Contextualizing the relationship between parent firm's size and the choice between greenfield and acquisition: A meta-analysis

ABSTRACT

Entering a foreign country via acquisition or greenfield investment (i.e., establishment mode choice) implies extensive resource strains for internationalizing firms. To this end, parent firm's size is a crucial determinant for firms' establishment mode choice. However, ambiguous theoretical predictions and inconclusive empirical results concerning the parent firm's size – establishment mode relationship illustrate the need for further clarification. The present meta-analysis synthesizes extant empirical findings from 14 independent samples including 7,831 entries and firms, respectively to determine the overall effect of parent firm's size on the choice between acquisition and greenfield. Moreover, we contextualize the relationship by considering moderating factors (i.e., host country experience, acquisition experience and industry concentration) that intervene in the consistency of the relationship. Our findings illustrate that the parent firm's size – establishment mode relationship is contingent on these firm-, industry, and country-level factors yielding important implications for future theory development.

Key words: Establishment mode choice, parent firm's size, resources, resource-based view (RBV), transaction cost economics (TCE), industrial organization economics (IOE), meta-analysis

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INTRODUCTION

Internationalizing firms opting for equity investment in foreign markets can establish their subsidiaries by either acquiring an interest in an existing organization or by setting up a greenfield establishment. Both greenfields and acquisitions can be used to create a wholly owned subsidiary (WOS) or a joint venture (JV) (Brouthers and Hennart, 2007; Slangen and Hennart, 2007). The majority of empirical studies that tackle this issue, however, treat greenfields and acquisitions either as WOS or do not explicitly address the ownership distribution. Regardless of the ownership level, the choice between a greenfield venture or an acquisition has been referred to as "*the establishment mode choice*" in prior literature (e.g., Hennart and Park, 1993; Cho and Padmanabhan, 1995; Dikova and van Witteloostuijn, 2007). The establishment mode choice is regarded as one of the most critical strategic decisions internationalizing firms make because it is difficult and costly to reverse (Shrader, 2001) and has a significant impact on overall firm performance (Shaver, 1998).

Firms' establishment mode choice is one of the most debated decisions in international business (Dow and Larimo, 2011) as greenfield ventures and acquisitions present certain advantages and disadvantages to investing firms. On the upside, greenfield ventures facilitate the implementation of a common organizational culture and ease the exchange of knowledge between the parent firm and the respective subsidiary (Brouthers and Dikova, 2010). On the downside, greenfields require a longer period of time until they become operational, which can be expensive and can eliminate any potential first mover advantages. The upside of acquisitions is that they allow firms to overcome entry barriers, to establish presence in foreign markets quickly and to get access to new knowledge and resources embedded in local firms (Vermeulen and Barkema, 2001). On the downside, acquisitions often suffer from cultural conflicts, organizational incompatibilities and technological mismatches between the acquirer and the target, all of which causing post-acquisition integration problems and sometimes failures (Dikova and Rao Sahib, 2013).

Choosing between greenfield and acquisition results in “different implications for […] the resources that must be committed to the foreign operation, the risks that must be borne to enter the foreign market, and the potential strategic benefit associated with the foreign venture” (Cho and Padmanabhan, 1995, p. 256). Compared to non-equity forms of internationalization such as exporting and licensing, both greenfields and acquisitions are relatively resource intensive forms of market entry although they require the commitment of different types of resources. For example, acquisitions are expensive as they are often used to purchase rare and valuable resources of the target firm, often involve cumbersome negotiations and a hefty acquisition premium (Capron and Mitchell, 1998). Greenfields also require significant resource commitments to overcome entry barriers, liability of newness and liability of foreignness (Yip, 1982). Given the importance of firm resources, *parent firm’s size* is regarded a critical determinant of the establishment mode choice. It is one of the most commonly used variables in the establishment mode literature (Slangen and Hennart, 2007).

Despite the overall importance of parent firm’s size, research is inconclusive about its influence on the establishment mode choice. Ambiguity exists in terms of i) theoretical argumentations developed to explain the association and ii) empirical evidence obtained to demonstrate the relationship. Regarding the former we observe a number of theory applications suggesting different establishment mode outcomes. For instance, according to transaction cost economics (TCE), larger firms bear more easily the costs of initiating, negotiating and integrating acquisitions (Dow and Larimo, 2011). Thus, according to TCE reasoning, parent firm's size is positively associated with a preference for acquisitions over greenfields. Drawing on the resource-based view (RBV), others have argued that larger firms possess valuable firm resources which they are unlikely to share with local firms making an acquisition entry less probable (Barkema and Vermeulen, 1998; Brouthers and Brouthers, 2000; Anand and Delios, 2002). The empirical evidence reflects the equivocal theoretical argumentations. Some studies reported that bigger firms are more likely to establish greenfield ventures (e.g., Tsai and Cheng, 2004; Tsang and Yip, 2007; Dow and Larimo, 2011) while others found that larger parent firms prefer acquisitions (e.g., Andersson and Svensson, 1994; Barkema and Vermeulen, 1998; Drogendijk and Slangen, 2006; Arslan and Larimo, 2011).

The present paper has two major research objectives: First, we seek to integrate prior empirical evidence on the relationship between parent firm's size and establishment mode choice by the means of a meta-analysis. Second, we aspire to contribute resolving extant theoretical controversies about the influence of parent firm's size on the choice between international greenfield and acquisition by reflecting on the boundary conditions of this association. Meta-analysis is widely recognized in management research as an indispensable research tool for integrating and expanding the knowledge base on specific research topics (Eden, 2002; Kirca et al., 2011). In particular, meta-analytic techniques are suitable for theory-testing purposes as they allow for the examination of more comprehensive set of factors than those investigated in literature (Viswesvaran and Ones, 1995). Furthermore, meta-analysis can resolve current theoretical disputes in a more definitive manner than any single study because it is a valuable tool for synthesizing empirical research over a variety of studies and to contextualize relationships by means of moderator analyses (Hunter and Schmidt, 1990). To this end, we use data from 14 independent samples involving 7,831 entries and firms, respectively to provide a comprehensive test of existing and widely cited establishment mode studies. To the best of our knowledge, this is the first meta-analytic study to date in the international establishment mode literature.

Specifically, we first identify the overall direction and effect strength of the relationship between parent firm's size and establishment mode choice as stipulated by dominant theories in the field. Second, we seek to reflect on the boundary conditions of parent firm's size and establishment mode choice relationship by examining the moderating conditions under which parent firm's size affects establishment mode choice. Considering moderating factors that may intervene in the consistency of the association, we argue that the relationship between parent firm's size and establishment mode choice is context-dependent and that the impact of parent firm's size on establishment mode choice can vary by firm-level factors, industry-level factors and country-level factors. By contextualizing the relationship between parent firm's size and establishment mode choice we contribute resolving previously inconclusive findings providing insights for future theory development in this important domain of scholarly inquiry.

