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Theory and Evidence from European Transition Economies

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**Does country context distance determine subsidiary decision-making
autonomy? Theory and evidence from European transition economies**

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ABSTRACT

We studied an underrepresented area in the international business (IB) literature: the effect of country context distance on the distribution of decision-making autonomy across headquarters and foreign affiliates. Foreign affiliates directly contribute to the competitive advantages of multinational enterprises, highlighting the importance of such intra-firm collaboration. The division of decision-making autonomy is a core issue in the management of headquarters-subsidary relationships. The main contribution of our paper is that we confront two valid theoretical frameworks – business network theory and agency theory – that offer contradictory hypotheses with respect to the division of decision-making autonomy. Our study is among the first to examine this dilemma with a unique dataset from five Central and Eastern European transition countries. The empirical results provide convincing support for our approach to the study of subsidiary decision-making autonomy.

Key words: country context distance, headquarters-subsidary relationship, decision-making autonomy, Central and Eastern European transition economies

INTRODUCTION¹

Multinational enterprises (MNEs) typically operate subsidiaries in different geographical locations to exploit location-specific advantages abroad. Today, it is acknowledged that foreign subsidiaries contribute to the competitive advantages of multinational enterprises (Anderson, Bjorkman, & Forsgren, 2005; Birkinshaw, Hood, & Jonsson, 2008; Cantwell & Mudambi, 2005), highlighting the importance of intra-firm collaboration. Operating in different geographical locations implies that MNEs face contextual differences between the home country in which the headquarters is located and the host country in which the foreign affiliate is located. These contextual differences between country contexts are associated with the liability of foreignness (Hymer, 1976; Zaheer, 1995), which suggests that MNEs face organizational challenges that domestic firms do not. Recent studies report great differences in the geographical portfolios of MNEs (De Jong, Phan, & Van Ees, 2011; Rugman & Oh, 2010). Consequently, IB scholars have addressed the impact of distance in country contexts on MNE strategy and performance (Dikova, 2009; O'Grady & Lane, 1996; Shenkar 2001, 2012a, b; Tung & Verbeke, 2010).

With few exceptions, however, the authors of most prior studies ignore the role of country context distance in the distribution of decision-making autonomy between headquarters and foreign subsidiaries. The division of decision-making autonomy is a core issue in the management of headquarters-foreign affiliate relationships (Paterson & Brock, 2002; Verbeke, Chrismann, & Yuan, 2007). We argue that the division of decision-making autonomy is complicated by the distance in country contexts of headquarters and subsidiaries that inherently characterizes the MNE's organization. The main contribution of our paper is that we confront two valid theoretical frameworks – business network theory and agency theory – that offer contradictory hypotheses with respect to the division of decision-making autonomy. On the one

¹ We would like to thank Pervez Ghauri (the editor) and two anonymous reviewers for their helpful comments and suggestions. All remaining errors are ours.

hand, for example, business network theory argues that headquarters may need to grant decision-making autonomy to subsidiaries in order to enable local managers to respond to changes in local circumstances. On the other hand, agency theory suggests that MNEs might seek to control subsidiaries in unknown contexts to reduce the risks of opportunism and uncertainty. However, the question of whether the division of decision-making authority responds to the distance between the home and the host country contexts remains unexplored to date. The study of country context distance in relation to subsidiary decision-making autonomy is our first contribution to recent contextual IB research. Through this contribution, we are responding to the calls for more interdisciplinary research to better account for the multifaceted nature of home-host country context distances and variations in subsidiary decision-making autonomy (Dörrenbächer & Geppert, 2006; Geppert & Williams, 2006; Verbeke, Chrisman, & Yuan, 2007).

This paper's second contribution is that it provides a stepping-stone towards investigating in detail core aspects of country context differences for decision-making autonomy in general, as well as for decision-making autonomy for certain business functions in particular, such as strategic management and marketing. In our particular research setting of Central and Eastern European countries, the empirical results help solving the dilemma between the opposite theoretical hypotheses concerning country context distance and the division of decision-making autonomy. We follow recent IB research that has advocated the use of a multidimensional perspective for country context distance in studies of MNE operations, building upon growing concerns of unidimensional approaches such as Hofstede's cultural distance measures or variations thereof (Kirkman, Lowe, & Gibson, 2006; Shenkar, 2012a,b; Tung & Verbeke, 2010). We therefore test our research hypotheses in this study by regressing various country context distance dimensions – in terms of economic, religious, language, cultural, and geographic differences – on survey-based indicators of subsidiary decision-making autonomy from a sample

of foreign affiliates based in five Central and Eastern European (CEE) transition countries: the Czech Republic, Hungary, Poland, Romania and the Slovak Republic. CEE countries offer a relevant research context for our study because they have experienced a strong inflow of foreign direct investment due to the liberalization of trade policies, the mass privatization of state-owned companies and the increasing opening up of markets resulting from EU integration (Jindra, Giroud, & Scott-Kennel, 2006; Meyer & Peng, 2005). The majority of CEE countries achieved privatization through divestment of state assets to strategic investors, in which MNEs played an important role (Nakos & Brouthers, 2002) and which raise questions of country heterogeneity and MNE organization. Their communist heritage has had a substantial impact on the formal and informal institutions in these countries. This appears in distinct cultural traits such as a lack of initiative and risk aversion among CEE managers. Western companies investing in CEE countries need to deal with differences in language and social and cultural change processes, which carry with them differences in the ‘liabilities of foreignness’ and the solutions for handling them. Our unique multi-level database not only permits us to study to what extent the MNEs which have entered CEE markets used different patterns of ownership and control – reflected in differences in subsidiary mandates – but also whether, and if so, how, heterogeneity in country context distances plays a role in the stratification of decision-making autonomy across parents and foreign affiliates.

