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RESEARCH NOTES AND COMMENTARIES

EXPLAINING OUTCOMES IN COMPETITION AMONG FOREIGN MULTINATIONALS IN A FOCAL HOST MARKET

SUBRAMANIAN RANGAN[1]* and ALDEMIR DRUMMOND[2]
[1] *INSEAD, Fontainebleau, France*
[2] *Fundação Dom Cabral, Nova Lima, Brazil*

Multinational enterprises (MNEs) from different home regions now routinely confront one another in third markets. There is, however, little conceptual or theoretical literature on the determinants of outcome patterns in these contests. This paper offers a first attempt at systematic and parsimonious conceptualization of the issue. In Brazil, for instance, while U.S.-based MNEs such as Coca-Cola and IBM lead in their sectors, other leading U.S. MNEs including Citibank, GE, and Pfizer are outsold by European rivals that appear less competitive globally. Extending theory on the liability of foreignness and firm-specific advantages, we contend that (i) the MNE whose home nation has greater ties to the focal host nation (along geographic, colonial, immigration, linguistic, and institutional dimensions) will lead in that host nation; and (ii) ties notwithstanding, if an MNE's firm-specific advantages are so superior that it outsells a rival MNE in that rival's home market, then it will outsell that rival as well in the focal host market. Based on this we develop a conceptual framework, statistical analysis pertaining to MNE competition in Brazil, and three avenues for fruitful new research. Copyright © 2003 John Wiley & Sons, Ltd.

Assume a host market h that is open to multinational enterprises (MNEs) from foreign regions. Assume further that there are two foreign regions j and k from which market-seeking MNEs invest and compete in the same industry in h. Taking firms to be profit seeking, which between j and k MNEs is likely to be more successful in host market h? More generally, is there a parsimonious and testable explanation for outcome patterns in competition among foreign multinationals in a given host market?

As more and more of the world's firms turn to foreign expansion as a route to profitable growth (see Rugman, 2000), this question assumes greater significance and merits greater attention. Work by authors such as Tallman (1991), Zaheer (1995), Ghemawat (2001), and Miller and Parkhe (2002) can shed useful light on the question. Drawing on Hymer (1960/1976), those authors have highlighted liabilities of foreignness and related

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* Correspondence to: Subramanian Rangan, INSEAD, Boulevard de constance, Fontainebleau 77305, France.
E-mail: subramanian.rangan@insead.edu

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handicaps faced by foreign firms operating in a host market. However, with the exception of Tallman (1991), focal comparisons in most such existing work in international strategy have tended to be between foreign and local (i.e., host country) firms. Less developed are propositions on behavior and performance differences between foreign MNEs from two (or more) regions competing in a third host market—propositions that offer clear predictions on the questions raised at the top.

In Brazil, for instance, while U.S.-based MNEs such as Coca-Cola and IBM lead in their sectors, other leading U.S. MNEs (including Citibank, GE, Otis, Pfizer, Procter & Gamble, and Wal-Mart) are outsold locally by European rivals that appear less competitive globally.[1] Our objective in this paper is to offer a first attempt at developing a conceptual framework that can explain and predict outcome patterns in such MNE contests in third markets.

A TIES-TECHNOLOGY MODEL OF MNE COMPETITION OUTCOMES IN A GIVEN HOST MARKET

In international business strategy there are two theories that can speak to the question at hand. One theory, premised on firm heterogeneity, emphasizes relative levels of firm-specific advantages (FSAs). As Hymer (1960/1976: 25) observed long ago, 'firms are very unequal in their ability to operate in a particular industry.' In this view, if firm j has superior capabilities and is, as a result, more productive than k, then, in steady state, j is likely to lead k in h. However, using, as in Dunning (1980), worldwide revenues per employee as an indicator of FSAs, we found that the pattern in Brazil was not systematically consistent with the predictions of this view (see also Tallman, 1991). Broadly, while U.S. MNEs exhibited higher productivity, it was European MNEs that led in Brazil. Apparently, as Hymer (p. 43) himself put it, 'A firm may have advantage in a certain industry, but international operations are concerned with a certain industry in a *particular country*.'

