Psychic distance and ownership in acquisitions:
Direction matters

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ABSTRACT

Recent research has begun to explore the impact of country-of-origin and direction on internationalization decisions in response to controversy over the use of symmetrical and absolute values of distance. In this paper we contribute to this stream of research by studying the moderating influence of direction on the distance–ownership relationship as it relates to cross-border acquisitions. We ground our arguments in transaction cost economics and supplement this lens using institutional theory to contextualize the home-host country relationship through moderating effects. Through our study of 25,440 full and partial acquisitions (9577 MNEs, 25 countries, 15 years), we demonstrate that the distance–ownership relationship is moderated by direction. We further find that acquisition ownership decisions made by emerging country MNEs differ significantly from those made by developed country MNEs. Our findings demonstrate that future research on the impact of distance should consider the differences between MNEs from emerging versus developed economies, in addition to host country characteristics.

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1. Introduction

In 2014, MNEs from emerging economies (EMNEs) were responsible for 39% of global foreign direct investment (FDI) outflows (i.e. $553 billion), compared to only 12% at the start of the 21st century (UNCTAD, 2014). Despite this tremendous growth, much of what we know about the internationalization of MNEs (e.g. entry mode and ownership structure) stems from theoretical and empirical studies performed on multinational enterprises from developed countries (DMNEs) (Ramamurti, 2012).

Through research on DMNEs, three theoretical strands of research help predict how firms will internationalize under the influence of distance. First, transaction cost economics suggests that firms entering distant host markets will choose lower commitments due to both external uncertainty (volatility of the host environment) and internal uncertainty (the firm's perceived inability to operate in such environments) (Zhao et al., 2004). Second, the resource based view tells us that firms may seek out partial ownership if they have intermediate levels of knowledge of the local market (Erramilli, 1991). Third, the Uppsala model (Johanson and Vahlne, 1977) suggests that firms will incrementally internationalize before engaging in FDI in uncertain and distant environments, in order to gain the knowledge (i.e. experience) required to enter those markets. Given that these findings are based on research performed on MNEs from developed countries, this paper calls into question the applicability of these theoretical findings to

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EMNEs, as other recent research has done (e.g. Cuervo-Cazurra, 2012; Gammeltoft et al., 2010; Guillen and Garcia-Canal, 2009; Hennart, 2012; Narula, 2012; Ramamurti, 2012).

Cuervo-Cazurra (2012) and Gammeltoft et al. (2010) argue that researchers are divided on the applicability of current theories to EMNEs. Some researchers consider EMNEs as a relevant stream of research that requires new theories (e.g. Hennart, 2012; Mathews, 2006), while others argue that previous theories still stand (e.g. Rugman, 2009) but that the study of EMNEs may help to extend current theories (e.g. Cuervo-Cazurra, 2012). Our interests lie within the argument that current theories can be further explored by considering the moderating effect of both the MNE's home and host country (of investment) on ownership decisions, specifically when employing an acquisition entry mode. As we are interested in differences between EMNEs and DMNEs, we side with researchers who call for the theoretical incorporation of direction when using the concept of distance (e.g. Ambos and Håkanson, 2014; Håkanson and Ambos, 2010; Hernández and Nieto, 2015; Shenkar, 2001; Yildiz, 2014; Zaheer et al., 2012). As such, our research begins with the theoretical and empirical findings on the influence of distance on acquisition ownership decisions, and follows with an investigation of the influence of home and host countries (i.e. either emerging or developed countries) on this process, to incorporate direction.

We bound our argument through the lens of TCE by focusing specifically on psychic distance, a formative construct that represents the flow and interpretation of information to and from a foreign country (Håkanson and Ambos, 2010). As psychic distance influences the firm's perception of uncertainty in the internationalization decision, we explore how the MNE's home and host country moderates the influence of psychic distance on ownership decisions in the acquisition process. As we ground our arguments in TCE theory, we hold constant both external uncertainty (i.e. context) of the host country, along with the MNE's experience in the host country, thus responding directly to Zaheer et al. (2012)'s call to incorporate firm level variables (i.e. firm experience).

We argue for the use of psychic distance as a means to explore the impact of distance, as it considers contextual factors that influence managerial cognition. We focus on Håkanson and Ambos' (2010) recent operationalization of psychic distance, as it acknowledges criticisms of previous measures by considering asymmetry — that is, psychic distance does not consider the distance between two countries to be absolute, rather it is based on managerial perceptions of the host country's distance from the home country. As it implies, psychic distance is a cognitive measure, based on human perceptions, acknowledging the bounded rationality of managers, based on what they know (or think they know).

In this study, we establish the relationship between psychic distance and ownership structure in acquisitions (full vs. partial) and then investigate the moderating influence of direction, as defined by home/host country institutional environment (i.e. emerging or developed countries). The scope of our study includes a large body of data that investigates the 25,440 ownership acquisition decisions of 9577 MNEs from 25 different countries over a 15-year period.