The outline of this paper is as follows. We begin by reviewing the subsidiary autonomy and the country context distance literature which serve as the foundation for our research. Next, building on this research background, we formulate our hypotheses about the effect of country context distance on subsidiary decision-making autonomy. That is, using business network theory and agency theory we develop new theory for decision-making autonomy. Then, we introduce this paper’s research methodology, addressing issues related to the collection of our data and our measures of the variables. Following that, we present our empirical evidence.

Finally, we conclude with an appraisal, discussing the study limitations and offering reflections on opportunities for future research.

THEORY AND HYPOTHESES

Subsidiary decision-making autonomy

There are various reasons why subsidiary decision-making autonomy matters and is worthy of further study (Gammelgaard, McDonald, Stephan, Tüselmann, & Dörrenbächer, 2012a, b; Johnston & Menguc, 2007; O'Donnell, 2000; Rabbiosi, 2011). First of all, it is a key reflection of the overall organizational structure of subsidiaries and the current power-dependence structures between headquarters and subsidiaries as well as the intra-organizational management of an MNE network. Second, it is among the most important variables determining the behaviour, strategy and performance of subsidiaries and therefore also of the overall MNE organization, given that MNEs are networks of interrelated affiliates.

Any study of this phenomenon requires a precise definition. Decision-making autonomy has attracted the attention of scholars in various fields and is usually studied at either the individual or the firm level. Depending on the context, the term 'decision-making autonomy' can have different meanings. According to Brooke (1984:9) for example, decision-making autonomy refers to an organization 'in which units and subunits possess the ability to take decisions for themselves on issues which are reserved to a higher level in comparable organizations'. This is similar to Roth & Morrison (1992) who define decision-making autonomy as the extent to which the subsidiary managers are able to make decisions without headquarters' involvement. This definition aligns with other leading studies in the field, such as Young & Tavares (2004), who relate it to the constrained freedom or independence available to or acquired by a subsidiary, which enables it to take certain decisions on its own behalf. Accordingly, irrespective of the

study foci, subsidiary decision-making autonomy generally refers to the degree to which an MNE subunit can make significant decisions.

A stream of relatively recent studies – following earlier work from the 1980s (Garnier, 1982; White & Poynter, 1984) and 1990s (Birkinshaw & Hood, 1998; Blaine, 1994; Taggart & Hood, 1999) – focus on an analysis of the role of the subsidiary to explain inter-organizational differences in MNE behaviour and performance (Birkinshaw, Hood, & Jonsson, 1998; Paterson & Brock, 2002). Several studies have pointed out that some MNEs allow their subsidiaries a great deal of decision-making independence, while others assume tight control of their subsidiary activities (Ambos, Asakawa, & Ambos, 2011; O’Donnel, 2000). Furthermore, there is some evidence to suggest that this strategy can change over time (Dörrenbächer & Gammelgaard, 2006). This line of research argues that autonomy is a necessary (though not the only) requirement for the optimal performance of subsidiaries and their contribution to an MNE’s value chain. Autonomy is a key motivator for subsidiary management: decision-making power enables network links, innovation and resource accumulation. Like other relational features of intra-firm alliances, autonomy creates autonomy and will foster performance through co-evolutionary processes.

Although the subsidiary literature offers a somewhat scattered picture of the subsidiary’s decision-making position, we can classify autonomy antecedents into three clusters. A first set of antecedents accounts for the strategic role of the subsidiary. This is reflected in a subsidiary’s level of integration within a MNE network, the subsidiary’s knowledge competences, and its size and performance. It has been argued that some subsidiaries are more important to their headquarters and the overall subsidiary network of the multinational enterprise than others. When subsidiaries are assigned a strategic position with extensive scope for adding value (in addition to more usual market and product scopes), they are more likely to take full responsibility for the production process of particular products. Such subsidiaries generate firm-

specific competences resulting in more decision-making autonomy (Ambos & Ambos, 2009). Additionally, it has been suggested that subsidiaries vary in their distinctive resources and capabilities. Subsidiaries with a superior knowledge base compared to other subsidiaries are less dependent on their headquarters and the MNE network and therefore have greater decision-making autonomy (Rabbiosi, 2011). The autonomy literature also points to variations in the size of subsidiaries. A large subsidiary is able to exploit economies of scale which permit larger returns on assets and sales. Such subsidiaries will be in a better position to obtain higher degrees of decision-making autonomy (Young & Tavares, 2004). Recent studies suggest that there is a decreasing marginal return of subsidiary size to decision-making autonomy (Johnston, 2005; Johnston & Menguc, 2007). However, irrespective of the precise form of the causality, it goes without saying that previous studies highlight that the size of an affiliate affects its decision-making autonomy. Regarding subsidiary performance, most studies indicate that high subsidiary performance is associated with high subsidiary decision-making autonomy.

A second set of variables used to explain differences in subsidiary decision-making autonomy concern the MNE's control structure reflected in, for instance, the number of parent company representatives on the subsidiary's management board or the extent of parent ownership. The empirical results in this line of research are generally consistent, with most studies finding a negative relationship between decision-making autonomy and more intense monitoring or direct control by headquarters (Johnston & Menguc, 2007; Maennik, Varblane, & Hannula, 2005). A higher level of ownership in a foreign subsidiary provides the MNE with a greater degree of control over subsidiary operations, leaving ample opportunities for subsidiary managers to make strategic or operational decisions (Gaur & Lu, 2007). The MNE's initial entry modes and motives are directly related to the control structures (Cantwell & Mudambi, 2005; Simões, Biscaya, & Nevado, 2002). Greenfield established that subsidiaries face particular risks – including the need to adapt to local circumstances and to increase their legitimacy through

initiating, developing and maintaining ties with local customers and suppliers – thus requiring greater decision-making autonomy than other modes of entry such as acquisition. Entry motives such as market access or efficiency imply direct control and little autonomy for subsidiaries because an optimal alignment of activities is required to realize these strategic goals. MNEs with knowledge-based entry motives allow subsidiaries greater decision-making freedom because autonomy is perceived as a minimum requirement for successful innovation. The MNE divisional structure is another related control aspect; subsidiaries within MNEs with a divisional structure based on functional areas have lower levels of decision-making autonomy than other non-divisional structures.