In this vein, Rugman and Verbeke (1992) point out that an MNE's firm-specific advantages, both technological and transactional, may be 'location bound' or constrained. When an MNE enters a foreign host market, it might not perform well. This points to the second theory, dubbed the liability of foreignness (LOF). The LOF theory maintains that, *vis-à-vis* local firms operating in a given host market, the competitiveness of foreign MNEs is weakened due to lesser relative familiarity with local information, laws, and language. Likewise, in relations with local governments, consumers, and suppliers foreign MNEs will tend to be at a disadvantage. Last but not least, because communication over distance is costly and often enfeebled, foreign MNEs, in managing remote operations, face yet another disadvantage.

The logic underlying the LOF view would appear to extend quite naturally to the question at hand —except, instead of comparing local firms with foreign MNEs, we would take a given host nation and compare a foreign MNE from one home region with a counterpart from another. Applied this way, this theory would suggest that outcomes in MNE contests might turn on j and k's relative liabilities of foreignness in h. In coarse terms, if $\text{LOF}(j, h) < \text{LOF}(k, h)$, then j is likely to lead k in h.

But how might we predict which between j and k will have the lower LOF *vis-à-vis* h? Based on our study in Brazil, we propose bilateral *ties* between home and host nations as an answer. We categorize such ties along five dimensions: geographic ties, colonial ties, immigration ties, linguistic ties, and institutional ties. With the exception of immigration, the ties correspond one-to-one with items in Hymer's (1960/1976: 28) LOF construct (communication, government, language, and law). Importantly, each of these bilateral ties is empirically observable.

While such bilateral ties have not been explicitly linked to the relative *performance* of MNEs, they have been shown to cause patterns of affinities in foreign direct investment (FDI). These patterns 'result from factors that reduce communication and information costs even in the political and social realms ... [For instance] colonial ties offer political protection and lower transaction costs to MNEs' (Caves, 1996: 52). 'These affinities ... cover factors that [i] reduce the MNE's cost of entering a foreign market or [ii] increase the cost-effectiveness of their internal control mechanisms' (Caves, 1996: 50).

[1] Two points of clarification might be necessary. First, some of the U.S. MNEs mentioned here operate in multiple and not precisely the same sectors as their European rivals. Our references here should be treated as regarding the overlapping businesses. Second, not unrelated to the previous point, Citibank is the name used in Brazil for the corporate and retail banking business of the parent Citigroup.

Similarly, here, we are suggesting that bilateral ties emanating from national geography and history also influence MNEs' foreign performance outcomes (not just their investment behavior). Ties influence competitive outcomes because they can deliver to MNEs important relative advantages along three realms: *information, consumer tastes*, and *ongoing operations*. In economic sociology and international economics it is now well documented that ties influence business information flows (see Rauch, 2001).[2] Ties have also been linked to consumer taste advantages; the argument being, in differentiated markets, home varieties come to be demanded in tied host markets (see Head and Ries, 1998).

Perhaps most importantly, ties appear to bring advantages in terms of ongoing operations, i.e., strategy implementation. For instance, our fieldwork in Brazil suggested that the willingness among tied home country expatriates to both accept a transfer and to make a prolonged stay (of 3–4 years) in Brazil was much greater because the presence of home national immigrant communities or familiar languages made experiences in the host nation less alien. Community, children's schooling, and family relocation were all issues that appeared easier to sort out. Indeed, it could be argued that because they are able to mobilize the right senior expatriates for the necessary duration, European MNEs are more willing to commit greater financial and technical resources in Brazil. Likewise, ties might help MNEs in the selection of local partners. This to some extent is thought to explain difficulties encountered in Brazil by GE Capital (whose local partner went bankrupt shortly after their tie-up in 1999). What is more, since Wal-Mart is linked with GE Capital (for its store credit cards), this could not have helped that U.S. retailer's business 'ecosystem' in Brazil.