Through our study, we demonstrate that the distance- ownership relationship in acquisitions is moderated by direction. We also find that the behaviour of DMNEs differs significantly from that of EMNEs: EMNEs acquire higher ownership when internationalizing to countries with large psychic distance, while DMNEs acquire less ownership. Conversely, when EMNEs enter emerging economies where distance is small, they acquire less ownership. Our findings demonstrate that future research on the impact of distance should consider the differences between MNEs from emerging versus developed economies, specifically as it relates to the motivation behind their internationalization decisions.

This paper is laid out as follows. In the theoretical section, we discuss the influence of distance and direction in the internationalization process (2.1) and the relationship between distance and ownership decisions (2.2). In Section 2.3, we discuss the differences between the strategic intents of EMNEs and DMNEs, and how these differences call for the integration of direction as a moderator to the relationship. Section 2.4 introduces our hypotheses that argue for different ownership decisions depending on direction. Our Methods section presents the testing of our hypotheses (Section 3), followed by the results and discussion (section 4). We conclude with a discussion on the implications of our findings (section 5).

2. Theoretical background

2.1. Distance and direction in the internationalization process

Research shows that firms will make internalization decisions based not only on the uncertainty of the host country's market (external uncertainty), but also on the uncertainty within the firm, where uncertainty is characterized by the distance between the MNE's home and host country (Anderson and Gatignon, 1986). As such, the concept of distance (between home and host country environments) has become a key independent variable when exploring the internationalization process of MNEs.

Distance, however, has been conceptualized in a variety of ways. Beckerman (1956) introduced the concept of psychic distance to explain the perceived (subjective) differences between home and host countries affecting the internationalization of Swedish companies (Håkanson and Ambos, 2010). Kogut and Singh (1988) created an index of cultural distance, a construct that incorporated Hofstede's (1984, 2001) dimensions of culture, which was further developed by measures from Schwartz (1992, 1994) and the GLOBE study (House et al., 2004).

Over time, researchers broadened the scope of distance to include additional dimensions. For example, Ghemawat (2001) proposed four dimensions of distance (cultural, administrative, geographic, and economic distances), while Berry et al. (2010) proposed nine (cultural, administrative, economic, financial, political, demographic, knowledge, political and connectedness). Kostova (1999) introduced the concept of institutional distance as a means to broadly capture differences between countries, including not only cultural

differences but also regulative and normative distances. The ongoing debates around distance prompted the *Journal of International Management* to publish a special issue on the topic (Ambos and Håkanson, 2014).

The more recent challenge in distance research takes place in the operationalization of the concept, where researchers have struggled to capture not only contextual differences between countries but also direction. In many cases, distance has been considered as a difference between two countries, resulting in a symmetrical measure represented by absolute values, suggesting that the distance between two countries is the same regardless of direction or variation in context. Using this approach, the distance between two emerging nations may be considered similar (if not the same) as between two developed nations, when the contextual differences (or similarities) may be comparatively much different.

In this research we adopt psychic distance as measured by Håkanson and Ambos (2010) because it acknowledges the asymmetrical nature of distance, addressing issues raised by other researchers (e.g. Shenkar, 2001; Zaheer et al., 2012). For instance, as per Håkanson and Ambos (2010), on a scale of 0 to 100, the psychic distance from Canada to Brazil is 57 while the psychic distance from Brazil to Canada is 39. These distances are not equivalent because psychic distance measures the perceived distance from the home country to the host country, to include both country-level and firm-level variables.

Although psychic distance allows for asymmetry, it does not specifically account for country of origin and the host country (i.e. developed versus emerging). We therefore believe that, beyond acknowledging the issue of asymmetry, we need to consider the direction of investment for MNEs. We argue that the influence of psychic distance will be different for the same type of MNE (EMNE or DMNE) depending upon the destination of investment. For instance, the psychic distance from China to the USA is 44, which approximates the psychic distance from China to Russia (41) (Håkanson and Ambos, 2010), and therefore one must consider not only the firm's country of origin, but also the direction of investment, to include the nature of the host country context. More broadly, we suggest that there are four directions of investment, as shown in Table 1.

2.2. Distance and ownership

The direct effect of distance on FDI and ownership structure in international partnerships has been extensively explored in the literature (Demirbag et al., 2008, 2010; Dikova et al., 2010; Estrin et al., 2009). Various perspectives on the distance construct have mainly been used to represent potential sources of country similarity or difference (Zaheer et al., 2012). TCE is the most widely used perspective in understanding entry modes and ownership (Brouthers and Hennart, 2007), which argues that uncertainty significantly influences ownership decisions.

