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ACQUISITIONS VERSUS GREENFIELD INVESTMENTS: INTERNATIONAL STRATEGY AND MANAGEMENT OF ENTRY MODES

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This paper adds an important explanatory variable to the well-established list of factors shown to influence the choice between foreign acquisitions and greenfield investments: the international strategy followed by the multinational company (MNC) in question. The MNC's international strategy is subsequently linked to the management of the two different entry modes by showing that differences in strategy are reflected in different headquarters—subsidiary relationships for acquisitions and greenfields. Some aspects of this relationship are also shown to change over time, a process that is mediated by the MNC's strategy.

INTRODUCTION

The choice of entry mode into foreign markets has received a lot of attention from international business researchers in recent decades. An expansion into foreign markets requires a decision on two related but distinct issues. First, a company has to choose between non-equity entry modes such as exporting through agents and licensing, and equity-based entry modes, in which the local enterprise is either partially or wholly owned. Many studies have investigated factors that might influence the choice for different entry modes, often focusing on three alternatives: licensing, joint ventures and wholly owned subsidiaries and usually underpinned by either transaction cost theory or the Ownership—Location—Internationalization framework (see, e.g., Caves, 1982; Anderson and Gatignon, 1986; Kogut and Singh, 1988; Gomez-Casseres, 1989; Hill, Hwang and Kim, 1990; Agarwal and Ramaswami, 1992; Kim and Hwang, 1992; Erramilli and Rao, 1993; Kwon and Konopa, 1993; Bell, 1996; Benito, 1996; Erramilli, 1996; Arora and Fosfuri, 2000; Makino and Neupert, 2000; Pan and Tse, 2000).

Second, if an equity mode of entry into a foreign market is chosen, the issue of whether to acquire an existing local firm (acquisition) or to set up a completely new plant (greenfield investment) has to be decided. A substantial number of studies have investigated factors that might influence this choice (see, e.g., Wilson, 1980; Forsgren, 1984; Caves and Mehra, 1986; Kogut and Singh, 1988; Andersson, Arvidsson and Svensson, 1992; Hennart and Park, 1993; Anderson and Svensson, 1994; Cho and Padmanabhan, 1995; Padmanabhan and Cho, 1995; Hennart, Larimo, and Chen, 1995; Larimo, 1996, 1998; Barkema and Vermeulen, 1998; Brouthers and Brouthers, 2000) and usually based their studies on a transaction cost framework or derived a list of factors from the literature. As a result of these efforts, there is substantial agreement on the factors that have an impact on the choice between greenfields and acquisitions. This study, however, will introduce a key explanatory variable that has

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not been studied before in the context of the choice between greenfields and acquisitions: the MNC's international corporate strategy. A recent study (Davis, Desai, and Francis, 2000) found that business unit strategy was not a significant determinant of entry mode choice, but recommended studying corporate-level strategies such as global integration. In our study, international corporate strategy is defined as the way in which the organization positions itself with regard to the global business environment and creates and sustains competitive advantage across national boundaries. The first aim of this paper will be to explore how international corporate strategy influences the entry mode choice of the MNC, focusing on the distinction between global and multidomestic strategies.

As discussed above, a substantial number of studies have been published on both types of entry mode decisions. Recently a number of studies (Gannon, 1993; Sarkar and Cavusgil, 1996; Andersen, 1997, Harland and Wheeler, 2000) have reviewed the progress in the field and the theoretical and conceptual frameworks that are used to explain the entry mode decision. Somewhat surprisingly, however, none of the earlier studies or the review studies has posed the question: what happens *after* the choice of entry mode has been made. Are greenfields and acquisitions managed in the same way or do headquarters—subsidiary relationships differ between the two entry modes? And does the way in these two distinct entry modes are managed remain similar or does it change over time? To our best knowledge there is not a single previous study that has investigated these questions. The fact that most previous entry mode studies have used secondary data has made this type of analysis very difficult. Our study combines secondary and primary data on greenfields and acquisitions and can provide both sides of the picture, using MNC strategy as the link between the *choice* for a particular entry mode and the subsequent *management* of the acquisition or greenfield. The second aim of this paper will be to analyze whether greenfields and acquisitions are managed in different ways; i.e., whether the two types of entry modes are characterized by different headquarters—subsidiary relationships.

The remainder of this paper is structured as follows. In the following section, we will introduce a new variable—international strategy—that might have an impact on the choice between acquisition and greenfield entry mode. The introduction of the strategy variable will then be followed by a set of hypotheses about the impact of strategic choices on the subsequent management of acquisitions versus greenfields. We will also discuss how we might expect the management of these two different entry modes to change over time, taking the international strategy of the MNC into account. A subsequent section describes our research methodology, more fully explaining our data collection, measures, and statistical methods. We then report our results, offer a discussion of their interpretation, and finish the paper with a conclusion.

LITERATURE REVIEW AND HYPOTHESES

International strategy and the choice between greenfields and acquisitions

Previous studies have identified and tested a substantial list of variables that might have an impact on the choice between greenfields and acquisitions. In Appendix 1 we have summarized the results for six of the most commonly distinguished variables: R&D intensity, the degree of diversification, the level of foreign experience, cultural distance, the size of the foreign direct investment in comparison to the size of the investing company, and the time of entry. These six variables will be included as control variables in our study. A variable that has received very little attention in previous entry mode studies, but one that might have a big impact on a firm's choice of entry mode is the firm's international strategy. Typologies of international strategy have received a lot of attention in the international management literature (for an overview see Harzing, 2000). Nearly all studies distinguish two different types of international strategies: "global" and "multidomestic/multinational", while many include a third hybrid strategy often called "transnational" and some include an "international" strategy. In this article we choose to focus on global and multidomestic strategies only, because these two strategies are the most commonly accepted and clearly defined. Global strategies are characterized by a high level of globalization of competition with national product markets being interconnected and a focus on capturing economies of scope and scale. The dominant strategic requirement is efficiency, and as a result these companies integrate and rationalize their production to produce standardized products in a very cost-efficient manner. Subsidiaries typically fulfill a role as "pipeline" for headquarters and they are not supposed to respond actively to local market demands. Multidomestic companies experience a lower level of global competition and compete predominantly on a domestic level, while adapting products and policies to various local markets. The company can be characterized as a decentralized network. Subsidiaries are relatively autonomous and are allowed to be very responsive to the local market (Bartlett and Ghoshal, 1992; Harzing, 2000).