In sum, if host nation inputs (i.e., local labor and suppliers) are viewed as complements to home technology, capital, and especially management, then the product of such complementarity is likely to be greater for those home–host pairs that are geographically adjacent or for which historical ties are greater. This reasoning is fully consistent with the transaction cost-based model of multinational management elaborated in Rugman and Verbeke (1992). Using their terminology, ties can help an MNE both better exploit its firm-specific advantages (by making them less 'location-bound') and better tap into the host nation's 'country-specific advantages.' Accordingly, as a baseline, we contend that in MNE contests in a given host market, if $\sum\text{TIES}(j, h) > \sum\text{TIES}(k, h)$, then j MNEs will tend to lead k MNEs in h (and vice versa). In words:

> *Hypothesis 1: The MNE whose home nation has greater ties along geographic, colonial, immigration, linguistic, and institutional dimensions to the focal host nation will lead in that focal host market.*

In the case of Brazil, from colonial contact to immigration to the (civil code-based) legal system, it is clearly Europe, not the United States, that has relatively greater bilateral ties to that host nation. Still, those ties cannot very well explain the success in Brazil of such U.S. MNEs as Coca-Cola, Gillette, and IBM. Since liabilities of foreignness should apply equally to these U.S. MNEs, how can we explain their lead over European rivals in Brazil? This is where the FSA explanation comes in. In Hymer's words, international operations will occur in industries 'where some firms have advantages over other firms' (Hymer, 1960/1976: 92). He went on to note:

> The rarest case will be the one where there is a single firm which has advantages over all other firms in the world in the production of a particular product ... Wherever the product is produced, the firm will have some part in its production ... A more prevalent case ... [is] where there is not just one firm but several firms with advantages.

Extending this view to contests among MNEs in a given host market, we conjecture that if j leads k in k's home market, then j will also lead k in h. The logic is that, by definition, LOF $(j, k) >>$ LOF (k, k). If, nevertheless, j leads k in k (e.g., as U.S.-based Gillette leads French rival Bic in France) then, in general, j is likely to lead k in all hs. This is consistent with the success in Brazil (and elsewhere) of U.S. MNEs such as Coca-Cola and IBM. Accordingly, we propose:

[2] We leave to future research the extent to which ties discussed here might relate to work on social capital and social networks. It is useful to note, however, that in an authoritative review, sociologist Portes (1998: 3) stipulates, 'Social networks are *not a natural given* and must be constructed through investment strategies oriented to the institutionalization of group relations, usable as reliable source of other benefits' (emphasis added). If geography and history are treated as givens, the pertinence of our ties to social capital concepts is not direct.

Hypothesis 2: Ties notwithstanding, if an MNE's firm-specific advantages are so superior that it leads a competitor MNE in the latter's own home market, then it will lead that competitor as well in the focal host market.

Using the term 'technology' to refer broadly to MNE capabilities, we can depict the above in a ties-technology conceptual framework (see Figure 1) that can explain outcome patterns in MNE contests in third markets. To exercise the framework, it is necessary to categorize instances of rivalry as dominated or contested. *Dominated* instances are those where j firms beat k firms in k (i.e., in the competitor's home market), or where k firms beat j firms in j. In reality, few industries are

