FROM HOME COUNTRY TO HOME BASE: A DYNAMIC APPROACH TO THE LIABILITY OF FOREIGNNESS

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We argue that the influence of the home country wanes as the firm increases its geographic reach. We introduce the concept of the "home base" to capture the effect of the set of countries in which the firm operates. We expect the dynamic liability of foreignness defined relative to the home base to be a better predictor than the static liability of foreignness defined relative to the home country. We also expect the diversity of foreign experience to increase foreign market entry. We find support for these hypotheses with data on Chinese listed firms investing abroad between 1991 and 2007. Copyright © 2014 John Wiley & Sons, Ltd.

INTRODUCTION

The extent to which multinational enterprises (MNEs) reflect the characteristics of their country of origin is the subject of a heated debate in the field of international strategy (Noorderhaven and Harzing, 2003; Yu, Park, and Cho, 2007). On the one hand, proponents of the "borderless world" suggest that globalization has made national boundaries meaningless and MNEs become stateless players detaching themselves from a specific nation (Ohmae, 1990). On the other hand, proponents of the "country-of-origin" effect argue that national economies remain distinctive despite pressures for convergence (Hu, 1992). MNEs are deeply embedded in the national configurations of institutions (Porter, 1990), thus their strategy is strongly influenced by their national origins (Elango and Sethi, 2007).

The idea that companies with an established global presence do not make decisions purely based on the characteristics of the home country has a long pedigree in the field of international strategy. Perlmutter (1969) was the first to identify different types of MNEs depending on the cognitive mindset dominant among its managers. In his view, the importance of the home country decreases as the company evolves from ethnocentric to polycentric. Vernon (1979) also drew attention to MNEs that had become "global networks" because of their "geographical reach". He acknowledged that his product cycle theory lost predictive power as multinationals became more geographically spread. This meant that the decision to enter new markets was no longer driven by the sequential model of foreign expansion with the home country at its center. As Stopford (1998:13) put it, one needs to challenge the conventional wisdom that multinationals are "first and foremost, creatures of their home countries."

Building on these classic insights, we propose a compromise between the extreme view that the home market of the firm shapes its global expansion even after the firm has become an MNE with major operations abroad, and the equally extreme view that the home country of a truly global corporation no longer matters. We argue that the firm's home country loses relevance as it invests abroad and gains experience in a number of foreign countries. We propose the concept of the "home base" of the firm to denote the countries in which the firm already operates, including the home country. Increasingly, MNEs with global operations follow strategies that reflect features of their home base rather than their home country alone.

We show that the characteristics of the home base, more so than those of home country, define the liability of foreignness that MNEs face, thus influencing the decision to enter additional foreign countries. In so doing, we contribute to the literature in three different ways. First, building on Perlmutter (1969), Vernon (1979) and Stopford (1998), we not only highlight the theoretical importance of the home base concept, but also show empirically that it is a better predictor of market entry choice than the home country. Second, we link the concept of home base to the liability of foreignness, and argue that it is an inherently dynamic construct. We formulate and measure the liability of foreignness specifically for each firm as the distance between the home base and the host country. In so doing, we take into account not only the number of host countries in which the firm already operates but also the characteristics of those host countries. Finally, we theorize and empirically assess the effect of the diversity of foreign experience on subsequent market entries. We show that firms with a more diverse home base (i.e. international experience) are more likely to continue entering foreign markets. This accelerated learning effect stands in contrast with staged models of internationalization (e.g. Johanson and Vahlne, 1977; Johanson and Widersheimer-Paul, 1975), which recommended that firms enter markets similar to the home country.

HOME COUNTRY VS. HOME BASE

We define the concept of the "home base" of the multinational firm as the combination of countries in which the firm has accumulated operational experience until a given point in time, including the home country. For purely domestic firms, the home base is the same as the home country. But for highly internationalized firms, the difference between home base and home country could be large. Table 1 summarizes the differences between the concepts of home country and home base along various dimensions.

