

FUNDAÇÃO GETULIO VARGAS
ESCOLA DE ECONOMIA DE SÃO PAULO

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**THE DRIVERS FOR ENTRY AND EXPANSION MODES OF U.S.-BASED
MNES IN BRAZIL**

São Paulo

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Dissertação apresentada à Escola de Economia de São Paulo da Fundação Getúlio Vargas, como requisito para orientação ao título de Mestre em Finanças e Economia. Campo de conhecimento: Internacionalização de empresas.

Orientador: Hsia Hua Sheng

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This study is dedicated to my wife
Carol and my daughter Gabriela for their
support, patience and unfailing love.

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SUMMARY

The drivers for entry and expansion modes of multinational enterprises (MNEs) have been studied by several authors over the last decades but empirical results have been historically mixed. More recently, Hennart (2009) argued that the reason for the inconsistent results to date resided in the fact that prior theories assumed that local markets could be freely accessed based on a unilateral decision by the MNEs, and then proposes an alternative framework in which the entry and expansion modes of MNEs in foreign countries are a solution based on the relative efficiency of both markets. In this study, the proposed framework is tested against the prior theories based on investments made by U.S.-based MNEs in Brazil from 2005 to 2010. The results suggest that the local market characteristics, more specifically the concentration ratio at the firm and asset levels, are indeed important to influence the entry and expansion mode of U.S.-based MNEs in Brazil, reinforcing the argument against MNEs-centric theories. However, differently from Hennart's proposition, we were not able to confirm the hypotheses that the MNEs skills are relevant to influence the final solution. We have also tested whether the difference in growth rate between the two countries could be a driver for MNEs to favor acquisition over greenfield given the opportunity cost of postponing the investments. The test result, based on our sample, was not able to confirm this hypothesis.

Keywords: Internationalization, MNEs, Entry Mode, Expansion Mode, Acquisition, Greenfield, Wholly-Owned Subsidiary, Joint Venture.

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1 INTRODUCTION

Over the last decades, several authors have tried to identify the drivers for multinational enterprises (MNEs) entry and expansion modes in foreign markets. Anderson and Gatignon's (1986) and Johanson and Vahlne (1977) described the entry mode as a unilateral decision from the MNE based on a trade-off between the need for control and risk tolerance, the latter being a function of its degree of familiarity with the host country. Dunning (1980) added the local country perspective by defining the OLI paradigm in which the MNE would seek to combine its firm's specific advantages (FSA) with the country's specific advantages (CSA) to pursue its global strategy, but kept the assumption that the complementary local assets could be freely accessed by MNEs.

More recently, Hennart (2009) challenged what he called "MNE-centric theories" and proposed a model in which the entry and expansion modes are a result of an optimal assignment of equity between local firms and MNEs, taking in consideration the relative efficiency of the markets. The addition of the transactional characteristic of complementary local assets is, according to Hennart (2009), critical to influence whether and how foreign markets will be accessed by MNEs, and no consideration of this aspect in prior studies is one of the main reasons for the inconsistent empirical results to date.

Discussion of MNEs entry and expansion modes is of great relevance for Brazil, especially considering that the country has been among the top five foreign direct investment (FDI) destinations over the last years and does present market characteristics of an emerging country, which may impact entry and expansion modes of MNEs.

In order to verify the validity of the proposed theories for Brazil, several hypotheses will be tested based on the investments of U.S. multinationals from 2005 to 2010. This study will add important contributions to the discussion on MNEs' internationalization by proposing variables to test Hennart's theoretical bundling model and by incorporating an opportunity cost variable, not considered by Hennart (2009), which could represent an important driver for MNEs to favor acquisitions when entering emerging markets.