TCE emphasizes that both external and internal uncertainty will influence entry mode choices (Zhao et al., 2004). External uncertainty is a contextual measure that reflects the unpredictability of environmental conditions of the host country (Hill and Kim, 1988). According to TCE, firms choose flexible entry modes when they are faced with high political uncertainty in host environments (Hennart, 1988; Hill et al., 1990; Zhao et al., 2004). In particular, firms under conditions of high external uncertainty reduce their resource commitment by adopting joint venture modes (e.g. Brouthers and Hennart, 2007; Delios and Beamish, 1999; Erramilli and Rao, 1993; Kim and Hwang, 1992).

Internal uncertainty, on the other hand, is a firm-level construct that reflects the level of unfamiliarity a firm may have with the conditions of the host country (regardless of the host country's degree of volatility). This type of uncertainty can arise from the real difference between the home and host countries (measured traditionally by distance) and the minimal experience that a company has with the host country in question (which is the emphasis of this research). When firms lack knowledge of foreign markets they will generally show less desire for high commitments and ownership (Zhao et al., 2004).

Distance is traditionally used as a proxy for internal uncertainty. Tihanyi et al. (2005) conducted a meta-analysis on US MNEs to explore the relationship between cultural distance and ownership strategy, finding that the larger the cultural distance, the lower the equity entry mode choices. Agarwal (1994) found that US MNEs prefer shared ownership over sole ventures in countries with high socio-cultural distance. Hennart and Larimo (1998) also show that companies tend to use wholly-owned subsidiaries instead of joint ventures when going to countries where socio-cultural distance is low. Other studies have shown, however, that the relationship between distance and ownership is inconclusive (e.g. Contractor and Kundu, 1998; Rajan and Pangarkar, 2000).

We argue that earlier findings on the distance–ownership relationship may predict conflicting results when applied to EMNEs, given that historically studies have been based primarily on DMNEs. As such, we believe that the origin of the firm and the nature of the host country should be incorporated into the distance–ownership relationship for two reasons: first, the home and host countries' institutional environment may influence the managerial perception of distance between the home and host country (Zaheer et al., 2012); and, second, a firm's home country institutional environment may influence its strategic intent in the internationalization process (e.g. market seeking versus knowledge seeking). In this research we integrate institutional theory with

Table 1
Direction of MNE investment.

Direction	MNE country of origin	Host country of FDI	Notation
1	Emerging	Emerging	emerging to emerging
2	Emerging	Developed	emerging to developed
3	Developed	Emerging	developed to emerging
4	Developed	Developed	developed to developed

TCE to contextualize the relationship between distance and ownership, and pursue the specific case of differences between DMNEs and EMNEs. We discuss these differences in the following section.

2.3. Differences between DMNEs and EMNEs

Unlike DMNEs, which typically engage in FDI to exploit existing competitive advantages abroad, EMNEs engage in FDI to redress competitive advantages (Child and Rodrigues, 2005; Dunning, 2006). EMNEs specifically use FDI in developed nations as a springboard to acquire assets needed for global expansion and competitiveness, i.e. to acquire strategic resources (Luo and Tung, 2007). However, in this process, EMNEs are challenged to overcome their liability of lateness and their lack of resources and capabilities for FDI (Cui and Jiang, 2009). As such, EMNEs are characteristically different from DMNEs in the type of assets they possess and the way in which these assets can be exploited and/or augmented (Wright et al., 2005).

Distance studies assume that all MNEs internationalize for the same reasons: to exploit their own knowledge and capabilities in foreign countries (Chittoor et al., 2009). Since this assumption neglects the differences between DMNEs and EMNEs, we argue that the direction of investment (the MNE's home and host countries) will moderate the distance–ownership relationship, as presented in the following section.

2.4. Hypotheses: distance, ownership, and direction

Since the strategic objectives of EMNEs are different than those of DMNEs, we argue that ownership is not only influenced by distance, but also by the institutional environment of both the firm's home country and host country, which we have categorized for this research as either emerging or developed. We will first discuss how EMNEs differ from DMNEs in terms of their acquisition ownership decisions and then discuss how direction moderates the relationship for the four directions that we presented earlier.

When distance is large, MNEs will prefer a lower ownership stake than when distance is small (Zhao et al., 2004). As such, DMNEs entering emerging economies or EMNEs entering developed economies may choose lower ownership structures in an effort to gain local knowledge and reduce hierarchical governance costs. However, according to the springboard argument (Luo and Tung, 2007), EMNEs internationalize to gain knowledge and skills from developed nations. Subsidiary managers play a central role in this knowledge transfer, adapting to the local environment and transferring knowledge back to the EMNE's home country. To play this role, subsidiary managers need to have a high degree of control. Therefore, it can be argued that EMNEs will seek to maximize control early in their internationalization process to secure the required resources and transfer knowledge.