A final set of autonomy antecedents accounts for the context in which the subsidiary operates. Gates and Egelhof (1986), for instance, show that the centralization of decision-making between headquarters and subsidiaries differs significantly according to the primary industrial group in which the firms operate. Local circumstances determine the ability of subsidiaries to develop capabilities and competences (Geppert & Williams, 2006). For example, firms operating in a coordinated market economy are regarded as significantly more institutionally constrained than those in liberal market economies, in the sense that they operate within contexts whose legal frameworks and systems of industrial relations constrain the managers' autonomy in applying market-driven or technologically contingent management practices. In a similar vein, the autonomy research suggests that some industries enable subsidiaries to develop competences more than others and hence optimally add value for the headquarters. Industrial structures or their life cycles are inadequate *per se*. What matters is the level of development reflected in advancements in technological knowledge and capabilities. Birkinshaw and Hood (2000) report that subsidiaries in leading-edge industries are more autonomous and more locally integrated and internationally oriented than subsidiaries in other sectors (Frost et al., 2002). In high technology industries, subsidiaries are expected to develop cooperative and close ties with suppliers and

customers, experiment with new ideas and transfer some of their learning to headquarters, all of which require high levels of autonomy (Ambos et al., 2011; Asakawa, 1996, 2001; Maennik et al., 2005).

In summary, a review of the subsidiary literature offers a multitude of valuable explanations for variations in decision-making autonomy. However, the review also indicates that despite the crucial role played by distance in international business (IB) research in general, no study so far has explicitly addressed how distance and home country context affects subsidiary decision-making autonomy. Our study develops hypotheses on exactly this relationship, combining insights from distance studies with headquarters-subsidiary research.

Country context distance

Firms and managers confront additional challenges when crossing borders and becoming operationally active in a host country context that differs from their home country. Although a change in context could in principle also relate to intra-country variation, IB research is concerned with firms crossing national borders and the development of economic activities in other nations. To explore and exploit the location-specific advantages abroad, firms and managers have to overcome the distance between the home and the host country. These contextual differences in terms of geography, culture, institutions or economic development are associated with the liability of foreignness (Hymer, 1976; Zaheer, 1995), meaning that internationalizing firms incur costs that domestic firms do not have.

The debate concerning the conceptualization and measurement of country context distance is prominent in the IB research agenda (for a recent overview and review of theories and measures for cultural distance, perceived psychic distance and psychic distance stimuli see, for example, Drogendijk & Martín Martín 2015, Earley 2006, Ellis 2008 or Avloniti & Filippaios 2014). It is well accepted that every country has a unique institutional environment, which

imposes formal and informal constraints on human and organizational behaviour (North, 1990). Formal institutional constraints include laws, regulations and rules which affect the ability of organizations to enact and enforce contracts, and which may or may not provide a stable business environment. The fundamental argument in this institutional theory is that organizations functioning in similar environments will employ similar practices. The adoption of these common practices is explained by an organization's desire to conform to institutional pressures, driven by legitimacy motives. The legitimacy of an organization is reflected in its acceptance and/or approval by the environment, which in the case of MNEs consists of multiple environments. This includes the implication that organizations active in diverse institutional environments are likely to lack the information and capabilities needed to understand, interpret and evaluate environmental pressures correctly throughout the whole set of environments that they face.

Informal institutions, or codes of conduct as described by North (1990), can be viewed as corresponding to culture within the Hofstede (2001) framework.² It is argued that leadership is culturally contingent and likely to determine the performance of individuals (Drogendijk & Slangen, 2006) and of organizations (Kirkman, Lowe, & Gibson, 2006). MNEs are likely to account for cultural variations when optimizing their sets of international opportunities. Hofstede (2001: 25) defined culture as 'the collective programming of the mind which distinguishes the members of one category of people from another'. The term 'collective programming' implies that members of a group are conditioned by shared characteristics such as language, history,

² This is similar to the concept of psychic distance (Avloniti & Filippaios, 2014). Psychic distance refers to perceptions of managers and was originally defined as 'the sum of factors' contributing to perceived differences in home and host country contexts following 'differences in language, culture, political systems, level of education, level of industrial development, etc.' (Johanson & Wiedersheim-Paul, 1975: 308). The concept emphasizes the extent to which environmental differences between home and host countries present information flows and generate barriers to learning about these markets (Dikova, 2009; O'Grady & Lane, 1996). The greater the psychic distance between home and host countries, the more difficult it is to collect, analyse and correctly interpret information about these differences (Håkanson & Ambos, 2010). For that reason, firms tend to select overseas markets in accordance with the psychic distance from the home country; a lower psychic distance means that a country is more likely to be selected, and vice versa. In a similar vein, Sousa and Bradley (2008) argue that psychic distance incorporates elements of cultural distance. Dow & Karunaratha (2006) also stress the importance of cultural distance in psychic distance following empirical evidence that higher cultural distance leads to higher levels of psychic distance.

religion and education in how they share norms and values, thus resulting in different perspectives on similar occurrences compared to other groups. There are certainly differences within a group and within a country, but Hofstede and related studies such as House et al. (2004) show that there are significant variations between countries in defining the diverging actions and interactions of societies. Divergent national cultures implicitly lead to the idea of cultural distances, which can be regarded as the difference between one national culture and another on the basis of a certain cultural parameter (De Jong & Van Houten, 2014). Cultural diversity is consequently perceived as the aggregate level of cultural heterogeneity with which a firm is brought into contact as a result of its international operations and subsidiaries.