THEORETICAL BACKGROUND AND HYPOTHESES

Parent Firm's Size and Establishment Mode Choice

One of the most frequently examined determinants of establishment mode choice, treated either as a main predictor or as a control variable, is parent firm's size. Establishment mode choice literature applied a variety of theoretical perspectives to explain investing firms' establishment mode choices (Slangen and Hennart, 2007). The three most commonly applied theories explaining the choice between greenfield and acquisitions are the RBV (Wernerfelt, 1984; Barney, 1991), TCE (Williamson, 1975) and industrial organization economics (IOE) (Kindleberger, 1969; Hymer, 1976). As a result of the theoretical plurality, prior studies derived arguments and obtained empirical results suggesting that the same determinant of establishment mode choice, parent firm's size, can explain the preference for greenfield over acquisition and vice versa (Slangen and Hennart, 2007). We provide a brief overview of the main theoretical arguments used in the international establishment mode literature.

The studies applying the RBV treat parent firm's size as an indicator of the available (slack) resources for internationalization (Dow and Larimo, 2011). Because of a greater resource and knowledge base, larger firms are able to develop technological or organizational advantages that can be exploited by operating in different countries or industries (Anand and Delios, 2002; Slangen and Hennart, 2007). As a result of firms' diverse experiences, organizational learning is facilitated and firms' knowledge base and technological capabilities are further strengthened (Barkema and Vermeulen, 1998; Slangen and Hennart, 2007). Researchers have argued that larger firms do not need to resolve to acquisitions of local firms as they typically possess established organizational routines, internationally experienced managers and employees as well as technological advantage, sufficient to enter and operate in foreign markets (Barkema and Vermeulen, 1998; Brouthers and Brouthers, 2000; Anand and Delios, 2002). Thus, according to the RBV rationale larger firms tend to prefer greenfields over acquisitions.

The studies applying TCE theory to study establishment mode choice focus on the costs "associated with exploiting or obtaining intermediate inputs" (Slangen and Hennart, 2007, p. 407) through greenfield investments or acquisitions. The TCE approach predicts that larger firms will tend to favor acquisitions over greenfields based on several related set of arguments. Firstly, international acquisitions generally require more financial and managerial resources and larger firms are more likely to have access to such resources (Larimo, 2003). Secondly, all firms must bear the costs of negotiating, contracting and controlling in the course of an acquisition deal regardless of the size of the transaction; however, transaction costs tend to be lower for larger firms (Nooteboom, 1993). This is the case because according to TCE larger firms suffer less from bounded rationality opposed to smaller firms (Williamson, 1975). For example, a specialized functional staff allows larger firms to efficiently scan the environment and process external information within the firm. Thirdly, larger firms can reduce uncertainty and opportunism at the ex-ante stage of contracting, a problematic issue in most international acquisitions due to information asymmetries or the so called ‘lemons problem’ (Akerlof, 1970). By committing assets and functional staff on activities like target-selection, deal-negotiations and firm-integration larger firms can reduce incremental costs of acquisition-related transactions (Larimo, 2003). Therefore, according to TCE, acquisitions are preferred over greenfields by large firms as acquisitions constitute a more efficient (less costly) establishment mode choice.

The studies applying IOE approach stipulate that parent firm’s size has an effect on establishment mode choice however they do not determine a specific direction of the relationship between firm’s size and establishment mode choice. On the one hand, larger firms would have more available resources to overcome direct entry barriers associated with the greenfield establishment mode and may therefore choose a greenfield entry (Yip, 1982). On the other hand, larger firms are also more capable of making international acquisitions (Yip, 1982). A note should be made that according to IOE larger firms occupy key positions in their respective industries, which can create more potential for antitrust objections to prospective acquisitions. This in turn may discourage foreign entries through acquisitions (Yip, 1982). In light of the provided theoretical discussion, we conclude that according to IOE no clear effect of parent firm's size on the propensity to establish an acquisition or greenfield can be hypothesized.

Some recent studies on international establishment mode choice challenge the implicit assumption that an explanatory variable suggested by a given theory would have the same effect on the establishment mode choice of all firms. For instance, one group of studies considers the moderating effect of country characteristics on the relationship between firm level predictors and establishment mode choice. By combining TCE or RBV with institutional theory these studies reveal that firms with the same characteristics (e.g. assets or capabilities) choose different establishment modes depending on the host country context (Dikova and van Witteloostuijn, 2007; Meyer et al., 2009; Estrin et al., 2009; Dikova, 2012). For example, Dikova and van Witteloostuijn (2007) demonstrate that host-country institutional quality moderates the effect of parent firm's technological intensity on the likelihood of the multinational firm (MNE) choosing greenfield establishment mode. Meyer and colleagues (2009) show empirically that institutional quality of the home country and the MNE's need for local resources increases the likelihood of choosing acquisition over greenfield. Others explore the interaction between firm characteristics and industry context. For instance, Brouthers and Dikova (2010) show that the establishment mode choice is determined by the joint effect of investment size and host-country industry concentration/fragmentation. A third group of studies investigate the interaction of firm-level predictors and their effect on the establishment mode choice. For example, Barkema and Vermeulen (1998) report that the extent of firms' international experience determines whether diversified firms would enter foreign markets through greenfields or acquisitions.

In sum, the establishment mode studies promoting moderators suggest that the effect of firm-level predictors on establishment mode choice is often context specific—they may be influenced by host-country characteristics, industry specifics and other firm-level predictors. Considering the recent trends in establishment mode literature we conclude that the relationship between parent firm's size and establishment mode choice may be highly context dependent and that boundary conditions in fact moderate the focal relationship. We therefore focus on moderators that capture firm-level, industry-level, and country-level context. We chose to examine commonly used variables in establishment mode literature for each contextual level of the relationship between parent firm's size and establishment mode choice (Slangen and Hennart, 2007). We consider the moderating effects of two types of widely used measures of parent firm experience—host country experience and establishment mode experience (i.e., acquisition experience) to account for firm-level context. We include industry concentration and cultural distance to account for industry- and country-level context, respectively; these two measures are among the most commonly used predictors of international establishment mode choice. Figure 1 therefore depicts our research model.

Contextualizing the Parent Firm's Size and Establishment Mode Choice Relationship

Host country experience

Host country experience describes the tacit knowledge a firm gains from operating in specific countries (Larimo, 2003). Firms with such experience have a better understanding of how local firms are organized, how they operate and what culture and communication styles prevail in these markets (Slangen and Hennart, 2008a). According to studies applying TCE, general knowledge of the host country's economy is of tacit nature and therefore purchasing it in a disembodied form is subject to high transaction costs (Hennart and Park, 1993).

According to TCE reasoning, firms lacking host country experience would likely acquire firms embedded in the local economy for the purpose of accessing and assimilating their knowledge about operating in the local economy (Hennart and Park, 1993; Larimo, 2003). Similarly, RBV suggests that locally inexperienced firms are likely to procure complementary capabilities such as host country knowledge through acquisitions (Chen, 2008). Empirical support however is mixed. Most studies report an insignificant effect of host country experience on establishment mode choice (Dow and Larimo, 2011; Bhaumik and Gelb, 2005; Meyer et al., 2009; Slangen, 2011; Estrin et al., 2009). Some found that locally experienced investors chose acquisitions over greenfields (Andersson and Svensson, 1994; Barkema and Vermeulen, 1998; Drogendijk and Slangen, 2006; Demirbag et al., 2008).