The impact of the MNC's international strategy on the choice between greenfields and acquisitions can be argued from two theoretical perspectives: the different firm-specific advantages associated with the two strategies and the different levels of internal (parent) versus external isomorphism that are portrayed by subsidiaries in companies following the two strategies.

Global and multidomestic strategies are associated with different types of firm-specific advantages. Rugman and Verbeke (1992) link the ownership—location—internalization theory of international production to different types of international strategy. Their analysis takes as a starting point that foreign direct investment has been chosen as the most efficient mode of entry, hence internationalization advantages are assumed to be present. They distinguish two types of ownership advantages, which they call firm-specific advantages (FSAs). The first are location-bound FSAs whose benefits depend on their being used in one particular location (or a set of locations). They cannot easily be transferred and cannot be used in other locations without significant adaptation. Nonlocation-bound FSAs do not depend on their being used in one specific location. They can be used on a global scale, because transferring them to other locations can be done at low cost and without substantial adaptation. With regard to location advantages they distinguish two sources: home and host country. Linking these two concepts to the two international strategies we have distinguished, global companies tend to focus on the exploitation of non-location bound home-based FSAs, such as for instance a proprietary technology. They do exploit location advantages in host countries, but this is usually limited to the exploitation of low cost locations which allows global companies to pursue their strategy based on cost efficiency (Bartlett and Ghoshal, 1989). Building up a low-cost production site is easier when the site can be set up from scratch, so that it can incorporate the latest production technologies and can be built to match the company's exact production requirements rather than having to accept existing—possibly too large or inefficient—operations in an acquired subsidiary. The core capabilities of multidomestic companies lie in the exploitation of location bound FSAs using host country specific advantages. These companies have to deal with markets that require tailoring products and policies to local circumstances. In order to be able to do so companies need to be well aware of local circumstances and well-integrated into the local market. This will be easier to achieve by acquiring an existing company with a knowledgeable work-force and good connections in the local market, than by setting up a new subsidiary from scratch.

Recently, several studies have recommended taking an institutional perspective to look at entry modes (Rosenzweig and Singh, 1991; Haveman, 1993; Davis *et al*., 2000). Institutional theorists focus on the impact of external institutions on organizations to try to provide an explanation for the high degree of homogeneity in organizational forms, behaviors and practices for different firms (DiMaggio and Powell, 1983). The process of homogenization is coined isomorphism and the external institutions can include the state, professions, interest groups, but also other organizations within the firm's industry. In an international setting this means that subsidiaries are confronted with an external environment that could include parent and host government, local interest groups and other organizations which may be subsidiaries of other MNCs. However, subsidiaries of MNCs are also subject to institutional pressures from within the organization to become isomorphic to the parent organization's norms (Kostova and Zaheer, 1999). Recent publications have therefore suggested that subsidiaries of MNCs have to conform to both internal (the parent organization) and external (the host country institutional environment) sources of isomorphism (Rosenzweig and Singh, 1991; Kostava and Zaheer, 1999; Davis *et al*., 2000). Although all larger companies with different business units will experience this tension between internal and external isomorphism, it is particularly important for

MNCs. Porter (1986) and Bartlett (1986) have developed these ideas in the international business strategy literature as the tension between forces for global integration and national responsiveness (Rosenzweig and Singh, 1991). The resultant integration/responsiveness framework (Prahalad and Doz, 1987) has become one of the cornerstones of the international business strategy literature. Using this framework, companies following global strategies strive for a high level of integration and a low level of local responsiveness, while the reverse is true for multidomestic strategies. In terms of isomorphism, global strategies will focus on internal isomorphism, while multidomestic strategies will focus on external isomorphism. Linking this with the choice of entry mode, we argue that particular modes of entry facilitate either internal or external isomorphism. Establishing foreign subsidiaries as a mirror image of headquarters or at least making sure that key structures, policies and procedures are similar is much easier to realize for greenfields than it is for acquisitions. With the former, headquarters can mold structures and policies to their specific preferences, while the latter come with established structures and policies that might be much more difficult to change. Alignment with host country conditions (external isomorphism) is much easier for acquisitions than it is for greenfields, since the former are local firms with an established local network. Other things being equal, companies following a global strategy would, therefore, prefer greenfields, while companies following multidomestic strategies would prefer acquisitions.

