

Disentangling the Role of International Experience in Establishment Mode Choice

ABSTRACT

The empirical results concerning the role of international experience in establishment mode choice decisions are at best ambiguous and mixed. This paper decomposes international experience into two distinct dimensions, and introduces a more comprehensive set of psychic distance stimuli indicators, in order to resolve the dilemma. Once the model has more fully controlled for a broad range of psychic distance stimuli, the general (i.e. non-culture specific) component of international experience appears to be the dominant predictor of establishment mode choice.

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INTRODUCTION

The issue of international establishment mode (i.e. whether a firm decides to establish itself in a foreign market via acquisition or via greenfield investment) is arguably one of more critical, yet under-investigated international business decisions. Given the premiums typically paid when acquiring a firm (Zejan, 1990), the choice of establishment mode can have a substantial impact on the overall performance of the foreign investment. Similarly, establishing a venture by a greenfield investment may allow the parent firm to avoid paying an acquisition premium, but the venture may be handicapped by a lack of knowledgeable local managers, slower penetration of the market and greater retaliation from incumbents (Hennart & Reddy, 1997). Moreover, once this critical decision has been made, it can be difficult to change or correct. As a result, the choice of international establishment mode is an important issue and worthy of detailed investigation. In our review the establishment mode literature, a total of 23 empirical papers published in peer-reviewed journals have been identified (see Table 1). However, it is our contention that at least two major (and related) gaps still exist with respect to this body of knowledge.

The first gap concerns the role of international experience as a potential driver and predictor of entry mode choice. The empirical results to date on this issue are at best confusing and contradictory (Slangen & Hennart, 2007). The second gap concerns the manner in which the concept of psychic distance is included in establishment mode models. More specifically, we contend that the extremely narrow range of psychic distance stimuli variables included in most models may be contributing to the ambiguous results concerning international experience. As a result, the main contribution of this paper is focussed on the measurement and modelling of those two key constructs, and their impact on a firm's choice of establishment mode. We decompose international experience into two distinct dimensions – culture

specific experience and general (non-culture specific) experience. In addition to that, we introduce and test a broader set of psychic distance stimuli scales, first put forward by Dow & Karunaratna (2006). Both of these ‘contributions’ are tested on an extensive database of foreign direct investments by Nordic firms over the period of 1993 to 1999.

LITERATURE REVIEW

International Experience

The role of international experience in establishment mode choice research has a long pedigree beginning with Wilson (1980). Indeed, from amongst the published studies reviewed in Table 1, only Dikova & Van Witteloostuijn (2007) do not have at least one measure of international experience included as a predictor variable. However, despite the near unanimous opinion about the importance of the construct, the empirical results for international experience are extremely mixed (Slangen & Hennart, 2007).

One collection of ‘experience’ indicators has attempted to measure the overall international experience of the parent firm. This set of indicators ranges from the number of years of foreign activity (Harzing, 2002), to the number of countries the firm is operating in (Vermeulen & Barkema, 2001), the number of foreign subsidiaries (Larimo, 2003), and the proportion of revenue or assets in foreign countries (Herrmann & Datta, 2006); and has produced a curious pattern of results. Seven of the studies identified in Table 1 have found a statistically significant negative relationship between overall international experience and establishment mode (when establishment via acquisition is coded as positive). Yet a further five studies have found a significantly positive relationship, while the six studies found no relationship! In effect, the results to date have been almost evenly split in terms of the possible results, with possibly a mild bias towards a negative relationship.

The second collection of ‘experience’ indicators, which measure experience in the local or host market, provide an interesting contrast. These scales, most commonly measured in terms of number of years of operating experience in the said country, or as a dummy variable, seem to indicate a strong positive relationship with establishment mode choice (i.e. high local experience is most commonly associated with

acquisitions) by a total of six studies indicating a positive relationship and only one finding a negative relationship (a further five studies found no relationship).

In summary, the empirical results concerning international experience and establishment mode appear to be quite mixed, and at times contradictory; however, there are at least two possible explanations for these ambiguous results. The first of these possible explanations concerns decomposing ‘international experience’ into two distinct constructs: culture specific international experience and non-culture specific experience. To illustrate and justify this distinction, we shall turn to two of the main theoretical justifications put forward by previous researchers to include international experience as a predictor of establishment mode choice.

1. Several researchers (e.g. Chang & Rosenzweig, 2001; Kogut & Singh, 1988) have argued that a major barrier to establishing a foreign subsidiary by acquisition is the difficulty in transferring intangible assets to a foreign subsidiary, and controlling and managing the ‘recipient’ organization from a large distance. This is in fact, the transaction cost economics (TCE) justification for the observed relationship between psychic distance and greenfield investments (Slangen & Hennart, 2007). The basic proposition is that these transaction costs are likely to be lower for greenfield subsidiaries than for acquired subsidiaries. This proposition has been supported numerous times as illustrated in column 3 of Table 1. However, the Uppsala internationalisation model (Johanson & Vahlne, 1977) argues that as a firm gains international experience, its stock of tacit knowledge about international markets increases. As a result, the firm is gradually more confident about being able manage the transfer and monitoring processes in foreign markets; and thus, the likelihood that the firm will establish itself by acquisition will increase¹. In effect, experience is viewed as a “distance-bridging” factor (Child, Ng, & Wong, 2002).

¹ - This is predicted on the assumption that there are some inherent benefits to entry via acquisition as noted in our introduction.

2. Conversely, others researchers (e.g. Barkema & Vermeulen, 1998; Chang & Rosenzweig, 2001; Hennart & Park, 1993; Wilson, 1980) have argued that the “capability to deal with different environments [such as] dealing with host governments, adapting production technologies and methods, and reformulating marketing strategies” (Wilson, 1980, 63) is a critical skill. When a firm has very little international experience, it compensates for this by ‘purchasing the expertise’ (i.e. acquiring a local firm). However, as the firm gains international experience it is able to understand a new market faster and more easily, thus increasing the likelihood of a greenfield investment (Slangen & Hennart, 2007).

A key distinction between the two preceding arguments, which predict directly opposing effects, concerns the nature of the knowledge that the firm is gaining as it competes more extensively overseas. In the former argument, the knowledge is explicitly a “distance-bridging” factor; whereas, in the latter, the knowledge is about a general process, and not necessarily predicated on distance. This distinction between culture-specific knowledge and non-culture specific knowledge was explicitly acknowledged by Johanson & Vahlne [1977] in their seminal article that popularised the concept of psychic distance and their internationalisation process model. This distinction may also explain the contradictory results we commented on earlier. General international experience, as it is commonly measured, is in fact a mixture of both forms of knowledge – culture specific knowledge and non-culture specific knowledge. The exact balance of the two will depend on the nature of the countries the firm has previously entered. Thus, the empirical results concerning general international experience have been ‘mixed and ambiguous’. Conversely, host or local market experience will be much more heavily dominated by culture-specific knowledge (or more correctly culture-specific knowledge that is ‘relevant’ to the market in question); and thus it tends to indicate a consistent positive relationship.

Fortunately, this distinction between the different forms of knowledge also allows us to create two specific hypotheses, which should hold if indeed the ambiguous results are caused by these factors. First of all, it is possible to break international experience into ‘experience in similar’ countries (i.e. countries similar to the target market) and ‘experience in dissimilar countries’ countries (i.e. countries dissimilar to the

target market). Experience in dissimilar countries should be exclusively an indicator of non-culture specific knowledge, and as such should be strongly associated with establishment by greenfield investment (i.e. a negative correlation with entry via acquisition). Thus, we put forward the following hypothesis:

- H1.** International experience in countries dissimilar to the target market will be negatively associated with establishment via acquisition.