Of all the potential dimensions of country context distance, cultural distance (CD) is an important focus, given the widespread use of Hofstede's database. CD has been applied to a wide range of research questions, including foreign direct investments, innovation and subsidiary performance (a review by Kirkman, Lowe, & Gibson, 2006 found 180 studies covering a multitude of IB topics). Despite its wide use, the concept itself and its measurement are subject to ongoing debate following the concerns Shenkar (2001, 2012a, b) raised and the mixed empirical findings that have been reported extensively (Beugelsdijk & Mudambi, 2013; Tung & Verbeke, 2010). Shenkar's concerns apply to the conceptual and methodological properties of the CD construct. The former includes the so-called illusions of symmetry, stability, linearity, causality and discordance. The latter includes the assumptions of corporate and spatial homogeneity and of equivalence. Shenkar also presents various mechanisms that could widen and narrow CD, such as globalization, geographical proximity, foreign experience, accultivation and staffing. He recommends replacing distance with friction as the underlying metaphor for cultural differences, focusing on the interface between transaction entities. An advantage of using friction is that it explicitly refers to the contact between two sides of an intercultural encounter. However, it has been argued that friction is not a perfect solution because it separates

the potential positive effects of intercultural contact (see Droegendijk & Zander, 2010 for an extensive commentary).

Several authors have proposed and tested alternative measures of cultural distance. Droegendijk & Slangen (2006) offer an extensive comparative test (for a comprehensive comparison of various country-score diversity measures, see also Avloniti & Filippaios, 2014). They show that the Hofstede and Schwarz-based measures of national cultural distance explain establishment decisions by MNEs equally well. Further, they also find that the explanatory power of the perceptual measure, despite its statistical significance, is lower. This is particularly noteworthy given that common knowledge suggests that managers' perceptions drive their decisions. In a similar vein, very recent empirical CD studies attempt to design variation-based measures aiming to overcome some of the methodological limitations of mean-based CD measures (Beugelsdijk, Slangen, Maseland, & Onrust, 2014). Existing measures reflect mean country values and thus ignore variations within host countries. In so doing, mean-based measures could overestimate CD effects on MNE behaviour and performance. Due to the lack of raw underlying data, many researchers nonetheless continue to rely on arithmetical means to calculate their distances, which is further complicated by the alleged superiority of variance-based alternatives over existing mean-based measures (Beugelsdijk et al., 2014).

In summary, our positioning in the distance research is as follows. We acknowledge that country context differences are important for the successful organization of multinational enterprises. Country context difference is a multidimensional construct that can be measured on various dimensions including culture, language and political systems (Håkanson & Ambos, 2011). Given that ours is among the first studies to attempt this, we theorize about the relationship between overall distance and subsidiary decision-making autonomy, leaving the analysis of the particular dimensions thereof to the empirical section of this research. This refined empirical strategy is relevant because the countries in our CEE research context differ in,

for instance, dominant language, religion and ethnicity. The measures used here are generally mean-based, given its proven added value in other distance studies (enabling a comparative perspective), the relatively immaturity of alternative variance-based measures and their lack of large-scale data limiting international empirical studies such as ours.

The relationship between country context distance and subsidiary decision-making autonomy can be analysed from two theoretical perspectives: agency theory and business network theory. Agency theory highlights the costs of doing business abroad while business network theory emphasizes its benefits. In the following, we will explain how the costs and benefits of international activities are reflected in hypotheses concerning the relationship between country context distance and subsidiary decision-making autonomy.

Agency theory and subsidiary decision-making autonomy

Agency theory studies how information asymmetry and goal incongruence affects decision-making (Akerlof, 1970; Eisenhardt, 1989; Stigler, 1961). In our setting, an agency problem essentially emerges when subsidiary managers make decisions that are not desired by headquarters as a result of information asymmetry and incongruence between the goals of headquarters and the subsidiary. According to agency theory, greater distance between home and host countries is likely to increase agency problems in the headquarters-subsidiary relationship and therefore increase the control headquarters exerts over subsidiaries (Chang & Taylor, 1999; O'Donnell, 2000). There are various explanations for a negative hypothesized relationship between country context distance and subsidiary decision-making autonomy. First, great distance between two groups of individuals in a business network located in different contexts increases the cost of interpreting information flows between the parties and also increases the risks of misinterpretation. It means that the costs of doing business in foreign countries increase with distance, or at least outstrip the rate of increase of the benefits. Second, subsidiary managers will

have an information advantage over their headquarters management (Vachani, 1999) when differences in characteristics between the headquarters market and a foreign subsidiary's market increase. This implies that agency problems arise when subsidiary managers make self-interested decisions incongruent with those of the foreign parent. Furthermore, with increased distance, complete and accurate information about a subsidiary's performance becomes more difficult and expensive to obtain, and subsidiary activities thus become more difficult to interpret (Roth & O'Donnell, 1996). Agency problems occur because subsidiary managers have greater specialized knowledge of the influence of the local environment and the strategic context on task performance (Gomez-Mejia & Balkin, 1992). Third, greater distance is likely to constitute a barrier to the headquarters' learning about a foreign environment, not only because there are differences in how business is conducted locally, but also because it impedes information flows towards headquarters (Gregersen & Hite, 1996; Roth & O'Donnell, 1996). These constraints result from the fact that headquarters faces high levels of uncertainty (Evans & Mavondo, 2002) and generic management difficulties in distant markets (Ellis, 2008). It is the root cause of inconsistencies in cognitive firm frameworks. Consequently, distance between home and host countries increases uncertainty, which increases agency problems in the headquarters-subsidary relationship.

