Acquisition versus Greenfield Foreign Entry:

Diversification Mode Choice in Central and Eastern Europe

Desislava Dikova and Arjen van Witteloostuijn

University of Groningen
Faculty of Economics
Department of International Economics & Business

P.O.Box 800
9700 AV Groningen
Fax: +31.50.363 7337

d.dikova@eco.rug.nl
a.van.witteloostuijn@eco.rug.nl

Theme G: Cross-contextual comparison of institutions and organizations
Acquisition versus Greenfield Foreign Entry:  
Diversification Mode Choice in Central and Eastern Europe

ABSTRACT

Departing from the traditional transaction cost approach in diversification mode literature, this study investigates the influence of experimental organizational learning on the choice between acquisition and a greenfield investment. We provide empirical support that prior experience with acquisitions and/or greenfield investments, firm’s predominant international strategy (global or multidomestic) and the technological intensity of the parent play a crucial role in subsequent diversifications. Furthermore, contrary to extant arguments that foreign ownership decision is independent of a diversification mode choice we demonstrate that the type of ownership (joint venture vs. wholly owned subsidiary) is a significant predictor of firms’ preference for acquisition or a greenfield. Unlike Caves and Mehra (1986) and Larimo (2002) who found a positive relationship between acquisitions and full ownership, we show that acquisitions in Central and Eastern European (CEE) transition economies are unlikely to be wholly owned subsidiaries. In addition, we contribute to extant diversification literature by introducing another neglected predictor of firms’ diversification strategy: We demonstrate the incremental power of host-countries’ institutional structure on investors’ diversification choice.
INTRODUCTION

When a multinational enterprise (MNE) decides to invest equity in a foreign country, it faces at least two strategically important decisions: firstly, whether to buy an existing foreign entity (launch an acquisition)\(^1\) or establish a foreign operation from scratch (invest in a greenfield facility); and, secondly, whether to do it alone (establish a wholly-owned subsidiary) or involve a local partner (create a joint venture). The decision as to whether to opt for a wholly- or jointly-owned acquisition or greenfield investment carries significant strategic importance due to the inherent benefits and risks of each foreign diversification mode. For instance, although acquisitions offer a speedy establishment of a local presence, they can be accompanied by post-acquisition integration failures, which are often rooted in cross-cultural differences and technological mismatches. Reversely, although greenfields offer an opportunity to preserve and replicate valuable corporate cultures abroad, they require a longer establishment period and more time to build business networks locally. In addition, joint ventures enable investors to tap into valuable resources of a local partner and minimize investment risks, but they also are at times challenging to administer due to the partners’ diverging capabilities, interests and goals. In contrast, wholly-owned subsidiaries offer the benefits of managerial autonomy and full control over local operations, yet the process of overcoming the liability of foreignness may be difficult without the legitimacy of a local partner.

Research on patterns and determinants of equity investment modes is abundant yet somewhat limited in focus. Some researchers have examined the factors that influence the decision to acquire an existing company or establish a greenfield subsidiary (Wilson, 1980; Hennart and Park, 1993; Andersson and Svensson, 1994; Cho and Padmanabhan, 1995; Padmanabhan and Cho, 1999; Barkema and Vermeulen, 1998; Meyer, 1998; Brouthers and Brouthers, 2000; Harzing, 2002; Larimo, 2002; Belderbos, 2003). Others have taken an ownership and control approach to determine the type of entry mode as a wholly-owned or a
joint operation (Gatignon and Anderson, 1988; Kim and Hwang, 1992; Brouthers et al., 1998; Delios and Beamish, 1999; Davis and Desai, 2000; Pan and Tse, 2000; Brouthers and Brouthers, 2001; Luo, 2001; Meyer, 2001; Brouthers, 2002). Both streams of research are valuable but limited in one important way: A foreign direct investment decision is a complex matter concerning both the choice between acquisition or a greenfield investment, and the preference for a wholly-owned operation or a joint venture. Only a few studies investigate more than two equity investment options: Kogut and Singh (1988), Chang and Rozenzweig (2001), and Elango and Sambharya (2004) examine the choice between wholly-owned greenfields, wholly-owned acquisitions and joint ventures, but they do not investigate the possibility of jointly established acquisitions and greenfields. Caves and Mehra (1986) and Larimo (2002) take a step further by including a joint venture or wholly-owned predictor in their analyses of diversification modes. The current study makes a contribution to this extant literature on diversification modes in two ways. Firstly, we take both diversification and entry mode choice issues on board, and examine all equity investment modes: Acquisitions vis-à-vis greenfields, as well as joint ventures versus wholly-owned enterprises. Secondly, we test our set of diversification predictors within the two entry mode categories, joint ventures and wholly-owned subsidiaries, and conclude that indeed the influence of our predictors on the MNEs’ decision to invest in an acquisition or greenfield operation does change contingent on the type of ownership.

Traditionally, transaction cost theory (Williamson, 1975) has been broadly applied to diversification mode research (Wilson, 1980; Caves and Mehra, 1986; Kogut and Singh, 1988; Zejan, 1990; Hennart and Park, 1993; Andersson and Svensson, 1994; Cho and Padmanabhan, 1995; Brouthers and Brouthers, 2000; Larimo, 2002). To enhance the explanatory power of transaction cost theory scholars have consequently added cultural variables (Kogut and Singh, 1988; Cho and Padmanabhan, 1995; Barkema et al., 1996; Hennart and Larimo, 1998; Padmanabhan and Cho, 1999; Brouthers and Brouthers, 2000) and strategic variables (Harzing,
Additionally, to counteract widespread criticisms on the static nature of transaction cost theory, some transaction cost adherents have introduced international, regional and country-specific experience predictors (Caves and Mehra, 1986; Andersson and Svensson, 1994; Padmanabhan and Cho, 1999; Brouthers and Brouthers, 2000). We believe that not the firms’ general international experience, but rather their cumulative experience with a particular diversification mode influences subsequent choices between acquisitions and greenfields. We adopt the organization learning perspective of Cho and Padmanabhan (1999) and Vermeulen and Barkema (2001), who study the effect of diversification mode experience on subsequent acquisition and greenfield establishments. We complement their diversification experience focus by adding two additional organization-learning factors: the MNEs’ predominant international strategy, and the MNEs’ technological intensity in related and unrelated investments.