By definition, home base and home country differ in terms of the number of countries. Subtler differences emerge when we examine their impact on MNE strategy. The country of origin effect highlights the importance of home country in determining MNEs' structure and strategy. It is rooted in the concept of organizational imprinting (Stinchcombe, 1965). Imprinting refers to "a process by which events occurring at certain key developmental stages have persisting, if not lifelong consequence" (Hannan, Burton, and Baron, 1996: 507). According to organizational imprinting theory, a firm's founding condition, mainly in terms of its external environment and its founders, has a lasting influence on the structure and strategy of the firm (Kimberly, 1979; Schein, 1983).

The home base effect refers to the fact that an MNE's strategy and structure are influenced by the characteristics of its home base rather than home country. The theoretical support for the home base effect comes from institutional theory, which views the institutional environments as the key determinants of organizational characteristics (DiMaggio and Powell, 1983). Institutional theory is consistent with imprinting theory in recognizing that the external environment has a great influence on organizational strategy and structure. But different from imprinting theory, institutional theory posits that the influence of institutional environment on a firm is not limited to just its founding period. The home base effect is also fully consistent with organizational learning theory (Levitt and March, 1988). As firms further grow and become subject to changing institutional environments, they learn to adapt to the changing environment (Kraatz, 1998; Meyer, 1982; Siggelkow and Levinthal, 2003). As MNEs gain experience over time, their strategies and structures will be increasingly influenced by the characteristics of other countries in which they operate in addition to the home country.

Table 1.   Comparison between home base and home country

	Home base	Home country
Definition	The combination of countries in which the firm has accumulated operational experience until a given point in time, including the home country	The country in which the firm was founded (Hymer, 1960)
Impact on MNE strategy	Home base effect	Country-of-origin effect
Theoretical underpinnings	Institutional theory; learning theory	Organization imprinting theory; organization inertia
Measure of the liability of foreignness	Dynamic distance between the home base and the host country, which changes as the firm expands internationally	Static distance between the home country and the host country, which remains unchanged even as the firm expands internationally (Kogut and Singh, 1988; Tsang and Yip, 2007)
Role of the firm's international experience	Factored into the concept of the home base and into the measurement of the liability of foreignness	Incorporated as a moderator variable that reduces the impact of the liability of foreignness (Delios and Henisz, 2003; Dimov and Martin de Holan, 2010)
Role of the diversity of foreign experience	The characteristics of host countries in which the firm already operates are incorporated into the concept of the home base and measured empirically	The characteristics of the host countries in which the firm already operates are not taken into account (Barkema and Vermeulen, 1998; Eriksson *et al.*, 2000)

HOME BASE, FOREIGNNESS, AND MARKET ENTRY

The effect of the dynamic liability of foreignness on entry

The most direct way in which scholars have conceptualized and measured the home-country effect and the liability of foreignness when considering its impact on foreign entry decisions is in terms of the distance between the home country and the host country (Berry, Guillen, and Zhou, 2010). The liability of foreignness is higher if the host country is more distant, i.e. more different from the home country along a number of relevant dimensions. Research has demonstrated that a greater distance between the host and the home countries decreases the probability of entry (Kwon and Hu, 2004; Nachum and Zaheer, 2005).

Our theoretical innovation is not to propose that the different dimensions of the liability of foreignness affect firm strategy in general, and foreign market entry in particular, but to argue that firms are exposed to the liability of foreignness in different ways depending on the size and diversity of their global footprint, i.e. their home base of countries in which they already operate.

In order to capture the impact of the home base, one must make some assumptions about how firms accumulate experience. We propose the time length of operation in each country as the key dimension of international experience, and then check for the robustness of this assumption empirically. The existing literature has recognized that time is an important component in the international learning process (Luo, 1999; Prashantham and Young, 2009; Vermeulen and Barkema, 2002). Internationalization is a process of learning and developing knowledge (Johanson and Wiedersheim-Paul, 1975). Time is not only a predictor, but also a measurement of knowledge accumulation in a country (Sharma and Blomstermo, 2003): the longer the firm has operated in a given country, the more likely it has acquired experiential knowledge about it. Most importantly, due to the existence of time-compression diseconomies (Dierickx and Cool, 1989), the amount of new experience firms can absorb is constrained by time. Therefore, the contribution of experiential learning in a specific country to the multinational firm's stock of knowledge is proportional to the time that it has operated in the country (Zaheer and Mosakowski, 1997).