Taken together, the arguments above suggest that distance between home and host countries increases information asymmetry, which increases agency problems in the headquarters-subsidary relationship. To resolve these agency problems, the headquarters cannot relinquish decision-rights to the subsidiaries, since the local interests of a subsidiary might not always be in line with those of headquarters (Nohria & Ghoshal, 1994). Therefore, the headquarters will closely monitor and supervise the behaviour of a subsidiary, which limits the ability and the incentives of subsidiaries to engage in self-interested behaviour. We therefore propose the following hypothesis:

Hypothesis 1: A greater distance between home and host country contexts is associated with lower levels of subsidiary decision-making autonomy.

Business network theory and subsidiary decision-making autonomy

Business network theory offers an alternative perspective on the relationship between country context distance and subsidiary decision-making autonomy (Andersson, Forsgren, & Holm, 2007; Ciabuschi, Forsgren, & Martín, 2011; Forsgren, 2008). From this perspective, it can be argued that increasing distance between home and host countries is likely to enhance subsidiary decision-making autonomy. Several explanations motivate this argument. First, each subsidiary operates in its own unique task environment in a host country, which constrains or determines the activities of that subsidiary. To survive, subsidiary managers need to conform and adapt to the rules, norms and belief systems prevailing in their local business environment (DiMaggio & Powell, 1983) – a process also referred to as normative rationality (Oliver, 1997). Accordingly, to increase a subsidiary's ability to understand its local business environment (Birkinshaw, Hood, & Jonsson, 1998), and to obtain local business legitimacy (Bartlett & Ghoshal, 1989; Prahalad & Doz, 1987), business network theory suggests that headquarters will delegate decision-making autonomy to distant subsidiaries to increase local legitimacy. Second, first-hand knowledge of local circumstances is a crucial competence within an MNE network because it allows subsidiaries to develop and adopt new products, processes or administrative systems locally using their own technical and managerial resources to respond to local circumstances (Forsgren, 2008). High levels of uncertainty accompany subsidiaries operating in a particular business network in markets distant from the MNE's perspective (Dikova, 2009; Evans & Mavondo, 2002). Headquarters will decentralize decisions to subsidiaries to reduce uncertainty. As a result, the subsidiary can undertake more extensive research and planning, which improves performance (Evans & Mavondo, 2002; Evans, Mavono, & Bridson, 2008).

To sum up, a greater distance between home and host country contexts increases the advantages of trust by the headquarters in the subsidiaries. This fosters local legitimacy and results in obtaining optimal local resources. Therefore, according to business network theory, headquarters will decentralize decision-making autonomy to more distant subsidiaries. We therefore hypothesize:

Hypothesis 2: Greater distance between home and host country contexts is associated with greater subsidiary decision-making autonomy.

RESEARCH METHODS

Data collection

Our hypotheses relate differences in subsidiary decision-making autonomy to differences in the distance between country contexts. We therefore constructed a multilevel database incorporating firm-level and country context distance measures. This multilevel database is constructed from various sources of information. The firm-level and control variables derive from the 2011 Institut für Wirtschaftsforschung Halle (IWH) Foreign Direct Investments (FDI) micro-database (IWH, 2011). Our data sources for measuring country context distances were principally the Dow & Karunratha (D&K) (2006) database and the Hofstede database. This section explains the databases' main features and details how we used them to measure our constructs.

Internationally harmonized and compatible firm-level survey data which goes beyond a limited range of standard statistical variables related to investments, sales and employment remains scarce in IB research (Driffield & Jindra, 2011). A notable exception is the IWH FDI micro-database (IWH, 2011). The IWH FDI micro-database offers bi-annual survey data on foreign affiliates based in the emerging economies of Central and East European countries from 2007. We use information from the 2011 edition. The 2011 survey edition is relevant for our

research for different reasons. First, it offers a unique opportunity to directly measure the decision-making autonomy of foreign subsidiaries for different business functions. Large-scale empirical studies of general business ties and those of foreign subsidiaries in particular are few and far between. Prior empirical studies often use proxies for decision-making autonomy. The IWH 2011 database offers a direct measure of subsidiary decision-making autonomy and in so doing, responds to the calls for more empirical research from the field. Second, to the best of our knowledge, it is among the few that do so for foreign subsidiaries in multiple home countries in general and for CEE host countries in particular. The contrast of between the CEE countries and the home countries of MNEs which have entered this region offer a broad range in country context distances and therefore a direct opportunity to test our research hypotheses. Third, the 2011 IWH database also offers the opportunity to measure a considerable number of firm and industry-specific control variables reported in the subsidiary literature as potentially important determinants of subsidiary decision-making autonomy.

The underlying population for the 2011 IWH FDI survey is drawn from the AMADEUS database (edition 2010). It consists of foreign affiliates with a minimum of ten employees and at least one foreign investor (i.e. the headquarters) holding either a minimum of 10 percent direct shares/voting rights or a minimum of 25 percent indirect shares/voting rights. These enterprises are independent affiliates with their own legal entity or branches with their own commercial register entry. The total population includes 8,650 foreign affiliates, 52 percent of which are based in Poland, 22.4 percent in the Czech Republic, 10.7 percent in the Slovak Republic, 7.8 percent in Romania and 7.1 percent in Hungary. The sample was stratified by host country per foreign affiliate in industrial (NACE Rev.2: 05 to 39) and selected service (NACE Rev.2: 46, 49-53, 58-64, 66, 68-74, 78 and 82) sectors. Each sector was further stratified according to firm size in terms of number of employees.