We further contribute to the extant diversification literature by introducing another neglected predictor of the firms’ diversification strategy: We test the effect of the host countries’ institutional environment on the investors’ complex decision to invest in acquisitions, greenfields, joint ventures or wholly-owned subsidiaries. To demonstrate the crucial role of institutions, we surveyed a diverse group of western European MNEs that made investments in central and eastern European transition economies. The socialist legacy, in addition to recent transformations in the host countries, presents an institutional environment that is profoundly different from what a typical “western” firm would encounter (Ericson, 1991; Kornai, 1992; Peng, 1994). Investors in transition economies have to adapt strategies to an institutional environment in flux because the process of change from a centrally-planned to a market-oriented economy affects institutional stability and reliability (Swaan, 1997; Meyer, 2001). Given these differences, exploring diversification strategies in transition economies will highlight important strategic choices made by firms that operate in different institutional environments (Carroll, 1993; Peng and Heath, 1996).
This study is organized as follows. First, we introduce the theoretical foundations and develop our hypotheses that predict how the investors’ diversification experience, international strategy, technological intensity and ownership preference determine their diversification mode in a particular institutional setting. Second, in the methodology section we describe the data collection procedures, the measures of our variables and the analytical tools used to test the hypotheses. Next, we present the results of our study, followed by a discussion and appraisal, including suggestions for future research.

THEORY AND HYPOTHESES

Organization learning

Experience is a primary source of learning in organizations, being deeply embodied in organizational memory (Penrose, 1959). According to Padmanabhan and Cho (1999), firms’ past experiences transform into organizational routines that consequently create a model for future actions and become a source of competitive advantage. They report evidence that neither general international experience nor host-country experience can explain the choice between greenfield and acquisition diversification modes. The authors argue that these two attributes are more important in the decision as to whether or not to undertake a direct investment in the first place, or to serve a particular market with a non-equity entry mode. Once the decision to invest in a foreign country has been made, international and host-country experience become less important than experience with a specific diversification mode (Padmanabhan and Cho, 1999).

In an attempt to reduce the level of inevitable uncertainty involved, a multinational firm may imitate “either its own previously successful strategies and structures or those of competitors in the new market” (Tallman, 1992). The diversification mode decision could therefore be considered as an incremental sequel to a firm’s past successful strategies. Organizations tend to persist in the same type of activity over time because they are conditioned to experience
successful solutions (Miller and Friesen, 1980; Greve, 2003). If a previous positive experience with a diversification mode can be transferred to a new situation, there is a high probability of undertaking the same diversification mode investment as a result of this particular experience (Padmanabhan and Cho, 1999). Companies that typically enter into foreign markets through acquisition develop specific skills to efficiently integrate foreign firms, which increases the likelihood that these skills will be further exploited in subsequent acquisitions (Chang and Rosenzweig, 2001). Similarly, because core competences are transferred abroad most efficiently through greenfield subsidiaries, there is a high probability that investors with valuable corporate cultures will continue to create replicas of themselves abroad. Such path dependencies in diversification mode selection commences risk-averse experiential learning (Chang and Rosenzweig, 2001). It follows that once a firm undertakes either a successful acquisition or a ditto greenfield investment, there is likely to be a significant preference for the same diversification mode in the future. Hence, we have

Hypothesis 1a: The greater prior greenfield experience, the higher the likelihood of a subsequent greenfield investment. Conversely, the greater prior acquisition experience, the higher the likelihood of a subsequent acquisition.

However, it is also possible that organizational inertia, in addition to or instead of learning processes, could lead to a series of similar diversification modes (Padmanabhan and Cho, 1999; Vermeulen and Barkema, 2001). Thus, organizational learning obtained from previous diversification mode experience may not always be the reason for the continuation of similar market diversification modes, but may rather be due to a denial of the need for change and a sign of habitual practice. Furthermore, repetitive international expansions through greenfield investments can make investors progressively inert and incapable of appropriately reacting to the changing international environment (Vermeulen and Barkema, 2001). For example, when a firm relies on obsolete knowledge to continue its successful international growth strategy, building
subsidiaries from scratch becomes “increasingly difficult and unattractive” (Vermeulen and Barkema, 2001: 461), so that the need for an acquisition of new practices increases. The complex post-acquisition learning process that is initiated by the inevitable adaptation to the new circumstances will create a clash between different organizational cultures and ideologies, and will eventually eliminate “the rigidities and inertia” by an expansion of the old organizational knowledge with new practices and routines (Vermeulen and Barkema, 2001: 461). Therefore, the more greenfield investments that a company launches, the larger the need for an acquisition. Conversely, the more acquisitions firms undertake to increase their organizational knowledge set, the greater the need to exploit the accumulated knowledge through greenfield subsidiaries. Therefore, we investigate any potential influence of organizational inertia effects. This gives

**Hypothesis 1b**: The greater prior acquisition experience, the higher the likelihood of a subsequent greenfield investment. Conversely, the greater prior greenfield experience, the higher the likelihood of a subsequent acquisition.

**International strategy**

An MNE’s international strategy is a means to exploit the firm’s competitive advantage and establish complementary organizational capabilities (Chang and Rosenzweig, 2001). According to the international competitive advantage model of Rugman and Verbeke (1992), global companies promote a convergence of consumers’ preferences and strive to maximize standardization of production.³ They benefit from home-country specific advantages, which they export abroad by creating “replicas of the parent company” (Bartlett and Ghoshal, 1989), and tunnel down strategic decisions on marketing and production to their subsidiaries. Firm-specific advantages of global companies are efficiently transferable to foreign locations, thus overcoming natural and unnatural market imperfections in foreign markets (Rugman, 1981). Harzing (2000 & 2002) found that global companies tend to establish greenfield subsidiaries to ease the transfer of core
competencies and exercise tight control over subsidiaries to preserve the parent’s corporate culture.

In contrast, multidomestic firms develop strategies for national responsiveness. Due to significant competitive differences between countries, the multidomestic strategy is determined by cultural, political and social national characteristics (Bartlett and Ghoshal, 1989). Thus, the primary objective then is the adaptation of marketing and production strategies to specific local customer needs and government requirements. Products and policies conform to different local demands and the investor’s activities are usually “tied to the buyer’s location” (Harzing, 1999). Taking over a local firm, incorporating its unique corporate culture and benefiting from its local business and government relations, is the most efficient way of achieving the goal of local knowledge absorption. As a result, multidomestic companies tend to prefer acquisitions as their vehicle for foreign market penetration (Harzing, 1999, 2000 & 2002). Thus, different foreign market diversification mode choices result from companies’ strategic motivations to either exploit home-country competitive advantages or explore host-country competitive advantages that complement their unique capabilities for organizational learning and technology transfer.

From this, we suggest

**Hypothesis 2a**: The greater the tendency to follow a global strategy, the higher the likelihood of a greenfield investment.

**Hypothesis 2b**: The greater the tendency to follow a multidomestic strategy, the higher the likelihood of an acquisition.