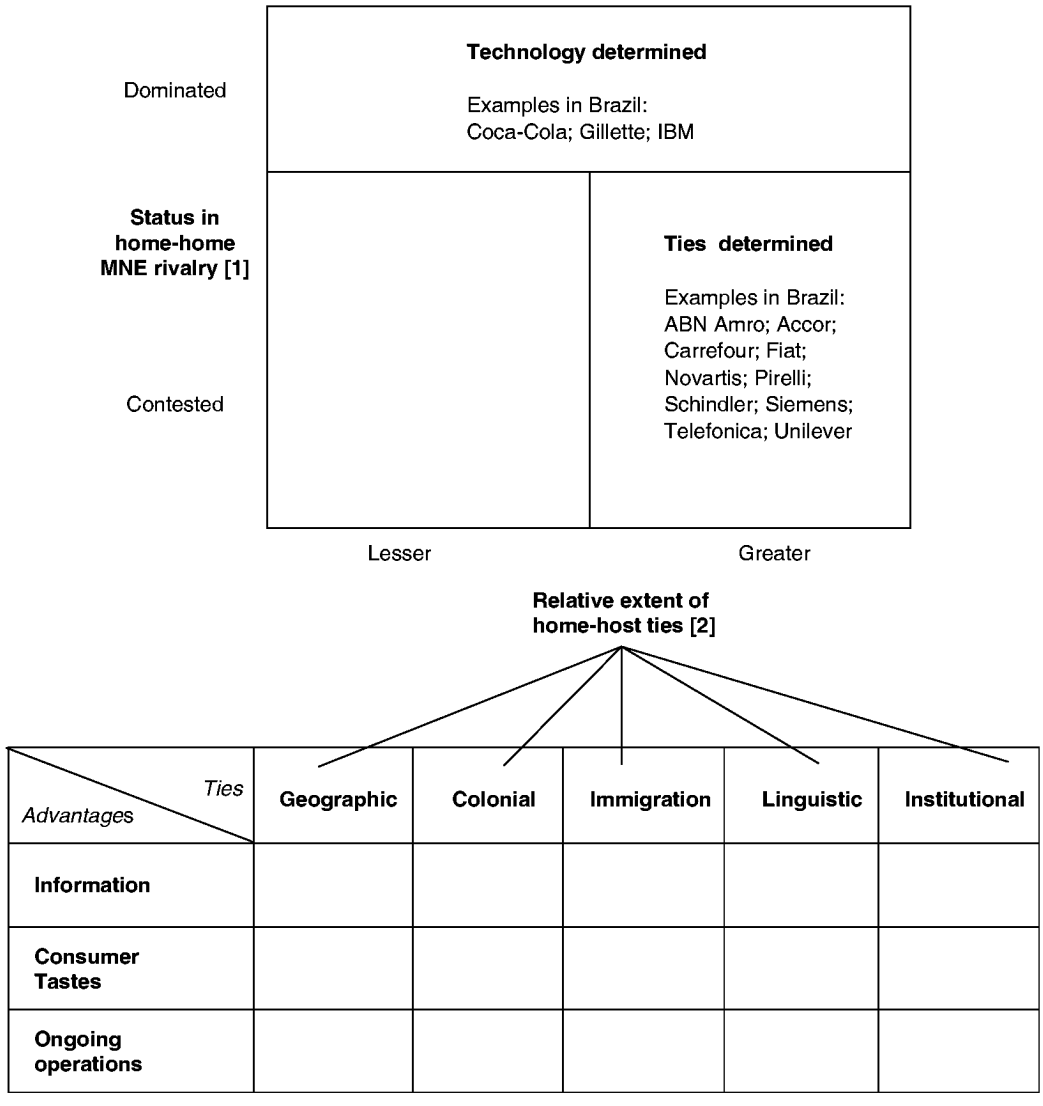

Figure 1. A ties-technology framework of relative performance outcomes in competition between two foreign multinational enterprises in a given host market. In the notes below, h refers to host nation; j and k refer to MNE home nations; Output(j, k) refers to output of MNE from home nation j in host market k; Ties(j, h) refers to ties between home nation j and host nation h. FSA, firm-specific advantage. LOF, liability of foreignness. [1] If Output (j, k) > Output (k, k) or if Output (k, j) > Output (j, j) then the industry is dominated; otherwise it is contested. In the former cases, it must be that FSA (j) >> FSA (k) or FSA (k) >> FSA (j). [2] If Σ Ties (j, h) > Σ Ties (k, h) then LOF (j, h) < LOF (k, h), and, hence, unless [1] above holds, it is expected that Output (j, h) > Output (k, h); and vice versa