As stated earlier, RBV research suggests that larger firms do not need to resolve to acquisitions of local firms as they typically possess the capabilities and human resources necessary to operate in foreign markets (Barkema and Vermeulen, 1998; Anand and Delios, 2002). This effect would be even stronger for larger firms with host country experience as there would be little or no incentive for local knowledge acquisition. The diverse experience of large firms supplemented by the existing host country experience strengthens firms' knowledge base and technological capabilities. Such rich organizational capabilities are a source of competitive advantages that can be best exploited in the local market via a greenfield establishment (Barkema and Vermeulen, 1998; Slangen and Hennart, 2007). The exploitation of organizational capabilities is problematic in acquisitions because international acquisitions often suffer from organizational, cultural and technological mismatches that can interfere in post-acquisition integration and can cause competitive disadvantages in the foreign market. According to RBV, host country experience could further increase the likelihood of large firms opting for greenfield establishment mode.

TCE studies argue that larger firms would favor acquisitions because they are more likely to have the financial resources necessary to undertake an acquisition (Larimo, 2003). Because of their size, they can reduce uncertainty and opportunism at the ex-ante stage of the acquisition deal. However, compared to greenfields, the transaction costs of acquisitions may outweigh the benefits of acquisitions for locally experienced investors—committing assets and human resources on target-selection, deal-negotiations and firm-integration, in addition to paying an acquisition premium may well exceed the value of the acquired local assets. Dikova and colleagues (2010) use TCE to analyze international acquisitions and conclude that such establishment modes tend to be costly and often challenging to finalize because of transaction complexity. The authors suggest that the complexity surrounding international acquisitions is high because they are subject to a regulatory scrutiny that is likely to be induced in part by bureaucratic self-interest, political extraction and private benefits such as protecting local firms (Bittlingmayer and Hazlett, 2000). Considering that the value of assets embedded in local firms may be lower for locally experienced firms than for locally inexperienced investors, it is unlikely that locally experienced firms would resort to international acquisitions, a relatively expensive and transaction-complex establishment mode.

Finally, according to IOE, larger firms have the means to acquire but they also create more potential for anti-trust objections to prospective acquisitions (Yip, 1982). Larger firms with host-country experience are firms that have already established local operations in the host country; such firms may be discouraged from pursuing future acquisitions locally due to their industry prominence. In sum, based on arguments derived from TCE, RBV and IOE we argue that the relationship between parent firm’s size and establishment choice is moderated by host country experience in the way that the establishment of an acquisition becomes less likely for large firms with host country experience.

Hypothesis 1. Larger firms are less likely to choose acquisition over greenfield in the case of prior host country experience.

Acquisition experience

Acquisition experience, as a specific type of international experience, encompasses the establishment-mode specific experience gained through prior acquisitions (Padmanabhan and Cho, 1999). Based on the organizational learning notion that repeated experience increases a firm's knowledge base by forming specific personal and organizational memory (Penrose, 1959), firms that engage in acquisition deals develop capabilities for dealing with acquisition-based uncertainties (Vermeulen and Barkema, 2001; Brouthers and Dikova, 2010). International acquisitions are regarded as risky and uncertain primarily because firms are unable to identify appropriate acquisition candidates, value and price the target firm, and integrate the acquired organization into the rest of the organization (Brouthers and Dikova, 2010). However, research has found that firms learn from past acquisition experiences, both positive and negative, and they create routines, systems and processes to effectively manage the acquisition process (Vermeulen and Barkema, 2001). Firms with prior experience in terms of executing acquisitions are likely to exploit such knowledge in repeated actions. This is particularly pertinent for larger firms which can afford the additional costs of searching, negotiating, contracting and controlling that arise in the course of international acquisitions.

A large firm size typically means more resources that can be invested in managing the pre- and post-acquisition processes (Laamanen and Keil, 2008). Larger firms have the managerial and financial resources necessary to engage in more complex acquisition deals than their smaller counterparts. Smaller firms have only a few senior-level managers who can engage in international acquisitions while large firms have accumulated slack capacity that can be activated for managing international acquisitions (Laamanen and Keil, 2008). Larger firms with international acquisition experience have the possibility to create specialized structures and processes for managing acquisitions. Such firms typically develop specialized personnel, processes, and establish dedicated teams to manage acquisition processes. Dedicated acquisition teams ‘can act as systemic repositories of knowledge of the previous acquisition experiences and provide for a pool of acquisitions specialists and the capacity to perform acquisition processes’ (Laamanen and Keil, 2008, p. 666). Based on the arguments concerning the organizational capability of large firms to engage in complex transactions and the high level of specialization of experienced acquirers, we hypothesize that international acquisition experience will have a positive moderating effect on the relationship between parent firm’s size and the choice of acquisition establishment mode.

Hypothesis 2. Larger firms are more likely to choose acquisition over greenfield in the case of prior acquisition experience.

Cultural distance

Cultural distance is a popular determinant of establishment modes (Slangen and Hennart, 2007). Cultural distance can be defined as “the extent to which the shared norms and values in one country differ from those in another” (Drogendijk and Slangen, 2006, p. 362). Studies rely primarily on TCE to explain the role of culture but offer two opposing sets of arguments. Most studies suggest that with cultural distance the costs of managing an acquisition increase because the differences in firms’ organizational practices, communication styles and corporate cultures increase (Kogut and Singh, 1988; Drogendijk and Slangen, 2006; Larimo, 2003). Greenfields allow firms to select employees who fit the national and organizational culture of the investing firm; this eases the transfer of management processes and procedures from the home country to the host country (Drogendijk and Slangen, 2006; Demirbag et al., 2008). A large number of studies found support for the MNEs’ preference of greenfields in culturally distant locations (Larimo, 2003; Drogendijk and Slangen, 2006; Dow and Larimo1 2011). Reversely, several studies suggest that firms entering a foreign market often lack the tacit knowledge how to do business there. Acquiring a local firm is an efficient way of obtaining local knowledge in culturally distance locations (Hennart and Park, 1993). No empirical support was found for this hypothesis (Brouthers and Brouthers, 2000).

As stated earlier, RBV research suggested that larger firms are likely to be in possession of firm-specific advantages (technological or organizational) that are typically sufficient to operate successfully in foreign markets and are therefore likely to be exploited in these markets via greenfields. The exploitation of organizational capabilities in culturally distant locations, in order to replicate a competitive advantage on a foreign soil, would naturally require a careful selection of employees who would fit the national and organizational culture of the MNE. As greenfields have been shown to better facilitate than acquisitions the transfer of management processes and practices from the home to the host country (Drogendijk and Slangen, 2006; Demirbag et al., 2008), it is likely that larger firms investing in culturally distant markets would opt for greenfield establishment mode.