Conversely, experience in similar markets will pertain to both forms of knowledge, but will by its very nature, be much more heavily dominated by culture specific knowledge. As a result, we would expect it to be strongly related to establishment by acquisition. Thus, we put forward our second hypothesis as:

- H2.** International experience in countries similar to the target market will be positively associated with establishment via acquisition.

The second implication of international experience as a ‘distance-bridging’ factor is that international experience may have a moderating role with respect to the psychic distance-establishment mode choice relationship; in addition to, or in place of a direct effect (Harzing, 2003; Slangen & Hennart, 2007). While this interpretation is entirely consistent with the theory as presented by most researchers (e.g. Kogut & Singh, 1988), to our knowledge, only Slangen & Hennart (2008) have explicitly allowed for such moderating relationship in their empirical analyses. While there may be learning effects with respect to managing foreign acquisitions in proximate markets, if culture specific knowledge is important, then the benefits of international experience should be strongest in more distant markets. Thus, our third hypothesis is:

- H3.** The positive relationship between international experience (in both the local market and in countries similar to the target market) and establishment via acquisition will be stronger in more distant market.

The Inadequate Measurement of Psychic Distance

The other possible explanation for the conflicting empirical results concerning the relationship between international experience and establishment mode choice is not predicated on the distinction between culture specific knowledge and non-culture specific knowledge, but rather concerns the appropriate measurement of, and thus controlling for, psychic distance. A linkage between market selection and psychic distance has long been acknowledged in the internationalisation literature (Johanson & Wiedersheim-Paul, 1975) and has been confirmed multiple times by empirical research (e.g. Davidson, 1983; Dow, 2000; Drogendijk & Martin, 2008; Ellis, 2008; D. Sethi, Guisinger, Phelan, & Berg, 2003). Within the context of establishment mode research, this relationship has two potentially confounding effects.

1. Given the aforementioned relationship between psychic distance and market selection, as a firm gains overall international experience, the markets that the firm subsequently selects to enter will tend to be more psychically distant. Thus, there will tend to be a positive correlation between any measure of overall international experience and the psychic distance of the selected market. The concern here is that if an empirical model does not fully measure and control for psychic distance (as will be discussed below), then international experience will tend to act as a surrogate variable

for psychic distance, and overstate any **negative** relationship between international experience and establishment mode².

2. Conversely, when a firm has a high level of local experience in a specific market, that indicates the firm must have originally entered the market much earlier; thus it is likely to be a market psychically close to the firm's home market. In this case, there will tend to be a negative relationship between host market experience and the psychic distance between the host and home markets. Once again, if an empirical model does not fully measure and control for psychic distance, then lack local experience will tend to act as a surrogate variable for psychic distance, but this time it will overstate any **positive** relationship between local experience and establishment mode.

In summary, the preceding arguments contend that if psychic distance is not fully controlled for, then the relationship between the various forms of international experience and establishment mode may be distorted in the pattern already observed. This is particularly relevant, in light of the fact that virtually every empirical study of establishment mode so far has relied solely on a weak and heavily criticised surrogate for psychic distance (e.g. Shenkar, 2001) – specifically Kogut & Singh's [1988] index of national cultural distance. However, before proceeding any further, it is important that we clarify our definitions and terminology with respect to psychic distance.

For the purposes of this paper, we have adopted the original Uppsala definition of psychic distance.

Johanson & Vahlne (1977, 24) defined psychic distance as:

² - This assertion is predicated on there being a significant association between psychic distance and establishment via greenfield investment. However, as shown in Table 1, if cultural distance is accepted as even a weak and partial measure of psychic distance, then this assumption appears to be justified with nine previous studies finding just such a relationship and only one study finding a converse relationship.

“the sum of factors preventing the flow of information to and from the market. Examples are differences in language, education, business practices, culture, and industrial development.”

We most certainly acknowledge the contributions of Evans and Mavondo (2002) and others (e.g. Stottinger & Schlegelmilch, 1998) who have highlighted the importance of a manager’s perceptions, but we also feel it is important not to lose sight of the underlying construct - factors which distort or prevent the flow of information. As is the case with many complex constructs, there are both objective and perceptual aspects to psychic distance. For this reason, we have adopted the terminology of Dow and Karunaratna (2006), who draw the distinction between perceived psychic distance and psychic distance stimuli. Managers certainly make decisions based on their perceptions of psychic distance, but those are perceptions of a very real construct – the factors that have the potential to block or distort the flow of information. Psychic distance stimuli are the underlying exogenous factors that may interfere with or distort the flow of information.

Within that context, we also want to highlight the distinction (as we see it) between cultural distance, institutional distance, and psychic distance stimuli. As succinctly pointed out by Shenkar (2001), national cultural distance, as defined by Kogut & Singh (1988), is only one several of the potential ‘distance factors’, and as such should be considered as one type of psychic distance stimuli. Similar, the concept of institutional distance (Kostova, 1999) is also a potential ‘distance factor’, and thus can equally be considered a form of psychic distance stimuli. However, for the purposes of this article, we shall use the term psychic distance stimuli to refer to the broader grouping that encompasses all of these factors.

Within the context of predicting establishment mode choice, Kogut & Singh (1988) were the first of many researchers to cite Johanson and Vahlne (1977) and suggest a linkage between the distance of a market and the preferred establishment mode (Barkema & Vermeulen, 1998; Chang & Rosenzweig, 2001; Cho & Padmanabhan, 1995; Larimo, 2003). The presence of a large psychic distance stimuli between two countries may ‘disrupt the flow of information’ between the corporate head office and the local subsidiary management. This phenomenon will cause a firm, *ceteris paribus*, to prefer greenfield investments in psychically distance markets as they are essentially a ‘higher control entry mode’ (Chang & Rosenzweig,

2001). This prediction is in keeping with the classic TCE prediction that firms will prefer a higher control mode when faced with the combination of asset specificity (e.g. proprietary technology) and uncertainty (e.g. psychic distance). Greenfield investments also allow the parent firm to much more closely replicate its own corporate culture in the host market; thus reducing the potential communication problems between the head office and the subsidiary even further. As a result, it is reasonable to expect a firm to prefer greenfield investments in distant markets to both reduce and control for potential risks (Slangen & Hennart, 2007).

Unfortunately, while the importance of distance to the issue of establishment mode choice rarely seems to be disputed, with no less than 14 previous researchers investigating the relationship (Table 1), all but one of those studies used the Kogut & Singh (1988) index of national cultural distance (Hofstede, 1980) as their sole indicator! The only exception to this pattern is Drogendijk and Slangen (2006) who also included a national cultural distance scale based on Schwartz (1992) and a measure of perceived psychic distance. Numerous commentators (e.g. Brewer, 2007; Dow & Karunaratna, 2006; Harzing, 2003; Shenkar, 2001) have criticised this practice and have argued that psychic distance is a much broader construct. While national cultural distance will very likely disrupt the flow of information and create uncertainty, other factors such as differences in religion, language, level of industrial development, level of education, degree of democracy and political ideologies may also disrupt the flow of information and cause uncertainty about the head office's ability to effectively monitor and manage a foreign subsidiary. We are not arguing here that these factors are insurmountable in terms of 'preventing' the flow of information, but they all have the potential to disrupt and distort the flow of information. All of the six factors mentioned above have been cited in both the institutional distance literature (Kostova, 1999) and in the psychic distance literature (Johanson & Vahlne, 1977), and have been confirmed empirically as predictor variables for export market selection (Dow & Karunaratna, 2006; Drogendijk & Martin, 2008), FDI performance (Tsang & Yip, 2007) and entry mode choice (Dow & Ferencikova, 2007). Even within the establishment mode literature, while many authors were not explicitly intending to include other forms of psychic distance stimuli, there are inferential indications. A total of eight research studies (e.g.