dominated. Further, dominated industries seldom remain that way (think of leadership in memory chips shifting from the United States to Japan to South Korea). Most industries, in fact, are what we might refer to as *contested* industries. Here the extent of any relative superiority is limited such that even though MNEs might have 'unequal ability,' j firms do not dominate k firms in k nor vice versa. For instance, Procter & Gamble (the 'superior' firm) does not dominate Unilever in Europe, nor does Unilever dominate P&G in the United States. Underlining that this is the widespread pattern, Rugman (2000) characterizes most MNEs as 'home triad' centered. Thus, in contested industries there is an absence of the massive superiority that characterizes dominated industries, and it is in these instances that outcomes in MNE competition likely turn on *ties*.

ANALYSIS

To examine whether the hypothesized relationships are statistically significant, we estimated a proportions model based on minimum χ^2 methods for grouped data (Maddala, 1983). The dependent variable was foreign MNE leadership in Brazil (coded based on MNE sales shares in Brazil). The independent variables were relative technology (dominant or not) and relative ties (greater or not). The underlying unit of analysis was an individual MNE (headquartered in Europe, Japan, or the United States).

To conduct the analysis, in the 38 (manufacturing and service) sectors that we were able to cover, we grouped along two dimensions pairs of rival MNEs operating in Brazil. Keeping with the above, we labeled the first dimension TECH and

DOMINANT TECH: MNE dominates rival in rival's home market?	GREATER TIES: No	GREATER TIES: Yes
Yes	4/4 • Coca-Cola* • Gillette* • IBM* • McDonald's*	1/1 • Nokia*
No	8/33 • AES* • AIG • Alcoa* • AOL • American Express • Anheuser-Busch • Avon* • Citibank • Dow Chemicals • Exxon • FedEx • GE Heavy • GE MedSys • GE ConsFin • GM • Goodyear • Hilton • Holcim* • HP Printers* • J.C. Penney • Kodak* • Kraft • Motorola • Panasonic • Pepsico • Otis • Philip Morris • Pfizer • P&G • Wal-Mart • WorldCom • Whirlpool* • Xerox*	24/34 • ABN Amro* • ABN ConsFin* • Accor* • AGF-Allianz* • Basf* • BAT* • Bic • C&A* • Carlson Wagonlit* • Carrefour* • Canon Printers • Canon Office • DHL* • EDF • Electrolux • Ericsson* • Fuji • Heineken* • Lafarge • L'Oreal • Olivetti • Nestle* • Novartis* • Pechiney • Philips* • Pirelli* • Schindler* • Shell* • Siemens Heavy* • Siemens MedSys* • Terra* • Telefonica* • Unilever* • VW*

MNE's home nation has *greater* ties to Brazil than rival MNE's home nation?
Ties =Σ (home nation shares a land border with Brazil + had colonial contact with Brazil + had marked immigration to/from Brazil + has Portuguese or Latin root language + has "civil code" legal system).

Figure 2. Foreign MNEs operating in Brazil grouped along dimensions of relative TECH and relative TIES. (Note: *indicates lead foreign MNE in Brazil; ratios in corner boxes indicate number of lead MNEs/total MNEs in group)

the second TIES (see Figure 2). We coded each MNE on TECH based on whether it dominated its foreign rival in the latter's home market. Not surprisingly, only a handful of MNEs (five to be precise) entered the 'dominate' group (coded 1); the rest were assigned to the 'contest' group (coded 0). We coded TIES based on *relative* superiority on home–host links along geography, colonization, immigration, language, and legal system. MNEs from home nations with ties that were superior relative to their rival were assigned to the 'greater ties' group (coded 1), and the rest to the 'not greater ties' group (coded 0). Expectedly, the ordering on ties to Brazil was Europe > Japan > United States. (Japan's ties exceed U.S. ties to Brazil (i) because of sizable immigration from Japan to Brazil, and (ii) because we coded geography 1 if 'shared land border' and 0 otherwise.)