In this paper, we highlight the role of time in foreign operation by taking the length of operation in a country as the weight to determine the importance of that country in influencing the firm's strategy. To be more specific, when examining the impact of

home base on a firm's location choice, we weigh the importance of each country within the home base by a firm's the number of years of operation in that country, and provide robustness checks to test the validity of this approach.

Summarizing the above arguments, we predict that a firm will find it easier to enter host countries in which it would face a lower liability of foreignness. Unlike previous research, we define the liability relative to the home base of the firm, not just the home country. While the impact of the liability of foreignness relative to the home country should be negative, as documented in previous research, we argue that the liability of foreignness relative to the home base is a better predictor of the negative relationship between distance and foreign market entry. Therefore:

> *Hypothesis 1: Other things being equal, the time-weighted distance between the firm's home base of countries in which it already operates and a new host country predicts foreign entry better than the distance between home country and host country.*

The effect of diversity of previous experience on entry

While previous research has documented that firms learn to bridge the gap between the home and host countries by using past experience as a guide for action, few studies have examined this learning effect dynamically by taking into account the characteristics of the countries in which the firm already operates. We argue that not only the length but also the diversity of foreign operational experience accumulated by the firm affects subsequent foreign market entries. In sharp contrast to staged models of internationalization (Johanson and Vahlne, 1977; Johanson and Wiedersheim-Paul, 1975), we argue that firms do not learn much from expanding into similar countries. On the contrary, they stand to benefit from exposing themselves to a diversity of foreign environments, i.e. from various degrees of difference with the home country.

The diversity of experience increases the firm's absorptive capacity. As Cohen and Levinthal argued, knowledge diversity "provides a more robust basis for learning because it increases the prospect that incoming information will relate to what is already known" (Cohen and Levinthal, 1990: 131). Empirically, scholars have found that

the breadth of knowledge exposure positively influences a firm's ability and propensity to learn and explore new knowledge (Lin, 2011).

In the context of foreign expansion, the more diverse a firm's prior foreign experience, the more valuable such experience is and the larger the pool to learn from. Diversity of experience refers to not only the number of foreign countries a multinational has invested in, but also the diversity in institutional contexts in which it has learned to operate (Barkema and Drogendijk, 2007). When firms face idiosyncratic challenges and opportunities in different countries, they develop unique search paths and thus create routines to solve problems (Nelson and Winter, 1982). Such an ability to cope with different environmental challenges becomes rare, valuable, nonsubstitute and nonimitable resources. Firms can recombine knowledge to generate heterogeneous capabilities which could offset the extra costs brought by the liability of foreignness. Therefore, they are more likely to enter new countries. In other words, the diversity of an MNE's foreign experience enhances the value of its knowledge stock with a view to future entry into other countries precisely because wrestling with differences across countries can be facilitated by past exposure to a wide range of country conditions (Zahra, Ireland, and Hitt, 2000). Thus, we expect that:

> *Hypothesis 2: Other things being equal, the more diverse the firm's home base of countries in which it already operates relative to a new host country, the more likely the firm will enter that host country.*

METHODOLOGY

Empirical setting

We use information on the foreign direct investments made by Chinese listed firms during 1991–2007 to test the hypotheses. Of the 1,935 firms in the sample, 267 established a total of 738 foreign subsidiaries. We reviewed the annual reports of these firms to identify any foreign subsidiaries. After gathering this information, we determined the establishment year of each subsidiary as given by the company in the annual report or on the company's website, and through further Internet searches. We gathered

ownership information for the listed firms from the database of GTA, a research service center. Finally, we collected financial data from CSMAR, a database available through Wharton Research Data Services.

Variables

We chose distance dimensions from Berry, Guillen, and Zhou (2010), which argues that countries differ from each other along nine dimensions. Out of the nine dimensions, we focus on four dimensions: cultural, demographic, political and administrative distance. The descriptions of the four measures and the data source can be found in Berry *et al.* (2010).