The TCE proponents noted that larger firms tend to favor acquisitions rather than greenfields because larger firms have access to more financial resources, suffer less from bounded rationality and can reduce uncertainty and opportunism at the ex-ante stage acquisitions. However, in culturally distant settings it is difficult to specify how much of the investor’s knowledge can be deployed in the newly acquired firm (Haspeslagh and Jemison, 1991). Under such circumstances it may be challenging to work out how the assets of the investing firm should be deployed to the acquired firm in order to use them to their fullest potential (Meyer and Altenborg, 2008). Furthermore, firms from culturally different countries have different organizational practices, different conflict resolution strategies, different human resource practices and management styles, all of which further complicates the integration of the acquired firm within the structure of the MNE (Dikova and Rao Sahib, 2013). Cultural differences may increase the transaction costs of international acquisitions which in turn may diminish the propensity of a (larger) firm choosing an acquisition over greenfield establishment mode in culturally distant locations.

Hypothesis 3. Larger firms are less likely to choose acquisition over greenfield in the case of high cultural distance.

Industry concentration

The IOE literature suggests that industry structure determines firm conduct (Bain, 1968; Scherer, 1980). Industry concentration is one of the most important market structure variables (Bain, 1951; Schmalensee, 1989). Industry concentration represents the extent of competition in an industry as it shows the “combined market share of the leading firms” (Shepherd, 1979, p. 180). In highly concentrated industries, the expectation is that the leading firms will be able to coordinate their activities especially pricing and output while in highly fragmented industries the market forces will be characterized by a relatively autonomous and competitive firm behavior (Yin and Shanley, 2010).

IOE suggests that when the industry is highly concentrated, an increase in the number of firms may provoke a competitive response from the incumbents; this could lead to a drop in prices and negatively impact the profitability of all firms (Yip, 1982; Hennart and Park, 1993; Cheng, 2006). As a result, firms avoid entering concentrated industries via greenfields because greenfields tend to increase capacity; instead they choose acquisitions (Elango and Sambharya, 2004). Two studies found support to this hypothesis (Cheng, 2006; Dikova, 2012). Yin and Shanley (2010) however argue that acquisitions are more likely observed in fragmented industries where there are relatively large numbers of competing firms which reflects the significant number of potential partners. In concentrated industries characterized with only a few large incumbents, there will be fewer potential partners and this in turn will make it more difficult to successfully negotiate and execute an acquisition deal. A group of establishment mode studies reported a positive relation between industry concentration and greenfield establishments (Shaver, 1998; Chang and Rosenzweig, 2001; Elango and Sambharya, 2004; Chen and Zeng, 2004; Chen, 2008). Based on the conflicting IOE arguments and the results obtained from published establishment mode studies, there is a clear need for a moderator as no direct effect of industry concentration on establishment mode choice can be clearly hypothesized.

Industry concentration is most commonly linked to the potential for collusion. In industries with fewer firms it is easier for the incumbent firms to coordinate pricing activity and to limit rivalry (Yin and Shanley, 2008). A number of studies found that prices tend to be higher in more concentrated markets (Weiss, 1989; Kim and Singal, 1993; Krishnan and Krishnan, 2003). Because such collusion is mostly illegal acquisitions that may lead to increased concentration typically receive great antitrust scrutiny for their potential anticompetitive issues. Yin and Shanley (2008) suggest that acquisitions are more difficult and costly to implement in concentrated industries. Huyghebaert and Luypaert (2010) observe fewer incidences of acquisitions in concentrated industries, mainly because in such industries there is little room for further consolidation.

Our discussion indicates that launching an acquisition in a concentrated industry is likely to be difficult and costly. Under such circumstances, from TCE perspective, larger firms are unlikely to opt for the more costly establishment mode (acquisition) despite the availability of financial resources to engage in an international acquisition. Furthermore, the industrial organization of concentrated industries suggests that there will be a smaller number of available firms for acquisitions. According to RBV this is likely to have a deterrent effect on large firms' acquisition incentives; a smaller number of potential acquisition targets to choose from means more complications in finding a target matching the MNE organizational practices, human resource practices and management styles necessary to facilitate the transfer and exploitation of organizational capabilities on foreign soil (Dikova and Rao Sahib, 2013). The joint effect of parent firm's size and industry concentration suggests a greenfield establishment mode.

Hypothesis 4. Larger firms are less likely to choose acquisition over greenfield in the case of high industry concentration.

METHODS

We use methods of meta-analysis to test our hypotheses. Meta-analysis offers the advantage of integrating existing study findings by using weighted average techniques to generalize independently studied relationships (Hedges and Olkin, 1985; Hunter and Schmidt, 2004). Due to the enhanced statistical power, meta-analysis allows to approximate the true relationship between focal variables which is unobtainable in a single study (Zhao et al., 2004). To correct for sample characteristics or study artifacts the quantitative meta-analytical approach allows contextualizing the relationship by means of including moderator variables (Hunter and Schmidt, 1990; Dalton et al., 1999). Thus, by assessing the integrated effects and moderator effects, meta-analysis helps to resolve heterogeneity in the research field and further develop theory (Hunter and Schmidt, 2004). To this end, we regard meta-analysis as an appropriate tool to move extant establishment mode literature further.

Literature search

In order to identify quantitative-empirical studies on establishment mode choice and parent firm's size, we primarily conducted computerized search in the databases EBSCO host using keywords, such as establishment mode, entry mode, diversification mode, market entry, acquisition, greenfield, joint-venture, firm size, MNE size, MNE, SME, just to name a few. Moreover, we conducted manual search by, first, checking reference lists from previous reviews (e.g. Slangen and Hennart, 2007; Canabal and White, 2008; Dikova and Brouthers, 2009) and, second, by conducting an issue-by-issue search in a broad range of (international) management journals (e.g., Academy of Management Journal, British Journal of Management, International Business Review, Journal of Business Research, Journal of International Business Studies, Journal of Management, Journal of Management Studies, Journal of World Business, Management International Review, Strategic Management Journal).

Eventually, as Table 1 depicts, we identified 36 studies examining the establishment mode choice as a dependent variable. These studies exclusively analyze the dichotomous choice between greenfield investment and acquisition. Moreover, we found 4 studies that included the choice between greenfield and acquisition as independent or control variable (i.e., Mata and Portugal, 2000; Tsang and Yip, 2007; Slangen and Hennart, 2008b; Hutzschenreuter et al., 2011,). Based on that comprehensive set of establishment mode literature we further had to select the particular studies pertinent to our meta-analysis of the parent firm's size – establishment mode relationship. Thus, we defined the following inclusion criteria for the studies our literature search generated. First, studies had to provide information on firms' choice between acquisition and greenfield investment exclusively as mode of entry into a foreign country. Second, studies had to provide information regarding the relationship between parent firm's size and the choice between acquisition and greenfield investment. Third, studies had to report sample sizes and outcome statistics (e.g., mean values and bivariate correlations among the focal variables, t or F statistics) necessary to perform meta-analyses (Hunter and Schmidt, 1990). Fourth, studies had to be based on independent samples. When studies with overlapping or identical samples comprised correlations regarding parent firm's size, we only included the study with the larger sample size (Geyskens et al., 2009).

