The Choice of Entry Modes in Foreign Markets and Subsidiary Performance: Evidence from Brazilian Multinationals

Previous research addressed two decisions related to the entry mode into foreign markets: the choice of the ownership mode (wholly-owned subsidiary or joint venture) and the choice of the establishment mode (acquisition or greenfield investment). However, a third important decision, which refers to the choice of the main activity of the subsidiary, has been virtually ignored by the extant literature. Based on a comprehensive literature review, this study examines three decisions - ownership mode, establishment mode and type of activity (production or distribution) of the subsidiary - to analyze the relationship between foreign direct investment entry modes and subsidiary performance. The paper proposes a conceptual model that provides a comprehensive view of the choice of entry modes in foreign markets and their impact on the performance of subsidiaries of multinational Brazilian companies. The main hypothesis proposes that subsidiaries whose entry modes are aligned to the model tend to outperform those whose entry modes are not aligned to the model. In addition 28 hypotheses are tested concerning the impact of nine antecedents of the entry mode decision. The study uses a sample of 280 subsidiaries of 133 firms from 39 countries. The data was collected from secondary sources and, in some cases, by direct contact with the firms. Binary logistic regression and multiple regression analysis were used to test the research hypotheses. The results indicate the existence of a positive and significant relationship between the performance of subsidiaries and the alignment of their choice of entry modes (ownership mode plus establishment mode plus type of activity) to the model. The results suggest that the choices of entry modes of Brazilian MNEs more closely resemble the patterns of MNEs from developed countries, then those of other EMNEs reported in the recent literature on these firms.

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INTRODUCTION

The rise of emerging market multinational enterprises (EMNEs) is a recent phenomenon. In the early 1990s, EMNEs accounted for only 6% of global FDI flows. In 2010, however, these firms were already responsible for 25% of this total (UNCTAD, 2011).

Due to their late internationalization, EMNEs tend to have characteristics that differ from their counterparts in developed countries (Luo & Tung, 2007), but researchers have not arrived yet to a consensus as to whether these firms are in fact different and what are the specific differences from traditional multinationals (Sauvant, 2008). One of the issues deserving attention relates to the strategies followed by EMNEs, and among them the choice of entry modes (Ramamurti, 2009). Specifically, studies on the relationship between the choice of entry modes and EMNE's subsidiary performance are very scarce in the literature (Contractor, Kumar & Kundu, 2007). To our knowledge, no study has addressed this issue in relation to Latin American or Brazilian firms. This study intends to fill this gap in the extant literature.

The study is organized in six sections. After this introduction, we present our literature review. The next section describes the methodology adopted in the study. We then present and discuss the results. Finally, we draw our conclusions and indicate the study's limitations.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Pan & Tse (2000) posit that the choice of entry mode can be analyzed from a hierarchical perspective. Initially, managers structure several entry modes in a multilevel hierarchy and define a set of evaluation criteria for each level. The first level of the hierarchy refers to the choice between equity entry modes (foreign direct investment) and non equity modes (exports and contractual arrangements). In a second stage, managers decide which specific mode to choose within the general category. In the case of equity modes, a choice is made between joint ventures (JV) or wholly-owned subsidiaries (WOS) and greenfield investments or acquisitions. Hennart (1988) argues, however, that the main difference between a WOS and a JV lies in the method to compensate partners. A key feature of equity modes, whether a WOS or a JV, is that the partners are compensated *ex post* with profits, while in contractual arrangements payments are specified *ex ante.* Therefore, JVs may consist both in greenfield investments and partial acquisitions (Brouthers & Hennart, 2007). Therefore, independent decisions have to be made on the ownership mode (WOS versus JV) and the establishment mode (acquisition versus greenfield investment). Ruiz-Moreno, Mas-Ruiza & Nicolau-Gonzálbez (2007) empirically tested this proposition; their results confirm the hypothesis of the existence of a two-stage decision-making process, where the choice of the ownership mode precedes the choice of the establishment mode.

A third decision regarding the entry mode choice refers to the type of activity that the company will have on the foreign market. This choice, however, has received little attention in the academic literature (Buckley & Casson, 1998), perhaps because of the lack of empirical data (Kleinert & Toubal, 2010). To help fulfill this theoretical gap, this study incorporates the choice of type of activity among the decisions to be taken when the firm chooses an equity mode.