Herrmann & Datta, 2006, see Table 1 for a complete list) have found the level of industrial development of the host country to be a significant control variable. This result is generally interpreted as an indication of the availability of acquisition candidates; however, given that all ten of these studies involved high income nations as the home market, this variable may also be acting as a direct surrogate for Johanson & Vahlne's (1977, 24) "differences in industrial development". As a result, despite the reasonably consistent empirical results of previous establishment mode studies which utilised only the Kogut & Singh index (Table 1), we believe the overall impact of psychic distance has been substantially understated due to the manner in which the construct has been measured. For this reason, our fourth hypothesis predicts that:

- H4.** Additional types of psychic distance stimuli, specifically differences in language, religion, industrial development, education and political systems (also known as institutional distance), will collectively have a negative association with the propensity for a firm to establish itself in the host market via acquisition (as opposed to via greenfield investment), over and above any relationship explained by measures of national cultural distance.

However, this fourth hypothesis is only a preparatory step for our fifth and final hypothesis. As explained on the preceding pages, the contradictory results concerning the relationship between the various forms of international experience and establishment mode choice may be the result of researchers inadequately modelling psychic distance stimuli. Thus, if the fourth hypothesis is confirmed (i.e. we have achieved a more complete and comprehensive model of psychic distance stimuli), this may cause the observed relationships between international experience and establishment mode to disappear. As a result, our fifth and final hypothesis is presented as a null hypothesis:

- H5.** Once a broader range of psychic distance stimuli are adequately modelled, none of the three aforementioned forms of international experience – **a)** local experience, **b)** experience in

similar markets and **c)** experience in dissimilar markets - will have any association with the propensity with the mode by which the firm establishes itself in the host market.

METHODOLOGY

The Sample Population

The empirical analyses for this paper are based on a database of outward manufacturing FDI made by Nordic firms from 1993 to 1999. This period was selected as it represents a very active period of FDI by Nordic firms, and it corresponds most closely to the period for which many of the additional psychic distance stimuli are available. The information is drawn from annual reports of the firms, business journals, survey information, and direct contacts with companies based in Denmark, Finland, Norway and Sweden. The credentials of this database are reasonably well established with portions of the data being used in two previous peer-reviewed journal articles (Hennart & Larimo, 1998; Larimo, 2003). The main database contains 1473 investments made by 247 firms. The sample includes a total of 50 host countries (see Table 2 for a summary of the countries) with 1019 entries in the form of acquisitions (**Acqn**) and 454 entries via greenfield start-ups (**Grnfd**).

The Dependent Variable

As is typical with establishment mode studies (Harzing, 2002) dependent variable is a binary dummy variable coded '1' when the entry into a foreign market is based on the acquisition of an existing company within that market, and '0' when the venture is based on entirely new assets (i.e. a greenfield start-up)³.

³ - Approximately one third of the studies cited in Table 1 used the equivalent coding, but defined greenfield investments as '1' and acquisitions as '0'. The only difference in these two approaches is the resulting sign of the coefficients, as noted in footnote #1.

Either of these two establishment modes may be in the form of a joint venture or a wholly-owned subsidiary.

Independent Variables

The two main independent variables for our analyses are international experience and psychic distance stimuli; however, in both cases there are multiple ways to measure each set of constructs.

International experience. As discussed in the development of the first and second hypotheses, international experience is arguably the most commonly included predictor variable in establishment mode studies; however, the range of specific variables has been quite broad. For the measurement of overall general international experience alone, at least 6 different scales have been used. Herrmann & Datta (2006) and Chang & Rosenzweig (2001) have used the proportions of international assets and revenues respectively; whereas others, have used the number of years of international activity (e.g. Harzing, 2002), the number of prior foreign subsidiaries (e.g. Andersson & Svensson, 1994), the number of countries entered (e.g. Vermeulen & Barkema, 2001) and the number of subsidiary-years (Padmanabhan & Cho, 1999). For the purposes of this study, overall experience is measured in terms of the number of foreign market entries, but with an important modification. In keeping with our arguments justifying hypotheses one and two, we have chosen to disaggregate international experience into two parts: the number of previous foreign market entries into countries similar to the host market (**Exp_Reg**) and the number of previous foreign market entries into countries dissimilar to the host market (**Exp_NR**).

In order to identify ‘similar’ and dissimilar’ countries, a total of 120 potential host markets were subjected to a cluster analysis using the six psychic distance stimuli dimensions. Unfortunately, the Hofstede data does not cover a sufficient number of countries to use it for this purpose. A 22 cluster solution using Wards method and squared Euclidean distances was selected on the basis of face validity (Kerlinger,

1986) and similarities to prior efforts at clustering nations (Ronen & Shenkar, 1985; S. P. Sethi, 1971)⁴. A complete list of the countries and their respective clusters is available from the authors on request. These clusters were then used to identify prior experience within the same cluster and prior experience in other clusters. Both of these measures of experience have been adjusted using a natural logarithm transformation to reduce the amount of skew and kurtosis. This transformation is consistent with the view put forward by the Uppsala school (Johanson & Wiedersheim-Paul, 1975) that the impact of international experience will be the strongest in the early stages of internationalisation, and then gradually diminish. For measuring ‘experience in the local market’, the situation is slightly less ambiguous with the years of operating experience, the number of local subsidiaries, and a simple dummy variable for previous experience in that market being the most common metrics. For the purposes of this study, we have adopted the more complex and data-rich of those scales: the number of years of operating experience in the host country (**Exp_Loc**).

Psychic distance stimuli. As discussed in the literature review, Kogut and Singh’s (1988) composite index, based on Hofstede’s four dimensions of national culture (1980; 2001), has essentially been the *de facto* variable used to represent psychic distance stimuli over the past 20 years of establishment mode research. While one of the contributions of this paper is to include a more comprehensive; and thus, superior set of scales, the Kogut and Singh index may still represent an important component of psychic distance; and thus, it is critical that we include it in our models. Thus, our first major indicator of psychic distance is the classic measure of Hofstede’s cultural distance (**Hof**).

⁴ - One manual adjustment to this cluster solution was imposed by the authors due to the nature of the language variables. Three countries – the Republic of Korea, Malta and Hungary, were all clustered with the Nordic nations. Closer investigation revealed that the major factor bringing this about was their ‘distance’ from the major languages such as English, Arabic, Chinese, Spanish, French, etc. As a result, it was resolved to set these three countries as single nation clusters.

In order to test our fourth and fifth hypotheses, we are adopting the expanded set of psychic distance stimuli developed by Dow and Karunaratna (2006). Specifically, we have included their multi-item factors measuring differences amongst countries in language (**Lang^F**), religion (**Relig^F**), education (**Edu^F**), industrial development (**Ind Dev^F**), degree of democracy (**Dem^F**), and political ideologies (**Social**). In the course of our analyses, it was discovered that four of the aforementioned dimensions: differences in religion, industrial development, education and degree of democracy are all highly correlated. As a result these four dimensions have been combined into a single factor (**RIED**) using confirmatory factor analysis. Tables 3 & 4 provide descriptive statistics and the correlation matrix for these predictor variables, and the control variables, as applied to our sample population. Table 3 also provides a brief description of the items used to estimate each of the psychic distance factors. For a more extensive discussion of the psychic distance stimuli variables, we refer readers to the Dow and Karunaratna (2006) article where both the justification for, and calculation of, these variables is presented in considerable detail.

Control variables

R&D intensity. In addition to the aforementioned predictor variables, there are a number of variables which need to be included in order to control for other factors. Not the least of these is a measure of technology intensity. Stretching back to Caves & Mehra's (1986) article, R&D intensity has been the standard variable in virtually every establishment mode study. In the case of establishment mode analyses, R&D intensity is considered to be a surrogate measure of asset specificity (Hennart & Park, 1993). When combined with the assumption that greenfield investments represent a higher control mode, one would expect firms to prefer greenfield investments over acquisitions in R&D intensive industries. The empirical evidence supporting this prediction appears quite strong (Slangen & Hennart, 2007) finding a statistically significant negative effect. For the purposes of our analyses, R&D intensity is operationalized using a three point scale (**R&D**) which categorizes the parent firm's industry as high, medium or low R&D intensity based on OECD classifications (Larimo, 2003).