Unlike their DMNE counterparts, EMNEs also face greater challenges in obtaining legitimacy when entering the highly competitive markets of developed nations. EMNEs' practices and managerial abilities are often questioned by developed nations, as they lack managerial competence and professional expertise (Luo and Tung, 2007). EMNEs have a reputation of operating in specific institutional environments where there is greater emphasis on relationships than on rules and regulations (Peng and Heath, 1996). In combination, these challenges lead not only to a liability of foreignness (experienced by all foreign firms) but also to a liability of lateness (Luo and Rui, 2009; Luo and Tung, 2007) and a liability of origin.

Cuervo-Cazurra and Ramamurti (2015) also argue that many EMNEs invest in developed countries as a form of a discrimination escape, to avoid the negative image attached to their country of origin. Local firms in developed countries may therefore question the practices of an EMNE subsidiary and choose not to enter into a partnership due to the EMNE's lack of legitimacy (stigmatized by their home country). For example, Mulok et al. (2010) found that Malaysian EMNEs face difficulty in finding partners in developed countries because they do not possess the firm-specific assets desired by local firms. Similarly, Sim and Pandian (2003) found that MNEs from Taiwan and Singapore used wholly-owned subsidiaries to invest in US and Europe. Petrou (2007) showed that banks from emerging countries (EMNEs) usually operate wholly-owned subsidiaries, while banks from developed countries (DMNEs) tend to use partially-owned ventures. Additionally, Ramamurti and Singh (2009) explain that, during the last two waves of internationalization in India (i.e. 1990s and 2000s), Indian EMNEs adopted majority or wholly-owned subsidiaries rather than shared ownership. Finally, Hernández and Nieto (2015) combined both the home and host country of the MNE (i.e. direction) when exploring the relationship between regulative distance and ownership.

These aforementioned examples suggest that both the country of origin and the host country matter, i.e. direction matters. We therefore build on this idea of direction by contextualizing both the home and host countries as either a developed or emerging economy. To illustrate the concept of direction, we take the example of an Australian (developed) MNE that is looking to invest in both China (an emerging economy) and The Netherlands (a developed economy). In each case, psychic distance from the home country (Australia) to the host country is similar, as measured by Håkanson and Ambos (2010) (59 for China and 57 for The Netherlands). Although these two psychic distances are close in value, theory would suggest that the Australian MNE would acquire different ownership structures in each case due to the variance in host country risk between China and The Netherlands; the Australian DMNE would acquire less ownership in China and greater ownership in The Netherlands.

We now take the case of an Argentinian (emerging) MNE expanding to Belgium (developed) and Turkey (emerging) where the psychic distance is essentially equal (76 and 77, respectively; Håkanson and Ambos, 2010). We argue that the Argentinian MNE (EMNE) will seek higher levels of ownership in Belgium (the developed economy) to acquire knowledge and legitimacy, escape institutional voids at home, and access wealthier consumers (Cuervo-Cazurra and Ramamurti, 2015). In terms of Turkey (a developing economy), theory would predict that the Argentinian MNE (EMNE) is primarily seeking to exploit markets and is well equipped to deal with the high costs attached to weak institutions and institutional voids in these markets (Cuervo-Cazurra and Genc, 2008). Therefore, EMNEs, like DMNEs, will acquire less ownership as distance increases when entering

emerging economies. In summary, we argue that the higher the risk, the lower the ownership in acquisitions, except for EMNEs entering developed countries.

Consolidating these arguments into our four directions leads us to hypothesize the relationship between psychic distance and ownership for internationalization of EMNEs and DMNEs as follows:

The direction of internationalization moderates the relationship between distance and ownership such that:

Direction 1 (Emerging to Emerging): for EMNEs internationalizing to emerging economies, the larger the psychic distance, the less the acquired ownership stake in the host country.

Direction 2 (Emerging to Developed): for EMNEs internationalizing to developed economies, the larger the psychic distance, the greater the acquired ownership stake in the host country.

Direction 3 (Developed to Emerging): for DMNEs internationalizing to emerging economies, the larger the psychic distance, the less the acquired ownership stake in the host country.

Direction 4 (Developed to Developed): for DMNEs internationalizing to developed economies, the larger the psychic distance, the less the acquired ownership stake in the host country.

3. Methodology

3.1. Data sample for acquired ownership

As our research seeks to understand the influence of both distance and direction on the ownership structure of foreign firms, we investigated the FDI actions of internationalization activities between a given set of countries. We based our sample on our data source for psychic distance (Håkanson and Ambos, 2010), which provides the distance between 25 countries. We extracted our ownership data (acquisitions) from the Securities Data Corporation Platinum Database, which contains global merger and acquisition data from 1985 onwards and is regularly used by international business researchers (e.g. Lin et al., 2009). The acquisitions were executed within the 25 countries used by Håkanson and Ambos (2010) from 2000 to 2014, when EMNEs began to actively engage in the global market. The initial 87,188 transactions were reduced to 25,440 due to missing data on ownership percentage and MNE size. Using Hoskisson et al.'s (2000) definition, we classified the countries as developed versus emerging and summarize the respective transactions in Table 2.