Following Sarkar & Cavusgil´s (1996) advice, we used different theoretical approaches to select the antecedents of the entry mode decision. This procedure aimed to increase the explanatory power of the model and thus provide a more accurate view of the phenomenon investigated. To build our conceptual model, we used elements of three theories: (1) resource-based view (RBV), which focuses on the resources and capabilities that create competitive advantage for the firm, (2) internalization theory, which adds the relevance of the market, and (3) institutional theory, which addresses the importance of transnational distance between the home and the host country. As these theoretical approaches differ in some important aspects, such as assumptions and units of analysis, complete integration is not feasible. Therefore, an eclectic model was developed which used elements of each theory that were consistent with each other. Figure 1 below shows the conceptual model.

FIGURE 1 HERE

The independent variables were selected to cover the three groups of antecedents of the choice of entry mode: firm variables, market variables, and transnational distance. The criteria used for variable selection were based on their importance in the literature, as well as their coverage of each group of antecedents. Table 1 presents the research variables and their operationalization. For each set of hypotheses the following notation is used: "o" for the ownership mode, "e" for the establishment mode and "a" for the type of activity.

TABLE 1 HERE

Firm Size – Since large firms have more resources than smaller firms, they are in a better position to withstand risks, being thus able to use higher-control entry modes (Hennart & Park, 1993). Therefore, larger firms are more likely to create WOSs than smaller firms, which face greater financial constraints (Bell, 1996). Also, large firms often benefit from economies of scale and scope and have more resources to carry out more aggressive expansion strategies than smaller-sized firms. Thus, larger companies can accelerate the entry

into new markets by acquiring local firms (Hennart, 1982). Following the same logic, large firms have greater financial and organizational capabilities to absorb the high costs and risks involved with the establishment of production facilities in the host country. Thus,

H1o: *The larger the size of the firm, the more likely the firm is to use a WOS rather than a JV.*

H1e: *The larger the size of the firm, the more likely the firm is to make an acquisition rather than a greenfield investment.*

H1a: *The larger the size of the firm, the more likely that the main activity is production rather than distribution.*

International Experience – When firms cross national borders for the first time, they face substantial uncertainty, as a result of their lack of knowledge of the new environment. For example, they are not familiar with norms and values, customer preferences and negotiation practices in the host country. These weaknesses can be overcome by the formation of a JV with a local partner in order to have access to the partner's market knowledge (Bell, 1996). When acquiring local firms, MNEs often face problems of management and integration since the acquired companies have already their own organizational culture (Larimo, 2003). If the MNE has more international experience, it can develop specific procedures for screening companies, gain better insight about the appropriate levels of integration, and become more skilled to solve administrative problems. Therefore, more international experience would favor acquisitions (Brouthers & Dikova, 2010). As firms accumulate international experience, they also become more able to effectively manage large investments abroad, such as manufacturing facilities. Thus,

H2o: *The larger the international experience of the firm, the more likely the firm is to use a WOS rather than a JV.*

H2e: *The larger the international experience of the firm, the more likely the firm is to make an acquisition rather than a greenfield investment.*

H2a: *The larger the international experience of the firm, the more likely that the main activity is production rather than distribution.*

When firms expand internationally, they face higher risks of appropriation and dissemination of their tacit know-how, since this type of knowledge is difficult to protect with patents or copyright (Dunning, 1981, 1988). Therefore, to protect their know-how and to avoid opportunistic behavior from a local partner, multinational firms tend to transfer their knowledge internally, using WOSs (Hill, Hwang & Kim, 1990). The transfer of know-how across national boundaries is a difficult process due to differences in social and economic development between countries. A foreign company is at a disadvantage not only because of the difficulties in transferring tacit knowledge to a foreign subsidiary, but also because it lacks understanding of the specificities of the local environment (Elango, 2005). An acquisition may help to establish MNEs' operations faster and avoid risks associated to the transfer of know-how (Hennart & Park, 1993), thus permitting the firm to achieve earlier a higher level of productivity. Kleinert & Toubal (2010) posit that firms are able to fully transfer their productivity to a foreign country when they manufacture abroad. The more productive firms (those that sell more and therefore generate more profits) allocate their fixed costs over a larger number of units than less productive firms. They are therefore more likely to engage in production in international markets. Thus,

H3o: *The larger the productivity of the firm, the more likely the firm is to use a WOS rather than a JV.*

H3e: *The larger the productivity of the firm, the more likely the firm is to make an acquisition rather than a greenfield investment.*

H3a: *The larger the productivity of the firm, the more likely that the main activity is production rather than distribution.*