2 LITERATURE

2.1 LITERATURE REVIEW

The literature around the companies' internationalization process has been historically MNE-centric, with most theories treating the entry and expansion modes in a host country as a unilateral decision from the MNE. Anderson and Gatingnon (1986) transaction cost framework defined entry mode as a function of the MNE trade-off between control and cost of resources commitment, the MNE decision to increase its exposure in a host market being dependent only on its willingness to run additional risks. With regards to expansion mode, Anderson and Gatingnon stated that the MNE would increase its level of ownership in foreign markets as it gained international experience, which is in line with the conclusion found in Johanson and Vahlne (1977). Barkema and Vermeulen (1998) argued that highly diversified MNEs would prefer greenfield over acquisitions, while Brouthers and Brouthers (2000) discussed the MNE's institutional and cultural characteristics as determinants of the choice of entry mode. Therefore, despite their contributions, these theories had limited considerations on the host market characteristics.

The host country perspective is first discussed, as part of the internationalization theory, by Dunning (1980, 1988), who stated that firms will serve foreign markets in different forms (export, FDI and licensing) taking in consideration three categories of advantages, namely ownership, location and internationalization, and will access the host market in the form that best leverages those competitive advantages. However, the OLI theory does not explicitly consider the transactional characteristics of the CSA and assumes that they can be freely accessed and negotiated.

Hennart (2009) questioned in his article the dominant MNE-centric theories and argued instead that the initial mode of foreign market entry and the subsequent modes of expansion are dependent on the relative efficiency of the different markets in which MNE and complementary local assets are negotiated. He then proposes a model represented by a 2x2 matrix (figure 1) in which the MNE entry solution will depend on a comparison between the costs that the MNE will have to access the local assets required to incorporate their knowledge versus the costs incurred by local players to access that specific knowledge.

As per the model proposed, “If the market sale of the knowledge held by the MNE is subject to high transaction costs, but the MNE can acquire complementary local assets on efficient markets, then the MNE can potentially inflict higher costs on local owners of complementary assets than those owners can inflict on the MNE” (Hennart, 2009), and enter the foreign market through a WOS, as indicated in cell 3 of figure 1. On the other hand, “if the market for knowledge is efficient, and therefore, knowledge sellers can be expected to deliver as promised, but the owners of complementary local assets cannot, then the best solution is to have those owners hold the equity” (HENNART, 2009), as indicated in cell 2 of figure 1. Cell 4 in figure 1 corresponds to the case where the knowledge held by the MNE and the services of complementary local assets owned by the local firm are costly to access and the solution is a joint exposure to the equity.

Figure 1 - Optimal mode of foreign market entry

3		4 Knowledge assets held by MNE	
		Easy to transact	Difficult to transact
Complementary assets held by local owners	Easy to transact	1. Indeterminate	3. MNE is the sole residual claimant = wholly-owned affiliate of the MNE
	Difficult to Transact	2. Local firms are the sole residual claimant = wholly-owned operations of local firm	4. Joint Venture between MNE and Local Firm

Source: Hennart, J. F, 2009, p. 1436.

Following the entry mode discussion, Hennart discusses whether the entry would be established by bundling disembodied inputs obtained in markets for assets, as for example through a greenfield, or by buying the firms that control these necessary inputs. He demonstrates that the choice between greenfields and acquisitions depends on how efficient the markets for assets are in relation to those for firms. As per Hennart (2009) “acquisitions will be the most efficient solution when assets are embedded in firms in a way that they cannot be acquired separately from the entire firm, but market for firms is efficient.”

Hennart also discusses the path pursued by MNEs already established in a country when they seek to expand locally. According to Hennart, it may be that over time the efficiency of the

market for MNE knowledge improves faster than for local complementary assets, and knowledge changes from difficult to transact to easy to transact while complementary assets remain difficult to transact. In this case, the MNE will move from JVs (cell 4) to contractual relationships with local owners (cell 2) rather than to WOS (cell 3), as predicted by prior theories.

Therefore, differently from prior theories regarding foreign entry and expansion modes, Hennart considers that the relative efficiency between the MNE and the local complementary assets is the key driver to define MNEs' internationalization mode.