Table 2
Inbound and Outbound FDI Transactions (Acquisitions).

Country	Number of transactions as an origin	%	Number of transactions as a target (host)	%
Argentina	18	0.1	289	1.1
Australia	887	3.5	1157	4.5
Austria	272	1.1	257	1
Belgium	440	1.7	503	2
Brazil	92	0.4	793	3.1
Canada	2731	10.7	1911	7.5
China	230	0.9	942	3.7
Denmark	402	1.6	468	1.8
France	1985	7.8	1384	5.4
Germany	1551	6.1	2081	8.2
India	508	2	632	2.5
Italy	420	1.7	774	3
Japan	1301	5.1	298	1.2
Korea	282	1.1	280	1.1
Mexico	108	0.4	471	1.9
Netherlands	986	3.9	899	3.5
Norway	390	1.5	557	2.2
Poland	72	0.3	272	1.1
Russia	118	0.5	368	1.4
Spain	384	1.5	757	3
Sweden	1193	4.7	668	2.6
Switzerland	915	3.6	621	2.4
Turkey	14	0.1	238	0.9
United Kingdom	3206	12.6	2952	11.6
USA	6935	27.3	5868	23.1
Total	25,440	100.0	25,440	100.0

Note: Countries in italics are considered Emerging, as per Hoskisson et al.'s (2000) definition.

3.2. Dependent and independent variables

Ownership (dependent variable). We measured acquired ownership as a continuous variable (5–100%) to capture the nuances between a 50/50 joint ownership and 90/10 joint ownership.

Psychic distance (independent variable). We used Håkanson and Ambos' (2010) definition and measures of psychic distance from their article published in the *Journal of International Management*. The source of their measure was a managerial survey that measured perception of distance of the host country from the home country (Håkanson and Ambos, 2010).

Direction (moderating variable). Direction was measured as a categorical variable based on the home and host country of the investment (see Table 3). The distinction of emerging versus developed was based on the classification of Hoskisson et al. (2000).

3.3. Control Variables

Theory emphasizes that both external and internal uncertainty will affect transaction costs and therefor influence entry mode choices (Anderson and Gatignon, 1986). Internal uncertainty is the perceived risk of the firm, while external uncertainty refers to the risk rooted in the context of the host country. In our study, we investigate psychic distance, an internal uncertainty, and therefore sought to control for the firm's experience in the host country, which would influence (reduce) the firm's perception of uncertainty. We measured *Experience* by the number of years that the MNE had already operated within the target country (year t minus the founding year in the host country).

External uncertainty. We also controlled for external uncertainty, which we conceptualized as the risk associated to the host country's environment. In the literature, risk is measured in numerous ways (see Brouthers and Hennart, 2007, for a summary). We chose to follow researchers who consider external risk as the perceived political and economic stability in a country (e.g. Brouthers, 2002; Kim & Hwang, 1992). We adopted a three-item measure that combined the political, economic, and financial risks of the host country, using the IMD World Competitiveness Report, which contains data collected through host-country executive surveys (Likert scale ranging from 0 to 10). We selected three variables from the report that represented host country risk: (1) *risk of political instability,* an index that reflects the risk of political instability in the host country; (2) *resilience of the economy,* an index that reflects the degree to which the economy is resilient to economic cycles; and, (3) *financial risk factor,* an index that reflects the degree to which the risk of financial instability is adequately addressed. We performed a principle component analysis on the three items, which produced a one-factor variable with the eigenvalue larger than 1 and loadings all >0.8.

Additional controls. Following Berry et al. (2010), we controlled for *year* to account for acquisition variance between years. We also controlled for the *size of the acquiring firm* (log of sales), given its influence on ownership (Cui and Jiang, 2012; Lee et al., 2008). We controlled for the *industry sector of the target firm*, using 0 for high tech (communication, software, drugs etc.) and 1 for low tech (insurance, transportation, food etc.), following Li and Li (2010), who argue that, due to differences in knowledge creation and transfer, high versus low tech MNEs may follow different ownership strategies. To eliminate the possibility of economic explanations of ownership decisions, we controlled for the amount of *investments inflow within the host country* (i.e. percentage of GDP) using data from the IMD World Competitiveness report.