In Figure 2, within each of the four resultant cells (dominate–greater ties; dominate–not greater ties; contest–greater ties; contest–not greater ties), we also state the ratio of lead to total MNEs. Using these sample proportions ($\hat{p}_i$), we specify the logit model:

$$\log \frac{\hat{p}_i + (2n_i)^{-1}}{1 - \hat{p}_i + (2n_i)^{-1}} = \beta' x_i + u_i$$

where subscript i indicates the group. To account for heteroskedasticity we estimate ordinary least squares first; calculate and assign weights based on variances; and then in a second stage we estimate weighted regressions. Weighted least squares regression of the logits of the observed proportions on x_i provides efficient estimates of the parameters (Greene, 1990: 670).

We present the regression results in Table 1. Both dominant technology and greater ties are statistically significant (at two-tailed 99 and 99.5 percent levels) and positively related to MNE leadership in Brazil. While dominant tech (i.e., dominating a rival in the rival's home market) takes the larger coefficient, greater ties takes the higher t-statistic. The *chi-squared* is large and highly significant. The null is easily rejected and the regression is statistically meaningful.

ALTERNATIVE EXPLANATIONS

Although we have argued that bilateral ties and technology (broadly defined) are the keys to explaining the pattern of outcomes in foreign MNE competition in Brazil, alternative explanations are of course plausible. We review six that merit discussion and show that none of them passes scrutiny.

(i) European MNEs are more international and better at localizing: to the extent this is the driver, we would expect European MNEs (such as Carrefour, Siemens, and Unilever) to succeed as well in other foreign markets. Yet, from Mexico to the Philippines to Japan, it is U.S., not European, MNEs that lead in the foreign sector in those host markets.

(ii) Europeans entered Brazil earlier: this is not true across the board (e.g., GM and Ford entered in 1920s whereas VW and Fiat entered in the 1950s and 1970s; Citibank has been in Brazil longer than the other foreign banks; AOL and Terra entered at the same time; and so on). Importantly, as Lieberman and Montgomery (1998: 1122) note in their article on first-mover advantages, 'the endogeneity of entry order is an important issue to

Table 1. Minimum logit chi-squared regression estimates of MNE lead status in Brazil on relative TECH and relative TIES

Variable	Estimated coefficients	Summary statistics	
Constant	−1.062	Number of groups	4
	(−3.210)***	Number of individual observations	72
Relative tech	2.789	Restricted sum of squared residuals	18.38
	(2.460)**	Unrestricted sum of squared residuals	0.88
Relative ties	1.875	Chi-squared	17.49
	(4.087)***	p-value	<0.01

t-values in parentheses; ** and *** indicate significance at two-tailed 99% and 99.5% levels, respectively.

be investigated.' We contend that the confident and often aggressive stance of European MNEs toward market opportunities in Brazil is endogenous to bilateral ties.

(iii) Culture: it might be suggested that Latin Europe (France, Italy, Portugal, and Spain) and Latin America are culturally similar and that this might explain the dominance of European MNEs in Brazil. First, scholarly studies in management (e.g., Ronen and Shenkar, 1985) code Brazil (like Japan and India) as independent. Second, Mexico is coded as a Latin country, yet, as noted earlier, it is U.S., not Latin European, MNEs that lead there (see Wilkie, Aleman, and Ortega, 2001). Third, in Hofstede's (1997) culture maps, European nations such as Germany and the Netherlands are in quite distinct clusters from Brazil. Yet the Germans and Dutch do well in Brazil. To quote Van Maanen and Laurent (1993: 305), 'the effect of culture on performance, particularly economic performance, is probably drastically overestimated.'