In fast growing markets, MNEs may use local partners to achieve better competitive positions faster (Kogut & Singh, 1988). Therefore, strategic JVs offer better prospects than WOSs in these markets (Bell, 1996). Similarly, it is expected that MNEs seek to acquire market share and achieve fast growth in rapidly expanding markets (Porter, 1980). Hence, to establish a solid competitive position in a short period of time may require an acquisition rather than a greenfield investment. Moreover, the acquisition of a local firm may potentially reduce competition in the new environment (Hennart & Park, 1993). Since fast-growing markets provide better conditions to support the expansion of productive capacity, minimizing, therefore, the threat of retaliation from established competitors (Porter, 1980), the establishment of local manufacturing units is more attractive to the new entrant. Thus, we advance the following hypotheses:

H4o: *The faster the growth rate of the foreign market, the more likely the firm is to use a JV rather than a WOS.*

H4e: *The faster the growth rate of the foreign market, the more likely the firm is to make an acquisition rather than a greenfield investment.*

H4a: *The faster the growth rate of the foreign market, the more likely that the main activity is production rather than distribution.*

A high level of economic development has a positive impact on education and purchasing power, as well as on the resources and capabilities of local firms (Bell, 1996). Therefore, the establishment of JVs with local partners in countries with a higher level of economic development is attractive to MNEs, since it can give them access to valuable resources, such as skilled labor and tacit know-how (Benito, 1996). Furthermore, the level of economic development of a country generally reflects the number and quality of companies

operating in the market. Hence, there should be greater availability of local companies with potential for acquisition (Larimo, 2003). In addition, other characteristics of a country with a high level of economic development, such as availability of superior technology and high-quality human resources, easy access to capital markets and high levels of purchasing power, also favor the establishment of local manufacturing so that the MNE can better serve the local market. Thus,

H5o: *The higher the level of economic development of the host country, the more likely the firm is to use a JV rather than a WOS.*

H5e: *The higher the level of economic development of the host country, the more likely the firm is to make an acquisition rather than a greenfield investment.*

H5a: *The higher the level of economic development of the host country, the more likely that the main activity is production rather than distribution.*

When the political, legal, and economic environment of a country is uncertain and unpredictable, MNEs should not commit too many resources to the country, in order to avoid losing strategic flexibility (Kim & Hwang, 1992). Buckley & Casson (1976) consider discrimination against foreign companies the main risk to MNEs, due to government protection to local producers, threat of expropriation, and other discriminative practices. A way to minimize these risks is to establish a JV with a local partner, since the threat of xenophobic reactions will tend to be lower when a local partner is involved (Brouthers, 2002). By the same token, when risk is high, the amount of resources allocated in the host country should be as low as possible; therefore, greenfield investments are more attractive than acquisitions. The probability of acquiring undesired resources can increase usage costs and risk, since the target company typically will have resources beyond those that are complementary to the acquiree's (Demirbag, Tatoglu & Glaister, 2008). Following the same

logic, MNEs tend to avoid the establishment of manufacturing plants in countries perceived as having a higher risk by investing in distribution facilities. Thus,

H6o: *The higher the risk of the host country, the more likely the firm is to use a JV rather than a WOS.*

H6e: *The higher the risk of the host country, the more likely the firm is to make a greenfield investment rather than an acquisition.*

H6a: *The higher the risk of the host country, the more likely the main activity is distribution rather than production.*

Cultural distance between countries can bring many difficulties for companies that deal with decisions on the entry mode into a foreign market. The literature suggests that the greater the cultural distance, the greater the uncertainty. To establish a JV with a local partner permits to faster acquire familiarity with the host country's culture (Kogut & Singh, 1988). Also, the greater the cultural distance between countries, the greater tend to be the differences in organizational and managerial practices (Larimo, 2003). Thus, it is difficult for MNEs to integrate acquisitions from culturally-distant countries into their network, since the practices of MNEs and the acquired companies may be inconsistent, and MNEs' routines may be difficult to transfer (Gomez-Mejia & Palich, 1997). On the other hand, it is much simpler to integrate greenfield investments; this mode allows MNEs to establish their organizational routines since inception, without confronting existing ones, and to select employees that fit their national and organizational culture (Hennart & Park, 1993). When it is difficult for the MNE to become familiar with the norms and values of host countries with large cultural distance, operations tend to be restricted to distribution, at least in the initial phase, until the company acquires sufficient knowledge about the local culture. Thus,