In sum, both the FSA perspective and the isomorphism perspective would lead us to expect companies following a global strategy to prefer greenfields over acquisitions, while companies following a multidomestic strategy would prefer acquisitions over greenfields. Hence, in terms of the actual distribution of entry modes in our empirical study we can put forward the following hypothesis:

> *Hypothesis 1: Relative to companies following a multidomestic strategy, companies following a global strategy will have a higher proportion of greenfield subsidiaries, while companies following a multidomestic strategy will have a higher proportion of acquisitions relative to companies following a global strategy.*

Headquarters—subsidiary relationships in greenfields and acquisitions

We have argued above that the international strategy of the MNC will have an impact on the choice of entry mode. Subsequently, we would also expect this choice to have an influence on the way subsidiaries are managed after they have been set up/acquired. We would hence expect headquarters—subsidiary relationships to differ between greenfields and acquisitions. The headquarters—subsidiary relationship can be seen as a classic control problem, whose attributes are similar to principal—agent relationships (Nohria and Ghoshal, 1994). Headquarters, the principal, cannot make all decisions because it does not possess all the necessary knowledge or resources, but it cannot leave all decisions to subsidiaries because the interests of subsidiaries might be different from that of headquarters or the MNC as a whole. Therefore, the key aspect of the headquarters—subsidiary relationship is the way in which headquarters ensures that subsidiaries are working towards common organizational goals. The different types of control mechanisms are the tool that headquarters has to achieve this alignment. Hence, the level of control exercised by headquarters by means of the different types of control mechanisms is the first element of the headquarters—subsidiary relationship that we will investigate. As we will see below, there is a range of control mechanisms available that goes beyond the level of autonomy granted to subsidiaries. The second element that we will look at is the level of expatriate presence in subsidiaries. Expatriates can perform many roles in the headquarters—subsidiary relationship, among them control and knowledge transfer. The final element that we will study is the level of local responsiveness—in terms of local production, local R&D and adaptation of products and marketing to local conditions—that headquarters allows to the subsidiary. We will now discuss how we would expect these three elements of the headquarters—subsidiary relationship to differ between greenfields and acquisitions.

With regard to the FSA perspective, we argued that companies following a global strategy prefer greenfield subsidiaries to exploit their non-location bound home-based FSAs. Transfer of these FSAs is difficult when subsidiaries are allowed to operate independently, so we would expect headquarters to exercise a rather high level of control over these greenfield subsidiaries. A high level of expatriate presence might complement this high level of control, while expatriates can also serve as the embodiment of the FSAs to be transferred. Therefore, a relatively high level of expatriate presence is to be expected in greenfields. Since the main role of these greenfields is to serve as a "pipeline" for HQ-based FSAs, it is unlikely that headquarters would grant them a lot of opportunity to be locally responsive. Companies following a multidomestic strategy were predicted to prefer acquisitions to exploit location-bound FSAs using host country specific advantages. In order to be able to do so, these acquisitions will need a certain level of independence, so they are unlikely to be strongly controlled by headquarters. Continued employment of local managers rather than their replacement with expatriates will be preferred in order to tap into local knowledge, so the level of expatriate presence is likely to be low in acquisitions. Finally, since FSAs are host country-based, it is likely that headquarters will expect these acquisitions to continue any local production/R&D that existed before the take-over and/or will allow them to adapt products/marketing to local circumstances.

With respect to the isomorphic perspective, we argued that companies following a global strategy would choose greenfields to facilitate internal isomorphism. Exercising a high level of control, either through the control mechanisms we identified or through sending out expatriates, can facilitate this internal isomorphism. So the isomorphic perspective joins the FSA perspective in predicting a relatively high level of control and a relatively high level of expatriates for greenfield subsidiaries. An attempt to realize internal isomorphism will not be helped by allowing subsidiaries a high level of local responsiveness, so just like the FSA perspective, the isomorphic perspective predicts a relatively low level of local responsiveness for greenfield. Companies following a multidomestic strategy were argued to prefer acquisitions that would facilitate achieving the external isomorphism that is important for this strategy. Alignment with host country conditions is more difficult, however, if the acquisition is strongly controlled or is not allowed to be locally responsive. It is easier if the management of the acquisition is left to local managers rather than to expatriates. In concordance with the FSA perspective, we expect a relatively low level of control and expatriate presence in acquisitions and a relatively high level of local responsiveness. Hence:

Hypothesis 2: Headquarters' control over their greenfield subsidiaries will be higher than their control over acquisition subsidiaries.

Hypothesis 3: Headquarters will assign more expatriates to top positions in their greenfield subsidiaries than in their acquisition subsidiaries.

Hypothesis 4: Headquarters will permit their acquisition subsidiaries a higher level of local responsiveness than their greenfield subsidiaries.

Development of the headquarters—subsidiary relationship over time

As we have argued above, companies following a multidomestic strategy will prefer acquisitions, while companies following a global strategy will prefer greenfields. However, companies might be "forced" to accept a non-preferred entry mode, i.e., a greenfield for multidomestic companies and an acquisition for global companies. A reason for a company following a multidomestic strategy to decide to set up a greenfield could be that no suitable take-over candidates are available in the country in question. A reason for a company following a global strategy to acquire an existing company might for instance be a (temporary) lack of managerial resources or government regulations in particular countries preventing new entries.

However, if companies are forced to enter a market via a non-preferred entry mode, we would expect that over time they would try to change the headquarters—subsidiary relationship of this subsidiary to make it resemble the headquarters—subsidiary relationship of subsidiaries with their preferred entry mode. In this way, headquarters might be able to overcome part of the disadvantage of entering a market through a non-preferred entry mode. For example, if a company following a global strategy was forced to acquire an existing company in a particular country rather than set up a greenfield, it might try to increase its level of control over this subsidiary over time and limit its local responsiveness by cutting back the level of local production. Hence:

Hypothesis 5: Over time the characteristics of the headquarters—subsidiary relationship in subsidiaries will converge towards the characteristics of the "preferred" entry mode.

Hypothesis 5a: In multidomestic companies the characteristics of the headquarters—subsidiary relationship of greenfields will come to resemble those of acquisitions.

Hypothesis 5b: In multidomestic companies the characteristics of the headquarters—subsidiary relationship of acquisitions will not change.

Hypothesis 5c: In global companies the characteristics of the headquarters—subsidiary relationship of greenfields will not change.