In order to test Hypotheses 1, we calculated the time-weighted average distance (WAD) of firm i to host country k in year t for each dimension (cultural, demographic, political and administrative) using the following formula:

$$WAD_{ikt} = \sum_{j=1}^{J} \left(D_{jk} \times \frac{Ajt}{Tt} \right)$$

where j represents the J countries which firm i has already entered before year t, including its home country, and D_{jk} is the Mahalanobis distance between host country k and country j, i.e. each country in which firm i has already invested before year t. When $J = 1$, firm i only operates in its home country and its WAD equals the difference between host country k and the home country. In order to include time weights we defined A_{jt} as the number of years firm i has operated in country j until year t. T_t is the total number of country-years firm i has been in existence before year t. We used the Mahalanobis method of calculating distances as opposed to the Eucledian method because it is applicable to situations in which the different dimensions are correlated, have different variances, and are measured on different scales (Berry *et al.*, 2010).

To test Hypotheses 2, we calculated the weighted standard deviation of distance (WSD) of firm's home base to host country k at year t for each distance dimension with the following the formula:

$$WSD_{ikt} = \sqrt{\sum_{j=1}^{J} \left(Djk - WAD_{ikt} \right)^2 \times \frac{Ajt}{Tt}}$$

where each of the terms is as defined above. When $J = 1$, i.e. a firm has no foreign operations, $A_{jt} = T_t$ and $D_{jk} = WAD_{ikt}$. As a result, $WSD = 0$ for purely domestic firms.

In order to assess if the dynamic measures defined above have explanatory power above and beyond the traditional definition of the liability of foreignness, we also calculated the static Mahalanobis distance between the home country and the host country for each firm-country-year observation, and for each of the four dimensions of distance (cultural, demographic, political and administrative).

To further compare our dynamic measure of the liability of foreignness and the traditional method in the literature, we entered a firm's prior foreign experience and its interaction terms with the distance dimensions. We measured *prior foreign experience* as a time-weighted indicator, defined as the total number of subsidiary-years of experience until year t-1, and included it as a control variable in all regressions.

We entered in all regressions a number of control variables. Smaller firms likely lack the knowledge and experience to expand overseas. We measured *firm size* as the logarithm of total sales. Older firms are more likely to invest abroad because they are subject to structural inertia to a greater extent than younger firms (Hannan and Freeman, 1977). We measured firm *age* in years since founding. Better-performing firms are also more likely to invest abroad because they have the resources and capabilities to do so. We controlled for *firm performance* with the return on assets (ROA) of the parent firm. We controlled for *product diversification* using the concentric index defined by Montgomery and Wernerfelt (1988). We used the percentage held by the top 10 shareholders to control for *ownership concentration* because managers may choose to invest abroad to pursue their own interests rather than those of the shareholders (Jensen and Meckling, 1976). We also controlled for the firm's *intangible assets ratio*, which is calculated as the ratio of the net original cost of patents, trademarks, copyrights, proprietary land use rights, and commodity credits, after amortization, to the total assets of the firm in each year (GTA, 2006). Finally, to control for other possible *industry* and *time effects*, we included industry and year dummies in all regressions.

Estimation method

The unit of analysis is firm-country-year. Our dependent variable takes the values of 0 or 1, but the former is much more frequent than the latter in our sample. Therefore, we ran rare-event logistic regressions to test the hypotheses. We used the relogit command in STATA, which generates approximately unbiased and lower-variance estimates of logit coefficients and their variance-covariance matrix by correcting for small samples and rare events (King and Zeng, 2001). We used the cluster option to account for intragroup (i.e. within firm) variance.

RESULTS

Table 2 provides the means, standard deviations, and correlations. The mean value of the dependent variable is close to 0, which confirms that our choice of rare-event logit regression is appropriate. To show the difference between our weighted average distance and the traditional distance, we only included firms with foreign operations in our final regressions. We controlled for the potential sample selection bias by estimating a two-stage model. The independent variables in the first stage are prior international experience, firm size, ROA, intangible asset ratio, the level of state ownership, whether it is under control of SASAC (State-owned Assets Supervision and Administration Commission), level of executive ownership, debt ratio, and industry dummies. The instrument variable is debt ratio, which we believe is related to whether a firm chooses to go abroad, but not related to which country the firm wants to invest. Debt ratio is measured as the ratio of total debt to total asset. It is a measure of the support that a firm gets from banks. With more support, a firm is more likely to invest abroad. We used a probit model to run the first-stage regression. We used the inverse Mill's ratio from the first stage as an additional regressor in the second stage.