2.2 VARIABLES TO TEST HENNART BUNDLING MODEL AND THE SPEED OF ENTRY DISCUSSION

In his article, Hennart describes the bundling model but does not test the variables proposed to test its relevance and applicability and suggests further work to be done on that front. Therefore, in order to test the bundling model, variables need to be defined so as to reflect the "difficulty to transact" in the local market.

For this purpose, we propose in this study consideration of the concentration ratio at the firm and asset levels to reflect the local market accessibility levels, given that highly concentrated businesses are more likely to have stronger players, with dominant position among consumers, distributors and the Government, thus imposing greater barriers for MNEs to enter the local market, as discussed by Salamon and Siegfried (1977), Porter (1980, 1985) and Timothy P. Carney (2006). This is for example the case of the Brazilian oil industry, a highly concentrated sector dominated by Petrobras and with a series of restrictions for MNEs to access the local distribution network.

In his article, Hennart simplifies the analysis by not considering the influence on the entry mode, given the fact that building a subsidiary from scratch takes more time than buying an on-going business concern (BIGGADIKE, 1979; CAVES, 1982). Despite the benefit of simplifying the analysis, the non-consideration of the different speed of entry afforded by

greenfields and acquisitions may result in a solution that does not reflect the actual path pursued by MNEs, especially in high growth host markets (ANDERSSON; SVENSSON, 1994). This is the case, for example, of the acquisition of AES Atimus by Telecom Italia in Brazil in 2010. Telecom Italia's main proposition with the transaction was to acquire AES Atimus infrastructure network, which could have been built by Telecom Italia at a much lower cost. However, being able to quickly deploy its products and reach the market before other competitors such as GVT offered a substantial value for Telecom Italia, which more than offset the substantial premium paid to acquire AES Atimus.

3 SAMPLE DESCRIPTION

The analysis will be based on the direct investments from U.S. companies in Brazil from 2005 to 2010. The reason to limit the home country to the U.S. is to avoid home bias resulting from differences in the level of economic development and potential differences in cultural approach to foreign investments, as suggested by Hennart (2007). Selection of the U.S. results from the fact that the country has been a long and important investor in Brazil and it is likely to be the ideal candidate to test the internationalization path for MNEs in the country.

Test data will be based on the SDC database from Thomson Reuters for acquisitions and joint venture transactions. For this period, SDC lists 451 acquisitions in which Brazilian companies are the target and U.S. entities are the acquirer ultimate parent nation. For the same period, 42 JVs between Brazilian and U.S. entities are listed in SDC database. For greenfield investments, we have used the Brazilian National Network of Investment Information (RENAI), an agency responsible for tracking all greenfield investments announced in Brazil. RENA is supported by the Ministry of Development, Industry and Foreign Trade and is networked with the State Department of Industry and Trade as well as the Entrepreneurs Trade Association. Based on RENA database from 2005-2010, we have identified 322 greenfield projects announced by U.S. companies in Brazil.

Of the total 815 observations, we have excluded non-listed U.S. companies, given the lack of parent data, as well as greenfield investments that were exclusively directed for regular maintenance of plants and have not reflected an investment in expanding the business. We

have also excluded financial investors, such as private equity firms, as they have a different business proposal than the usual industry investors'. As a result, the sample size reduced from 815 to 305 observations, as presented in table 1.