Size of parent firm. Numerous researchers, beginning with Kogut & Singh (1988) but continuing right through to recent times (Drogendijk & Slangen, 2006), have argued that the size of the parent firm is an indicator of the availability of financial resources; and as such should have a positive impact on a firm's ability to use acquisitions as an establishment mode. While the empirical evidence concerning this is ambiguous (Slangen & Hennart, 2007), we have retained the size of the parent organization as a control variable. Company size in our analyses (**PSize**) is measured as the natural logarithm of the parent firm's annual sales immediately prior to the investment, measured in US\$ and standardized to the year 2000.

Diversification of parent organisation. Beginning with Wilson (1980), the degree to which the foreign parent is diversified has been included in virtually every establishment mode study on the basis that firms have a tendency to diversify via acquisition. After an initial flurry of results supporting this proposition (Caves & Mehra, 1986; Kogut & Singh, 1988; Wilson, 1980; Zejan, 1990), more recent studies have in general not found support for this effect. This may in part reflect a temporal trend in diversification practices. Nevertheless, we have chosen to retain this item as a control variable. The diversification of the parent (**Diversif**) is measured by the number of four digit SIC codes which apply to the parent firm.

Unrelated investment. Similarly, a variety of researchers (e.g. Caves & Mehra, 1986; Harzing, 2002; Hennart & Park, 1993) have argued that when a foreign direct investment is in an industry unrelated to the parent company's main business, the firm may have a preference for an acquisition in order to access particular skills. Hennart & Park (1993) also argue that there will be less transfer of knowledge from the parent to the subsidiary; and thus, less need for a higher control mode such as a greenfield investment. In this study, a dummy variable (**Unrelated**) is used to indicate when the investment falls into a different four digit SIC code from the foreign parent organisation.

Growth rate of the host market. A substantial number of researchers (e.g. Brouthers & Brouthers, 2000; Caves & Mehra, 1986; Drogendijk & Slangen, 2006; Hennart & Reddy, 1997; Shaver, 1998) have included various measures of the growth rate of the market as a control variable in their establishment mode studies. It is argued that for low growth markets, acquisitions will be preferable as they do not

necessarily add extra capacity to the market. For the purposes of this study, market growth is measured as the annual increase in GDP for the host market in the year preceding the investment (**Growth**).

Ownership structure of the venture. Researchers have generally not put forward any specific propositions concerning the impact of ownership structure (i.e. whether the venture is a wholly-owned subsidiary or an equity joint venture), but a substantial number of studies (e.g. Barkema & Vermeulen, 1998; Caves & Mehra, 1986; Hennart & Park, 1993; Larimo, 2003) have retained it as a control variable due to the possibility of interactions between entry mode choice and establishment mode choice (Anand & Delios, 1997). For this study, ownership structure is measured using a dummy variable (**WOS**) coded 1 for wholly-owned subsidiaries (>95% of equity controlled by the foreign parent) and 0 for equity joint ventures.

Year of investment. The final control variable concerns the possibility of a temporal trend in establishment modes. A number of researchers (Andersson & Svensson, 1994; Barkema & Vermeulen, 1998; Harzing, 2002; Larimo, 2003; Padmanabhan & Cho, 1999; Vermeulen & Barkema, 2001; Zejan, 1990) have identified a temporal trend towards establishment via acquisition. This phenomenon is controlled for by including a variable (**Year**) indicating the year in which the venture was established.

Analytical techniques

In keeping with previous establishment mode research (e.g. Brouthers & Brouthers, 2000; Harzing, 2002); and as is appropriate with a binary dependent variable, we use binary logistic regression to develop our baseline model and test our hypotheses. A positive and significant estimated coefficient indicates that a variable is associated with an increased probability of establishing the venture by acquisition. Our baseline model includes all of the control variables discussed previously, plus the three forms of experience (**Exp_Loc**, **Exp_Reg**, **Exp_NR**). The classic measure of psychic distance stimuli, Kogut & Singh's index (**Hof**) is then added to this model as an initial test of the first two hypotheses. Our expanded set of psychic distance stimuli indicators is then added to the model in order to test hypotheses **H4** and **H5**. As mentioned earlier, due to potential problems with multi-collinearity, four of the psychic distance

dimensions – differences in religion, industrial development, education and degree of democracy separately, have been merged using confirmatory factor analysis to create a single composite variable (**RIED**). Each of the four highly correlated dimensions and the composite variable are tested separately; however, for parsimony, only the results concerning the composite variable are reported.

In order to test the moderating hypothesis (**H3**), the four main dimensions of psychic distance (**Hof**, **Lang^f**, **RIED** and **Social**) are centred and combined with both forms of culture-specific international experience (**Exp_Loc** and **Exp_Reg**) to create eight moderating terms. Each of these moderating terms is tested independently with the logistic regression, incorporating our full range of distance variables.

RESULTS

Table 5 summarises the confirmatory factor analysis. The four highly correlated psychic distance dimensions all yield high factor loadings (> 0.85) and produce a very reliable composite factor (Cronbach alpha = 0.908).

Models 1, 2 and 3 in Table 6 represent the development of our baseline model, and our testing of hypotheses **H1**, **H2**, **H4** and **H5**. Our baseline model, Model 1, is highly significant (Chi Sq = 136.2, df = 10, $p < 0.001$) and yields a correct prediction 72.5% of the time. The addition of the Kogut & Singh index (**Hof**) in Model 2 is a statistically significant improvement (Δ Chi Sq = 29.5, Δ df = 1, $p < 0.001$), and the preliminary results appear to support hypotheses **H1** and **H2**. For both Models 1 and 2, culture specific experience (**Exp_Reg**) has a significant positive coefficient, while non-culture specific experience (**Exp_NR**) has a highly significant negative coefficient. We should note that at this stage, the remaining variables in our model broadly mirror the empirical results of most of the studies summarised in Table 1. Cultural distance, R&D intensity and market growth all indicate a significant negative relationship with establishment mode, and parent diversity and local experience indicate a significant positive relationship. However, with the introduction of the broader range of psychic distance stimuli variables into the analyses, (Model 3 in Table 6), the situation changes dramatically. Model 3 is a statistically significant improvement over Model 2 (Δ Chi Sq = 64.5, Δ df = 3, $p < 0.001$), confirming hypothesis **H4**. The

broader range of psychic distance stimuli dramatically improves the model's ability to predict establishment mode. In terms of the Nagelkerke R^2 , Model 3 increases the explained variance (relative to Model 1) 7.9%; whereas Model 2 only increases the explained variance 2.5%. In effect, for our dataset, the broader set of psychic distance stimuli increase the explained variance by more than three fold over the classic Kogut & Singh index! At the level of specific psychic distance stimuli variables, both differences in language (**Lang^f**) and the factor representing differences in religion, industrial development, education and democracy (**RIED**) are highly significant predictors (Wald test = 4.81, $p < 0.05$ and Wald test = 50.85, $p < 0.001$ respectively). Only the 'differences in political ideology' dimension (**Social**) appears to be non-significant. It would also appear that the additional psychic distance stimuli variables fully account for any effect the Kogut & Singh index has as a predictor of establishment mode. Despite the coefficient for national cultural distance (**Hof**) being statistically in Model 2, once the other dimensions are introduced, it drops to insignificant levels.