Hypothesis 5d: In global companies the characteristics of the headquarters—subsidiary relationship of acquisitions will come to resemble those of greenfields.

METHODOLOGY

Data collection

Data for this study were collected by means of an international mail survey between October 1995 and March 1996. This mail survey was conducted as part of a study that focused on control mechanisms in multinational companies. Questionnaires were mailed to CEOs and Human Resource Managers at the headquarters of 122 multinationals and to the managing directors of 1650 subsidiaries of these multinationals in 22 different countries. This article only uses the data collected at subsidiary level. The overall response rate at subsidiary level was 20%, varying from 7.1% in Hong Kong to 42.1% in Denmark. Table 1 summarizes the number of respondents by industry, country of headquarters and subsidiary country. The total number of 287 subsidiary responses represents 104 different headquarters (85% of our population) and the number of responses per headquarters varies from one to eleven.

Measures

To ascertain the entry mode—*acquisition vs. greenfield investment*—respondents were asked whether the subsidiary had been acquired by another owner after its foundation. Our overall sample included 97 acquisitions and 190 greenfields. Respondents were also asked to state the subsidiary's year of foundation and—where

Table 1. Number of respondents by industry, subsidiary country and HQ country

Industry	Number of respondents	Subsidiary country	Number of respondents
Electronics, electrical equipment	41	Argentina	4
Computers, office equipment	26	Austria	8
Motor vehicles and parts	30	Belgium	14
Petroleum (products)	20	Brazil	15
Food & beverages	34	Denmark	16
Pharmaceutical	46	Finland	8
Paper (products)	25	France	14
Chemical (products)	55	Germany	16
Various	10	Hong Kong	5
		Ireland	11
Country of location of headquarters	Number of respondents	Italy	21
		Japan	16
		Mexico	10
Finland	23	Netherlands	25
France	26	Norway	13
Germany	32	Singapore	10
Japan	38	Spain	14
Netherlands	16	Sweden	11
Sweden	41	Switzerland	14
Switzerland	31	UK	25
UK	25	USA	13
USA	55	Venezuela	4

applicable—acquisition by another owner. In order to test the hypotheses with regard to subsidiary development, we calculated the time for which subsidiaries had been under ownership of headquarters at the time of the study. For greenfields this was simply the year of data collection minus the year in which they were established. For acquisitions this equated to the year of data collection minus the year in which their current owner had acquired them.

Four statements were constructed that measured whether competition was predominantly global or local and whether the corporate strategy was focused on achieving economies of scale or on achieving local differentiation.[1] It was expected that global companies would be characterized by global competition and a strategy to achieve economies of scale (Bartlett and Ghoshal's cost efficiency), while multidomestic companies would predominantly compete on a domestic level and strive for national responsiveness. These questions were subjected to cluster analysis and a two-cluster solution resulted in clusters that could easily be identified as global and multidomestic (see Table 2). Subsidiary managers, however, might not be fully informed of the strategy applied by the MNC as a whole and their perception of this strategy might be influenced by their own characteristics. Therefore, for each headquarters we verified whether subsidiaries were classified in the same cluster. This turned out to be the case in general, with a very limited number of exceptions that involved for instance one out of five subsidiaries being in a different cluster. These divergent cases were recoded to the cluster that contained the majority of subsidiaries. In total, 101 subsidiaries were classified as multidomestic and 186 as global.

After a review of over 15 publications on control mechanisms—covering classic authors such as March and Simon (1958), Thompson (1967), Child (1973, 1984), Ouchi (1977, 1979, 1980), and Mintzberg (1979, 1983), as well as more recent authors such as Martinez and Jarillo (1989), Hennart (1991) and Merchant (1996)—four main categories of *control mechanisms* were identified: personal centralized control, bureaucratic formalized control, output control and control by socialization and networks, each being composed of 2–4 individual control mechanisms. To measure these different control mechanisms empirically, we adapted and supplemented the questions that were used by Martinez and Jarillo (1991). The items formed a reliable scale (Cronbach's alpha = 0.74) and were averaged to form a composite score for the level of control.

Three questions were used to assess the *presence of expatriates* in a given subsidiary. These questions asked respectively for the nationality of the managing director, the number of top five jobs held by expatriates, and the total number of expatriates working in the subsidiary. Since the number of expatriates might be influenced by the size of the subsidiary, we calculated the number of expatriates as a percentage of the total workforce of the subsidiary. Because the items had different scales they were standardized before they were averaged to form a composite score for the level of expatriate presence.

Local responsiveness was measured with four items asking for the percentage of local R&D and local production incorporated in products sold by the subsidiary and the percentage of products and marketing that was substantially modified for the local market. The items formed a reliable scale (Cronbach's alpha = 0.73) and were averaged to form a composite score for the level of local responsiveness.

Statistical methods

To explore the influence of the variables described above on the likelihood of an acquisition as foreign entry, we conducted a binomial logistic regression analysis. The entry mode is captured by a dummy

[1] The questions used for the strategy construct and the various aspects of the headquarters—subsidiary relationship can be found in Appendix 2.

Table 2. Cluster analysis of strategy variables (scale 1–5)

Cluster names	Global competition	Domestic competition	Differentiation	Economies of scale
Multidomestic	3.19	3.72	3.81	3.16
Global	4.08	2.27	3.30	3.81
t-value	−7.134, 0.000	14.807, 0.000	4.387, 0.000	−5.073, 0.000

variable that takes the value of one if the entry is made by acquisition and zero if the entry is made by greenfield. In the binomial logistic model the probability of an acquisition is explained by the variables R&D intensity, diversification, foreign experience, cultural distance between investing and target country, relative size of the investment timing of the investment and international strategy. The regression coefficients estimate the impact of the independent variable on the probability that the entry mode is an acquisition. A positive sign for the coefficient means that a variable increases the probability of an acquisition, a negative sign indicates the reverse. The model can be expressed as:

$$P(Y) = 1/(1 + e^{-Z}),$$

where Y is the dependent variable (the selection/occurrence of an acquisition in this case), Z is a linear combination of the independent variables

$$Z = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \cdots + \beta_n X_n,$$

where β_0 is the intercept, $\beta_1 \ldots \beta_n$ the regression coefficients and $X_1 \ldots X_n$ the independent variables.