**Technological intensity**

The competitive advantage of technologically intensive firms is deeply embedded in organizational practices and their labor force. The most efficient way of transferring such a competitive advantage is by establishing a subsidiary from scratch and hiring the right local labor
force to subsequently train them accordingly. Often, investments originating from developed
countries are directed to developing or transition economies. In such cases, technologically
superior investors acquire local enterprises with weak and outdated technological capabilities. To
make production facilities competitive, an investor generally needs to make significant post-
acquisition investments to restructure the local enterprise, change its corporate strategy and
structure, engage in technological modernization, and undertake environmental protection
measures (Newman, 2000; Meyer, 2001). However, strong inertial forces within the local
organization might prevent even technologically rational adaptations (Nelson and Winter, 1982),
which puts further burden on the post-acquisition integration process (Barkema and Vermeulen,
1998).

Technology transfer may be particularly difficult in transition economies for two reasons.
Firstly, the highly turbulent conditions and the consequent uncertainties might encourage local
managers to resist change and “stick to their old practices” (Villinger, 1996). Therefore, local
enterprises may not be conducive to successful learning processes (Hedberg, 1981). Secondly,
because there is likely to be a mismatch not only between the levels of technological
development, but also between rules, procedures and practices of the foreign investor and the
local company, the local firm may be forced to take on those of the investor (Levitt and March,
1988; Barkema and Vermeulen, 1998). Before the learning of new routines can occur, the old
knowledge has to be, in a sense, unlearned by the organization (Hedberg, 1981; Bettis and
Prahalad, 1995; Barkema and Vermeulen, 1998). The challenge of unlearning old practices and
routines may be one reason for investors to prefer greenfield diversification modes. Consistent
with previous research, we therefore propose

**Hypothesis 3a**: The greater the level of technological intensity of the investor, the higher the likelihood of a
greenfield investment.
An exception to this argument could be an investment decision to expand internationally in a new line of business. In this situation, a technologically intensive investor might choose an alternative diversification mode to satisfy the need for an efficient acquisition of new production-specific knowledge. A business-diversifying foreign investment can be motivated by various arguments. A firm investing in a new line of business could be seeking additional resources to develop broader competitive strengths (Chang and Rosenzweig, 2001), or may be pursuing multipoint competition (Hisey and Caves, 1985). Several researchers found evidence that firms investing abroad in a new line of business prefer acquisitions to greenfields (Caves and Mehra, 1986; Zejan, 1990; Hennart and Park, 1993). This is the result of the firms’ desire to capture production skills and management expertise that they do not possess but need for building a broader competitive capability. Hennart and Park (1993) present empirical evidence that technologically intensive Japanese investors diversifying to obtain new production-specific knowledge prefer acquisitions to greenfields, because obtaining additional resources in the market in disembodied form tends to be more difficult than acquiring a local firm that already possesses them. In effect, international expansion into a new line of business might even create a mitigating effect on the potential preference of technologically intensive companies for greenfield investment modes. Therefore, we introduce

**Hypothesis 3b**: The higher the investors’ technological intensity and the greater the dissimilarity between their lines of business prior to investment and that of the investment itself, the higher the likelihood of an acquisition.

**Ownership structure**

Caves and Mehra (1986) and Larimo (2002) do not predict a particular direction in the relation between diversification mode and ownership type. The authors argue that the type of foreign subsidiary’s ownership is relatively independent of the diversification mode, because it is
conditioned on the parent’s firm need for control over the subsidiary or on other complex reasons “related to the traits of the parent and the activities it undertakes” (Caves and Mehra, 1986: 463). This argument may hold true in developed economies where firms’ interactions are mostly driven by market forces. Business transactions in transition economies, however, are heavily influenced by government policies that pursue both market economy transformations and a diverse mixture of social objectives.

Until recently, acquisitions in CEE have only been possible as a part of the privatization process (Meyer, 2002). This requires endurance of bureaucratically complex negotiations and the involvement of different stakeholder groups, including local government agencies, management teams and work councils (Bok and Kulawczik, 1997; Antal-Mokos, 1998). Negotiation partners have diverse social objectives, including investment plans for local business development and employment guarantees (Estrin, 1994; Meyer, 2002). Local governments may insist on concluding a “staggered divestment” deal to temporary retain a minority stake in the equity for the purpose of influencing post-acquisition management decisions, especially regarding employee layoffs (Perotti and Guncy, 1993). In effect, the investors’ future ownership may remain uncertain long after the negotiations are completed (Meyer, 2002). Therefore, if an exclusive control over the foreign operation is of the highest priority, a greenfield investment may well be preferred, as full ownership in CEE acquisition deals is often subject to extended negotiations, and occasionally may only be possible after a period of shared ownership with a local party.

Hence,

**Hypothesis 4a**: Wholly-owned subsidiaries are likely to be established as greenfields.

**Hypothesis 4b**: Joint ventures are likely to be established as acquisitions.


**Institutional environment**

Scott (1995) conceptualizes institutional forces into three groups: regulative, normative and cognitive. In this study, we will concentrate exclusively on the effect of regulative institutions on the MNEs’ diversification mode choice, because regulative forces are rooted in economics and are therefore most commonly studied in international business research (e.g., Gomes-Casseres, 1990; Delios and Beamish, 1999; Brouthers and Brouthers, 2000; Brouthers; 2002). Moreover, the regulatory process in transition economies in the CEE region are very likely to be an influential force in MNE decision-making as to (the mode of) foreign entry. Regulative forces include laws and regulations, as well as political and social configurations. In this sense, regulatory institutions provide the “rules of the game” in the host country, and the structure in which firms have to interact (North, 1990; Oliver, 1997; Davis et al., 2000).

Investments in transition economies are generally perceived as risky due to the infested perception of local institutional instability. Transition processes involve macroeconomic stabilization policies (i.e., government measures to bring inflation under control), restructuring and privatization programs (i.e., creation of a viable financial sector, reforming enterprises to gain competitiveness, and sustaining a foreign exchange regime that allows for profit repatriation), legal and institutional reforms (i.e., establishment of the rule of law, and the introduction of competition policies), and liberalization of markets (http://www.imf.org). Furthermore, the CEE region has a record of meager resources, lack of reliable monitoring processes and a permanent need for infrastructural improvements. Political, institutional and administrative systems in the region are democratic but often unstable. In such an insecure environment, investors considering a potential acquisition face the challenge of restructuring local enterprises with organizational cultures that promote production under centralized instruction rather than market demand, in combination with a legacy of production underperformance, consumer neglect, waste of resources and lack of innovation. Because of augmented difficulties of post-acquisition
integration, we believe that the institutional instability in CEE transition economies may further
discourage potential acquisitions. Hence, we formulate

**Hypothesis 5**: The greater the host-country institutional instability, the lower the likelihood of an
acquisition.

**METHODOLOGY**

**Data collection**

To test the above hypotheses, we conducted an international mail survey among international
companies from the EU that have invested in ten transition economies in central and eastern
Europe. We initially selected from the AMADEUS dataset all registered companies based in the
then 15 members states of the European Union that had at least a ten per cent ownership stake
in a branch/subsidiary located in any of the following countries: Bulgaria, Czech Republic,
Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia. These countries
were chosen for this study because they are in various stages of transformation from centrally
planned- to market economies. Therefore, this set of countries offer a unique opportunity to test
the extent to which our theoretical arguments and hypotheses, which have largely been used in
the context of western-style market economies, are applicable to transition economies.