Finally, scholars, such as Gatignon and Anderson (1988), Delios and Beamish (1999), and Brouthers (2002) have suggested that the level of legal restrictions on foreign ownership is a key factor in explaining ownership decisions. We therefore used the OECD's *FDI Regulatory Restrictiveness Index* that measures the regulatory restrictions on foreign ownership for all OECD countries, in addition to another 13 non-member countries (all 25 countries in our sample are covered). Restrictiveness was measured on a 0 to 1 scale, with 0 representing full openness and 1 a prohibition of FDI.

Following Cui and Jiang (2012), we estimated Tobit regression models, which treated the dependent variable (ownership) as a continuous variable, censored at 5%.

4. Results and discussion

4.1. Descriptive statistics

The descriptive statistics are outlined in Table 4, showing the means, standard deviations, and correlations between the variables. The highest Variance Inflation Factor (VIF) was 1.335, suggesting that collinearity was not a problem among the variables in our model.

Table 3
Distribution of Dummy Variables.

Moderating variables	*N*		*%*
Direction	1 emerging to emerging	282	1.1
	2 emerging to developed	1160	4.6
	3 developed to emerging	3143	12.4
	4 developed to developed (base model)	20,855	82.0

Table 4
Descriptive Statistics and Correlation Matrix.

	Mean	SD	1	2	3	4	5	6	7	8	9	10
1-Ownership	88.74	24.68	1									
2-Psychic distance	32.90	19.54	−0.121**	1								
3-Experience	2.70	4.71	0.055**	−0.114**	1							
4-External risk	0.00	1.00	0.073**	−0.232**	−0.026**	1						
6-Direction	3.75	0.587	0.145**	−0.320**	0.111**	0.259**	1					
7-Year	17.60	4.29	0.048**	−0.039**	−0.014*	0.068**	−0.013*	1				
8-High tech	0.37	0.482	−0.086**	0.191**	0.300**	−0.069**	−0.005	−0.068**	1			
9-Size	2.58	1.16	0.019**	0.085**	0.186**	−0.211**	0.080**	−0.010	0.056**	1		
10-Inflow investment	68.06	70.37	0.083**	−0.192**	0.194**	0.022**	0.070**	0.033**	−0.089**	0.204**	1	
11-Ownership restrictions	0.114	0.10	−0.133**	0.374**	−0.107**	−0.007	0.001	−0.046**	0.005	−0.106**	−0.058**	1

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

4.2. Tobit regression results (direction as the moderator)

The results of our Tobit Regression are outlined in Table 5. For all models we centered the continuous variables to show the interaction effects. We discuss the results as follows.

4.3. Summary of results

Control Variables. Model 1.1 shows that all control variables are significant except for the year. Firms operating in high tech industries are over two times more likely to acquire greater ownership compared to firms operating in low tech industries, supporting Li and Li's (2010) findings. In terms of FDI, the greater the investment, the greater the ownership. Small firms tend to have more ownership in acquisitions, possibly due to their need for growth and control (e.g. Cui and Jiang, 2012; Lee et al., 2008). As expected, the more restrictions a country has on foreign ownership, the less the ownership of foreign MNEs. The results also show that the more experience the firm has in the target country, the greater the ownership, supporting the argument that firms will invest more as internal uncertainty is reduced. Finally, the results show that the greater the external risk, the greater the ownership, confirming TCE's prediction that uncertainty in the host environment will create higher transaction costs and therefore firms will choose to internalize their activities (Williamson, 1991).

Psychic distance and ownership. Model 1.2 investigates the influence of internal uncertainty on ownership and confirms that the larger the psychic distance, the less the acquired ownership (negative and significant relationship).

Table 5
Tobit Regression; the Moderating Effect of Direction.

Variables	Model 1.1 β	Model 1.1 SE	Model 1.2 β	Model 1.2 SE	Model 1.3 β	Model 1.3 SE
Intercept	94.07***	0.763	94.52***	0.773	89.56***	0.211
Control						
Year	0.016	0.016	0.041**	0.037	0.071*	0.036
Investment inflow	0.018***	0.002	0.016***	0.042	0.017***	0.002
High tech industry	1.58***	0.317	1.58***	0.318	1.30***	0.290
Acquirer size	−1.95***	0.135	−1.81***	0.132	−1.38***	0.120
Restrictiveness	−28.65***	1.47	−25.7***	0.156	−22.8***	1.62
Experience	0.32***	0.035	0.295***	0.397	0.239***	0.026
External risk	1.59***	0.156	1.43***	0.164	1.02***	0.170
Psychic distance			−0.10***	0.008	−0.057**	0.001
Direction						
Direction 1 (E–E)					−5.96***	0.87
Direction 2 (E–D)					−9.64***	1.49
Direction 3 (D–E)					−10.51***	0.86
Psychic × direction 1					0.05*	0.007
Psychic × direction 2					−0.06**	0.005
Psychic × direction 3					0.22***	0.002
Log likelihood	−116,799		−116,788		−116,672	
Likelihood ratio χ²test	(981.1)***		(1003.1)***		(1233.2)***	
AIC	233,616.6		233,596.2		233,467.0	
Pseudo R²	0.042		0.043		0.053	