The survey was conducted by means of computer assisted telephone interviews between September and December 2011. The questionnaire was pre-tested in each host country. The interviews were conducted by native speakers who received intensive training. The resulting survey sample has data on 637 foreign affiliates. The overall response rate was 7.2 percent but varied across host countries (5.3 percent in Poland, 12.6 percent in Romania, 9.8 percent in Slovakia, 6.3 percent in the Czech Republic, and 13.8 percent in Hungary). The resulting survey sample deviates significantly in the distribution across host countries from the underlying population: foreign affiliates in the Czech Republic and Poland are underrepresented compared to the population (-2.8 percent and -13.6 percent respectively) while Hungary is overrepresented (6.5 percent). However, within each host country the sub-samples do not deviate significantly from the underlying population in their distribution across sectors or firm size.

Measures: subsidiary decision-making autonomy

Following leading studies on subsidiary decision-making autonomy (Birkinshaw & Hood, 2000; O'Donnell, 2000), we determined the level of subsidiary decision-making autonomy by means of a particular questionnaire item. The subsidiary's management was asked the following: 'Please indicate to what extent decisions in the following business functions are currently taken by your enterprise or your foreign investor', for seven different business functions: 'finance and investment', 'strategic management', 'operational management', 'marketing and market research', 'purchasing and supplies', 'distribution and sales' and 'research and innovation'. The respondents provided their answers to this question for each business function on a four-point Likert-scale: 'Please choose between: decisions are taken (1) only by your enterprise, (2) mainly by your enterprise, (3) mainly by your foreign investor or (4) only by your foreign investor'. Therefore, the survey provides us with a direct measure of subsidiary decision-making autonomy. The Cronbach's alpha for the decision-making autonomy

of the seven business functions (0.83) is satisfactory because it is substantially above the threshold value of 0.70 (Hair, Black, Babin, Anderson, & Tatham, 2006). This indicates our key construct's internal consistency. A Principal Component Factor analysis showed that the seven business functions load on one factor (with one eigenvalue greater than 1, i.e. 3.51). All seven business functions thus load on one unobserved variable and, therefore, follow one latent dimension. This permits us to use the resulting factor scores as an aggregate measure of the overall decision-making autonomy of subsidiaries as the dependent variable in our analysis.

Measures: home-host country context distance

We used four main steps to develop the country distance measures. We first determined the relevant dimensions of country context distance. Home-host country distance is a multidimensional construct and can be measured on various dimensions (Prime, Obadia, & Vida, 2009). We follow Håkanson & Ambos (2011), who suggest that language, religion, level of education, level of industrial development, political systems, geography and culture are among the most important dimensions of country context distance. We therefore applied these seven country context distance aspects in our study. This measurement approach aligns with recent empirical studies in the IB literature that suggest using macro-level measures of country contexts as the prime source to measure distance between nation states (Drogendijk & Martín Martín, 2105; Evans, Treadgold, & Mavondo, 2000).³

Determining the relevant country pairs is the second step in obtaining country distance measures. The IWH survey database enabled the identification of the country of origin (i.e.

³ This choice aligns with Avloniti & Filippaios (2014) who highlight the differences in country context distance measures but also show that the Dow & Karunaratna's psychic distance stimuli measures are among the most consistent. They conclude that this is important for the debates involving the distinctions between cultural distance and psychic distance measures by indicating that even though both concepts are distinct, they can provide consistent and reliable findings for the diversity among different countries. They also recommend that a combination of psychic distance and cultural distance measures is used because this enables capturing a wider and more complete interpretation of the effect of national diversity on MNEs (Drogendijk & Martín Martín, 2105). Following Dow and Larimo (2009) they conclude that 'the psychic distance stimuli is not a substitute of cultural distance or vice versa, but rather both conceptualizations are helpful in determining the intricate effect of culture on various activities and fractions of a MNE' (2009: 673). This is precisely what we do in our work.

headquarters location) for each subsidiary. The subsidiaries themselves were located in five CEE host countries: the Czech Republic, Hungary, Poland, Romania and the Slovak Republic. The headquarters of these subsidiaries were located in twenty-one different home countries. Using this information, we were able to produce 55 country pairs.

Obtaining the data for each country context distance dimension for each of the 55 country pairs was the third step. We extracted data from the D&K database for differences in language, religion, education, industrial development and political systems for the 55 different home-host country pairs in our sample (see Appendix A for a detailed description).

The remaining two distance dimensions are cultural and geographic distance. Concerning geographical distance, we obtained information on the countries in which the subsidiary and the headquarters were located, but not on their exact location within each country (to maintain survey anonymity). We therefore measured geographic distance as the logarithm of the distance in kilometres between the capitals (Håkanson & Ambos, 2010). The geographical information was obtained from the *Centre d'études prospectives et d'information internationales* (CEPII, 2012), which provided the pair-wise country kilometre distance for all the country capital pairs in our sample. The geographic distance measure ranges between 4.08 and 9.65, with higher scores corresponding greater geographic distance. With regard to cultural distance, following previous studies (e.g., Dikova, 2009; Dow & Karunaratna, 2006; Håkanson & Ambos, 2010) we used Hofstede's six updated cultural dimensions and applied the formula suggested by Kogut and Singh (1988) to measure cultural distance for each of the country pairs in our sample. The composite measure for cultural distance ranges between -1.28 and 4.13, with higher scores corresponding to higher cultural distance between home and host countries.