(iv) Europeans have a lower cost of capital: It seems unlikely that such worldwide MNEs as P&G and Unilever, or GE and Siemens, have vastly different cost of funds; if anything, the advantage might go to the Americans. Second, if costs of capital were a key driver of entry and success in Brazil, one would expect Japanese MNEs to be prominent there. They are not. Likewise, if capital costs handed European MNEs an advantage over U.S. counterparts in 'risky' markets, we might expect them to also lead in countries like Venezuela and China. Preliminary investigation indicates they do not.

(v) Europeans have nowhere else to expand: it is hard to imagine that this is valid for the likes of Accor, Novartis, or Volkswagen.

(vi) Americans do not regard Brazil (and South America) as a priority: in fact, the United States is the largest single investor in Brazil, accounting for 25 percent of that country's inward foreign direct investment stock. This is the same share that the United States has in world foreign direct investment stock.

DISCUSSION

In this exploratory paper, based on a study in Brazil and drawing upon existing theory, we have advanced two hypotheses and a derivative conceptual framework that can explain outcome patterns in competition among foreign MNEs in a given host market. The suggested explanation is parsimonious and testable. To our knowledge, these ideas have not been synthesized and applied in this manner before. With the exception of Tallman (1991), the question of outcomes in MNE contests in a third host market has not received explicit attention. Tallman pointed to asymmetries in MNEs' 'commitment' to the host nation. We have taken that forward and suggested factors that might explain commitment.

The hypotheses we have developed above point to three avenues for new research: one empirical, one theoretical, and one managerial. In empirical terms, the central question is: Do the hypotheses hold in other host markets (i.e., are they generalizable)? If MNE data and historical facts such as we obtained for Brazil were also assembled for other host nations, then considering four home regions, viz., Europe, the United Kingdom, the United States, and Japan, one could conduct empirical tests.

The findings would be illuminating especially in light of the following only half-casual conjecture. Taking the sports baseball, cricket, and soccer, based on the above, we would predict that in regions where baseball has been adopted as a national sport (Cuba excepted), U.S. MNEs are likely to lead in the foreign sector (think of Japan, Mexico, etc.). Likewise, in cricket countries we predict British MNEs will do relatively well (think of Australia, India, etc.). And, in soccer nations European MNEs are likely to lead (think of much of Africa and especially South America).

If the hypotheses we have tabled hold in multi-country empirical analysis, a second avenue, that for theoretical research, opens up. Why and how do ties matter? To what extent can ties be conceived as Barney (1991) 'resources' (valuable, rare, non-imitable, and non-substitutable)? What are the dynamics of how their influence plays out? In particular, (as Caves, 1996: 53, has asked) beyond information and tastes, do ties influence ongoing productivity? In welfare terms, is history locking in inefficient patterns of resource control?

Importantly, theory development would be critical in guiding the third line of inquiry, viz., into possible managerial responses. Short of dominating foreign rivals in their home markets, how might MNEs approach host markets where rivals

have stronger ties? Should they cede the market and cut losses; or stay and fight even if this means guaranteed cash drain? Theories of 'triad'-based regional strategies (developed in Rugman, 2000) and multipoint competition (Karnani and Wernerfelt, 1985; Gimeno, 1999) would have an important application and test bed here.

Rumelt, Schendel, and Teece (1994) have pointed to the determinants of international success and failure of firms as one of five fundamental questions in strategy. In exploring this understudied question, we have integrated history along with the geography and technology dimensions, and hypothesized on the net effects on MNEs' relative performance in foreign markets. We hope this work will provoke renewed interest in the study of international strategy (as in Khanna and Rivkin, 2001). Incorporating the role of government intervention and the impact of regional trade agreements will be useful extensions. Eventually, such work could help MNE managers better appreciate, anticipate, and address the consequences of national geography and history on their firms' performance abroad.

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