The models were estimated with SPSS 10.0 using the maximum-likelihood method. The null hypothesis that all β's, except β_0 are zero can be tested with the model χ^2. When the model χ^2 is significant, this null hypothesis can be rejected. A test that a specific coefficient is zero can be based on the Wald statistic. Significance levels of separate coefficients based on the Wald statistic are indicated in the models in Table 4. The partial correlation of each predictor variable with the dependent variable is indicated by R. R can range in value, from -1 to $+1$. A positive value indicates that as the variable increases in value so does the likelihood of the event occurring. If R is negative, the opposite is true.

To investigate the hypothesized differences in the headquarters—subsidiary relationship of greenfields and acquisitions, Mann—Whitney tests were used. Non-parametric tests were used, because the distribution of many of the dependent variables included in the analysis was non-normal. Correlation analysis was used to investigate the hypotheses relating to subsidiary development.

RESULTS AND DISCUSSION

International strategy and the choice between greenfields and acquisitions

Table 3 shows the means, standard deviations, and correlation coefficients for all study variables. The results of the binomial logistic regression are presented in Table 4. Since some cases had missing values for one or more variables the total number of observations is 277. The model has a high explanatory power, with a high and highly significant χ^2. Another way to assess the performance of the maximum likelihood models is to measure the percentage of correct observations and compare it to the classification rate that would be obtained by chance (the baseline rate, which is equal to $a^2 + (1 - a)^2$, where a is the proportion of acquisitions [34.3%] in the sample). As Table 4 shows, our model predicts the likelihood of an acquisition better than a random model would, with a classification improvement of 45.24%, which is well above the minimum improvement of 25% as suggested by Hair *et al.* (1995). The specificity (its capacity to correctly predict greenfields) of the model is very good to excellent (86.26%), while its sensitivity (its capacity to correctly predict acquisitions) is good (67.37%). Pseudo R-square measures confirm that the model has a very good explanatory power.

Six of the variables in the model are significant: R&D intensity, level of foreign experience, cultural distance, relative size, year of investment, and strategy. Acquisitions are less likely for R&D intensive firms investing in culturally distant countries and more likely for firms with a high level of foreign experience that follow a multidomestic strategy, when the relative size of the investment is large and when the investment is recent. As can be verified in Appendix 1, four of these variables—R&D intensity, cultural distance, relative size and year of investment—have also received unambiguous support in previous studies, so we can have confidence in both the explanatory power of these variables and in the comparability of our sample to previous entry mode studies. Our results with regard to international strategy support our Hypothesis 1: acquisitions are more likely for multidomestic companies and greenfields are more likely for global companies. Below, we will look at the implications of this in terms of the headquarters—subsidiary relationship in greenfields and acquisitions.

Table 3. Means, standard deviations and correlations among all variables

Variables	Mean	S.D.	1	2	3	4	5	6	7	8	9	10
1. Acquisition vs. greenfield	0.34	0.47										
Control variables												
2. R&D Intensity	0.06	0.05	−0.21***									
3. Diversification	6.68	4.26	0.03	−0.31***								
4. Foreign experience	3.96	0.51	−0.17**	0.12	0.05							
5. Cultural distance	1.64	1.25	−0.10	0.01	−0.09	−0.03						
6. Relative size	−5.30	1.88	−0.06	0.11	0.04	0.15*	−0.04					
7. Year of investment	1970	21	0.53***	−0.13*	0.02	−0.45***	0.06	−0.30***				
Independent variable												
8. Strategy	0.35	0.48	0.26***	−0.32***	0.08	−0.24***	0.04	−0.10	0.26***			
Dependent variables												
9. Control	4.30	1.50	−0.11	0.13*	−0.04	0.05	−0.08	0.14*	−0.14*	−0.19**		
10. Expatriate presence	0.00	0.79	−0.20***	0.06	−0.01	−0.05	0.21***	0.13*	0.01	−0.14*	0.12*	
11. Local responsiveness	2.92	1.10	0.21***	−0.18**	0.01	0.01	−0.01	0.29***	0.11	0.21***	−0.09	−0.06

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.01$, † $p < 0.1$
Acquisition vs. greenfield (1 = acquisition, 0 = greenfield); strategy (1 = multidomestic, 0 = global)

Table 4. Logistic regression models

Variable	Coefficient (S.E)	Significance/ R-value		
Intercept	−243.633 (35.9787)	0.0000***	Model χ^2	114.990 0.0000***
R&D intensity	−10.9841 (4.4552)	0.0068** −0.1070	N	277
Diversification	−0.0281 (0.0429)	0.5127 0.0000	% correct	79.78%
Foreign experience	0.8432 (0.3276)	0.0050** 0.1139	Baseline rate	54.93%
			Improvement	45.24%
Cultural distance	−0.3457 (0.1325)	0.0045** −0.1162	Specificity	86.26%
			Sensitivity	67.37%
Relative size	0.2089 (0.0894)	0.0097** 0.0986	Cox & Snell R^2	0.340
			Nagelkerke R^2	0.470
Year of investment	0.1224 (0.0180)	0.0000*** 0.3514		
Strategy (multidomestic)	0.7466 (0.3392)	0.0138* 0.0894		

*** $p < 0.001$; ** $p < 0.01$, * $p < 0.05$, † $p < 0.1$, all one-tailed
Positive signs indicate a higher likelihood of acquisitions, negative signs a higher likelihood of greenfields.