Insert Table 1 about here

Following these criteria, we first had to reduce the number of includable studies (i.e., studies with establishment mode as dependent, independent or control variable) to 39 as Yip (1982) admittedly focused the dichotomous choice between acquisition and greenfield investment, but analyzed entries into different industries only within the U.S. and not on an international level. Applying the second inclusion criterion in terms of the size – establishment mode choice relationship our sample size was further reduced to 21 studies as only those contained information on the parent firm's size. Among the remaining 21 studies 8 did not report the necessary statistics. We therefore contacted the respective authors and asked for the correlation matrices. Two researchers subsequently sent us the required information (i.e., Shaver, 1998; Rienda et al., 2013), hence leaving 15 studies being pertinent to our analysis. Since the studies by Barkema and Vermeulen (1998) and Vermeulen and Barkema (2001) are based on overlapping samples, we decided to only include the latter study due to its larger sample size. To decide whether a study could be included in the meta-analysis the authors independently reviewed the study characteristics. In case discrepancies occurred they were solved by discussion among the authors. We furthermore performed outlier analysis following Huffcut and Arthur (1995). After calculating the sample-adjusted meta-analytical deviancy statistic (SAMD) we detected 2 outliers. As it is not necessary to immediately eliminate outliers from the analysis once they have been identified (Geyskens et al., 2009), we checked the two studies for unusual characteristics. Since we could not find any unusual study features explaining the deviances, these studies were not excluded from our analysis (Huffcut and Arthur, 1995). Finally, we included 14 independent samples analyzing 7,831 market entries and firms, respectively as summarized in Table 2.

Insert Table 2 about here

Measurement

Our meta-analysis investigates the parent firm's size – establishment mode relationship and includes host country experience, acquisition experience, cultural distance and industry concentration as moderators. To match the variables used in the underlying studies to the respective variables of our meta-analysis we referred to the measurements of the focal constructs. Thus, as already implied by the inclusion criteria, we only included studies that operationalize the establishment mode as the dichotomous choice between acquisition and greenfield investment. Our dependent variable is therefore captured as a dummy variable which takes the value of 1 for acquisitions and 0 for greenfield investments.

Capturing the size of the parent firm we included studies that assess that variable along the dimensions income, employees and assets. Hence, we focused on articles that rely on the (logarithm of) firm's turnover (Andersson and Svensson, 1994), revenues (Shaver, 1998; Rienda et al., 2013) and sales (e.g., Tsai and Cheng, 2004; Drogendijk and Slangen, 2006;

Dow and Larimo, 2011), respectively, to cover the income dimension. Moreover, we included studies that utilize the (log) number of employees (Mata and Portugal, 2000; Brouthers and Dikova, 2010; Eiche et al., 2012) as well as those capturing parent firm's size with the log value of firm's assets (Vermeulen and Barkema, 2001; Tsang and Yip, 2007).

The establishment mode literature offers a number of ways to measure the host country experience of firms. In our meta-analysis studies were included that operationalized this variable by referring to the number of years a firm operates in the target country (Arslan and Larimo, 2011; Dow and Larimo, 2011). Furthermore, we incorporated studies that captured firms' host country experience with the number of subsidiaries in the target country (Shaver, 1998) and a dummy variable distinguishing whether the parent firm had been active in the host country before or not (Slangen, 2011).

To address the acquisition experience of firms, the underlying studies base their operationalization on the number of preceding acquisitions (Vermeulen and Barkema 2001; Brouthers and Dikova, 2010). Moreover, Slangen (2011) captures this mode specific experience with a Likert scale.

When Kogut and Singh (1988) introduced the cultural distance construct, they also provided a measurement based on Hofstede's (1980) four cultural dimensions to capture the differences between home and host country's culture. Ever since, the Kogut and Singh index has often been used to operationalize cultural distance. Accordingly, most of the studies included in our analysis apply that index (e.g., Vermeulen and Barkema, 2001; Tsang and Yip, 2007; Slangen, 2011). Only Tsai and Cheng (2004) measure cultural distance on a Likert scale.

The concentration of the target industry was assessed with the aid of two concentration measures. While Mata and Portugal (2002) utilize the Herfindahl index, Shaver (1998) concentrates on the four-firm concentration ratio. Brouthers and Dikova (2010) capture the variable with a Likert scale.

Analytical procedure

In order to integrate the findings of individual empirical studies respective results need to be converted into a common parameter (Marín-Martínez and Sánchez-Meca, 2010). To this end, the product-moment correlation coefficient, the standardized mean difference as well as odds ratios are well-known effect size statistics used in meta-analysis (Lipsey and Wislon, 2001; Hedges and Pigott, 2001). In our meta-analysis, we use the product-moment correlation coefficient as effect-size index. We use correlation coefficients as effect sizes because such scale-free measures demonstrate associates between variables and are readily interpretable (Card, 2012).

As proposed by Hedges and Olkin (1985) we applied Fisher’s Z-transformation to avoid “undesirable statistical properties” (Lipsey and Wison, 2001, p. 63) of the correlations. Using the transformed effect sizes has the statistical advantage of approximately normally distributed correlations as well as a sample variance that only bases on sample size instead of the population correlation (Geyskens et al., 2009). We then calculated the mean effect of parent firm’s size. As the effect sizes of large sample studies are more precise than those of small sample studies (Hedges and Vevea, 1998), we weighted the transformed correlations by the inverse of its variance to account for the different sample sizes of the underlying studies. Since it is realistic to assume that the population effect sizes are not fixed, but vary randomly from study to study, we applied a random-effects model to analyze the focal association

(Hedges and Vevea, 1998; Field, 2001; Geyskens et al., 2009). Thus, we suppose that the effect sizes in the underlying studies are “sampled from a universe of possible effects” (Field, 2001, p. 162) and therefore used a variance term consisting of a subject-level sampling error as well as a between-study variance component (Hedges and Vevea, 1998; Lipsey and Wilson, 2001). In order to assess the precision of our estimation we calculated the 95% confidence interval around the weighted mean effect size and expected it to be statistically significant if the confidence interval did not include zero (Lipsey and Wilson, 2001). We also examined the homogeneity of the effect size distribution based on the Q-statistic (Hedges and Olkin, 1985). To this end, we assessed the significance of the between-study variance component. Therefore the null hypothesis that the between-study variance equals zero was tested using the Q-statistic that has a chi-square distribution with k – 1 degrees of freedom when the null hypothesis is true (Hedges and Pigott, 2001). A significant Q-value thereby indicates to reject the null hypothesis and points to a greater variability of effects sizes among the underlying studies than would be expected solely from sampling error. Thus, effect size heterogeneity may be caused by other factors than subject-level sampling error moderating the focal relationship (Lipsey and Wilson, 2001).

Moderator analysis

To account for moderation effects we employed weighted random effects meta-regression with one covariate (Hedges and Olkin, 1985) to determine whether potential continuous moderator variables explain this heterogeneity. The resulting regression coefficient ß illustrates the change of the correlation coefficient describing the parent firm’s size – establishment mode choice relationship per unit change in the potential moderator variable. To determine the overall fit of the regression model two indices have been calculated. First, Q_M illustrates the portion of total variability explained by the regression model and, second,

Q_E represents the residual of total variability unexplained by the regression. When the model sum-of-squares (Q_M) compared to a chi-square distribution with one degree of freedom shows to be significant, the regression coefficient ß is significantly different from zero and thereby explains variability in the effect size. When the residual sum-of-squares (Q_E) with k – p – 1 degrees of freedom, where k is the number of studies in the analysis and p the number of predictor in the regression model (i.e., 1 in our models), is significant, the moderator variable does not explain sufficient variability and, thus, the effect size distribution remains heterogeneous (Lipsey and Wilson, 2001).