Table 3 summarizes the results of the second-stage rare-event logit regressions. We report six model specifications. Model 1 is the baseline model, which includes only the control variables. In Model 2, we enter the traditional static distance dimensions, i.e. the distance between the host and the home country. Demographic and political distance is negative and significant. In Model 3, we enter the dynamic time-weighted average distance dimensions (i.e. distance with the home base). Three out of the four variables (demographic, political and administrative) are negative and significant.

We then compare the fit of Models 2 and 3 relative to the baseline Model 1. A chi-squared test comparing Models 1 and 2 shows that the difference between these two models is significant at a p-value of 0.0013, while the same test comparing Models 1 and 3 yields a p-value of 0.000006. The chi-squared tests indicate that our dynamic time-weighted average distances do a better job at explaining foreign entries than traditional static distance measures. We further compare Models 2 and 3 by Bayesian Information Criteria' (BIC') values. The difference in BIC' is 2.40, providing positive support for Model 3. These tests and statistics show that Model 3 outperforms Model 2 in predicting foreign entry decision of Chinese firms. Thus, we find robust support for Hypothesis 1.

In addition to being statistically significant, these effects are also large in magnitude. In Model 3, holding other variables at their mean values, when administrative distance with the home base increases from the 25th percentile to the 75th percentile, the probability of investing decreases by 85.5 percent. The same number is 57.5 percent for demographic distance and 42.6 for political distance. The results show that although absolute risk is low, the dynamic liability of foreignness does have a large impact on the relative risk of FDI.

In Model 4, we include both the nonweighted distances (distance with the home country) and their interaction terms with a firm's prior international experience. This is the standard approach in the existing literature, which uses experience as a moderator. Only the interaction between demographic distance and experience is marginally significant. We then compare Models 3 and 4. The BIC' value comparing Models 3 and 4 is 55.80, providing very strong support for Model 3. The comparison shows that our time-weighted average distance is better than using experience as a moderate in explaining the impact of liability of foreignness and learning on foreign entries.

Model 5 tests Hypothesis 2. The standard deviation of administrative distance is positive and significant, showing that firms with a greater diversity of experience in terms of administrative distance with the home base are more likely to invest in new foreign countries they have not yet entered. The other three distance dimensions,

Table 2. Means, standard deviations, and correlations

#	Variables	Mean	Std. dev.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Foreign direct investment (FDI)	0.02	0.13	1.00															
2	Cultural distance with the home base	0.00	1.00	0.02	1.00														
3	Demographic distance with the home base	0.00	1.00	−0.02	−0.28	1.00													
4	Political distance with the home base	0.00	1.00	−0.01	−0.17	−0.05	1.00												
5	Administrative distance with the home base	0.00	1.00	−0.03	−0.09	0.00	0.15	1.00											
6	Standard deviation of cultural distance with the home base	0.00	1.00	0.00	0.14	−0.03	−0.06	−0.08	1.00										
7	Standard deviation of demographic distance with the home base	0.00	1.00	0.02	−0.21	0.21	0.18	0.01	0.04	1.00									
8	Standard deviation of political distance with the home base	0.00	1.00	0.01	−0.11	0.01	0.06	−0.21	0.09	0.08	1.00								
9	Standard deviation of administrative distance with the home base	0.00	1.00	0.03	−0.11	0.01	0.28	0.31	−0.09	0.07	−0.30	1.00							
10	Log of sales	21.48	1.68	0.03	−0.01	0.05	0.11	0.01	−0.06	0.07	−0.08	0.00	1.00						
11	Age	10.07	5.37	0.01	−0.10	0.01	0.20	0.03	−0.06	0.06	−0.10	0.15	−0.04	1.00					
12	ROA	0.04	0.07	0.00	−0.03	−0.01	−0.01	−0.01	0.03	−0.01	0.00	−0.01	0.19	−0.08	1.00				
13	Product diversification	0.21	0.27	−0.01	−0.02	0.00	0.07	−0.01	0.04	−0.08	0.09	−0.05	−0.12	−0.07	−0.11	1.00			
14	Ownership concentration	60.79	15.68	−0.01	0.09	0.01	−0.09	0.04	0.10	−0.01	0.00	−0.03	0.26	−0.39	0.19	−0.15	1.00		
15	Intangible asset intensity	0.03	0.04	−0.01	−0.08	0.02	0.15	0.04	0.00	0.08	0.10	0.07	−0.13	0.12	−0.05	0.13	−0.09	1.00	
16	Prior international experience	16.96	12.94	0.02	−0.08	0.04	0.18	0.06	−0.06	0.16	−0.15	0.11	0.22	0.64	−0.07	−0.10	−0.21	0.00	1.00
17	Inverse Mill's ratio (IMR)	2.69	0.55	−0.03	0.06	−0.04	−0.19	0.10	0.07	−0.08	0.02	−0.01	−0.63	−0.12	−0.20	0.04	−0.03	0.01	−0.26