H7o: *The greater the cultural distance between the home and the host country, the more likely the firm is to use a JV rather than a WOS.*

H7e: *The greater the cultural distance between the home and the host country, the more likely the firm is to make a greenfield investment rather than an acquisition.*

H7a: *The greater the cultural distance between the home and the host country, the more likely the main activity is distribution rather than production.*

Institutional distance captures the differences between two countries' institutional environments (Kostova, 1999). When faced with greater institutional distance, the MNE is forced to make strategic choices between internal and external legitimacy. Xu, Pan & Beamish (2004) argue that it is more important for the foreign company to gain external legitimacy in order to survive in the institutional environment of the host country. One way to ensure local adaptation (and thus gain external legitimacy) is to have a local firm involved in the business, or to establish a JV. According to Estrin, Baghdasaryan & Meyer (2009), if local businesses are designed to align with formal institutions that are very different from those at the home country, then the organizational resources that these companies can offer are of less value to foreign investors because of the higher costs necessary to restructuring and adapting. Therefore, new entrants tend to avoid acquisitions in favor of greenfield investments, which create a new organization similar to the MNE (Kogut & Singh, 1988). As the MNE tends to face problems in adapting to the local regulatory environment, especially in those countries with large institutional distance in relation to their home country, the initial investments tend to be targeted to the distribution of products until the company acquires sufficient knowledge of the local regulatory system to decide to expand the scope of its operational activities in the host country. Thus,

H8o: *The greater the institutional distance between the home and the host country, the more likely the firm is to use a JV rather than a WOS.*

H8e: *The greater the institutional distance between the home and the host country, the more likely the firm is to make a greenfield investment rather than an acquisition.*

H8a: *The greater the cultural distance between the home and the host country, the more likely the main activity is distribution rather than production.*

Physical distance has been more often used by researchers when considering the choice between exports and FDI. However, once a firm chooses FDI, greater geographic distance can lead the company to opt for greater control, thus establishing a WOS. In the case of a JV, personal contacts between managers are much more difficult to achieve in physically-distant countries; also, opportunistic behavior of the partner is more likely to occur with increasing geographic distance (Harzing, 2003). Following the same logic, an acquisition requires more intense personal interaction than a greenfield investment, due to the need of integrating the acquired firm into the MNE's network, in the post-acquisition phase. As to the decision on the type of activity, the cost of transportation has an impact on the choice between distribution and production. Empirical research conducted by Dow & Karunaratna (2006) shows that physical distance is still the most influential "inhibitor of commerce". Hence, it is expected that high transportation costs encourage the establishment of production facilities in countries with great geographic distance from the headquarters of the MNE. Thus,

H9o: *The greater the physical distance between the home and the host country, the more likely the firm is to use a WOS rather than a JV.*

H9e: *The greater the physical distance between the home and the host country, the more likely the firm is to make a greenfield investment rather than an acquisition.*

H9a: *The greater the physical distance between the home and the host country, the more likely the main activity is production rather than distribution.*

Empirical studies in the literature on the relationship between entry mode and performance have shown conflicting results, both in relation to the ownership mode and the establishment mode (we did not find empirical studies relating the type of activity to performance), regardless of the type of measure used (objective or subjective). For example,

Luo & Chen (1995) used 14 different variables to test the relationship between the choice of an ownership mode (WOS or JV) by Chinese MNE and performance. The results showed that WOSs performed better on four variables (e.g., export growth and operating profit margin) and JVs on one variable (debt ratio), while the others were not significant. Even when the comparison uses a single variable, the studies show divergent results. For example, when performance is analyzed in terms of company survival, Delios & Beamish (2004) and Gaur & Lu (2007) found better performance in WOSs, Mata & Portugal (2000) in JVs, while Benito (1997), Makino & Beamish (1998) and Pennings, Barkema & Douma (1994) find no significant difference.

Contradictory results were also found in the comparison between acquisitions and greenfield investments using company performance as the dependent variable. Pennings, Barkema & Douma (1994) find better performance in acquisitions; Benito (1997), Li (1995), Li & Guisinger (1991) and Mata & Portugal (2000) in greenfield investments; and Shaver (1998) and Vermeulen & Barkema (2001) find no significant differences.