Even more startling, is that when the broader range of psychic distance stimuli are introduced in Model 3, the magnitude of coefficients for all three experience variables decrease dramatically. In the case of local experience (**Exp_Loc**) and experience in culturally similar markets (**Exp_Reg**), both of their coefficients fall to non-significant levels. In effect hypothesis **H5** is confirmed for both of these variables, and the earlier support for hypothesis **H2** appears to be refuted. In the case of experience in dissimilar markets (**Exp_NR**), the coefficient decreases in magnitude by 15%, but remains statistically significant; and thus, hypothesis **H1** is still supported.

Tables 7 & 8 represent the formal testing of the moderating hypothesis, **H3**; and despite a total of eight different possible moderating variables being tested, the results are remarkably consistent. There appears to be no support for **H3**: a moderating relationship between psychic distance and culture specific international experience. These results are in direct conflict with the recent results of Slangen and Hennart (2008). In order to explore these contradictory results further, moderating regressions for non-culture specific experience (**Exp_NR**) and overall international experience were also conducted, but with similar non-significant results. This issue is discussed further in the following section.

DISCUSSION AND CONCLUSIONS

The main contribution of this paper is in disentangling the role that international experience plays in predicting establishment mode choice. As strongly portrayed in Table 6, once a broader conceptualisation and measurement of psychic distance stimuli is introduced, a large portion of the frequently observed relationships between establishment mode choice and international experience (both local and overall) disappear. In effect, in the absence of properly controlling for psychic distance stimuli, the various forms international experience appear to act as proxies for psychic distance; thus overstating the magnitude of their relationships with establishment mode choice.

Nevertheless; even after more fully controlling for psychic distance stimuli, our ‘experience in dissimilar markets’ variable (**Exp_NR**) still proves to be a significant predictor of establishment mode. It appears that the primary role of experience in establishment mode decisions is not one of a ‘distance-bridging factor’, but rather as a means by which a firm accumulates general knowledge and expertise in how to manage international subsidiaries. In the early years of internationalisation, firms frequently compensate for their lack knowledge in these areas by establishing themselves locally through acquisitions. However, as the firms gain international experience, they no longer need to source these skills externally, and are more easily able to establish themselves via greenfield investment, saving themselves the cost of the acquisition premium.

In a somewhat unexpected result, our data set shows no indication of a moderating relationship between the psychic distance stimuli and the various forms of international experience. This is in stark to the recent results of Slangen and Hennart (2008) who found just such a relationship in their analysis of Dutch MNE’s. At this stage, we cannot offer any definitive reasons for the dramatically different results other than minor differences in the nature of the data set, such as the nationality of the firms and the fact that the Slangen and Hennart data set is exclusively wholly-owned subsidiaries.

In summary, the previously ‘mixed’ results concerning the relationship between international experience and establishment mode appear to be due to two factors: 1) researchers not properly measuring, and thus controlling for psychic distance, and 2) researchers inappropriately aggregating ‘experience in similar

countries' and 'experience in dissimilar countries' into one variable, when in fact they represent two very distinct forms of international experience with potentially opposing effects.

A second contribution of this paper is that it represents the first study to incorporate a broader and more comprehensive set of variables with which to measure psychic distance stimuli, and the results are extremely strong. Measured in terms of the increase in the Nagelkerke R^2 , the broader measures of psychic distance represent approximately a three fold improvement in the proportion of variance explained when predicting establishment mode. In essence, when researchers use the Kogut & Singh index as their sole measure of psychic distance, they are potentially missing two thirds of the effect size! Moreover, most of the effect captured by the Kogut & Singh index is already reflected in the other psychic distance dimensions; thus the Kogut & Singh index may possibly be redundant. This is noteworthy as a substantial number of researchers have constrained their studies to countries for which estimates of Hofstede's national cultural dimensions are available. These empirical results, not surprisingly, are similar to those found in related research areas such as export market selection (Dow & Karunaratna, 2006; Drogendijk & Martin, 2008), entry mode choice (Dow & Larimo, 2007) and FDI performance (Dow & Ferencikova, 2007).

These results obviously need to be qualified in a couple of respects. The most significant qualification concerns the nature of the data set. While the range of host countries is reasonably broad, the range of home countries is quite narrow, and thus one needs to be careful when generalising to firms originating from other countries. Similarly, while we have attempted to include as wide a range of control variables as possible, there are some factors we were unable to include. Possibly the most important of these missing variables are controls for mode experience (Padmanabhan & Cho, 1999) and the investing firm's corporate strategy (Harzing, 2002). Both have proven to be significant predictors of establishment mode; however, due the longitudinal nature of our database, we were not able to include them.

The implications of these findings for researchers primarily concern the way in which the concepts of international experience and psychic distance are conceptualised and measured. We believe our results argue strongly for researchers to make a distinction between the various forms of international experience

(i.e. culture specific and non-culture specific experience). Similarly, these results are a strong reminder to appropriately specifying a model. Relying solely on a convenient, but limited surrogate for psychic distance (i.e. the Kogut & Singh index), not only has the potential to understate the impact of that construct; but it may also substantially distort the contributions of related constructs, such as international experience.

For practitioners, the distinction between culture-specific experience and non-culture specific experience is an important one, and our findings that non-culture specific experience is the dominant effect within the establishment mode context may be unexpected and counter-intuitive. This may have implications for the international expansion path firms may want to follow.

In closing, the most important 'next steps' probably concern a closer investigation of why our moderating results differ so substantially from those of Slangen and Hennart (2008). This would most likely involve a re-analysis of our data set to control for differences in the sample populations, and possibly a replication of the analyses in other data sets.

REFERENCES

- Anand, J., & Delios, A. (1997). "Location Specificity and the Transferability of Downstream Assets to Foreign Subsidiaries." *Journal of International Business Studies*, 28(3), 579-603.
- Andersson, T., & Svensson, R. (1994). "Entry Modes for Direct Investment by Composition of Firm-Specific Skills." *Scandinavian Journal of Economics*, 96(4), 551-560.
- Barkema, H. G., & Vermeulen, F. (1998). "International Expansion Through Start-Up or Through Acquisition: A Learning Perspective." *Academy of Management Journal*, 41(1), 7-26.
- Brewer, P. (2007). "Operationalizing Psychic Distance: A Revised Approach." *Journal of International Marketing*, 15(1), 44-66.
- Brouthers, K. D., & Brouthers, L. E. (2000). "Acquisition or Greenfield Startup? Institutional, Cultural and Transaction Cost Influences." *Strategic Management Journal*, 21(1), 89-97.
- Caves, R. E., & Mehra, S. (1986). "Entry of Foreign Multinationals into US Manufacturing Industries". In M. E. Porter (Ed.), *Competition in Global Industries* (pp. 449-481). Boston: Harvard Business School.
- Chang, S.-J., & Rosenzweig, P. M. (2001). "The Choice of Entry Mode in Sequential Foreign Direct Investment." *Strategic Management Journal*, 22(8), 747-776.