An English-language questionnaire was created that contained 33 open and closed-ended
questions. The questionnaire was pilot tested with managers in four Dutch companies who were
competent in both the English language and their firm’s international expansions into central and
eastern Europe. Additionally, five well-known international academic researchers reviewed the
questionnaire, and their comments and suggestions were integrated into a revised version. The
final English-language questionnaire was then translated into German, French and Italian. In
total 2,798 questionnaires were initially mailed: 35 were returned as non-deliverable, which
compressed the sample size to 2,763 questionnaires. We received 208 usable questionnaires,
representing an overall response rate of 7.5 per cent. Table 1 summarizes the number of questionnaires sent and responses received by country. Table 2 presents the number of each type (acquisition or greenfield) of new investments in branches/subsidiaries undertaken in CEE by the responding firms, as well as per industry.

[Insert Tables 1 and 2 about here]

To test the representativeness of our sample, we conducted a t-test comparing the firm size variable (number of employees worldwide) of our sample to a random selection of the firm-population, which revealed no statistically significant differences in the two means. We also checked our data for potential common-method variance. Podsakoff and Organ (1986) argue that if the variables in a study all load on one factor or if there is one factor that explains the majority of the variance, then common-method variance may be a problem. We performed a factor analysis for all the variables used in this study, which resulted in a five-factor solution with the largest factor explaining only 16 per cent of the variance. Therefore, it appears that our dataset does not suffer from common-method variance.

Measures

The dependent variable is the EU firm’s latest Diversification mode choice (acquisition versus greenfield) into a CEE country, which was obtained with a question as to whether the company, in the process of their most recent foreign entry event into a CEE country, had acquired an existing local company or whether it had built an operation from scratch. So, diversification mode is captured by a dummy variable, which takes the value of 1 in the case of an acquisition and 0 in the case of a greenfield investment.

Our hypotheses relate to six independent variables. First, Diversification mode experience is a composite measure obtained by asking the respondents to indicate (a) the number of countries worldwide in which their company previously undertook greenfield and/or acquisition
investments and (b) the number of times greenfields and/or acquisitions were established.

Second, **International strategy** was obtained by asking two sets of multi-scale questions describing multidomestic and global strategies. The questions were adapted from Harzing (2000 & 2002), who constructed four statements that measure whether international competition in the industry of investment is predominantly global and focused on achieving economies of scale or multidomestic and aiming at local differentiation. We performed a cluster analysis, which resulted in a two-cluster grouping of the four constructs as multidomestic and global, and performed an independent-samples t-test to check for significant difference in the mean scores of the two groups. Clearly, the profiles of the multidomestic and global strategies are significantly different, along the lines expected by the theory (Table 3). The type of international strategy is captured in the regressions by a dummy variable taking the value of 1 if the strategy is predominantly multidomestic and 0 if it is predominantly global. Third, in most previous studies, the investor’s **Technological intensity** is obtained from secondary data, often being proxied by the ratio of R&D expenditures to total sales, at either the industry or the firm level (Caves and Mehra, 1986; Hennart and Park, 1993; Cho and Padmanabhan, 1995). It was believed that respondents would be unlikely to answer adequately or at all to questions regarding an estimation of the annual sales spent on research and development (R&D). We therefore asked a five-point Likert-type of question on the percentage of sales spent on R&D (ranging from very low to very high). Fourth, to measure **Investment relatedness**, we asked respondents to answer two five-point Likert-type of questions on how related the investment was in terms of both the product line and the line of business, respectively. Fifth, to measure the **Institutional structure**, we created a five-point Likert-type of scale with questions about the host country’s (a) general stability of political and social conditions, (b) barriers to conversion and repatriation of income, (c) level of corruption of political leaders, (d) ability of host-country’s government to enforce existing laws, (e) efficiency of government agencies and institutions, (f) legal restrictions to foreign ownership, (g) government
incentives to foreign investments, (h) quality of telecommunication infrastructure, and (i) quality of transportation infrastructure. Low values demonstrate institutional stability and efficiency, and high values reveal the opposite. We checked for the reliability of the scale using Cronbach’s alpha coefficient as an indicator of internal consistency ($\alpha = .74$, which is above the .7 cut-off level). Sixth, Type of ownership distinguishes between a joint venture and a wholly owned operation. This measure is obtained by separation of our sample in two groups: subsidiaries with 100 per cent ownership initially represent the wholly owned operations; the remaining firms are considered to be joint operations. For the sake of a robustness test, we created two alternative measures for joint ventures: comprising all subsidiaries with 95 per cent foreign ownership and less, and all subsidiaries with 90 per cent foreign ownership and less. The empirical analyses did not produce different results.

Finally, consistent with previous research, we included four control variables. Relative size of investment represents the relative size of the foreign operation, which is measured by dividing the initial number of employees of the subsidiary by the number of employees worldwide. Previous studies found a positive effect of this variable on the likelihood of acquisition (Caves and Mehra, 1986; Kogut and Singh, 1988; Hennart and Park, 1993; Padmanabhan and Cho, 1995; Brouthers and Brouthers, 2000). Because separate analyses of services and manufacturing sub-samples did not produce diverging results, we decided to analyze all firms together and control for the investor’s type of activity by introducing an Industry dummy. We control for investment in a Production subsidiary because we believe that the decision to invest in a production rather than a sales’ outlet is more costly, which might influence the choice between an acquisition and a greenfield diversification mode. We control for a participation in a Privatization program by a dummy variable with a value of 1 if the investment was part of a privatization scheme, and 0 if that was not the case.
Data analysis

To explore the influence of the independent and control variables on the likelihood of either an acquisition or a greenfield investment, we conducted a binomial logistic regression analysis. This statistical method was applied because of the ability of logistic regression techniques to incorporate a wide range of diagnostics, the dichotomous characteristic of the dependent, and the mix of continuous and categorical independent variables we use (Hair et al., 1995). Since our data set is composed of continuous, categorical, single-scale and multiple-scale constructs, all variables were converted to standardized z-scores, prior to the analysis. Table 4 shows the means, standard deviations and correlation coefficients for all variables under study.