RESULTS

Table 3 depicts the direct effect of parent firm's size on the choice between acquisition and greenfield investment to enter foreign markets.

Insert Table 3 about here

In our meta-analysis we found that parent firm's size is positively related to an entry by acquisition ($\bar{r}_z$ = 0.0492). However, this effect did not significantly differ from zero, as the 95% confidence interval included zero. Apart from that, the test for homogeneity revealed a significant Q-value ($p < 0.001$), indicating that the effect depends on contextual factors that moderate the relationship between the size of the parent firm and the establishment choice.

Moderator analysis. We performed moderator analyses for host country experience, acquisition experience, cultural distance and industry concentration as shown in Table 4.

Insert Table 4 about here

We found that host country experience significantly moderated the parent firm’s size – establishment mode relationship ($Q_M = 28.51$, $p < 0.001$) in the way that larger firms are more likely to enter via greenfield investment when they have prior host country experience. Thus, hypothesis 1 is supported. Our findings further revealed the significant moderating effect of acquisition experience ($Q_M = 3.21$, $p < 0.1$). Although we hypothesized a positive effect of acquisition experience on the likelihood of acquisition entry, we found that the greater the acquisition experience the more likely large firms enter through greenfield investment. Hence, hypothesis 2 has to be rejected. Analyzing the effect of cultural distance on the relationship between the size of parent firms and the establishment mode we did not find significant results leading us to reject hypothesis 3. In Hypothesis 4 we proposed that under the presence of high industry concentration in the target country larger firms are more likely to enter through greenfield investment. Our findings revealed a significant moderating effect of industry concentration on the focal relationship ($Q_M = 29.95$, $p < 0.001$), supporting hypothesis 4.

DISCUSSION

Our study integrated empirical research on the relationship between parent firm’s size and the international establishment mode choice of MNEs. First, we focused on the most commonly used theories in establishment mode choice literature, TCE, RBV and IOE to present the theoretical rationale behind the focal relationship. We discussed controversies across the different theories which scholars used to explain the relationship between parent firm’s size and establishment mode choice. Second, we analyzed the mean effect of parent firm’s size on the choice between acquisition and greenfield investment in order to uncover whether larger firms prefer one form of market entry over another. Third, we considered the moderating impact of firm, host country and industry related factors to test if and how host country experience, acquisition experience, cultural distance and industry concentration contextualize the focal relationship. In the following paragraphs, we discuss our findings in light of prior literature.

Research applying TCE to explain the establishment mode choice of large firms argued that such firms choose acquisitions over greenfields as they bear more easily the costs of initiating, negotiating and integrating acquisitions (Dow and Larimo, 2011). Studies drawing on the RBV suggested that larger firms choose greenfields over acquisitions because larger firms possess valuable firm resources which they are unwilling to share with local firms through an acquisition entry (Barkema and Vermeulen, 1998; Brouthers and Brouthers, 2000; Anand and Delios, 2002). The IOE research considers that parent firm’s size is an important determinant of establishment mode choice however according to this theory both greenfield and acquisition establishment modes can be chosen by large firms (Yip, 1982). Given the different theoretical explanations and conflicting empirical findings, we integrated extant establishment mode choice research by the means of meta-analysis. Our finding reflects the inconclusive debate in establishment mode research—our results indicated that the direct impact of parent firm’s size on establishment choice is insignificant. On the one hand, our meta-analysis corroborates the set of studies that found non-significant results on the parent firm’s size – establishment mode relationship (e.g., Chang and Rosenzweig, 2001; Demirbag et al., 2008; Dow and Larimo, 2011). On the one hand, our finding challenges prior research suggesting that (large) firms choose greenfield investments over acquisitions as foreign market entry mode strategies (Lopez-Duarte and Garcia-Canal, 2002; Tsai and Cheng, 2004), or vice versa (Andersson and Svensson, 1994; Vermeulen and Barkema, 2001; Ruiz-Moreno et al., 2007; Larimo, 2003; Brouthers & Dikova, 2010; Slangen, 2011). By contrast, Lamont and Anderson (1985) found that firms often use both modes to enter foreign markets. While small firms are constrained in terms of financial and managerial resources, larger firms can rely on greater resource availability and therefore have a real choice between the two establishment modes. As a result, a distinct preference for acquisition or greenfield entry may be difficult to observe considering solely resource availability or transaction costs.

To further contribute to this literature and learn more about the boundary conditions of the parent firm's size and establishment mode relationship, we first contextualized the association by considering the moderating impact of firm-specific, host country experience. Our analysis confirmed our theoretical prediction that larger firms are less likely to establish acquisitions when they have prior host country experience but instead they opt for greenfields. Many studies report an insignificant direct effect of host country experience on establishment mode choice (Kogut & Singh, 1988; Ruiz-Moreno et al., 2007; Dow & Larimo, 2011; Slangen, 2011). Our finding indicates that firm-specific host country experience exerts a significant impact on the firm's establishment choice when considered in tandem with parent firm's size. This finding is an important addition to the ongoing debate in the field and a first step in reducing inconsistent findings regarding the direct impacts of both firm size and host country experience on the establishment choice. Our meta-analytic result further supports our intent to delve deeper into the boundary conditions of firm-specific factors and their impact on the strategic decision between acquisition and greenfield.

As a second contextualization factor, we moderated the parent firm's size – establishment mode relationship with acquisition experience. We argued that larger firms with prior acquisition experience are likely to opt for acquisition in a subsequent foreign market entry decision. Our findings, however, were counterintuitive and indicated that the propensity of acquisition entry decreases when larger firms have extensive experience with acquisitions.

Moreover, our finding challenges prior establishment mode literature that identified positive relationships between acquisition specific experience and the propensity to acquire foreign firms (e.g., Padmanabhan and Cho, 1999; Drogendijk and Slangen, 2006; Dikova and van Witteloostuijn, 2007). We offer several explanations of our findings. Perhaps the acquisition experiences were made in countries or regions dissimilar to the focal host country. This explanation is consistent with Haleblian and Finkelstein (1999) who note that prior acquisition experience may not be relevant for dissimilar acquisitions. Hence, in the establishment mode choice context, the dissimilarity between circumstances may lead firms to opt for greenfield to prevent a likely acquisition failure (Padmanabhan and Cho, 1999). It may be worth to take into account how prior experience with acquisitions occurred. In this regard, it seems important to consider *where* and *when* prior acquisitions were launched. For example, when the acquisition context is very different then the experience gained from such acquisitions may not be applicable in the new context. This is particularly pertinent for larger firms which have the necessary resources to engage in international acquisitions. Moreover, when acquisition experience is too distant or too close in terms of time, the knowledge gained may not be beneficial for a new establishment decision. Prior research has shown that some firms suffer from diseconomies of time compression (Dierickx and Cool, 1989). When the experience is too fresh the company does not have the necessary time to identify, value, select, and assimilate the new knowledge to existing knowledge (Cohen and Levinthal, 1990). When the experience is too distant in terms of time, the knowledge may be obsolete. Firm size plays an important role in this regard as larger firms often suffer from organizational inertia (Hannan & Freeman, 1984) which may further hamper the knowledge diffusion process in international acquisitions. Another possible explanation for the counterintuitive finding may be methodological in nature. In our meta-analysis acquisition experience is for the predominant part measured as the number of previous acquisitions undertaken by MNEs. Thus, the operationalization focuses on the quantity of MNEs' acquisition experience. In contrast, Hayward (2002) suggests that learning from acquisitions depends on the quality of the experience rather than its quantity. To this end, (a high number of) repeated activities may sufficiently illustrate learning effects if these activities exhibit a certain level of homogeneity (Hayward, 2002). However, when investigating heterogeneous and irregularly realized actions such as international acquisitions, the mere number of prior acquisitions may not be the most accurate measurement of prior acquisition experiences. In a similar vein, the operationalization of acquisition experience does not allow conclusions concerning the chronology of prior establishment modes chosen by investing firms. As a result, other factors could have led firms to abstain from acquisitions and to more intensively rely on greenfield investments.