Table 1 - Sample description for investments of U.S.-based MNEs in Brazil from 2005 to 2010, excluding financial investors and plant maintenance

1.1 Subsidiaries' Product Categories

SIC	Industries	Sample	%
311	Food Manufacturing	37	12.13
312	Beverage and Tobacco Product Manufacturing	23	7.54
313	Textile Mills	1	0.33
314	Textile Product Mills	1	0.33
315	Apparel Manufacturing	6	1.97
321	Wood Product Manufacturing	1	0.33
322	Paper Manufacturing	8	2.62
323	Printing and Related Support Activities	4	1.31
324	Petroleum and Coal Product Manufacturing	10	3.28
325	Chemical Manufacturing	43	14.10
326	Plastics and Rubber Products Manufacturing	13	4.26
327	Nonmetallic Mineral Product Manufacturing	4	1.31
331	Primary Metal Manufacturing	5	1.64
332	Fabricated Metal Product Manufacturing	13	4.26
333	Machinery Manufacturing	25	8.20
334	Computer and Electronic Product Manufacturing	48	15.74
335	Electrical Equip., Appliance, and Component Manufacturing	10	3.28
336	Transportation Equipment Manufacturing	31	10.16
339	Miscellaneous Manufacturing	22	7.21
Total		305	100.00

Source: Thomson Reuters, RENAI.

4 METHODOLOGY

In order to test the internationalization theories vis-à-vis Hennart's contributions, the following hypothesis were tested:

- Hypothesis 1: R&D-intensive MNEs will choose WOS.
- Hypothesis 2: R&D-intensive MNEs will choose JV if complementary local assets trade in inefficient markets.

Gatingnon and Anderson (1988) indicated that highly-skilled MNEs will prefer WOS as they can exploit their superior capabilities by themselves. Hennart argues that this may not be the case if complementary assets are sold in inefficient market as this would require the MNE to enter into a JV instead of a WOS. In order to compare both contributions, hypothesis 1 and 2 will be tested.

R&D intensiveness will be measured by the amount of R&D spending divided by the net revenues of the parent company (R&D) in the year preceding the entry. Market efficiency for complementary local assets will be measured by the difficulty to access local firms and assets in the year of entry, and will be represented by two concentration variables. The first one is the concentration ratio of the target industry, measured by IBGE through the C4 index (CONC), which represents the market share of the four largest firms in that specific sector. In this case, the greater the C4, the more concentrated the local industry and the greater the barrier to entry for MNEs, as previously described.

The second concentration variable refers to the availability of assets in disembodied forms in the local market at the time of entry and will be measured by the number of available suppliers (SUPPLY). Therefore, for the purpose of the test, if three or more suppliers for that specific asset can be found in the local market at the time of entry, the asset will be considered available in disembodied form and will be assumed to be efficient.

Additionally, in order to test interaction between R&D and local complementary asset as proposed by H2, R&D intensiveness will be interacted with concentration ratio (R&DCONC), asset supply (R&DSUPPLY) and both (R&DCONCSUPPLY). Another test variable will result from the interaction between concentration ratio and asset supply (CONCSUPPLY), which will not consider the MNE R&D level.

- Hypothesis 3: As firms gain more experience in a particular target country, they will increase commitment to the country.

- Hypothesis 4: As firms gain more experience in a particular target country, they will not increase commitment to the country if complementary local assets are sold in inefficient markets.

Johanson and Vahlne (1977), as well as Anderson and Gatignon (1986), state that as MNEs gain international experience, they are likely to increase the level of ownership in foreign markets. Hennart (2009) argues that this may not be the case if complementary local assets are not sold in efficient markets.

Experience in the country will be measured by the number of years that the MNEs have been operating in Brazil (YEARS) at the time of entry. Market efficiency for complementary local assets will be measured as for hypothesis 2. Additionally, in order to test the interaction between years of experience and local complementary asset as proposed by H4, the variable YEARS will be interacted with concentration ratio (YEARSCONC), asset supply (YEARSSUPPLY) and both (YEARSCONCSUPPLY).

- Hypothesis 5: R&D-intensive MNEs will prefer greenfield over acquisitions.
- Hypothesis 6: MNEs will prefer acquisitions over greenfield if assets cannot be acquired separately from the entire firm and market for firms is efficient.