[Insert Table 4 about here]

In the binomial logistic regression model that we employed, the regression coefficients estimate the impact of the independent (or control) variable on the probability that the diversification mode is of the acquisition type (which carries the value of 1). The model can expressed as

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

where $Y$ is the dependent variable, and $Z$ is the linear combination of the independent and control variables. That is,

$$Z = \beta_0 + \beta_1X_1 + \beta_2X_2 + \ldots \beta_nX_n,$$

where $\beta$ is the intercept, $\beta_1...\beta_n$ are the regression coefficients, and $X_1...X_n$ denote the independent and control variables.

We conducted the analysis by creating four models: the first model introduces the constant and controls only, and the second model analyzes the influence of all control and predictor variables on the likelihood of an acquisition type of entry. The third model tests which of our predictors influence the likelihood of an acquisition in a sub-sample of wholly owned subsidiaries, and the fourth model demonstrates the relation between the set of predictors and
the probability of an acquisition diversification mode in the case of joint venture subsidiaries.\(^8\)

The models were estimated with SPSS 11.0, using the maximum-likelihood method.

The null hypothesis that all coefficients (\(\beta_s\)) except \(\beta_0\) are zero, was tested with the model chi-square statistical test. We were able to reject the null hypothesis, and could conclude that our set of independent variables improved the prediction of the probability of acquisition occurrence, because in every tested model the (overall) model chi-square significance was high (\(p = .0001\)) and the values of \(-2LL\) statistics reveal an improvement in the goodness of fit of all models (in comparison to the relevant baseline models).

**RESULTS**

The results are reported in Table 5.

[Insert Table 5 about here]

Hypothesis 1a, is supported, as the coefficient estimates are significant in the predicted direction. We find that western European investors with prior greenfield experience are likely to choose the same diversification mode in CEE, whilst EU firms with relatively more prior acquisition experience are unlikely to establish a greenfield subsidiary. However, to assume that learning effects are present when pursuing similar diversification modes in both unrelated and related businesses may not be accurate, because following the same investment pattern in related businesses could be the result of organizational inertia rather than learning. After dividing our sample into related versus unrelated domains, tests on the related sub-sample mirrored the findings for the overall sample,\(^9\) whereas tests on the unrelated sub-sample reveal a positive and significant relationship between prior acquisition experience and the likelihood of a subsequent greenfield investment in unrelated businesses.\(^10\) This suggests that the more acquisitions a firm undertakes in unrelated domains, the more firm-specific knowledge it accumulates, which increases the need for greenfield investments so as to efficiently exploit this knowledge.
Additionally, we found a negative (although insignificant) relation between prior greenfield experience and the likelihood of a subsequent greenfield investment in an unrelated business domain. This may imply that when a firm relies on obsolete knowledge to continue its international expansion, building subsidiaries from scratch will eventually become difficult, creating a dire need for refreshing old practices by acquiring new production and managerial techniques. Yet, Hypothesis 1b is not fully supported by our results, probably due to an insufficient number of observations.

The regression results in model 2 support Hypotheses 2a and 2b. This suggests a preference of western European companies pursuing a multidomestic strategy for the acquisition diversification mode, on the one hand, and a preference of companies with a global strategy for greenfield investment into CEE countries, on the other hand. This twofold finding is perfectly in line with the global sourcing – national responsiveness tradeoff argument that is central to the international strategy debate. On the one hand, if an MNE opts for a global strategy, production and managerial strategic decisions, and valuable intangible assets are typically transferred from the headquarters to subsidiaries – hence the preference for a greenfield investment. On the other hand, if the MNE pursues a multidomestic strategy, local responsiveness requires local knowledge – hence the preference for an acquisition mode. Our international strategy predictor is insignificant in both wholly owned and joint venture sub-samples (models 3 and 4) and it’s therefore impossible to draw conclusions about the effect MNE’ predominant international strategy would have on a particular decision to invest in a wholly owned acquisition vs. a wholly owned greenfield, or a jointly owned acquisition vs. a jointly owned greenfield subsidiary.

The significant and negative sign of the technological intensity variable provides support for Hypothesis 3a, indicating a negative relation between the likelihood of an acquisition and the technological intensity of the investor firm. It appears that investments from scratch will most likely be more appealing to technologically intensive western European firms as a means to
effectively transfer and implement sophisticated technology, production and managerial practices in CEE. The main effect of the investment relatedness variable supports previous findings, implying that investments in related businesses are most likely to be greenfields whilst those in unrelated businesses tend to be acquisitions. Yet, the interaction between the technological intensity and investment relatedness variables produces unexpected results: we find a significant positive relationship between the degree of relatedness of investments by technologically intensive firms and the likelihood of an acquisition (the sign of the coefficient is opposite to the one predicted). Although, according to extant empirical evidence, technologically intensive firms in developed economies acquire unrelated businesses to obtain new production-specific knowledge or management expertise, this apparently is hardly the case in transition economies. The issue of the investors’ technological superiority over the local firms in CEE has already been discussed in detail above. It is very unlikely that an acquisition by a “western” investor in that region is undertaken to capture new production-specific knowledge or modern managerial expertise. Alternatively, investors may often view acquisitions of local companies as a way to conduct the MNE’s current activities in a low-cost environment: the CEE region offers highly educated labor at relatively low prices, and in most acquisition cases, an instant access to cheaper raw materials due to extant relations with local suppliers. Therefore, we must reject Hypothesis 3b and conclude that technologically intensive firms investing in related businesses in CEE tend to choose an acquisition diversification mode.

We find support for Hypotheses 4a and 4b, because the coefficient of the joint venture predictor is significant and has the predicted sign, revealing a positive relation between joint venture entry mode and the likelihood of an acquisition diversification mode. It may be that deficiencies in the firms’ knowledge of the local environment constitute a significant competitive disadvantage for foreign firms (Hymer, 1976). Involving a local partner for the purpose of incorporating its knowledge is more beneficial in acquisitions: acquisitions offer the benefits of a
speedy market penetration, but they also entail the risk of not understanding specificities such as local consumer preferences and business practices. Joint ventures enable investors not only to tap into the valuable resources of a local partner, but also to promptly acquire its local knowledge. Reversely, greenfields are not a speedy type of diversification; they require a longer establishment period, and therefore can only gradually build local business networks. If an involvement of a local partner for the purpose of quick access to valuable resources is not a priority, then wholly-owned subsidiaries will better suit the investors’ strive for preservation and replication of valuable corporate cultures.