N = 25,359.
In Model 1.4, Direction 4 is the base model (D–D), with highest percentage of all other directions (82% of cases).
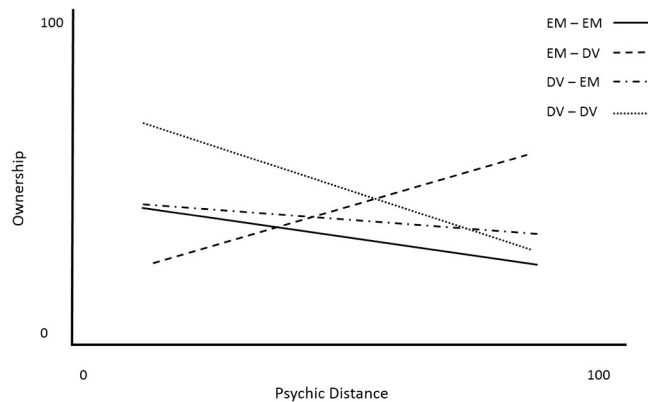
* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

Fig. 1. The Moderating Effect of Direction on Psychic Distance and Ownership.

The moderating effect of direction. Model 1.3 incorporates the moderating effect of direction (i.e. the country of origin and the host country) on the psychic distance–ownership relationship. The results support our hypotheses, that direction moderates the relationship between uncertainty and ownership, leading to different outcomes for EMNEs and DMNEs depending on the host country (see Fig. 1).

Direction 1 (Emerging to Emerging) shows that the larger the distance, the less the acquired ownership stake in the host country. Direction 2 (Emerging to Developed), however, shows that the larger the distance, the greater the acquired ownership stake in the host country. Direction 3 (Developed to Emerging) shows that the larger the distance, the less the acquired ownership stake in the host country, supporting the predictions of TCE. We note, however, that the slope of Direction 1 (Emerging to Emerging) is larger than the slope of Direction 3 (Developed to Emerging), which indicates that EMNEs reduce their acquired ownership stake at a greater rate than DMNEs as psychic distance increases, with ultimately lower ownership at equivalent distances. Direction 4 (Developed to Developed) is our base model, and confirms our hypothesis that the larger the distance, the less the acquired ownership in the host country.

4.4. Robustness Test

To verify the robustness of our results, we treated the dependent variable (ownership) as a categorical variable (as per Li and Li, 2010; see Table 6) and performed logistic regression, the results of which supported our Tobit regression results (see Table 7).

The logistic regression results in Models 2.1 and 2.2 confirm the effects of the control variables and psychic distance on the ownership levels. Model 2.3 confirms the findings that origin and direction moderate the relationship between psychic distance and ownership.

Majority versus minority ownership. Model 2.3 also shows that Direction 3 (Developed to Emerging) is significant at both low and high levels of ownership but Direction 2 (Emerging to Developed) is only significant at low levels of ownership. The results partially confirm the findings of the Tobit models except for Direction 1 (Emerging to Emerging), which is not significant in the logistic regression.

5. Conclusion

5.1. Summary of findings

The results of our analysis confirm that TCE theory holds when studying the relationship between distance (psychic distance, experience, and external risk) and ownership in international acquisitions, but when we contextualize the direction (through country of origin and host country) we find different results (Table 8).

Our findings demonstrate that EMNEs make different acquisition ownership decisions than DMNEs, suggesting that EMNEs internationalize for different reasons and face different challenges than their DMNE counterparts. The particular case of EMNEs entering developed countries suggests that EMNEs are seeking knowledge and resources when entering developed countries, where resources and knowledge are in greater abundance.

With such significant variance between DMNEs and EMNEs, we continue to argue that it is important to revisit international business research from the perspective of EMNEs, to help extend existing theories (Cuervo-Cazurra, 2012). In particular, we argue

Table 6
Ownership Sample as a Categorical Variable.

Ownership	N	%
1 (minority, <50%)	2490	9.8
2 (majority, 50–90%)	2840	11.2
3 (full ownership, >95%)	20,029	79

Table 7
Multinomial Logistic Regression: the Moderating Effect of Origin.