Chen and Hu (2002) suggest that an appropriate procedure to test a model of the entry mode decision is to analyze whether entry modes are properly selected according to the theory, and then compare the performance between the subsidiaries whose entry modes were correctly identified by the model and those that were incorrectly identified. Thus,

H10: *Subsidiaries whose entry modes are aligned to the model have, on average, perform better on average than the subsidiaries whose entryt modes are not aligned to the model.*

METHODOLOGY

The target population of the study consisted of the international subsidiaries of Brazilian manufacturers. The unit of analysis was a subsidiary with production or distribution activities;

subsidiaries that had only administrative, sales or financial roles were not included in the research population.

The first step consisted of compiling a list of the population of Brazilian multinationals, since there are no official lists available. This step led to the identification of 224 Brazilian manufacturing firms with investments abroad, and a total of 738 subsidiaries in 55 countries. The second step consisted of mapping the entry modes adopted by each firm at the time they established their subsidiaries in foreign countries, as well as financial information on each firm. Finally, a third step consisted in the collection of the specific data needed for hypotheses testing. Although secondary sources were the primary sources of information for this study, they were complemented by primary data from personal contact with individuals in the companies. At the end of the data collection process, a final sample of 133 firms with 280 subsidiaries in 39 countries was available. Therefore, the sample includes 60% of the firms and 38% of the subsidiaries of the original population, with investments in 71% of the host countries initially identified. The final sample had firms from all segments of the industry, which suggests that it might well represent the population.

We used binary logistic regression, given the discrete nature of our dependent variables. To evaluate the impact of the independent variables on performance we used OLS multiple regression. However, multiple regression can only correctly estimate the impact on performance if the strategy is randomly selected, or if all the factors that influence both the strategy and firm performance are included in the model. If this is not the case, the estimates obtained from regression will be inconsistent and biased (Tan, 2009). Since MNEs do not randomly select their entry modes, but take into consideration their idiosyncratic characteristics and market conditions, their strategic choices are endogenous and self-selected (Brouthers, Brouthers & Werner, 2008). Thus, we included a correction for self-selection in the regression equation using Heckman's (1979) method.

RESULTS

The results of the binary logistic regression (Table 2) show that the three groups of variables – firm, market, and transnational distance – received at least partial empirical support. Of the nine hypotheses related to the ownership mode, four were supported (H1o, H5o, H8o, H9o). In relation to the establishment mode, five of the nine hypotheses received empirical support (H1e, H3e, H5e, H6e, H9e). Finally, five of the nine hypotheses related to the type of activity also received empirical support (H1a, H3a, H4a, H6a, H8a).

TABLE 2 HERE

The results show that the variables selected for the study were capable of explaining the choice of entry modes of Brazilian MNEs. Exceptions were the international experience of the firm and the cultural distance between the home and the host country, which, unlike previous studies, were not significant in any of the tests.

Interestingly, the three dependent variables – ownership mode, establishment mode and type of activity – are positively and significantly related to size as hypothesized. Size is a proxy for larger resources and the most important ownership advantage; this study's results confirm the importance of size in the choice of entry modes by Brazilian MNEs.

The other variables did not show significant results for the three dependent variables, but only to one or two, depending on the variable. For example, firm productivity and host country risk were significantly associated to the establishment mode and to the type of activity, but not to the ownership mode; host country level of economic development and physical distance were significantly associated to ownership mode and establishment mode, but not to type of activity; and institutional distance was associated to ownership mode and type of activity, but not to establishment mode. These results suggest that different variables may explain different entry mode decisions.

Hypothesis H10 posits the existence of a relationship between the alignment (fit) of the entry mode and the performance of the subsidiary, according to our conceptual model. The hypothesis was tested by examining the statistical significance of the coefficients of the independent and control variables of the model estimated by multiple regression analysis (Table 3).

TABLE 3 HERE

The variable "alignment (fit)" showed a significant coefficient (6.847, $p < 0.05$), which provides empirical support for the hypothesized relationship between alignment of the entry mode and performance of the subsidiary. Regarding the direction of the relationship, the positive coefficient indicates that subsidiaries whose entry modes are aligned to the model perform better, on average, than those whose entry modes are not aligned to the model. Therefore, hypothesis H10 did get empirical support.

Additional hierarchical analyzes were performed for the three types of entry mode decisions (ownership mode, mode establishment and type of activity). These analyzes intended to demonstrate that the full models, using firm variables, market variables and transnational distance together, had better predictive power than models that used these same factors separately. In all the tests, the full models were significantly superior to the others.