The fourth step was to determine whether our measures for each of the seven distance dimensions in turn continue not to cluster on one or more factors. This final step offers the opportunity to test the interrelatedness of our distance measures and take action accordingly. We

therefore performed a factor analysis on the seven dimensions of country context distance. A Principal Component Factor analysis with varimax rotation reports two factors with eigenvalues greater than 1 (i.e. 2.47 and 1.68 for factor 1 and factor 2, respectively). The factor analysis reports that educational and industrial development and political system distance between home and host countries are clustered on the first factor. The Cronbach's alpha is 0.81 for the first factor, which satisfies the threshold 0.70 (Hair et al., 2006). We therefore used the factor scores from the Principal Component Factor analysis of these three dimensions as the measure of distance in our study. We labelled this factor as 'economic distance' which therefore consolidates distance in terms of education, industrial development (reflecting many economic aspects of national differences) and political systems. This economic distance measure ranges from -2.31 to 3.76 (standardized values), with higher scores corresponding to greater economic distance.

However, the Cronbach's alpha for the second factor capturing the other four dimensions is 0.54, which is below the threshold of 0.70. This implies that we cannot group religious, language, cultural and geographic distance into a single common factor. Therefore, these dimensions were included as separate distance measures in our analysis (using standardized scores for these four distance measures to maintain consistency with the economic distance measure).

Control variables

We included three sets of control variables in our model. The first set of control variables accounts for the effect of subsidiary firm heterogeneity on decision-making autonomy: the subsidiary's importance in the MNEs intra-trade structure, the subsidiary's R&D capabilities, subsidiary size, and ownership interests in the subsidiary held by other companies. The first controls in this set account for the subsidiary's relative importance in the MNE's intra-trade

structure. The underlying rationale is that a high share of intra-group trade is negatively correlated with a foreign affiliate's autonomy (Andersson & Forsgren, 1996), since the subsidiary would be tightly integrated into the intra-group labour division. This potentially curtails the autonomy associated with local market orientation or the freedom to coordinate local suppliers. Along these lines, we controlled for the annual share of the total sales of the foreign affiliate returning to headquarters or other units of the foreign investor in 2011 ('Subsidiary relative MNE sales'). We also controlled for the annual share of total supplies and intermediate goods sourced from headquarters or other units of the foreign investor in 2011 ('Subsidiary relative MNE supplies'). The next subsidiary control variables address R&D. Subsidiaries with greater R&D capabilities, for example, could be less technologically dependent on headquarters and could therefore display greater autonomy (Young & Tavares, 1999). To control for a subsidiary's R&D capabilities, we included a dummy variable equal to one when the subsidiary made any labour, other current or capital expenditure for intra-mural R&D between 2009 and 2011, and zero otherwise ('Subsidiary R&D capabilities'). In addition, we controlled for the subsidiary's technological dependence or its integration with the parent company in terms of knowledge flows. We did so by measuring the importance of headquarters or other units of the foreign investor's enterprise group abroad as sources of knowledge relevant to R&D and innovation in the focal subsidiary ('Subsidiary dependence HQ R&D capability'). We included subsidiary size ('Subsidiary size') as a control variable measured using the natural logarithm of the number of employees at the focal subsidiary – because larger subsidiaries have better bargaining positions and therefore greater decision-making autonomy (Gates & Egelhoff, 1986; Johnston & Menguc, 2007; Schüler-Zhou & Schüller, 2013). Our final subsidiary control variable is a dummy variable set at one where the focal subsidiary holds direct or indirect ownership in terms of equity/voting rights in other legally independent enterprises located abroad, and zero otherwise ('Subsidiary owner FDI'). This applies, for example, to cases when

the focal subsidiaries themselves operate as regional headquarters of the overall enterprise group. Arguably, this additional coordination function could grant greater decision-making autonomy to the subsidiary in question.

The second set of control variables concerns headquarters characteristics. First, subsidiary decision-making autonomy can inherently differ with respect to the MNE's initial entry mode (Gammelgaard et al., 2012b; Luo, 2006). We include a dummy set at one when the foreign owner established the focal subsidiary as a greenfield investment, and zero otherwise (i.e. in cases of full or partial acquisition) ('Headquarter greenfield entry mode'). Second, the complexity of internationalization, combined with environmental uncertainty and institutional changes in transition economies, could increase the probability of strategic errors leading to mistrust between managers and the new principals (Peng, 2000). To mitigate the risk of managerial incompetence, foreign investors could employ different control channels reflected in different ownership levels (Filatotchev, Stephan, & Jindra, 2008; Hoskinson, Eden, Luo, & Wright, 2002). Where the foreign ownership is partial, the local managers of the focal subsidiary could enjoy greater independence from foreign owners reflected in greater decision-making autonomy than in situations of full ownership. We included the share of equity held by the foreign investor in the focal subsidiary as a variable to control for this heterogeneity ('Headquarters ownership in subsidiary').

The final control variable covers sector specific effects. For this we used the NACE Rev.2 industry structure classification (2008) and classified the subsidiaries into either an industrial or a services sector. We included a dummy which was set to one when the subsidiary belonged to an industrial sector, and zero otherwise ('Subsidiary industrial sector').

A final remark concerns the potential risk of common-method biased results. This risk emerges in particular when the data for a dependent and explanatory variable are collected from the same survey data sources. In such cases, self-report data can create false correlations if the

respondents have a propensity to provide consistent answers to survey questions which are otherwise unrelated. In our research, we consider the risk of common-method biased results negligible because we used different data sources for the measurement of the dependent variable (IWH, 2011) and for the measurement of the key explanatory variables (i.e. the D&K and the Hofstede databases) (Chang, Van Witteloostuijn, & Eden, 2010; Siemsen, Roth, & Oliviera, 2010). Nevertheless, we took procedural precautions in the construction of our multilevel database using the survey data. The IWH 2011 survey included a number of items about other aspects of subsidiary strategy and structure which were ordered randomly throughout the survey. We used a selection of the available items in the survey. We also used different scale anchors for different measures. Taken together, we can conclude that the risk of common-method bias is nil.