In our meta-analysis we further moderated the relationship between parent firm's size and the establishment mode with cultural distance. Although the meta-regression results indicate large firms' propensity to enter via greenfield investment when cultural distance is high, due to the insignificant effect we were not able to support our third hypothesis. A possible explanation of the insignificant effect may be that larger firms have more internationally experienced managers and employees (Barkema and Vermeulen, 1998) and therefore cultural differences become less relevant of a factor in the establishment mode choice. Moreover, larger firms may possess more capabilities to deal with cultural challenges in the host country, irrespectively of the establishment mode chosen. Researchers note that the strategic decision to enter a foreign country through acquisition or greenfield depends strongly on the executives' perceptions and experiences (Shenkar, 2001; Drogendijk and Slangen, 2006). Managers, familiar with the host country culture may be able to close the cultural gap between the home and the host country by influencing and motivating other managers and employees (Shenkar, 2001). Perhaps accounting for managerial experiences and perceived cultural differences by the top managers would be more informative than relying on national cultural distance as a predictor of establishment mode choice. Another potential explanation for the insignificant moderating effect of cultural distance is proposed by Slangen (2011). He uses communication theory to suggest that verbal communication between the parent firm and the subsidiary, which occurs for the purpose of exchanging technology, coordination and monitoring of subsidiary's activities and socializing the subsidiary's workforce, may be more relevant in predicting the choice between greenfields and acquisitions than cultural distance alone. Communication can be obstructed by linguistic and geographic barriers, which in turn can cause an increase in the costs of integrating the foreign subsidiary, subsequently influencing the preference for greenfield over acquisition investment (Slangen, 2011). The insignificant moderating effect of cultural distance in our analysis begs for a reconsideration of the importance of national culture as a factor that determines the preference of large firms for greenfield or acquisition foreign establishment modes.

Finally, we examined the moderating effect of industry concentration on the association between parent firm's size and establishment mode choice. Consistent with our arguments, we found that larger firms are more likely to enter highly concentrated markets via greenfield investments. This finding is in line with previous studies suggesting that the limited number of acquisition candidates in concentrated industries presents an aggravating challenge for firms trying to identify suitable acquisition targets. Our result is consistent with two sets of arguments presented in establishment mode literature. First, facing a new (greenfield) entrant in a concentrated industry, incumbent firms are prone to adopting retaliation measures to protect their market position (Wagner, 1994; Anand and Delios, 2002; Dikova and van Witteloostuijn, 2007). As a result, the incumbents are likely to engage in a competitive battle (Chatterjee, 1990; Shaver, 1998). Whereas small firms' profitability and survival prospects would be drastically endangered, larger firms with abundant resources are able and likely to withstand retaliation measures such as price reductions. Firm size can therefore add some additional explanatory power to the observation that (lager) firms have a propensity to enter concentrated markets via greenfield investments. Second, local governments are assumed to protect industries from being monopolized. To this end, antitrust regulations aim at preventing foreign firms from launching (large) acquisitions in concentrated markets (Hennart and Park, 1993; Chen and Zeng, 2004). As larger firms are more capable of executing large acquisitions, the preference for greenfield investments over acquisitions in highly concentrated industries may be driven by anti-trust measures by local governments. In this regard, we find interesting contingencies that require further examination in the future.

LIMITATIONS, IMPLICATIONS AND CONCLUSIONS

In addition to general limitations pertaining to meta-analysis as a methodology (for details see e.g., Hunter and Schmidt, 1990; Lipsey and Wilson, 2001), other limitations are related to the current paper. First, the number of studies included in our meta-analysis is rather limited. Although parent firm's size is one of the most frequently observed variables in studies investigating firms' establishment mode choices, the available number of studies was relatively small. Establishment mode research is still in its infancy; we were only able to identify 36 published studies dealing with MNEs' establishment choice. Additionally, not all studies reported the information needed to perform a meta-analysis which further reduced the number of studies we could consider. In this regard, we encourage authors to report basic statistics, such as means, standard deviations and correlations in their articles. Overall, the limited number of studies indicates that the field is immature and that there are multiple opportunities to develop the field further. Second, we only included peer-reviewed research articles excluding studies published in books, book chapters, conference papers or discussion papers. We decided not to include such studies because we treated them as less validated by peer-review process and because peer-reviewed journal articles have fewer restrictions in terms of availability (Podsakoff et al., 2005). Third, the potential for moderator analyses is often limited by what has been examined in prior research. In this regard, we were limited with the number of contextual factors we could consider at firm-, industry-, and country- level of analysis.

Despite some limitations, our meta-analysis provides practical implications. First, our study points at the importance for managers to take contextual factors into consideration when deciding on the mode of establishment of a foreign subsidiary. Although the amount of resources available for a firm is certainly an important determining factor for the choice between greenfield and acquisition, it should not be considered in isolation as it might not lead to the most suitable entry mode. Instead, firms should additionally rely especially on other firm specific (i.e., host country experience) as well as industry specific (i.e., industry concentration) factors. Following the argumentation by Morschett et al. (2010) allowing us to derive implications based on an analysis of propensities, we further develop recommendations for the choice of either acquisition or greenfield entry. In this regard, larger firms should opt for greenfield investments if they possess considerable host country experience and in case they invest in highly concentrated markets. On the other hand, larger firms should not overestimate the generalizability of mode specific experience. As we indicated, larger firms should instead reflect on the boundary conditions in terms of when, where, and how specific experiences have been collected. Otherwise, automatism, inertia or fallacious assurance may lead to entry strategies firms cannot successfully manage. Moreover, our results show that cultural distance is not a decisive factor for larger firms when entering a foreign country. However, we cannot exclude that other types of distance (e.g., added cultural distance, psychic distance) have to be taken into account to choose the most appropriate establishment mode.