DISCUSSION

This study's results allow some comparisons between entry strategies adopted by Brazilian multinationals and their counterparts in other emerging economies and in developed countries.

Regarding the ownership mode, Brazilian MNEs show a strong preference to maintain full control of their subsidiaries. This result, however, is contrary to the findings of Dunning, Kim & Park's (2008) study, which concluded that EMNEs tend to choose more collaborative and network-related entry modes (e.g. strategic alliances). The preference for a higher level of

control of international operations by Brazilian firms had already been observed in other studies. Rocha (2003), for example, states that due to cultural factors, Brazilian company owners seek to maintain control of their businesses, with a strong preference for WOSs; therefore, they tend to avoid joint ventures and strategic alliances. It is possible, however, that this preference characterizes the initial steps of Brazilian multinationals, since most firms are still newcomers in the international market.

Brazilian MNEs seem to prefer greenfield investments to acquisitions. The preference for greenfield investments was also identified in a study by the Brazilian National Development Bank (BNDES, 1995), with 30 Brazilian industrial conglomerates. This result, however, is opposed to the study of Luo & Tung (2007) who found that EMNEs tend to use acquisitions as a way to compensate for their late entry in international markets. Differences between studies are probably the result of a country bias, since MNEs from Asian countries have been the main source of empirical results on the behavior of EMNEs in their internationalization processes.

In relation to the type of activity of foreign subsidiaries, Brazilian MNEs seem to show no preference for production or distribution facilities. It was not possible to make comparisons with the patterns adopted by MNEs from other countries, whether originating from developed or emerging economies, due to the almost complete absence of research addressing this specific issue. A multiple-case study by Barretto and Rocha (2001) also showed that the ten Brazilian firms investigated did not show a specific pattern in terms of subsidiaries' type of activity, which is in line with the results of this research.

As to the variables impacting entry mode decisions, the results obtained suggest, to some extent, that different variables should be used when examining separately different entry mode decisions (ownership mode, establishment mode and the type of activity of the subsidiary). Regarding the ownership mode, it was found that the use of wholly-owned

subsidiaries (instead of joint ventures) by Brazilian multinationals is conducive to better subsidiary performance, (i) the larger the size of the parent company; (ii) the higher the level of economic development of the host country; (iii) the lower the institutional distance between home and host country; (iv) the smaller the physical distance between home and host country. As to the establishment mode, the results suggest that acquisitions are associated to better subsidiary performance (i) the larger the size of the parent company; (ii) the lower the productivity of the parent company; (iii) the higher the level of economic development of the host country; (iv) the higher the risk of the host country; and (v) the smaller the physical distance between the home and the host country. Finally, in relation to the type of activity, the establishment of production (rather than distribution) facilities in the host country is more conducive to better subsidiary performance (i) the larger the size of the parent company; (ii) the lower the productivity of the parent company; (iii) the greater the market growth rate; (iv) the higher the risk of the host country; and (v) the lower the institutional distance between countries.

The results of empirical tests also shed light on the relationship between the choice of entry mode and the performance of the subsidiaries of Brazilian MNEs. The performance of the subsidiaries did not show a significant relationship with the ownership mode adopted (JV or WOS). In contrast, the subsidiary performance had a positive and significant relationship with the establishment mode. This finding indicates that the subsidiaries established by means of acquisition performed better than those who started from greenfield investments. However, a significant relationship between establishment mode and subsidiary performance was not found in several previous studies. It is possible that these results may be explained by the difficulties faced by Brazilian MNEs to successfully replicate their capabilities abroad due to their limited international experience. Therefore, this result could be time-specific and change as Brazilian MNEs move forward in their international trajectory. Future studies will be

needed to better understand this issue. The results also show that subsidiary performance is not significantly associated to the type of activity in the host country (production or distribution).

Finally, the most important result of this study concerns the existence of a positive and significant relationship between subsidiary performance and alignment of entry modes to the conceptual model. Therefore, the results support the importance of aligning the entry mode decision (ownership mode + establishment mode + type of activity) to the model to achieve better subsidiary performance. Accordingly, the subsidiaries whose entry modes are aligned to the model tend to have, on average, better performance. Although it is not possible to extend this result to other EMNEs, given the different economic, political and cultural differences between their home countries, it can be said that the relationship occurs at least for the Brazilian manufacturing multinationals in the period studied.