Transaction cost theory indicates that R&D-intensive MNEs will prefer greenfield over acquisitions as they can more easily transfer their superior knowledge to the new plant. Hennart (2009) argues, however, that “acquisitions will be the most efficient solution to MNEs when assets are embedded in firms in a way that they cannot be acquired separately from the entire firm, but market for firms is efficient.” For the purpose of the hypothesis test, market efficiency for firm and assets will be measured as described in hypothesis 2.

- Hypothesis 7: Experienced MNEs will choose greenfield over acquisition.

- Hypothesis 8: Experienced MNEs will choose acquisitions over greenfield when assets cannot be acquired separately from the entire firm and market for firms is efficient.

Barkema and Vermeulen (1998) argued that MNEs' international and product diversity influences the mode of entry, with internationally-experienced MNEs tending to prefer greenfield over acquisitions without any consideration for the relative efficiency of the market. Similarly to hypothesis 6 test, Hennart argues that this may not be the outcome if assets are embedded in firms in a way that they cannot be acquired separately from the entire firm and market for firms is efficient, and to test this hypothesis, the same variable as discussed in hypothesis 2 will be used. International experience will be measured by the number of countries where the MNE has operations in the year preceding entry (EXP).

Additionally, in order to test the interaction between international experience and local complementary asset as proposed by H8, the variable EXP will be interacted with concentration ratio (EXPCONC), asset supply (EXPSUPPLY) and both (EXPCONCSUPPLY).

- Hypothesis 9: MNEs will prefer acquisition over greenfield if opportunity cost of postponing the investment is significant

For the purpose of the hypothesis 9 test, opportunity cost (DELTAGROWTH) will be measured by the difference in growth rate between Brazil and the U.S. in the year of entry, for each specific industry. Therefore, the greater the perceived opportunity cost by postponing the investments, the more likely the MNE will choose acquisitions over greenfield.

The hypotheses will be tested through two binominal logistic regression models. The first model will test hypotheses 1 to 4 in order to identify the variables that influence the level of ownership of U.S.-based MNEs when investing in the Brazilian market. For this test, the dependent variable will take a value of one for WOS and a value of zero for JV. The second model will test hypothesis 5 to 9 in order to verify the drivers for acquisition versus greenfield decision, and the dependent variable will take a value of one for acquisition and a value of

zero for greenfield. The database to test the first model excludes two observations relative to minority investments, and therefore the total sample size reduces from 305 to 303 for that specific test.

5 RESULTS

5.1 RESULTS FOR HYPOTHESES 1 TO 4

The results of the binomial logistic regression for WOS versus JV are presented in table 2. A positive coefficient means that an increase in the independent variable tends to increase the probability that WOS will be chosen, and a negative coefficient means the opposite.

Equation 1 in table 2 reports the results including all the independent variables listed before. The results of equation 1 are not significant at the variables level and therefore equations 2 and 3 were tested gradually excluding the interaction variables. Equation 3 presented in table 2 is the one with the best statistical outcome as all variables are significant and the overall model presents high overall explanatory power with a chi-square of 50.675 ($p < 0.001$). The signs of the variables are in line with the hypotheses predictions, except for R&D/ sales, which has a negative sign, differing from H1.

The model results do not support Hennart's consideration that R&D-intensive MNEs will choose JV if complementary local assets trade in inefficient market (H2). However, the model does indicate that, independently of the MNE's R&D level, the concentration ratio at the firm level (CONC) and at the asset level (SUPPLY) are important drivers to influence the mode of entry. In other words, the results demonstrate that in the case of U.S.-based MNEs investing in Brazil from 2005 to 2010, complementary local assets play a more relevant role in the entry mode decision than the knowledge skills of the MNEs. With regards to years of experience (YEARS) in Brazil as a driver to influence willingness to increase local exposure (H3), equation 4 confirmed the predictions from prior theories (Johanson & Vahlne, Anderson & Gatingnon), but Hennart's consideration as per H4 was not confirmed.