Finally, as far as Hypothesis 5 is concerned, the finding of a significantly negative relationship between institutional instability and the likelihood of an acquisition supports our hypothesis. Notwithstanding the abundance of empirical support for the negative influence of volatile institutional environments on investors’ ownership type (Contractor, 1990; Gomes-Casseres, 1990; Delios and Beamish, 1999; Brouthers, 2002), there has been no empirical evidence as to the effect that such an environment may have on diversification mode choices. Our data show that acquisitions in institutionally unstable regions are apparently unappealing. After all, legal, political and social institutional instability would pose additional burdens on the already risky post-acquisition restructuring investments, changes in subsidiaries’ corporate strategies and structures, technological modernization programs, and the neutralization of inertial forces within the acquired organization.

The statistical analysis of the two sub-samples revealed interesting results. With the exception of three predictors, diversification mode experience and institutional instability, all predictors in model 3 are insignificant and unable to predict the likelihood of a wholly owned acquisition or a wholly owned greenfield. Technological intensity and investment relatedness are significantly and positively related to the likelihood of greenfield in the sub-sample of joint ventures. As argued above, the most efficient way to transfer valuable corporate cultures and core
competences abroad is by establishing a subsidiary from scratch thus avoiding potential post-acquisition integration impediments due to technological incompatibility, local firm’s organizational inertia, and persistent outdated managerial practices. A significant drawback of greenfield investments is the provision of sufficient establishment time, yet the MNE’s management typically takes advantage of a longer setting up period to select the best-suited labor. As discussed earlier, joint ventures eventually entail additional efforts to administer partner’s diverging interests and the extremity of such efforts will largely depend on the cultural (and other) differences between the joint venture partners. Because investments in volatile institutional environments could be perceived as potentially risky by an investor originating from a developed economy with stable institutions, joint ventures with a local partner may be viewed as an efficient way to mitigate the intrinsic risk, alleviate the liability of foreignness and provide the MNE with the means to smoothly integrate in the substantially different environment. This argument is supported by a significant and positive effect of the institutional instability predictor on the likelihood of a greenfield diversification in our joint venture sub-sample.

CONCLUSION AND APPRAISAL

In this study, firstly, we depart from the traditional transaction cost approach to diversification mode issues, and demonstrate the significance of three aspects of organizational learning on the choice between an acquisition and a greenfield. We empirically support our arguments that prior experience with a particular diversification mode, firm’s predominant international strategy and the technological intensity of the parent play a crucial role in a subsequent diversification mode choice. In so doing, we find support for the argument that an integrative model, including other variables than those based on transaction cost theory alone, produces larger explanatory power in the area of foreign diversification mode choice, at least in our context of the CEE region.
Secondly, we reveal that a host country’s institutional structure does affect not only the investors’ ownership strategies, but also their foreign diversification mode choice: unstable institutional environments tend to discourage acquisition investments and to encourage greenfield establishments. It appears that unreliable institutional structures put additional pressure on post-acquisition processes in transition economies where acquired enterprises face compatibility problems in the process of adopting parents’ technology, as well as organizational inertia. For instance, it is quite likely that local management often resists the pressure to change toward modern managerial practices.

Thirdly, contrary to the arguments of Caves and Mehra (1986) and Larimo (2002) that a subsidiary’s ownership is relatively independent of the diversification mode, we empirically demonstrate that the ownership type is a significant predictor of an MNE’s diversification mode. Unlike the two studies referred to above, which found a positive relationship between full ownership and the likelihood of acquisitions, we show that acquisitions in transition economies are unlikely to be wholly-owned subsidiaries. Furthermore, by dividing our data in sup-groups of wholly-owned subsidiaries and joint ventures, respectively, we demonstrate that the significance of our diversification mode predictors is different across both sub-groups.

This study has several limitations, of course. First, the insufficient number of respondents by industry prevents us from investigating in depth industry-level factors that might influence the foreign diversification mode decision. Future studies may overcome this drawback by focusing on a limited number of industries, investigating detailed industry-specific factors that may determine a particular foreign diversification mode preference. Second, the time-range of the collected data implies a methodological weakness. Whereas the survey inquired about the latest CEE entry, in many cases the time-spread was over five years, which increases the chances of recall and memory biases typical of retrospective surveys. A better response accuracy will be achieved if future studies avoid surveying firms that have not made relevant investments within a
shorter time-period. Third, a number of questionnaires were not entirely completed, so that because of these omissions the number of firms included in the analysis is smaller than the total number of observations. Fourth, our study is limited to foreign entry decisions by Western European MNEs into a pre-selected set of CEE countries. Further work is needed to find out to which extent our findings are generalizable to other transition or non-transition countries, and to MNEs from other parts of the world.

Clearly, an organization learning/institutional perspective that take into consideration firms’ asset specificity, past diversification experience, international strategy, and accounts for the effect of host-countries’ institutional environment offers a better setting for determining predictors of diversification mode preferences. Nevertheless, one critical question remains unanswered: What is the relative importance of all tested predictors on managerial decision to acquire or start from scratch? In what situation will the institutional structure be a more important predictor of firms’ diversification choice than MNEs’ past mode-experience or predominant business strategy? Furthermore, which of the institutional forces have a greater impact on investors’ activities in transition economies, economic volatility, legal systems’ differences or political instability? Can we assume that because of the decade-long integration programs in CEE, there are hardly any institutional differences between the old and new EU members and such differences are in fact only false managerial perceptions? Future research studies could achieve in-depth understanding of the diversification and entry mode choices by initiating detailed surveys on managers’ decision-making processes and trade-offs in evaluating firms’ capabilities and host-environments’ investment factors.
Table 1: International survey response rate

<table>
<thead>
<tr>
<th>EU Member States</th>
<th>Number of mailed questionnaires</th>
<th>Number of returned usable questionnaires</th>
<th>Response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Netherlands</td>
<td>538</td>
<td>43</td>
<td>8.0%</td>
</tr>
<tr>
<td>Germany</td>
<td>511</td>
<td>49</td>
<td>9.5%</td>
</tr>
<tr>
<td>France</td>
<td>504</td>
<td>30</td>
<td>5.9%</td>
</tr>
<tr>
<td>Belgium</td>
<td>315</td>
<td>18</td>
<td>5.7%</td>
</tr>
<tr>
<td>Italy</td>
<td>263</td>
<td>16</td>
<td>6.0%</td>
</tr>
<tr>
<td>Austria</td>
<td>154</td>
<td>16</td>
<td>10.3%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>140</td>
<td>10</td>
<td>7.0%</td>
</tr>
<tr>
<td>Sweden</td>
<td>99</td>
<td>7</td>
<td>7.0%</td>
</tr>
<tr>
<td>Finland</td>
<td>93</td>
<td>6</td>
<td>6.4%</td>
</tr>
<tr>
<td>Denmark</td>
<td>81</td>
<td>9</td>
<td>11.0%</td>
</tr>
<tr>
<td>Greece</td>
<td>37</td>
<td>2</td>
<td>5.4%</td>
</tr>
<tr>
<td>Spain</td>
<td>29</td>
<td>1</td>
<td>3.5%</td>
</tr>
<tr>
<td>Luxemburg</td>
<td>7</td>
<td>1</td>
<td>14.0%</td>
</tr>
<tr>
<td>Portugal</td>
<td>7</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Ireland</td>
<td>5</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total/Average</td>
<td>2763</td>
<td>208</td>
<td>7.5%</td>
</tr>
</tbody>
</table>
Table 2: Responses by country and industry