CONCLUSIONS

Considering this study's results, we conclude that the choices of entry modes of Brazilian MNEs more closely resemble the patterns of MNEs from developed countries (Dunning, Kim & Park, 2008), then those of other EMNEs as reported in the recent literature on these firms. The reasons for the different patterns of Brazilian MNEs entry mode strategies and the strategies of other EMNEs, especially those from Asia, may be associated to political, economic and cultural characteristics of their home countries. Some authors (e.g., Cantwell & Barnard, 2008; Tolentino, 2000) suggest that firms from resource-rich countries tend to differ from those originating from countries poor in natural resources. It is possible that this feature has specific weight in the Brazilian case, considering that Brazil stands out for its natural resources, unlike countries such as South Korea, Taiwan and, to some extent, China itself. In addition, these countries not only have different cultures and civilizations, but in some cases

different political systems, compared to Brazil. Therefore, it should be no surprise that multinationals from different emerging economies present dissimilar international trajectories.

This study presents several contributions to the entry modes literature. Firstly, the inclusion of the type of activity as part of the entry mode decision, in addition to ownership mode and establishment mode adds to the extant literature. Secondly, the fact that different variables impact different elements of the entry mode decision suggests that further studies are necessary to identify and confirm which variables are associated to each element of the decision. There is a logic reason for that. If the entry modes decision is hierarchical, consisting of two or three independent decisions taken subsequently, it makes sense that some variables will impact more one type than another type of decision; if decisions were taken simultaneously, it would be difficult to separate the specific factors affecting each decision. Thirdly, we present a conceptual model which incorporates new variables such as productivity and physical distance, that were not used in prior studies on entry mode, but that have been used in the IB literature to study other issue. Fourth, the research locus is Brazil, a country that, to our knowledge, has not yet been studied in the entry modes literature. Finally, the study contributes to the limited literature on the impacts of entry modes on performance. The study has limitations, including the lack of an exhaustive list of the population, and those associated to the use of secondary data.