Therefore, the model results indicate that concentration ratio at the firm and asset levels and years of experience in a country influenced the mode of entry of U.S.-based MNEs in Brazil from 2005 to 2010. As per the model, each increment of 1% in the firm-level concentration ratio (C4) reduces the chances of entry through WOS by 4%. With regards to supply, if assets are available in disembodied form in the local market, the chances for the U.S.-based MNE to enter the Brazilian market through WOS is 3.1 times the chances of entry through WOS when assets are not available. Regarding years of operations in the country, each additional year of experience increases the chances of entry through WOS by 2% while for R&D the model indicates that each increment of 1% in R&D/ sales parent ratio reduces the chances of entry through WOS by 1%, a different signal from H1 proposition.

Table 2 - Results of the logistic regression for hypotheses 1 to 4: WOS vs. JV

(WOS = 1)

Variable name	Description	Coefficients (p value)		
		1	2	3
Intercept		3.609 (<0.001)	3.473 (<0.001)	2.771 (<0.001)
R&D	R&D/ sales parent	0.109 (0.780)	0.194 (0.350)	-0.014 (0.034)
SUPPLY	Three or more suppliers (No = 1)	-3.113 (0.014)	-2.418 (0.021)	-1.119 (0.014)
CONC	Concentration ratio top 4	-0.011 (0.716)	-0.026 (0.310)	-0.040 (<0.001)
YEARS	Number of years in the country	0.016 (0.496)	-0.007 (0.603)	0.022 (0.003)
R&D CONC	Interaction R&D and CONC	0.010 (0.565)	0.002 (0.606)	
R&D SUPPLY	Interaction R&D and SUPPLY	-0.182 (0.647)	-0.276 (0.159)	
R&D CONC SUPPLY	Interaction R&D, CONC and SUPPLY	-0.009 (0.619)		
CONC SUPPLY	Interaction CONC and SUPPLY	-0.055 (0.107)	-0.033 (0.212)	
YEARS SUPPLY	Interaction YEARS and SUPPLY	-0.014 (0.629)	-0.019 (0.195)	
YEARS CONC	Interaction YEARS and CONC	-0.001 (0.539)	0.000 (0.288)	
YEARS CONC SUPPLY	Interaction YEARS, CONC and SUPPLY	0.001 (0.232)		
Model chi-square		71.745	69.945	50.675
p value		<0.001	<0.001	<0.001
n		303	303	303

Source: Own elaboration.

5.2 RESULTS FOR HYPOTHESES 5 TO 9

The results of the binomial logistic regression for Acquisition versus Greenfield investments are presented in table 3. A positive coefficient means that an increase in the independent variables tends to increase the probability that acquisition will be chosen, and a negative coefficient means the opposite.

Equation 1 in table 3 reports the results including all the independent variables listed before. The results of equation 1 are not significant at the variables level and therefore equations 2 to 4 were tested gradually excluding the interaction variables and the variables with no statistical significance. Equation 4 presented in table 3 is the one with the best statistical outcome as all variables are significant and the overall model presents high overall explanatory power with a chi-square of 40.660 ($p < 0.001$).

The model results do not support the transaction cost theories that R&D-intensive MNEs will prefer greenfield over acquisitions (H5) as the R&D variable is not significant. The results indicate, however, that concentration ratio at the firm (CONC) and asset (SUPPLY) levels influenced the mode of entry of U.S.-based MNEs in Brazil from 2005 to 2010. As per the model, each increment of 1% in the firm-level concentration ratio (C4) reduces the chances of entry through acquisition by 3%. With regards to supply, if assets are available in the local market, the chance for the U.S.-based MNE to enter the Brazilian market through acquisition is 6.5 times the chances of entry through acquisition when assets are not available. Even though this seems a bit contradictory, as MNE would likely favor greenfield if the market for asset is efficient, in reality it is quite possible that even under this scenario MNEs could still favor acquisitions in order to accelerate their growth strategy, as previously seen in the AES Atimus/ TIM transaction.