Panel A: Greenfield and acquisition entries by host country

<table>
<thead>
<tr>
<th>Host country</th>
<th>Number of greenfields</th>
<th>Number of acquisitions</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poland</td>
<td>45</td>
<td>21</td>
<td>64</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>24</td>
<td>19</td>
<td>42</td>
</tr>
<tr>
<td>Romania</td>
<td>27</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>Hungary</td>
<td>12</td>
<td>9</td>
<td>21</td>
</tr>
<tr>
<td>Slovakia</td>
<td>5</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>8</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Estonia</td>
<td>2</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Lithuania</td>
<td>7</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Slovenia</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Latvia</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>133</strong></td>
<td><strong>75</strong></td>
<td><strong>208</strong></td>
</tr>
</tbody>
</table>

Panel B: Number of observations by industry

<table>
<thead>
<tr>
<th>Manufacturing</th>
<th>Number of observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food products and beverages</td>
<td>15</td>
</tr>
<tr>
<td>Textiles, leather and footwear</td>
<td>12</td>
</tr>
<tr>
<td>Wood, pulp and paper products</td>
<td>15</td>
</tr>
<tr>
<td>Basic metals and fabricated metal products</td>
<td>24</td>
</tr>
<tr>
<td>Non-metallic mineral products</td>
<td>11</td>
</tr>
<tr>
<td>Machinery and equipment</td>
<td>23</td>
</tr>
<tr>
<td>Chemical products (excluding pharmaceuticals)</td>
<td>19</td>
</tr>
<tr>
<td>Various</td>
<td>34</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>163</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-manufacturing</th>
<th>Number of observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesale and retail</td>
<td>28</td>
</tr>
<tr>
<td>Other</td>
<td>17</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>45</strong></td>
</tr>
</tbody>
</table>
Table 3: Cluster analysis of strategy variables (scale 1-5)

<table>
<thead>
<tr>
<th>Cluster names</th>
<th>Economies of scale</th>
<th>Global competition</th>
<th>Domestic competition</th>
<th>Differentiation (product adaptation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>3.08</td>
<td>3.78</td>
<td>2.01</td>
<td>2.67</td>
</tr>
<tr>
<td>Multidomestic</td>
<td>2.63</td>
<td>2.05</td>
<td>4.12</td>
<td>3.92</td>
</tr>
<tr>
<td>t-value</td>
<td>2.497 (0.013)</td>
<td>10.525 (0.000)</td>
<td>-16.231 (0.000)</td>
<td>-7.809 (0.000)</td>
</tr>
</tbody>
</table>
Table 4. Means, standard deviations and correlations among all variables

<table>
<thead>
<tr>
<th>VARIABLES &amp;note</th>
<th>MEAN</th>
<th>S.D.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent variable</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Entry mode</td>
<td>.36</td>
<td>.48</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Control variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Industry dummy</td>
<td>.66</td>
<td>.47</td>
<td>.001</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Production subsidiary</td>
<td>.63</td>
<td>.48</td>
<td>.331**</td>
<td>.351**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Relative size</td>
<td>.54</td>
<td>4.28</td>
<td>.017</td>
<td>.007</td>
<td>.095</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Privatization participation</td>
<td>.16</td>
<td>.37</td>
<td>.367**</td>
<td>.073</td>
<td>.314**</td>
<td>.268**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Independent variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Technological intensity</td>
<td>2.07</td>
<td>1.07</td>
<td>-.032</td>
<td>.211**</td>
<td>.099</td>
<td>-.080</td>
<td>-.017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Investment relatedness</td>
<td>1.10</td>
<td>.73</td>
<td>.189**</td>
<td>.138*</td>
<td>.253**</td>
<td>-.002</td>
<td>.122</td>
<td>-.003</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Greenfield experience</td>
<td>17.06</td>
<td>36.17</td>
<td>-.096</td>
<td>.041</td>
<td>-.104</td>
<td>-.049</td>
<td>-.008</td>
<td>.006</td>
<td>-.117</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Acquisition experience</td>
<td>12.38</td>
<td>37.19</td>
<td>.199**</td>
<td>.091</td>
<td>.088</td>
<td>-.038</td>
<td>.226**</td>
<td>-.049</td>
<td>-.028</td>
<td>.387**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. International strategy</td>
<td>.42</td>
<td>.49</td>
<td>.114</td>
<td>.220**</td>
<td>.206**</td>
<td>-.010</td>
<td>-.032</td>
<td>.110</td>
<td>.120</td>
<td>-.056</td>
<td>.116</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Institutional structure</td>
<td>22.38</td>
<td>4.56</td>
<td>-.217**</td>
<td>-.047</td>
<td>-.071</td>
<td>-.038</td>
<td>-.036</td>
<td>-.193**</td>
<td>.067</td>
<td>.112</td>
<td>.024</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Ownership (joint venture)</td>
<td>.33</td>
<td>.47</td>
<td>-.298**</td>
<td>-.121</td>
<td>.163*</td>
<td>.019</td>
<td>.149*</td>
<td>-.077</td>
<td>.099</td>
<td>-.150*</td>
<td>-.081</td>
<td>-.076</td>
<td>-.098</td>
</tr>
</tbody>
</table>

&note Entry mode (1 = acquisition, and 0 = greenfield); International strategy (1 = multidomestic, and 0 = global); Industry (1 = manufacturer, and 0 = service provider); Production subsidiary (1 = Investment in a production outlet initially, and 0 = no production initially); and Privatization participation (1 = yes, and 0 = no).