Headquarters—subsidiary relationships in greenfields and acquisitions

The results of the Mann—Whitney tests are presented in Table 5. The direction of the difference is as predicted for all three variables and is (highly) significant in all three comparisons. The data lend support to Hypotheses 2 to 4. Acquisitions experience a lower level of control from headquarters. A separate analysis for all ten individual control mechanisms showed that this difference in overall levels of control was mainly due to a higher level of autonomy for acquisitions (Z-value = −2.342, $p = 0.01$, one-tailed) and a lower level of shared values (Z-value = −3.156, $p = 0.001$, one-tailed), standardization (Z = 1.864, $p = 0.031$, one-tailed) and informal communication (Z-value = −1.601, $p = 0.054$, one-tailed). Acquisitions also show a lower level of expatriate presence. This is caused by two factors. First, a higher percentage of acquisitions have no expatriates at all among their workforce. Second, for those acquisitions that *do* employ expatriates, the various measures show lower expatriate presence than for greenfields. Finally, acquisitions show a significantly higher level of local responsiveness than greenfields. It is remarkable that the smallest difference is found with regard to the most limited form of local responsiveness: adaptation of marketing.

Table 5. Differences in various characteristics of the headquarters—subsidiary relationship between greenfields and acquisitions

Variable	Z-score	Expected direction	Significance
Level of control	−1.801	Yes	0.0360*
Level of expatriate presence	−3.440	Yes	0.0005***
Level of local responsiveness	−3.447	Yes	0.0005***

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.1$, all one-tailed

Overall, the results found in this section support the hypotheses that we put forward. Greenfields are more strongly controlled by headquarters than acquisitions and have a higher level of expatriate presence. For the subset of subsidiaries that have expatriates among their workforce, functions of expatriation that imply a dependent role on headquarters are more important for greenfields than for acquisitions although the differences are only marginally significant.[2] Greenfields are more likely to be used in a "pipeline" role for headquarters. This is supported by the significantly higher level

[2] These functions are knowledge transfer (transfer of specific technological or managerial knowledge from headquarters to the subsidiary, Z = −1.251, $p = 0.105$, one-tailed), position filling (sending an expatriate because headquarters feels local personnel is not qualified, Z = −1.591, $p = 0.056$, one-tailed), and training for a position at headquarters (Z = −1.719, $p = 0.043$).

of purchases from headquarters by greenfields when compared to acquisitions ($Z = -3.543$, $p = 0.000$). Differences in local responsiveness again support this picture, with local responsiveness being significantly higher for acquisitions. The overall picture that emerges from our results is that of acquisitions as subsidiaries which have stronger external links with the local environment than internal links with headquarters, while the reverse is true for greenfields. We will now investigate whether these differences persist over time.

Development of the headquarters—subsidiary relationship over time

A correlation analysis between the time a subsidiary had been under headquarters ownership and the various aspects of the headquarters—subsidiary relationship discussed above showed several significant results. For greenfields there was a negative relationship between length of ownership and expatriate presence (-0.216, $p = 0.003$, 2-tailed). This is to be expected since expatriates are often used to set up operations, transfer knowledge and train local managers and expatriate presence would be expected to be much lower after this initial period. For acquisitions there was a positive relationship between the length of ownership and the level of control (0.209, $p = 0.042$, 2-tailed) and a negative relationship with the level of local responsiveness (-0.224, $p = 0.029$, 2-tailed). This would seem to indicate that acquisitions over time are becoming more integrated in the corporate network and more similar to greenfields.

However our hypotheses proposed that there might be a difference in the development of the headquarters—subsidiary relationship for multidomestic and global companies. More specifically, we proposed that over time the management of a subsidiary would converge to the management of the preferred entry mode option for that type of strategy. Hence in global companies the management of acquisitions would come to resemble the management of greenfields, while in multidomestic companies the management of greenfields would come to resemble the management of acquisitions. We did not expect any changes in the management of the subsidiaries that were established according to the preferred entry mode for both strategies.

Table 6 presents the results of this analysis. We see that, over time, the management of greenfields in multidomestic firms comes to resemble the management of acquisitions only in respect of expatriate presence, while the level of control and local responsiveness does not change. Hypothesis 5a is only partially supported. As expected the management of acquisitions in multidomestic companies does not change much. The only variable that shows a marginal change is the level of control. A further analysis, however, showed that this higher level of control was mainly due to a higher level of subsidiary managers going on corporate training programs (0.327, $p = 0.005$, 1-tailed) and a higher level of shared values (0.233, $p = 0.05$, 1-tailed). An increase of these informal type of control mechanisms can be seen as a rather indirect consequence of the integration of acquisitions in the MNC as a whole and is not likely to be the result of a conscious effort of headquarters to limit the acquisition's "autonomy". The more direct control mechanisms such as centralization, direct surveillance, procedures and standardization do not show any change. Hypothesis 5b is thus supported.