The results were not able to support H7 and H8, which state that the international experience (EXP) of the MNEs, represented by the number of countries where they operate, would be a driver to influence the establishment mode. Similarly, and different from our initial prediction

(H9), the opportunity cost (DELTAGROWTH) of greenfield investments was not find to be significant to influence the establishment mode of U.S.-based MNEs in Brazil from 2005 to 2010.

Table 3 - Results of the logistic regression for hypotheses 5 to 9: Acquisition vs. Greenfield

(Acquisition = 1)

Variable name	Description	Coefficients (p value)			
		1	2	3	4
Intercept		0.199 (0.608)	0.136 (0.722)	2.107 (<0.001)	1.971 (<0.001)
R&D	R&D/ sales parent	0.093 (0.784)	0.038 (0.804)	0.001 (0.913)	
SUPPLY	Three or more suppliers (No = 1)	-0.242 (0.892)	1.385 (0.171)	1.822 (<0.001)	-1.871 (<0.001)
EXP	Number of countries with operations	0.053 (0.243)	-0.001 (0.966)	-0.003 (0.190)	
DELTAGROWTH	Difference in growth Brazil vs. U.S.	-0.001 (0.923)	-0.001 (0.929)	-0.002 (0.857)	
CONC	Concentration ratio four largest	0.032 (0.495)	-0.012 (0.609)	-0.035 (<0.001)	-0.035 (<0.001)
R&D CONC	Interaction R&D and CONC	0.008 (0.601)	0.001 (0.798)		
R&D SUPPLY	Interaction R&D and SUPPLY	-0.112 (0.747)	-0.052 (0.707)		
R&D CONC SUPPLY	Interaction R&D, CONC and SUPPLY	-0.007 (0.643)			
CONC SUPPLY	Interaction CONC and SUPPLY	-0.062 (0.208)	-0.015 (0.549)		
EXP SUPPLY	Interaction EXP and SUPPLY	-0.051 (0.260)	0.003 (0.772)		
EXP CONC	Interaction EXP and CONC	-0.003 (0.191)	0.000 (0.295)		
EXP CONC SUPPLY	Interaction EXP, CONC and SUPPLY	0.002 (0.236)			
Model chi-square		47.118	45.347	42.513	40.660
p value		<0.001	<0.001	<0.001	<0.001
n		305	305	305	305

Source: Own elaboration.

6 CONCLUSION

This study offers an empirical analysis of the factors that influenced the entry and expansion mode of U.S.-based MNEs in Brazil from 2005 to 2010. It compares the validity of internationalization theories vis-à-vis Hennart's (2009) recent contribution, which states that local market characteristics are considered equally important in defining the MNE's internationalization strategy. In our study, we proposed two variables to reflect the difficulty to access the local market, namely concentration ratio of the target industry and asset supply availability, and used those variables to test Hennart's bundling model. The results suggested that local market characteristics were indeed important to influence the entry and expansion mode of U.S.-based MNEs in Brazil from 2005 to 2010, reinforcing Hennart's argument against the MNEs-centric theories. However, differently from Hennart's proposition, we were not able to confirm the hypotheses that the MNEs skills or international experience are relevant to influence the final solution.

We have also added and tested the opportunity cost variable (Biggadike, 1979; Caves 1982) as a potential driver for U.S.-based MNEs to favor acquisition over greenfield when entering Brazil, but the empirical results were not able to support our hypothesis.

Our conclusion regarding the greater importance of local market characteristics in defining the entry and expansion mode of U.S.-based MNEs in Brazil creates significant opportunities for future studies, whether by testing other local variables such as regulation and financing, or by including MNEs from other countries, as this study was limited to U.S.-based MNEs. Also, variables other than R&D could be assumed to reflect the MNE's knowledge skills.

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