		Model 2.1		Model 2.2		Model 2.3	
		β	SE	β	SE	β	SE
1.00	Intercept	−3.31***	0.112	−3.12***	0.079	−3.46***	0.108
	Investment inflow	−0.003***	0.000	−0.003***	0.000	−0.003***	0.000
	High tech industry	0.139***	0.046	0.134***	0.046	0.108*	0.046
	Acquirer size	0.304***	0.021	0.302***	0.022	0.297***	0.022
	Restrictiveness	2.78***	0.175	2.515***	0.193	2.56***	0.175
	Experience	−0.036***	0.005	−0.037***	0.005	−0.029***	0.005
	External risk	−0.104***	0.022	−0.118***	0.021	−0.039*	0.025
	Psychic distance			0.002**	0.001	0.001	0.000
	Direction 1 (E–E)					0.307	0.300
	Direction 2 (E–D)					1.60***	0.282
	Direction 3 (D–E)					0.779***	0.190
	Psychic × direction 1					0.012	0.008
	Psychic × direction 2					−0.016*	0.007
	Psychic × direction 3					−0.007*	0.003
2.00	Intercept	−2.63***	0.116	−2.63***	0.071	−2.83***	0.099
	Investment inflow	−0.003***	0.000	−0.002***	0.000	−0.002***	0.000
	High tech industry	0.408***	0.045	0.367***	0.045	0.330***	0.045
	Acquirer size	0.058***	0.018	0.041***	0.019	0.036*	0.019
	Restrictiveness	2.63***	0.166	2.08***	0.183	2.08***	0.166
	Experience	−0.036***	0.005	−0.035***	0.005	−0.027***	0.005
	External risk	−3.14***	0.020	−0.272***	0.020	−0.233*	0.006
	Psychic distance			0.008***	0.001	0.003*	0.001
	Direction 1 (E–E)					0.577*	0.309
	Direction 2 (E–D)					0.949*	0.286
	Direction 3 (D–E)					0.232*	0.179
	Psychic × direction 1					0.007	0.006
	Psychic × direction 2					0.000	0.000
	Psychic × direction 3					0.006*	0.003
	McFadden's R^2	0.045		0.046		0.055	
	χ^2	(1492.4)***		(1538.69)***		(1822.85)***	

Note
1: full ownership is the reference group for the dependent variable.
2: Direction 4 is the base model (Model 2.2 & 2.3).
3: We did not report the control variable of Year for easier display.
   * $p < 0.05$.
  ** $p < 0.01$.
 *** $p < 0.001$.

for the use of institutional theory to account for the influence of country of origin and host country as moderating variables or even independent variables.

5.2. Managerial implications

Our findings suggest that internationalization decisions are rooted not only in the perception of uncertainty, firm experience and external risk, but also in the location of the firm's parent country. Practitioners may therefore want to invest greater time and effort in understanding their reasons for internationalization, specifically, what they seek to gain (e.g. markets versus knowledge), as these resources can be obtained in different ways. Our findings also suggest that resources in distant markets may best be obtained through joint ownership, while distant (and unique) resources may best be obtained through full ownership (to retain control).

Table 8
Summary of Results: Influence of Distance and Direction on Ownership.

Psychic distance and direction	Psychic distance influence on ownership
Emerging MNEs to emerging countries	Negative (−)
Emerging MNEs to developed countries	Positive (+)
Developed MNEs to emerging countries	Negative (−)
Developed MNEs to developed countries	Negative (−)

5.3. Limitations

Although our empirical study is heavily weighted with transactions made by DMNEs, we have limited this affect through our statistical methods; our comparisons involved groups of MNEs within specific directions, and within each of these four directions, our sample size was statistically acceptable.

We also recognize that of the 25 countries in our study, only nine were from emerging economies (albeit all major emerging economies), due to the simple fact that DMNEs still dominate the international landscape. However, given the number of transactions for both EMNEs and DMNEs, and the fifteen year period, we believe that our sample size is sufficient to provide meaningful results.

Finally, we recognize that our study focuses only on one form of entry mode (acquisitions), which limits our ability to fully understand variance between DMNE and EMNE ownership structures. Unfortunately this is a common data limitation, also faced by other researchers (e.g. Cui and Jiang, 2012; Li and Li, 2010).

5.4. Directions for future research

Our conclusions are notable not only because of the differences we found between the behavior of EMNEs and DMNEs, but also in terms of their impact for research on reverse innovation. We discussed how EMNEs internationalize for different reasons, but DMNEs are also moving towards knowledge-seeking internationalization, especially in search of bottom-of-the-pyramid innovations. These emerging motivations for internationalization may lead to different ownership structures from what we have seen in the past few decades.

We also believe that there are future research opportunities to investigate the influence of direction not only on the internationalization process but also on the ongoing operations of the MNE in various contexts, specifically as it relates to the transfer of core competencies such as knowledge and other intangible resources (i.e. research and development). We also believe that our methodology of understanding the influence of direction can be replicated for other studies of this type. Current IB theories can be contextualized through the study of EMNEs, specifically, by understanding how core constructs are moderated or mediated by firm level characteristics (to include differences between EMNEs and DMNEs).

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