In global companies, no change is found for the management of greenfields in the level of control by headquarters or the level of local responsiveness. The level of expatriate presence, however,

Table 6. Development of internal subsidiary characteristics over time

		Multidomestic	Global
Greenfield	Level of control	NC	NC
	Level of expatriate presence	Negative (expected), $p = 0.077^{\dagger}$	Negative (reverse), $p = 0.004^{**}$
	Level of local responsiveness	NC	NC
Acquisition	Level of control	Positive (reverse), $p = 0.099^{\dagger}$	Positive (expected), $p = 0.084^{\dagger}$
	Level of expatriate presence	NC	NC
	Level of local responsiveness	NC	Negative (expected), $p = 0.019^{*}$

NC = no significant change,
*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.1$, all one-tailed.

is lower for subsidiaries that have been under ownership from headquarters longer. This is not what we predicted for greenfield subsidiaries in global companies, since we did not expect the headquarters—subsidiary relationship to change in this situation. However, as mentioned before a decline in expatriate presence over time is logical, especially in greenfield subsidiaries where expatriates are often used to set up subsidiaries. Overall, we find a high level of support for Hypothesis 5c. For acquisitions in global companies both the level of control by headquarters and the level of local responsiveness change in the expected direction; i.e., come to resemble the way greenfields are managed. There is no change in the level of expatriate presence. In contrast to acquisitions in multidomestic companies, however, the type of control that does change in acquisitions of global companies is not the more indirect informal type of control, but the direct formal type of control in the form of standardization (0.272, $p = 0.037$, 1-tailed) and procedures (0.377, $p = 0.013$, 1-tailed). An increase in these types of control mechanisms can clearly be seen as an attempt of headquarters of global companies to get their acquisitions more in line with the company as a whole. Hypothesis 5d is partially supported.

Overall, we find a high level of support for the "no change" hypotheses and a more limited level of support for the "change to the way of management of the preferred mode of entry" hypotheses. This could be partly due to small sample sizes (below 50) for the "less preferred mode of entry". However, the results do provide very interesting indications that MNCs might indeed try to change the management of their subsidiaries over time. There is of course one important limitation to our study in this respect. Although we have been able to show that the time the subsidiary has been under headquarters ownership is related to development of the headquarters—subsidiary relationship, our research design does not allow us to verify whether individual subsidiaries do experience this change. In order to do so, a longitudinal design would be necessary.

CONCLUSIONS

This paper showed that one variable that has not been considered in previous entry mode studies—the strategy followed by the MNCs in question—has a significant explanatory power in the choice of entry mode, with acquisitions being more likely for multidomestic companies and greenfields being more likely for global companies. A limitation of our study—which it shares with other entry mode studies—is that we have not been able to test whether our model has normative merits. There is a modest indication, however, that choosing the preferred entry mode for the type of strategy has a positive performance effect. Subsidiaries with the preferred entry modes had higher profits ($p = 0.059$, 1-tailed) in comparison to other subsidiaries than subsidiaries with the non-preferred entry mode. However, since performance was measured in a rather indirect way (a 1–5 scale in comparison to other subsidiaries [1 = much lower, 5 = much higher]) we cannot accept these results without further verification.

The analysis of the differences in the management of acquisitions and greenfields provided a very coherent pattern that was clearly linked to the different strategies. Compared to greenfields, acquisitions were allowed to operate more independently with lower levels of control exercised towards them. This was also reflected in the lower level of expatriate presence in acquisitions in general and the lower importance of functions of expatriation reflecting a dependence on headquarters for acquisitions that *did* have expatriates among their workforce. Consistent with this picture, acquisitions were displaying a higher level of local responsiveness in the form of local production and R&D and the modification of products and marketing for local markets. Although empirical support was more limited, there were some indications that over time the management of subsidiaries converged to the way subsidiaries with the "preferred" mode of entry for firms following a particular strategy were managed, so that in multidomestic companies the management of greenfields becomes more similar to that of acquisitions, while in global companies the management of acquisitions becomes more similar to that of greenfields.

Although our study was limited to the manufacturing sector only, it has been the first to provide data for entry modes on both sides of the picture. It looked at factors influencing the choice between two distinct entry modes and at the differences in the management of both entry modes, including the development over the headquarters—subsidiary relationship over time. It showed that a comparison of the differences in the characteristics of the headquarters—subsidiary relationship between greenfields and acquisitions offers a useful addition to the conventional entry mode studies and enhances our understanding of the daily operations of different types of subsidiaries. We strongly recommend future researchers in this field to look beyond the initial choice of entry mode to include a further exploration of the operational challenges of managing greenfields and acquisitions.

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APPENDIX 1

Factors influencing the choice between greenfields and acquisitions

Characteristic	Effect*	Support found by (only studies with statistically significant results are included)
R&D intensity	−	Andersson *et al*., 1992; Andersson and Svensson, 1994; Brouthers and Brouthers, 2000; Cho and Padmanabhan, 1995; Hennart and Park 1993; Hennart *et al*., 1995; Kogut and Singh, 1988; Larimo, 1996; Padmanabhan and Cho, 1995
Degree of product diversification	+	Andersson *et al*., 1992; Brouthers and Brouthers, 2000; Caves and Mehra, 1986; Larimo, 1996; Larimo, 1998; Wilson, 1980; Zejan, 1990
	−	Barkema and Vermeulen, 1998; Larimo, 1993
Foreign experience	+	Andersson *et al*., 1992; Andersson and Svensson, 1994; Caves and Mehra, 1986, Forsgren, 1984; Larimo, 1993
	−	Barkema and Vermeulen, 1998; Brouthers and Brouthers, 2000; Larimo 1996; Larimo, 1998; Wilson, 1980
Cultural distance	−	Barkema and Vermeulen, 1998; Hennart *et al*., 1995; Kogut and Singh, 1988; Larimo, 1996; Larimo, 1998; Padmanabhan and Cho, 1995
Relative size of investment	+	Brouthers and Brouthers, 2000; Caves and Mehra, 1986; Hennart and Park, 1993; Kogut and Singh, 1988; Padmanabhan and Cho, 1995
Time of investment	+	Andersson *et al*., 1992; Andersson and Svensson, 1994; Barkema and Vermeulen, 1998; Larimo, 1996; Larimo, 1998; Wilson, 1980; Zejan, 1990

*+Increases probability of acquisition.