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Figure 1 – Conceptual Model

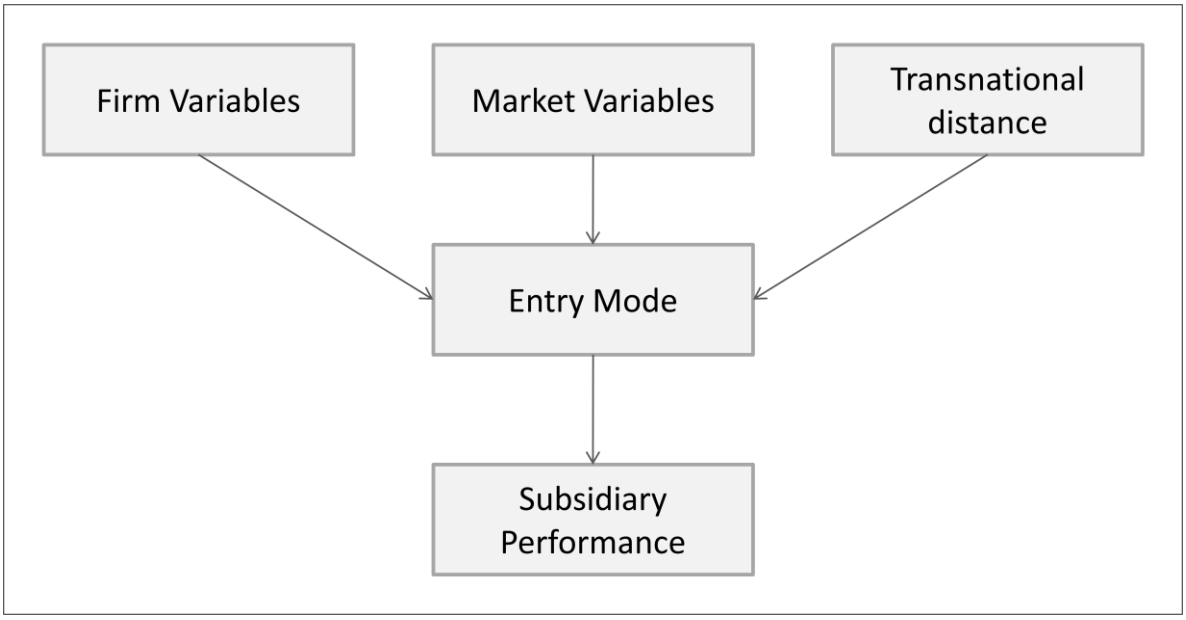

Table 1 – Research Variables and Operationalization

Analysis	Variable Type	Variable	Operationalization
Entry mode choice	Dependent	Ownership mode	WOS=1; JV=0
		Establishment mode	Acquisition=1; Greenfield=0
		Type of activity	Production=1; Distribution=0
	Independent	Firm size	Natural logarithm of the average value of total assets in the domestic market in 2008 and 2009
		Firm international experience	Number of years of FDI experience prior to entry
		Firm productivity	Average value of sales per employee (in the domestic market) in 2008 and 2009
		Market growth rate	Average growth rate of host country GDP within 3 years prior to entry
		Host country level of economic development	Host country GDP per capita in the year prior to entry
		Host country risk	high, moderate and low risk (the last one omitted), according to OECD classification
		Cultural distance	Kogut & Singh (1988) index based on Hofstede (1980) indicators
		Institutional distance	Index based on World Bank governance indicators
		Physical distance	Great circle distance between the capitals of Brazil and the host country
Performance	Dependent	Profitability	Return on assets (net profits after taxes divided by total assets)
	Independent	Entry mode fit	Aligned=1; Not aligned=0
	Control	Industry type	High technology=1; Low technology=0
		Subsidiary relative size	Relation between the average value of subsidiary assets and headquarters assets in 2008 and 2009
		Subsidiary age	Number of years between subsidiary opening (or acquisition) and 2008
		Firm international experience	Number of years of FDI experience until 2008
		Ownership mode, establishment mode, type of activity, cultural distance, firm size, and firm productivity	See entry mode choice variables above

Table 2 – Logistic Regression Results

Variables	Average	Ownership		Establishment		Activity	
		b	(Error)	b	(Error)	b	(Error)
Ownership level	0.761	-		-		-	
Establishment mode	0.386	-		-		-	
Activity type	0.496	-		-		-	
Firm size	20.397	0.413**	(0.194)	1.305***	(0.204)	0.473***	(0.163)
Firm international experience	7.825	0.140	(0.188)	-0.081	(0.153)	0.155	(0.153)
Firm productivity	0.408	0.302	(0.254)	-0.260*	(0.156)	-0.435***	(0.160)
Market growth rate	3.964	0.170	(0.160)	0.098	(0.152)	0.513***	(0.161)
Host country level of economic development	13.170	1.041**	(0.438)	0.589*	(0.353)	0.133	(0.334)
Host country moderate risk	0.296	-1.032	(0.828)	1.791**	(0.755)	1.619**	(0.695)
Host country high risk	0.361	-1.216	(0.912)	1.108	(0.843)	1.041	(0.796)
Cultural distance	1.006	0.134	(0.329)	-0.274	(0.339)	0.395	(0.325)
Institutional distance	0.786	-0.482*	(0.287)	0.187	(0.283)	-0.655**	(0.269)
Physical distance	5.551	-0.474**	(0.200)	-0.416**	(0.208)	-0.107	(0.213)
Constant	-	2.267***	(0.591)	-1.525***	(0.534)	-0.887*	(0.501)
Nagelkerke R^2		0.251		0.334		0.326	
Hit Ratio (%)		80.7		77.1		72.5	

Notes: N=280; * p < 0.10; ** p < 0.05; *** p < 0.01; two-tailed tests; Ownership: WOS=1 and JV=0; Establishment: Acquisition=1 and Greenfield=0; Activity: Production=1 and Distribution=0.

Table 3 – Multiple Regression Results

Variables	Average	b	(Error)
Return on assets	-5.424	-	
Entry mode fit	0.489	6.847**	(3.045)
Ownership level	0.761	-2.822	(10.672)
Establishment mode	0.386	23.989*	(13.674)
Activity type	0.496	-8.127	(8.307)
Firm size	20.397	0.574	(1.712)
Firm international experience	15.361	0.150	(0.168)
Firm productivity	0.408	-6.359**	(2.852)
Cultural distance	1.006	-4.287**	(2.040)
Industry type	0.446	-4.486	(3.011)
Subsidiary relative size	8.319	0.286***	(0.108)
Subsidiary age	7.536	0.054	(0.237)
Constant	-	-19.668	(30.474)
Ownership level correction	-	-0.044	(6.511)
Establishment mode correction	-	-14.188*	(8.292)
Activity type correction	-	4.066	(5.274)
F		3.310***	
R^2		0.149	
Adjusted R^2		0.104	

Notes: N=280; * p < 0.10; ** p < 0.05; *** p < 0.01; two-tailed tests.