- Child, J., Ng, S. H., & Wong, C. (2002). "Psychic Distance and Internationalization." *International Studies of Management & Organizations*, 32(1), 36-56.
- Cho, K. R., & Padmanabhan, P. (1995). "Acquisition Versus New Venture: The Choice of Foreign Establishment Mode by Japanese Firms." *Journal of International Management*, 1(3), 255-285.
- Davidson, W. H. (1983). "Market Similarity and Market Selection: Implications for International Marketing Strategy." *Journal of Business Research*, 11(December), 439-456.
- Dikova, D., & van Witteloostuijn, A. (2007). "Foreign Direct Investment Mode Choice: Entry and Establishment Modes in Transition Economies." *Journal of International Business Studies*, 38(6), 1013-1033.
- Dow, D. (2000). "A Note on Psychological Distance and Export Market Selection." *Journal of International Marketing*, 8(1), 51-64.
- Dow, D., & Ferencikova, S. (2007). *The Measurement and Impact of Psychic Distance: Testing a New Scale on FDI in Slovakia*. Melbourne: The University of Melbourne.
- Dow, D., & Karunaratna, A. (2006). "Developing a Multidimensional Instrument to Measure Psychic Distance Stimuli." *Journal of International Business Studies*, 37(5), 575-577.
- Dow, D., & Larimo, J. (2007). *Entry Mode Choice: Testing New Approaches to Measuring Psychic Distance and International Experience*, European International Business Academy. Catania, Italy.
- Drogendijk, R., & Martin, O. (2008). *Country Distance: A Objective Measure and Its Impact on International Market Selection*, Academy of International Business. Milan.
- Drogendijk, R., & Slangen, A. (2006). "Hofstede, Schwartz or Managerial Perceptions? A Comparative Analysis of the Effects of Various Cultural Distance Measures on an MNE's Establishment Mode Choice." *International Business Review*, 15(4), 361-380.
- Ellis, P. (2008). "Does Psychic Distance Moderate the Market Size-Entry Sequence Relationship?." *Journal of International Business Studies*, 39(3), 351-369.
- Evans, J., & Mavondo, F. T. (2002). "Psychic Distance and Organizational Performance: An Empirical Examination of International Retailing Operations." *Journal of International Business Studies*, 33(3), 515-532.
- Harzing, A. W. (2002). "Acquisitions Versus Greenfield Investments: International Strategy and Management of Entry Modes." *Strategic Management Journal*, 23(3), 211-227.
- Harzing, A. W. (2003). "The Role of Culture in Entry Mode Studies: From Neglect to Myopia". In J. C. a. M. Hitt (Ed.), *Advances in International Management* (Vol. 15, pp. 75-127). Amsterdam/New York: Elsevier / JAI.
- Hennart, J. F., & Larimo, J. (1998). "The Impact of Culture on the Strategy of Multinational Enterprises: Does National Origin Affect Ownership Decisions?." *Journal of International Business Studies*, 29(3), 515-538.
- Hennart, J. F., & Park, Y. R. (1993). "Greenfield vs Acquisition: The Strategy of Japanese Investors in the United States." *Management Science*, 39(9), 1054-1070.
- Hennart, J. F., & Reddy, S. (1997). "The Choice Between Mergers / Acquisitions and Joint Ventures: The Case of Japanese Investors in the United States." *Strategic Management Journal*, 18(1), 1-12.
- Herrmann, P., & Datta, D. K. (2006). "CEO Experiences: Effects on the Choice of FDI Entry Mode." *Journal of Management Studies*, 43(4), 755-778.
- Hofstede, G. (1980). *Cultural Consequences: International Differences in Work Related Values*. Beverly Hills: Sage Publications.

- Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations*. Thousand Oaks, CA: Sage Publications.
- Johanson, J., & Vahlne, J.-E. (1977). "The Internationalization Process of the Firm-A Model of Knowledge Development and Increasing Foreign Commitments." *Journal of International Business Studies*, 8(1), 23-32.
- Johanson, J., & Wiedersheim-Paul, F. (1975). "The Internationalization of the Firm: Four Swedish Cases." *Journal of Management Studies*, 12(October), 305-322.
- Kerlinger, F. N. (1986). *Foundations of Behavioural Research*, (3rd ed.). New York: Holt, Rinehart & Winston.
- Kogut, B., & Singh, H. (1988). "The Effect of National Culture on the Choice of Entry Mode." *Journal of International Business Studies*, 19(3), 411-432.
- Kostova, T. (1999). "Transnational Transfer of Strategic Organisational Practices: A Contextual Perspective." *Academy of Management Review*, 24(2), 308-324.
- Larimo, J. (2003). "Form of Investment by Nordic Firms in World Markets." *Journal of Business Research*, 56(10), 791-803.
- Mudambi, R., & Mudambi, S. M. (2002). "Diversification and Market Entry Mode Choices in the Context of Foreign Direct Investment." *International Business Review*, 11(1), 35-55.
- Padmanabhan, P., & Cho, K. R. (1995). "Methodological Issues in International Business Studies: The Case of Foreign Establishment Mode Decisions by Multinational Firm." *International Business Review*, 4(1), 55-73.
- Padmanabhan, P., & Cho, K. R. (1999). "Decision Specific Experience in Foreign Ownership and Establishment Strategies: Evidence from Japanese Firms." *Journal of International Business Studies*, 30(1), 25-43.
- Ronen, S., & Shenkar, O. (1985). "Clustering Countries on Attitudinal Dimensions: A Review and Synthesis." *Academy of Management Review*, 10(3), 435-454.
- Schwartz, S. H. (1992). "Universals in the Content and Structure of Values: Theoretical Advances and Empirical Tests in 20 Countries." *Advances in Experimental Social Psychology*, 25, 1-65.
- Sethi, D., Guisinger, S. E., Phelan, S. E., & Berg, D. M. (2003). "Trends in Foreign Direct Investment Flows: A Theoretical and Empirical Analysis." *Journal of International Business Studies*, 34(4), 315-326.
- Sethi, S. P. (1971). "Comparative Cluster Analysis for World Markets." *Journal of Marketing Research*, 8(August), 348-354.
- Shaver, J. M. (1998). "Accounting for Endogeneity when Assessing Strategy Performance: Does Entry Mode Choice Affect FDI Survival." *Management Science*, 44(4), 571-585.
- Shenkar, O. (2001). "Cultural Distance Revisited: Towards a More Rigorous Conceptualization and Measurement of Cultural Differences." *Journal of International Business Studies*, 32(3), 519-536.
- Slangen, A., & Hennart, J. F. (2007). "Greenfield or Acquisition Entry: A Review of the Empirical Foreign Establishment Mode Literature." *Journal of International Management*, 13(4), 403-552.
- Slangen, A., & Hennart, J. F. (2008). "Do Multinationals Really Prefer to Enter Culturally Distant Countries Through Greenfields Rather Than Through Acquisitions? The Role of Parent Experience and Subsidiary Autonomy." *Journal of International Business Studies*, 39(3), 472-490.
- Stottinger, B., & Schlegelmilch, B. B. (1998). "Explaining Export Development Through Psychic Distance: Enlightening or Elusive?." *International Marketing Review*, 15(5), 357-372.

- Tsang, E. W. K., & Yip, P. S. L. (2007). "Economic Distance and the Survival of Foreign Direct Investments." *Academy of Management Journal*, 50(5), 1156-1168.
- Vermeulen, F., & Barkema, H. G. (2001). "Learning Through Acquisitions." *Academy of Management Journal*, 44(3), 457-476.
- Wilson, B. D. (1980). "The Propensity of Multinational Companies to Expand Through Acquisition." *Journal of International Business Studies*, 11(1), 59-64.
- Zejan, M. C. (1990). "New Ventures or Acquisitions: The Choice of Swedish Multinational Enterprises." *The Journal of Industrial Economics*, 38(3), 349-355.