N = 11,338.
Correlations greater than 0.04 are significant at the 0.01 level (two-tailed test).

Table 3.   Rare-event logit regressions predicting foreign direct investments

Variables Distance to	Model 1 	Model 2 Home country	Model 3 Home base	Model 4 Home country	Model 5 Home base	Model 6 Home base
Independent variables						
Cultural distance		−0.07	−0.08	−0.07		−0.06
		(0.05)	(0.05)	(0.06)		(0.05)
Demographic distance		−0.11**	−0.07*	−0.12**		−0.08*
		(0.04)	(0.04)	(0.04)		(0.03)
Political distance		−0.05***	−0.03**	−0.05**		−0.03*
		(0.01)	(0.01)	(0.02)		(0.01)
Administrative distance		−0.02	−0.22***	−0.04		−0.21***
		(0.04)	(0.05)	(0.04)		(0.06)
Prior international experience × cultural distance				0.09 (0.25)		
Prior international experience × demographic distance				0.02+ (0.01)		
Prior international experience × political distance				0.06 (0.04)		
Prior international experience × administrative distance				0.02 (0.02)		
Standard deviation of cultural distance					0.05 (0.09)	0.08 (0.09)
Standard deviation of demographic distance					0.15 (0.10)	0.16* (0.08)
Standard deviation of political distance					0.14 (0.10)	0.12 (0.10)
Standard deviation of administrative distance					0.11** (0.04)	0.02 (0.05)
Control variables						
Prior international experience	0.01	0.01	0.00	0.03+	0.02	0.02
	(0.01)	(0.01)	(0.01)	(0.02)	(0.09)	(0.08)
Log of sales	−0.44	−0.44	−0.59	−0.37	−0.58	−0.68
	(0.33)	(0.33)	(0.35)	(0.34)	(0.35)	(0.35)
Age	−0.06*	−0.06*	−0.05	−0.08*	−0.03	−0.04
	(0.03)	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)
ROA	−2.80	−2.79	−2.69	−2.05	−2.96	−2.48
	(2.27)	(2.28)	(2.39)	(2.36)	(2.43)	(2.47)
Product diversification	−0.21	−0.21	−0.33	−0.21	−0.41	−0.40
	(0.81)	(0.81)	(0.77)	(0.82)	(0.69)	(0.70)
Ownership concentration	−0.00	−0.00	−0.00	−0.01	−0.01	−0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Intangible asset intensity	1.20	1.20	1.03	1.45	0.37	0.80
	(6.30)	(6.32)	(8.61)	(6.49)	(8.09)	(7.08)
Inverse Mill's ratio	−4.27***	−4.28***	−4.53***	−3.94**	−4.48**	−4.85***
	(1.34)	(1.35)	(1.42)	(1.38)	(1.54)	(1.52)
Industry dummies	Included	Included	Included	Included	Included	Included
Year dummies	Included	Included	Included	Included	Included	Included
Number of observations	11,338	11,338	11,338	11,338	11,338	11,338
Log pseudo-likelihood	−147.14	−138.23	−132.36	−136.92	−141.30	−130.07
Pseudo R-square	0.1114	0.1652	0.2006	0.1731	0.1467	0.2145

Notes: Robust standard errors are in parentheses.
*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$. All tests are two-tailed.

however, are not significant. Therefore, Hypothesis 2 is partially supported.

We include both distance with the home base and the standard deviation in Model 6. The political,

demographic and administrative distances with the home base are negative and significant, and the standard deviation of demographic distance with the home base is positive and significant. We also see

an increase in pseudo R-squared in this full model. The results in Model 6 provide robust support for Hypothesis 1 and some support for Hypothesis 2.