In our study we used the following operationalizations of the six control variables:

- *R&D intensity*: MNC R&D expenses divided by its total level of sales.
- *Level of diversification*: the number of different 4-digit SIC codes in which the MNC operates.
- *Foreign experience*: the number of years that had passed since the company established its first foreign subsidiary. A logarithmic form of this variable was used, since we expected years to have a decreasing impact on the firm's overall foreign experience.
- *Cultural distance*: Kogut and Singh's (1988) composite index was used to summarize the difference between home and host country on each of Hofstede's dimensions.
- *Relative size* of investment: number of employees of the subsidiary in question divided by the number of employees at headquarters. Since the resulting variable was badly skewed, the natural logarithm of this variable was used as the final measurement of relative size.
- *Timing of investment*: year of foundation of the subsidiary and—if applicable—the year of acquisition.

APPENDIX 2

Construct: corporate strategy
(Likert scale 1–5, scale anchors: strongly disagree—strongly agree)

- *Our company's strategy is focused on achieving economies of scale by concentrating its important activities at a limited number of locations.*
- *Our company's competitive position is defined in world-wide terms. Different national product markets are closely linked and interconnected. Competition takes place on a global basis.*
- *Our company's competitive strategy is to let each subsidiary compete on a domestic level as national product markets are judged too different to make competition on a global level possible.*

- *Our company not only recognizes national differences in taste and values, but actually tries to respond to these national differences by consciously adapting products and policies to the local market.*

Construct: control mechanisms (Cronbach's alpha: 0.74)
(Likert scale 1–7)

Personal centralized control

- Autonomy (reversed scored): *In some multinational firms, (strategic) decision-making is largely centralized at headquarters, in other firms subsidiaries have a large amount of autonomy. In general, what is this subsidiary's autonomy to decide its own strategies and policies? (scale anchors: very little autonomy—very high autonomy)*
- Direct supervision: *In some multinational firms headquarters' managers strive for a close personal surveillance on the behaviour of their subsidiaries. Other firms do not use this kind of direct personal supervision. Please indicate the degree of personal surveillance that headquarters' managers execute towards this subsidiary. (scale anchors: very little surveillance—very high surveillance)*

Bureaucratic formalized control

- Standardization: *In some multinational firms, all subsidiaries are supposed to operate in more or less the same way. In other firms, such standardized policies are not required. In general, what is the degree of standardization that headquarters requires from this subsidiary? (scale anchors: very low standardization—very high standardization)*
- Formalization: *Some multinational firms have written rules and procedures for everything and employees are expected to follow these procedures accurately. Other firms do not have such strict rules and procedures, or if they have, there is some leniency towards following them. Please indicate the kind of rules and procedures that headquarters exerts towards this subsidiary. (scale anchors: very loose/no procedures—very strict procedures)*

Output control

- Output evaluation: *Some multinational firms exert a high degree of output control, by means of a continuous evaluation of the results of subsidiaries. Other firms exert very little output control beyond the requirement of occasional financial reports. Please indicate the degree of output control that headquarters exerts towards this subsidiary. (scale anchors: very little output control—very high output control)*
- Planning: *Some multinational firms have a very detailed planning, goal setting and budgeting system, that includes clear-cut (often quantitative) objectives to be achieved at both strategic and operational level. Other firms have less developed systems. Please indicate the type of planning/goal setting/budgeting that headquarters uses towards this subsidiary. (scale anchors: very simple/no planning—very detailed planning)*

Control by socialization and networks

- Shared values: *Some multinational firms attach a lot of value to a strong "corporate culture" and try to ensure that all subsidiaries share the main values of the firm. Others do not make these efforts (or, having made it, have had no success). To which extent do the executives in this subsidiary share the company's main values? (scale anchors: no shared values at all—fully shared values)*
- Informal communication: *Some multinational firms have a very high degree of informal communication among executives of the different subsidiaries and headquarters. Other firms do not foster that kind of informal communication and rely exclusively on formal communication channels. Please indicate the level of informal communication between this subsidiary and headquarters/other subsidiaries of the group. (scale anchors: no informal communication at all—daily informal communication)*
- Formal networks: *Some multinational firms make extensive use of committees/task forces/project groups, both temporary and permanent, made up by executives from different subsidiaries and headquarters. To what extent have this subsidiary's executives participated in these groups in the past couple of years? (scale anchors: no participation at all—very high participation)*

- International management training: *Some multinational firms make extensive use of international (as opposed to purely national) management training programs. In these programs executives from different subsidiaries and headquarters follow courses that deal mostly with the transfer of company-specific knowledge. What has been the participation of this subsidiary's executives in these kinds of training programs in the past couple of years? (scale anchors: no participation at all—very high participation)*

Construct: expatriate presence

- *How many of the top five jobs in this subsidiary are held by expatriates (employees on temporary assignment from either headquarters or other subsidiaries)? Tick boxes 0–5.*
- *What is the nationality of the managing director of this subsidiary? Tick boxes: nationality of parent/headquarters country, nationality of subsidiary country, other (third country) nationality.*
- *Please indicate the number of expatriates currently working in this subsidiary.*

Construct: local responsiveness (Cronbach's alpha: 0.73)
(Six-point scale 0%, 1–25%, 26–50%, 51–75%, 76–99%, 100%)

- *Please give your best estimate of the % of R&D incorporated into products sold by this subsidiary that is actually performed by this subsidiary.*
- *Please give your best estimate of the % of company products sold by this subsidiary that have been manufactured (to any degree) by this subsidiary.*
- *Please give your best estimate of the % of company products sold by this subsidiary that have been created or substantially modified for this market.*
- *Please give your best estimate of the % of marketing for company products sold by this subsidiary that is consciously adapted to local circumstances.*