In conclusion, we focused on one of the most commonly used predictors in international establishment mode research, parent firm's size. This predictor produced conflicting results in the past—some studies reported that parent firm's size positively affects the likelihood of choosing greenfield, others showed that parent firm's size determined an acquisition choice while a third group of studies demonstrated a lack of a significant effect. Our meta-analysis revealed that parent firm's size does not have a direct impact on the choice between greenfields and acquisitions. We have argued that the relationship between parent firm's size and establishment mode choice is context-specific, and is therefore likely to be moderated by firm, industry and host-country characteristics. We showed empirically that MNEs' host country experience, their past experience with international acquisitions and industry concentration significantly moderate the relation between parent firm's size and establishment mode choice. Future research related to establishment modes may investigate other potential models that depict the effects of firm, industry and country characteristics on the choice between greenfields and acquisitions in order to move the current state of literature further. This may resolve current inconsistencies and controversies about the determinants of establishment mode choices of MNEs.

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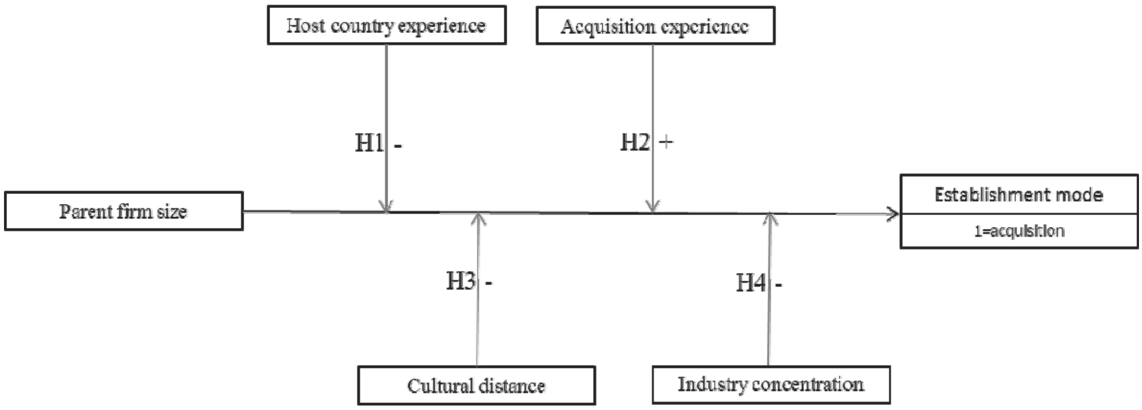
FIGURES

Figure 1: Research model



TABLES

Table 1: Establishment mode choice studies

Studies	Journal
Anand and Delios 2002	Strategic Management Journal
*Andersson and Svensson 1994	Scandinavian Journal of Economics
*Arslan and Larimo 2011	Journal of Global Marketing
Barkema and Vermeulen 1998	Academy of Management Journal
Brouthers and Brouthers 2000	Strategic Management Journal
*Brouthers and Dikova 2010	Journal of Management Studies
Chatterjee 1990	Academy of Management Journal
Chen 2008	Journal of International Business Studies
Chen and Zeng 2004	International Journal of Research in Marketing
Cheng 2006	Canadian Journal of Administrative Science
Cho and Padmanabhan, 1995	Journal of International Management
Demirbag, Tatoglu and Glaister 2008	Management International Review
Dikova and van Witteloostuijn 2007	Journal of International Business Studies
*Dow and Larimo 2011	Management International Review
*Drogendijk and Slangen 2006	International Business Review
*Eiche, Schwens and Kabst 2012	Journal of Business Economics
Elango 2005	Journal of Operations Management
Estrin, Baghdasaryan and Meyer, 2009	Journal of Management Studies
Harzing 2002	Strategic Management Journal
Hennart and Park 1993	Management Science
Klimek 2011	Eastern European Economics
Larimo 2003	Journal of Business Research
Mudambi and Mudambi 2002	International Business Review
Padmanabhan and Cho 1995	International Business Review
Padmanabhan and Cho 1999	Journal of International Business Studies
*Rienda, Claver and Quer 2013	Journal of the Asia Pacific Economy
Ruiz-Moreno, Mas-Ruiz and Nicolau-Gonzalbez 2007	Journal of Business Research
*Shaver 1998	Management Science
*Slangen 2011	Journal of Management Studies
Slangen and Hennart 2008a	Journal of International Business Studies
*Tsai and Cheng 2004	International Journal of Commerce Management
*Vermeulen and Barkema 2001	Academy of Management Journal
Wilson 1980	Journal of International Business Studies
Wu, Liu and Huang 2012	China: An International Journal
Yip 1982	Strategic Management Journal
Zejan 1990	Journal of Industrial Economics

Studies marked with an asterisk (*) are included in the meta-analysis

Table 2: Descriptive statistics and correlations

Study	Journal[a]	Sample size	Effect sizes on establishment mode[b]				
			PFS	HCE	AE	CD	IC
Andersson and Svensson (1994)	SJE	925	0.18	0.22			
Arslan and Larimo (2011)	JGM	343	0.15	0.15			
Brouthers and Dikova (2010)	JMS	154	0.24		0.20		0.02
Dow and Larimo (2011)	MIR	1473	-0.07	0.09		-0.24	
Drogendijk and Slangen (2006)	IBR	246	0.06	0.21	0.22	-0.27	
Eiche et al. (2012)	JBE	95	-0.11				
Hutzschenreuter et al. (2011)	JMS	91	0.01				
Mata and Portugal (2000)	SMJ	1033	0.38				0.05
Rienda et al. (2013)	JAPE	117	-0.04	-0.02		0.20	
Shaver (1998)	MNSC	213	-0.17	0.20			-0.33
Slangen (2011)	JMS	231	0.19	0.12	0.22	-0.03	
Tsai and Cheng (2004)	IJCOMA	188	-0.19			-0.03	
Tsang and Yip (2007)	SMJ	1373	-0.04			0.08	
Vermeulen and Barkema (2001)	AMJ	1349	0.01		0.16	-0.13	

[a]AMJ=Academy of Management Journal, IBR=International Business Review, IJCOMA=International Journal of Commerce and Management, JAPE=Journal of Asia Pacific Economy, JBE=Journal of Business Economics, JGM=Journal of Global Marketing, JMS-Journal of Management Studies, MIR=Management International Review, MNSC=Management Science, SJE=Scandinavian Journal of Economics, SMJ=Strategic Management Journal

[b]PFS=Parent firm's size, HCE=Host country experience, AE=Acquisition experience, CD=Cultural distance, IC=Industry concentration

Table 3: Effect on establishment mode

variable	K	n	$\bar{r}_z$	95% confidence interval		Q
Parent firm's size	14	7831	0.0492	-0.0472	0.1455	213.02***

***p < 0.001, **p < 0.01, * p <0.05, †p < 0.1

Table 4: Continuous moderator analysis

moderator	ß	SE	95% confidence interval		Q_M	Q_E
Host country experience	-0.0409	0.0077	-0.0560	-0.0259	28.51***	0.55
Acquisition experience	-0.0106	0.0059	-0.0222	0.0010	3.21†	1.00
Cultural distance	-0.0489	0.0770	-1.9987	0.1021	0.40	6.38†
Industry concentration	-0.0143	0.0026	-0.0194	-0.0092	29.95***	1.00

***p < 0.001, **p < 0.01, *p < 0.05, †p < 0.1