706	1,706	1,706	1,687	1,687	1,687

Dummy variables for industry and year were included in models but are not reported in the table.
Unstandardized regression coefficients are shown. Firm-level clustered robust standard errors are in parentheses.
DV=dependent variable; IV=independent variable; GD=geographic diversification.
†$p < 0.10$; *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$ (one-tailed tests for hypothesized effects, two-tailed for control variables).

Strat. Mgmt. J., 36: 518–536 (2015)
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is negative and statistically significant ($p < 0.01$, $r = 0.18$). The coefficient of the squared term for this variable is positive and statistically significant ($p < 0.05$, $r = 0.16$). We also conducted several *post hoc* analyses to examine the robustness of these results (see online Appendix S2).[6]

DISCUSSION

The results of past research that has largely assumed a single universal relationship between geographic diversification and firm performance are mixed and somewhat puzzling—e.g., positive (e.g., Goerzen and Beamish, 2003; Kirca *et al.*, 2011), U-shaped (e.g., Lu and Beamish, 2001), or inverted U-shaped (e.g., Hitt *et al.*, 1997). Hence, Hennart (2007: 424) raised the question: "What accounts for these unconvincing results?" Whetten (2009: 31) seems to have answered this question properly as he observed that "when organizational research fails to account for relevant contextual effects, the results are necessarily incomplete and inconclusive."

As Goerzen and Beamish (2003) pointed out, much of the prior research in the literature has failed to consider exogenous issues such as the country resource environment in which the MNE is embedded and operating, and has instead focused heavily on issues endogenous to the MNE (cf. Hitt *et al.*, 2006). That may be why some researchers (Hennart, 2007; Verbeke, Li, and Goerzen, 2009) have found it frustrating to propose a predominant theoretical rationale supporting a generalized relationship between geographic diversification and firm profitability. One way to reconcile these unconvincing results is to build upon and extend strategic factor markets theory to examine context-dependent relationships like the one we propose in this study.

In particular, our study pays special attention to the persistent heterogeneity of strategic factor markets among countries that provide firms with strategic resources necessary to generate firm-specific advantages. In fact, our theoretical perspective highlighting the importance of the role of country-level strategic factor markets in generating firm-level competitive advantage is complementary to that of RBT scholars such as Barney (1986) and Peteraf (1993), in the sense that the Ricardian model is incorporated in an explanation of a firm's competitive advantage and firm performance. In addition, our study responds to a call by Barney, Wright, and Ketchen (2001), among others, for recognizing the importance of linking the country-level environmental conditions with management of firm-level competitive advantages. Given the growing importance of strategic factor markets in the strategy literature (e.g., Barney, 1986; Hoskisson *et al.*, 2013; Makadok and Barney, 2001), our study extends strategic factor market theory by taking a contextualized, comparative cross-country perspective.

Moreover, our study offers a framework for understanding how firm-specific advantages contribute differentially to firm profitability when NMNEs enter R-P and R-R host countries in terms of the development of country-level strategic factor markets. Our study adds value to the classic debate between Priem and Butler (2001) and Barney (2001) regarding whether the value of firm-specific advantages depends on the context under which a firm is operating. In this regard, our study demonstrates that the strategic factor market context does matter for NMNEs in particular. Moreover, our focus on NMNEs allows us to make this comparison better relative to samples traditionally drawn from developed country MNEs. The findings of our study show that NMNEs' firm-specific advantages contribute differentially to firm profitability when they pursue geographic diversification into R-P versus R-R host countries than the home country.

Overall, the results of our study indicate that the relative explanatory power of the RBT and OLT in the geographic diversification literature could depend on relative contextual differences between home and host country locations. Strategy scholars have put forth the idea that an integration of RBT insights with those derived from OLT is a useful approach to studying competitive advantage and firm performance (e.g., Lei, Hitt, and Bettis, 1996). While expanding on this line of work, our study further argues that researchers need to consider contextual boundaries as to when and where the RBT and OLT may be more applicable (cf. Whetten, 2009). Given a positive relationship between NMNEs' geographic diversification into R-P host countries and firm profitability, the

[6] We thank one anonymous referee who suggested specific robustness checks.

RBT of geographic diversification alone may have sufficient predictive power. However, it is apparent that the RBT alone is insufficient to explain the U-shaped relationship between geographic diversification into R-R host countries and firm profitability among NMNEs. Unless OLT of geographic diversification is coupled with the RBT, one may find it difficult to explain how NMNEs overcome short-term profitability pressures and eventually improve firm profitability when expanding into R-R host countries.

Our study also offers practical insights into the following question: Can NMNEs be successful in global markets despite relatively inferior firm-specific advantages? Despite the growing interest in the rise of NMNEs (e.g., Dawar and Frost, 1999; Guillén and García-Canal, 2009; Luo and Tung, 2007), our understanding of NMNEs is still in its infancy. In this regard, our study highlights the importance of geographic location choice strategy. Our findings generally indicate that when NMNEs pursue geographic diversification into R-P host countries, they are able to exploit their homegrown, firm-specific advantages (which are relatively superior to those of indigenous firms) and to take advantage of experiential learning efficiently while still limiting the costs of doing business abroad. Alternatively, NMNEs can consider expanding into R-R host countries. There is little doubt, however, that the risks for pursuing geographic diversification into these host countries are likely to be greater given the U-shaped relationship found in this study. Therefore, when entering R-R host countries compared to the home country, NMNEs are well advised to compete initially in niche markets rather than directly with local firms (e.g., Dawar and Frost, 1999).

Future research should consider several limitations of this study. First, future research needs to validate the applicability of our theorizing in other country contexts. We suspect our theoretical approach is more applicable to NMNEs originating in upper-middle-income economies such as Spain and Taiwan than to NMNEs in emerging economies such as India and China. Second, our study did not consider other motivations for geographic diversification (e.g., efficiency-, labor-, resource-, market-, and strategic asset seeking; Verbeke *et al.*, 2009) and distinct strategies of managing MNEs across borders (e.g., multidomestic, global, and transnational; Bartlett and Ghoshal, 1989). As such, the interpretation of our findings provides limited implications for these strategic aspects.

Despite these limitations, we believe our study helps establish the relevance of an approach that illustrates how entering different types of host countries compared to the home country may create a context-dependent relationship between geographic diversification and NMNE profitability. We hope our study offers a useful avenue for future research in this area.

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SUPPORTING INFORMATION

Additional supporting information may be found in the online version of this article:

Appendix S1. Instrumental variables.
Appendix S2. Robustness checks.