Table 1: Summary of the Empirical Research on Establishment Mode *

	Overall international experience **		Prior experience in local market ***		Cultural distance (Kogut & Singh)	Host market GDP per capita	Other potential measures of, or surrogates for, psychic distance
Slangen & Hennart (2003)	+	(C)	+	(L)	+		
Dikova & van Witteloostuijn (2007)							- Institutional advancement
Drogendijk & Slangen (2006)			+	(D)	-		- Schwartz (1992) & Perceived psychic distance
Herrmann & Datta (2006)	ns	(A)			-	+	
Larimo (2003)	ns	(S)	ns	(Y)	-	+	
Harzing (2003)	+	(Y)			-		
Mudambi & Mudambi (2002)	+	(Y)					
Chang & Rosenzweig (2001)	-	(R)	-	(D)	-		
Vermeulen & Barkema (2001)	-	(C)			-	ns	
Brouthers & Brouthers (2000)	-	(R)			ns		
Padmanabhan & Cho (1999)	-	(SY)	ns	(SY)	ns	+	
Barkema & Vermeulen (1998)	-	(C)	+	(S)	-	ns	
Shaver (1998)			+	(S)			
Anand & Delios (1997)	-	(Y)			ns		
Hennart & Reddy (1997)			+	(Y)			
Cho & Padmanabhan (1995)	ns	(Y)	ns	(Y)	ns	+	
Padmanabhan & Cho (1995)	ns	(Y)			-	+	
Andersson & Svensson (1994)	+	(S)	+	(D)		+	
Hennart & Park (1993)			ns	(Y)			
Zejan (1990)	ns	(Y)				+	
Kogut & Singh (1988)	ns	(C)	ns	(D)	-		
Caves & Mehra (1986)	+	(C)					
Wilson (1980)	-	(Y)				+	

* + indicates a statistically significant positive relationship was identified (i.e. a higher probability of establishment via acquisition); - indicates a statistically significant negative relationship was identified (i.e. a lower probability of acquisition); ns indicates no statistically significant relation was identified. U indicates a second order 'U' shaped relationship was identified.

** is variously measured in proportion of revenues (R) or assets (A) abroad, years of international activity (Y), number of foreign subsidiaries established (S), number of subsidiary-years in foreign markets (SY), or number of countries entered (C).

*** is variously measured in years of activity in that country (Y); number of previous foreign subsidiaries in that country (S), number of subsidiary-years in foreign markets (SY), as a Lickert scale (L), or a simple dummy variable (D) indicating previous experience in that market.

Table 2 Host and Home Countries* (n = 1473)

Host Countries:	Home countries:				Total
	Denmark	Finland	Norway	Sweden	
Argentina	2	1	1	1	5
Australia	7	3	3	2	15
Austria	2	9	2	8	21
Belgium	2	4	1	13	20
Brazil	3	9	4	16	32
Bulgaria			1	2	3
Canada	2	10	2	8	22
Chile		3	1	1	5
China	17	26	14	48	105
Colombia				2	2
Croatia	3			2	5
Czech Rep	2	6	5	12	25
Denmark		7	12	23	42
Estonia		23	4	13	40
Finland			14	45	72
France	13	21	3	37	74
Germany	20	39	8	43	110
Hungary	1	10	1	4	16
India	5	4	2	22	33
Ireland		2	2	2	6
Italy	11	19	5	20	55
Japan	1	2		6	9
Lebanon		1			1
Malta		1			1
Mexico	1	4	1	7	13
Netherlands	6	11	1	12	30
New Zealand			1	2	3
Nigeria				1	1
Norway	13	5		16	34
Pakistan	1			2	3
Philippines	1	1		1	3
Poland	17	29	13	34	93
Portugal	5	2	3	1	11
Romania	3	1	2	4	10
Russia	7	26	8	30	71
Singapore		2	3		5
Slovakia		1	1	3	5
Slovenia	2			1	3
South Africa		3	3	4	10
South Korea		3	3	5	11
Spain	4	5	2	11	22
Sweden	18	46	27		91
Switzerland	4	7	1	4	16
Taiwan	1			2	3
Thailand	4	7	7	3	21
Turkey		2		4	6
UK	40	23	14	28	105
USA	40	58	11	72	181
Vietnam			2		2
Zambia			1		1
Total	271	436	189	577	1473

Table 3 Descriptive Statistics * (n = 1473)

Label	Description	Expected Sign **	Min.	Max.	Mean	Std. Deviation
R&D	3 = high R&D intensity industry; 1 = low R&D intensity industry; based on OECD classifications	-	1	3	1.77	0.74
PSize	Foreign parent company's annual revenue in 2000 US\$ million	+	1.7	26,417	3,250	5,510
Diversif	Degree of foreign parent company's diversification (# of 4 digit SIC industries)	+	1	31	11.49	8.10
Unrelated	Investment is in a different industry (4 digit SIC) from the foreign parent	+	0	1	0.04	0.20
Growth	Host country growth rate (GDP) in year prior to investment	-	-21.6	14.2	2.88	4.51
WOS	1= wholly owned subsidiary (i.e. foreign parent company owns >95% of the equity)	***	0	1	.60	.49
Year	Year the venture was established	***	1993	1999	1995.9	1.7
Hof	Kogut & Singh's (1988) index of national cultural distance based on the 4 original Hofstede dimensions (1980; 2001)	-	0.05	12.30	2.86	1.86
Lang ^f	3 item factor for differences in language between countries (Dow and Karunaratna, 2006)	-	-0.91	0.53	0.17	0.37
Relig ^f	3 item factor for differences in religion between countries (Dow and Karunaratna, 2006)	-	-1.55	1.28	-0.66	0.74
Ind Dev ^f	9 item factor for differences in industrial development between countries (Dow and Karunaratna, 2006)	-	0.00	2.06	0.62	0.61
Edu ^f	3 item factor for differences in education between countries (Dow and Karunaratna, 2006)	-	0.00	2.06	0.41	0.39
Dem ^f	4 item factor for differences in degree of democracy between countries (Dow and Karunaratna, 2006)	-	0.00	2.02	0.32	0.53
Social	Measure of differences in dominant political ideology between countries (Dow and Karunaratna, 2006; Beck et al., 2001)	-	0.00	0.83	0.36	0.25
Exp_Loc	# of years of previous experience in the host country	+	0	117	7.21	13.17
Exp_Reg	Total # of entries into similar foreign markets	+	0	7	2.02	1.56
Exp_NR	Total # of entries into dissimilar foreign markets	-	0	242	41.31	45.85

* Descriptive statistics are reported before any transformations (i.e. before the natural logarithm transformations of the experience variables and PSize)

** Expected sign of the coefficient in the logistic regressions, given the dependent variable is coded: Acquisitions = 1, Greenfield investments = 0.

*** This variable may potentially have an effect in either direction.

Table 4 Correlation Matrix (n = 1473)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	R&D	1.00																
2	PSize	0.08	1.00															
3	Diversif	0.02	0.61	1.00														
4	Unrelated	0.04	-0.03	-0.04	1.00													
5	Growth	0.08	-0.01	-0.07	-0.03	1.00												
6	WOS	0.02	-0.10	-0.06	0.04	-0.06	1.00											
7	Year	-0.04	0.02	-0.09	-0.03	0.23	0.10	1.00										
8	Hof	0.09	0.20	0.04	-0.09	0.15	-0.23	-0.02	1.00									
9	Lang ^f	0.02	0.15	0.09	-0.03	0.11	-0.15	0.00	0.33	1.00								
10	Relig ^f	0.11	0.16	-0.01	-0.06	0.45	-0.28	-0.01	0.54	0.37	1.00							
11	Ind Dev ^f	0.06	0.15	0.01	-0.10	0.37	-0.35	0.01	0.53	0.39	0.75	1.00						
12	Edu ^f	0.06	0.08	-0.05	-0.07	0.46	-0.29	0.06	0.30	0.13	0.67	0.77	1.00					
13	Dem ^f	0.05	0.12	-0.01	-0.08	0.36	-0.32	-0.01	0.49	0.36	0.74	0.75	0.64	1.00				
14	Social	-0.04	0.08	0.08	-0.03	-0.30	-0.04	-0.05	0.17	0.26	0.16	0.01	-0.20	0.09	1.00			
15	Exp_Loc	0.03	0.30	0.33	0.03	-0.04	0.14	0.06	-0.13	-0.13	-0.18	-0.23	-0.18	-0.19	-0.02	1.00		
16	Exp_Reg	0.05	0.39	0.39	-0.03	-0.09	0.10	0.09	-0.07	-0.08	-0.22	-0.22	-0.24	-0.20	-0.03	0.57	1.00	
17	Exp_NR	0.11	0.77	0.65	-0.06	0.01	-0.09	0.04	0.20	0.23	0.17	0.18	0.08	0.13	0.09	0.43	0.44	1.00
18	Acqn	-0.09	-0.07	0.04	0.05	-0.17	0.14	0.03	-0.24	-0.19	-0.34	-0.37	-0.29	-0.34	-0.01	0.09	0.10	-0.10

Table 5 Confirmatory Factor Analyses for Four Psychic Distance Stimuli Scales *

	Factor Loadings
Relig ^f	0.885
Ind Dev ^f	0.917
Edu ^f	0.859
Dem ^f	0.879
Cronbach Alpha	0.908

* The resulting psychic distance factor is labelled **RIED** to represent the four underlying dimensions.