** Correlation is significant at the .01 level (two-tailed).

* Correlation is significant at the .05 level (two-tailed).
Table 5: Logistic regression results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
<td>Model 3</td>
<td>Model 4</td>
</tr>
<tr>
<td></td>
<td>Wholly owned</td>
<td>Joint ventures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>10.530 (2.30)</td>
<td>13.633 (3.22)</td>
<td>17.080 (3.76)</td>
<td>9.626 (3.78)</td>
</tr>
<tr>
<td>Industry dummy (manufacturer=1)</td>
<td>0.691 (0.42)</td>
<td>1.876* (0.76)</td>
<td>1.797 (1.32)</td>
<td>0.877 (1.21)</td>
</tr>
<tr>
<td>Production subsidiary (initially)</td>
<td>-1.249*** (0.43)</td>
<td>-1.628* (0.71)</td>
<td>-1.586 (1.27)</td>
<td>-9.338* (3.91)</td>
</tr>
<tr>
<td>Relative size of investment</td>
<td>13.272* (5.26)</td>
<td>3.035** (1.08)</td>
<td>9.402 (1.71)</td>
<td></td>
</tr>
<tr>
<td>Privatization participation</td>
<td>-9.766 (2.30)</td>
<td>-10.040 (3.22)</td>
<td>-2.022 (3.78)</td>
<td></td>
</tr>
<tr>
<td>Technological intensity</td>
<td>-1.486* (0.74)</td>
<td>-0.023 (1.08)</td>
<td>-3.580* (1.56)</td>
<td></td>
</tr>
<tr>
<td>Investment relatedness</td>
<td>-3.881* (1.87)</td>
<td>-1.103 (0.70)</td>
<td>-12.043* (4.83)</td>
<td></td>
</tr>
<tr>
<td>Tech. intensity*Inv. relatedness</td>
<td>1.562* (0.74)</td>
<td>-0.070 (1.08)</td>
<td>3.758* (1.62)</td>
<td></td>
</tr>
<tr>
<td>Greenfield experience</td>
<td>-1.141† (0.63)</td>
<td>-12.205** (4.60)</td>
<td>-2.776* (1.19)</td>
<td></td>
</tr>
<tr>
<td>Acquisition experience</td>
<td>4.100*** (1.01)</td>
<td>6.418** (2.10)</td>
<td>20.934* (8.36)</td>
<td></td>
</tr>
<tr>
<td>International strategy</td>
<td>1.601* (0.71)</td>
<td>0.969 (0.89)</td>
<td>-0.887 (1.08)</td>
<td></td>
</tr>
<tr>
<td>Institutional structure</td>
<td>-1.363*** (0.37)</td>
<td>-1.237* (0.48)</td>
<td>-1.552** (0.58)</td>
<td></td>
</tr>
<tr>
<td>Joint venture (wholly owned = 0)</td>
<td>1.775** (0.60)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cases in the analysis</td>
<td>185</td>
<td>169</td>
<td>93</td>
<td>73</td>
</tr>
<tr>
<td>Overall chi-square</td>
<td>76.950***</td>
<td>123.122***</td>
<td>68.213***</td>
<td>61.823***</td>
</tr>
<tr>
<td>-2LL (baseline in parenthesis)</td>
<td>171.231(248.183)</td>
<td>85.296 (209.418)</td>
<td>40.053 (108.373)</td>
<td>35.381 (97.205)</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>94.6%</td>
<td>91.3%</td>
<td>95.6%</td>
<td>88.9%</td>
</tr>
<tr>
<td>Specificity</td>
<td>52.1%</td>
<td>79.4%</td>
<td>91.6%</td>
<td>82.1%</td>
</tr>
<tr>
<td>Overall % correct</td>
<td>77.8%</td>
<td>86.5%</td>
<td>91.4%</td>
<td>86.3%</td>
</tr>
<tr>
<td>Nagelkerke R²</td>
<td>0.46</td>
<td>0.74</td>
<td>0.75</td>
<td>0.77</td>
</tr>
</tbody>
</table>

Notes: two-tailed tests; dependent variable is acquisition (= 1) or greenfield (= 0); International strategy is multidomestic (= 1) or global (= 0).  
† p<0.10; * p<0.05; ** p<0.01; and *** p<0.001 (standard errors in parenthesis).
1 The term “acquisition” describes the process of taking an equity stake in an existing foreign enterprise that gives the investor a sufficient level of managerial control in the acquired organization to guarantee that operational and strategic decision-making power remains with the acquiring company (Padmanabhan and Cho, 1999).

2 Institutional theory has been extensively tested in entry mode studies, but to the best of our knowledge has not been investigated in research on diversification modes (Brouthers et al., 1998; Delios and Beamish, 1999; Brouthers and Brouthers, 2000; Davis et al., 2000; Delios and Heinsz, 2000; Meyer, 2001; Brouthers, 2002; Yiu and Makino, 2002).

3 This model is based on an interpretation of Bartlett and Ghoshal’s typology (1989). Bartlett and Ghoshal describe four strategic types of multinational companies: global, multidomestic, international and transnational. We only examine the influence of global and multidomestic strategy on the choice between the greenfield or acquisition mode due to a lack of empirical support for an impact of the other two strategy types (international and transnational) on diversification mode choice (e.g., Harzing, 2002).

4 Normative forces include values and norms, and cognitive forces are the frames of reality by which meaning is made (Scott, 1995).

5 We did not translate the questionnaire for the Scandinavian countries and the Netherlands, because of their well-known abilities in the English language. Questionnaires in English were also sent to Greece, Spain and Luxemburg because their combined share was only three per cent of the initial sample.

6 International mail surveys aiming at an industrial population have a history of vary low response rates: Regular mail surveys without a telephone pre-contact or a follow-up achieve response rates between 6 and 16 per cent (Dawson and Dickinson, 1988; Ghoshal and Nohria, 1993; Shiphandler, 1994; Harzing, 1997).
In our model, we included ten control variables initially. Because of the relatively small sample size and the rule of thumb in logistic regression analysis to have at least 30 times as many cases as to-be-estimated parameters, we reduced the number of control variables by excluding all highly insignificant ones. We excluded the **Entry year** (B = -0.023 and p = 0.930), **Country of origin** (B = 0.057 and p = 0.817), **Host-industry growth** (B = -0.184 and p = 0.417), **Cultural distance** (B = -0.224 and p = 0.352), **International experience** (B = -0.412 and p = 0.231), and **Regional experience** (B = 0.365 and p = 0.176) variables. This did not affect the qualitative pattern of the results.

Our sub-sample of joint ventures had only 73 observations, which made it impossible to run the analysis with all the control variables (see the logistic regression rule of thumb in note 7) and therefore we removed two of them – relative size and privatization participation.

We removed the control variables from the model and analyzed only the relation between the dependent variable and the independent variables **Prior greenfield experience** and **Prior acquisition experience**.

It must be pointed out that because the vast majority of our observations were related investments, we had 145 observations in our related sub-sample and 20 observations in our unrelated sub-sample when testing for robustness. In the case of expansions in unrelated business, the coefficient of the proxy for experience with acquisitions was significant at the 0.05 level (B = 11.077).
REFERENCES