Robustness checks

We checked the robustness of the results in different ways. First, instead of weighting the number of years of a firm's operation in a country, we used the square of the number of years of operation. This new scheme gives more weight to the operational experience in countries with longer history of operation, and may be justified theoretically by reference to organizational inertia (Hannan and Freeman, 1977). Second, we checked the robustness of the results by giving more weight to recent experience, because the most recent experience may lie closer to the surface of organizational memory (Walsh and Ungson, 1991). To capture the unlearning effect, we weighed the distance by the inverse of years of foreign operation, rather than the years of foreign operation. Third, it is also possible that the insignificance of distance dimensions with the home country and their interaction terms is due to an unlearning effect. We consider this possibility by applying a depreciation rate of experience. We chose depreciation rates of 0.9, 0.8 and 0.7. Fourth, one may argue that home country experience exerts more influence than host country experience. To address this concern, we differentiate host and home country experience by applying different depreciation rates over time. For home-country experience we apply a depreciation rate of 0.9, while for host country experience, we apply a depreciation rates of 0.8 and 0.6 in two additional robustness checks. The pattern of significant results held. Next, we included more distance dimensions. We first added two distance dimensions from the CAGE framework: economic distance and geographic distance. Since adding economic and geographic distance into our existing four distance dimensions creates multicollinearity problems, we next checked the robustness of the results by using the CAGE framework. For all of the robustness checks described above, our original results held.

DISCUSSION AND CONCLUSION

This paper formalizes the insight that the strategy of the multinational firm is not only driven by its experience in the home country but by its experience in each of the countries in which it operates. By introducing the concept of the home base, we argue that a multinational firm is not only subject to a country-of-origin effect. Although previous studies have indicated that the importance of the home country diminishes as the firm expands internationally, previous research has not pursued this idea rigorously. Since firms enter foreign countries at different points in time, we assumed that the amount of experience in each country depends on the length of operation. The relative importance of each country within the home base thus is reflected by the length of operation in that country. Our dynamic liability of foreignness is thus measured by the time-weighted average distance between host country and each of the countries in the home base. We found that the location strategy of MNE is influenced more by the characteristics of home base than those of home country.

We also proposed that previous international experience is not homogeneous and that to the extent that it has taken place in a diverse set of countries, it adds to the firm's ability to continue entering new countries. The diversity of cross-country experience is too nuanced to be captured by a simple count. Our approach, while not perfect, is more comprehensive because it measures various dimensions of distance independently, and it adjusts for the length of operation.

Our theoretical approach and empirical findings have two important implications. First, two firms from the same home country may face a very different liability of foreignness in the same host country. This dynamic approach is fully consistent with the resource-based view of the firm, which is predicated on the fundamental assumption that firms are heterogeneous. In this paper, we have conceptualized and measured yet another source of heterogeneity, one related to the stock of foreign experience possessed by a firm at various points in time. Second, although the process model of internationalization suggests that as firms learn from their prior foreign experience, and they should be able to invest in more distant countries gradually (Johanson and Vahlne, 1977), our analyses show that simply investing in a foreign country should not be expected to encourage firms to invest in new foreign countries. It is the diversity of prior foreign experience which actually helps a firm overcome the liability of foreignness, as our results partially indicate. Thus, the analysis in this paper overcomes a key limitation of previous research.

This paper suffers from several limitations, which future research may overcome. First, the sample of firms was drawn from only one home country, China. One should therefore not generalize the implications of our findings for firms from other countries without examining the peculiar characteristics of China as a country and of its companies as a group. Having said that, we believe using data from a country whose firms started their process of internationalization only recently represents a stronger test of our hypotheses because it takes time for the "home base" of the firm to become significantly different from the home country. Second, future research could relax the assumptions we made about the rate at which firms learn from their operations in foreign countries and examine if the size of the investment matters. Third, the impact of some of the distance dimensions (such as demographic distance) on foreign entry may not be unidirectional in all cases. Future studies could address this potential problem by specifying different motives for FDI. These limitations offer additional avenues for future research using the dynamic approach to the liability of foreignness proposed in this paper.

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