Table 6 Logistic Regressions – Comparing Indicators of Psychic Distance Stimuli

	Model 1		Model 2		Model 3	
	B	Wald Test	B	Wald Test	B	Wald Test
R&D	-0.17 *	4.69	-0.16 <i>t</i>	3.65	-0.16 <i>t</i>	3.74
PSize	-0.05	0.65	-0.02	0.08	-0.01	0.01
Diversif	0.05 ***	18.94	0.04 ***	14.24	0.04 **	10.70
Unrelated	0.57 <i>t</i>	2.73	0.45	1.65	0.36	1.06
Growth	-0.08 ***	25.99	-0.07 ***	20.26	0.00	0.00
WOS	0.38 **	9.20	0.26 *	4.24	0.00	0.00
Year	0.09 *	5.21	0.08 *	4.33	0.07 <i>t</i>	3.20
Hof			-0.19 ***	28.68	-0.06	2.44
Lang ^f					-0.46 *	4.81
RIED					-0.62 ***	50.85
Social					0.15	0.32
Exp_Loc	0.06 *	3.89	0.04	1.53	0.00	0.01
Exp_Reg	0.15 **	7.28	0.14 *	5.84	0.03	0.27
Exp_NR	-0.39 ***	21.41	-0.34 ***	15.11	-0.20 *	4.94
n	1473		1473		1473	
Chi Sq	136.2		165.7		230.2	
df	10		11		14	
Signif	< .001		< .001		< .001	
Nagelkerke R Sq	.125		.150		.204	
% Correct	72.5		72.8		74.4	

*** - .001 signif; ** - .01 signif; * - .05 signif; *t* - .10 signif; (all two-tailed)

Table 7 Logistic Regressions – Potential Moderating Impact of Culture Specific International Experience

	Model 3			Model 4			Model 5			Model 6			Model 7		
	B		Wald Test	B		Wald Test	B		Wald Test	B		Wald Test	B		Wald Test
R&D	-0.16	<i>t</i>	3.74	-0.17	<i>t</i>	3.83	-0.16	<i>t</i>	3.61	-0.15	<i>t</i>	3.34	-0.16	<i>t</i>	3.68
PSize	-0.01		0.01	-0.01		0.02	-0.00		0.00	-0.00		0.00	-0.01		0.01
Diversif	0.04	**	10.70	0.04	**	10.55	0.04	**	10.68	0.04	**	10.47	0.04	**	10.57
Unrelated	0.36		1.06	0.36		1.04	0.37		1.07	0.36		1.06	0.37		1.06
Growth	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.02	0.00		0.00
WOS	0.00		0.00	0.00		0.01	0.00		0.00	-0.01		0.00	0.00		0.00
Year	0.07	<i>t</i>	3.20	0.07	<i>t</i>	3.04	0.07	<i>t</i>	3.33	0.07	<i>t</i>	3.45	0.07	<i>t</i>	3.16
Hof	-0.06		2.44	-0.06		2.47	-0.06		2.43	-0.06		2.15	-0.06		2.54
Lang ^f	-0.46	*	4.81	-0.46	*	4.74	-0.46	*	4.69	-0.46	*	4.79	-0.46	*	4.79
RIED	-0.62	***	50.85	-0.62	***	50.09	-0.63	***	51.24	-0.66	***	50.50	-0.62	***	50.96
Social	0.15		0.32	0.14		0.26	0.15		0.32	0.17		0.38	0.16		0.33
Exp_Loc	0.00		0.01	0.00		0.02	0.00		0.01	0.00		0.01	0.00		0.01
Exp_Reg	0.03		0.27	0.03		0.17	0.04		0.37	0.04		0.38	0.03		0.24
Exp_NR	-0.20	*	4.94	-0.20	*	4.87	-0.21	*	5.24	-0.20	*	5.17	-0.20	*	4.83
Hof * Exp_Reg				0.05		0.60									
Lang ^f * Exp_Reg							-0.05		0.52						
RIED * Exp_Reg										-0.09		1.71			
Social * Exp_Reg													0.03		0.18
n	1473			1473			1473			1473			1473		
Chi Sq	230.2			230.8			230.7			231.9			230.4		
df	14			15			15			15			15		
Signif	< .001			< .001			< .001			< .001			< .001		
Nagelkerke R Sq	.204			.204			.204			.205			.204		
% Correct	74.4			74.3			74.5			74.4			74.2		

*** - .001 signif; ** - .01 signif; * - .05 signif; *t* - .10 signif; (all two-tailed)

Table 8 Logistic Regressions – Potential Moderating Impact of Host Market Experience

	Model 3			Model 8			Model 9			Model 10			Model 11		
	B		Wald Test	B		Wald Test	B		Wald Test	B		Wald Test	B		Wald Test
R&D	-0.16	<i>t</i>	3.74	-0.17	*	4.02	-0.16	<i>t</i>	3.62	-0.16	<i>t</i>	3.64	-0.16	<i>t</i>	3.81
PSize	-0.01		0.01	-0.01		0.02	-0.00		0.00	-0.00		0.00	-0.01		0.01
Diversif	0.04	**	10.70	0.04	**	10.77	0.04	**	10.49	0.04	**	10.63	0.03	**	9.95
Unrelated	0.36		1.06	0.37		1.08	0.37		1.09	0.36		1.04	0.36		1.06
Growth	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.03
WOS	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
Year	0.07	<i>t</i>	3.20	0.07	<i>t</i>	3.03	0.07	<i>t</i>	3.31	0.07	<i>t</i>	3.27	0.07	<i>t</i>	3.20
Hof	-0.06		2.44	-0.05		1.91	-0.06		2.41	-0.06		2.35	-0.07		2.86
Lang ^f	-0.46	*	4.81	-0.47	*	4.89	-0.44	*	4.34	-0.46	*	4.73	-0.47	*	4.84
RIED	-0.62	***	50.85	-0.62	***	51.25	-0.63	***	51.61	-0.63	***	49.67	-0.61	***	48.59
Social	0.15		0.32	0.14		0.26	0.15		0.28	0.15		0.29	0.17		0.38
Exp_Loc	0.00		0.01	0.00		0.01	0.01		0.05	0.00		0.01	0.00		0.01
Exp_Reg	0.03		0.27	0.03		0.23	0.03		0.25	0.03		0.29	0.03		0.32
Exp_NR	-0.20	*	4.94	-0.20	*	4.80	-0.21	*	5.48	-0.20	*	5.03	-0.19	*	4.72
Hof * Exp_Loc				0.06		0.67									
Lang ^f * Exp_Loc							-0.08		1.37						
RIED * Exp_Loc										-0.03		0.16			
Social * Exp_Loc													0.08		1.47
n	1473			1473			1473			1473			1473		
Chi Sq	230.2			230.9			231.6			230.3			231.7		
df	14			15			15			15			15		
Signif	< .001			< .001			< .001			< .001			< .001		
Nagelkerke R Sq	.204			.205			.205			.204			.205		
% Correct	74.4			74.3			74.5			74.4			74.0		

*** - .001 signif; ** - .01 signif; * - .05 signif; *t* - .10 signif; (all two-tailed)