EMPIRICAL RESULTS

The first step is to determine whether there is variation in decision-making autonomy. A histogram of decision-making autonomy measured using factor scores reports a bell-shaped normal distribution and shows that there is substantial variation in decision-making autonomy among CEE subsidiaries. Table 1 reports the distribution of decision-making autonomy per business function for subsidiaries in CEE countries.

[Insert Table 1 about here]

Table 1 shows that the distribution of decision-making autonomy varies noticeably across business functions. We identified three different groups of business functions which show similar levels of decision-making autonomy. The first is the low autonomy group which embraces the ‘finance and investment’ and ‘strategic management’ business functions. The second is the medium autonomy group which consists of the ‘marketing and market research’ and ‘research and innovation’ business functions. The third is the high autonomy group which includes the ‘operational management’, ‘purchases and supplies’ and ‘distribution and sales’

business functions. The decision-making autonomy of CEE subsidiaries is greatest for the ‘operational management’ business function on average, given that 84 percent of all CEE subsidiaries indicated that the decision-making autonomy for this business function lies only or mainly in their hands. Decision-making autonomy is least on average for ‘finance and investment’. Fifty-seven percent of the CEE subsidiaries indicate that the decision-making autonomy this for business function lies mainly or solely with their foreign parent company.

Now that we have determined that there is considerable variation in subsidiary decision-making autonomy, the next step is to determine whether country context distance is a determinant thereof. Means, standard deviations and correlations are provided in Table 2. In preparing the data for the regression analysis, we performed the usual tests to obtain reliable estimates. The latter yielded satisfactory results: neither heteroscedasticity nor non-normality is an issue. The maximum value of the correlation coefficients is 0.34, which is well below the threshold of 0.80, indicating that there are no issues with multicollinearity (Neter, Wasserman, & Kutner, 1985). We also tested for possible biases caused by collinearity among variables by calculating the variance inflation factor (VIF) for each of the regression coefficients. The VIF values for all variables in the model are below 2.0 and thus well below the cut-off value of 5.6 recommended by Hair et al. (2006). The likelihood ratio tests of the chi-square distributions for all models were significant, indicating that our final model fits the data significantly better than a model without any predictors. The results from the hierarchical ordinary least squares (OLS) regression analyses are summarized in Table 3.

[Insert Tables 2 and 3 about here]

The regression results offer two conclusions. First, the various fit parameters show that our models fit the data increasingly well. Model 1 is a model with control variables and a constant only. The dimensions of country context distance were added in Model 2. The R^2 improves from 29.2 percent in Model 1 to 32.2 percent in Model 2 (the F -values improve from F

= 18.14; $p < .01$ for Model 1 to $F = 14.20$; $p < .01$ for Model 2). The estimates remain robust in terms of signs and significance levels. This implies that taken alone, country context distance has explanatory power alongside and above an explanation of subsidiary autonomy based on control variables. Second, the empirical results in Model 2 offer support for our distance measures. Two dimensions receive significant support, with both indicating that greater country context distance will limit subsidiary decision-making autonomy. Economic distance has a significant and negative effect on autonomy ($\beta = -0.205$, $p < .05$). Note that economic distance is a factor of many economic sub-dimensions, and is therefore a strong indication that the negative effect is relevant in our research setting. Along similar lines, geographic distance has a strongly significant and negative effect on autonomy ($\beta = -0.189$, $p < .01$). Two other dimensions report positive but non-significant effects, indicating that decision-making autonomy does not respond to differences in language ($\beta = 0.041$, n.s.) and religion ($\beta = 0.020$, n.s.). Cultural distance reports a negative effect – in line with economic and geographic distance – but this effect is not significant ($\beta = -0.033$, n.s.), implying that in our research setting, distances in terms of culture are not relevant to the distribution of decision-making autonomy between headquarters and subsidiaries.

The results we obtained for our control variables were as expected. Many of these results are in line with existing findings, as discussed in our literature review. Table 2 shows that the level of subsidiary autonomy is indeed limited by the level of subsidiary integration. We found strongly significant and negative effects for both indicators related to this rationale (with $\beta = -0.009$, $p < .01$ for subsidiary integration in terms of relative MNE sales and with $\beta = -0.004$, $p < .01$ for relative MNE supplies). We also found a strongly significant and positive effect of subsidiary R&D capabilities confirming the importance of this control variable ($\beta = 0.205$, $p < .01$). The final two significant results account for variations in MNE networks. Headquarters vary in their level of ownership interest in foreign focal subsidiaries that, in turn, have varying

degrees of ownership interest in other foreign subsidiaries. We explicitly controlled for these variations in ownership types, expecting that greater headquarters control of subsidiaries would make these headquarters-controlled subsidiaries less dependent, and the reverse where the focal subsidiaries control other foreign subsidiaries. Table 2 confirms these opposite effects on decision-making autonomy. A strongly significant and positive effect is reported for subsidiaries with ownership interests in other subsidiaries ($\beta = 0.428$, $p < .01$). A strongly significant and negative effect is reported for headquarters ownership ($\beta = -0.009$, $p < .01$). In our sample, subsidiary decision-making autonomy is not significantly related to a subsidiary's dependence on headquarters R&D knowledge ($\beta = -0.151$, n.s.), subsidiary size ($\beta = -0.128$, n.s.), an initial greenfield entry mode for headquarters ($\beta = -0.136$, n.s.) and industrial sector ($\beta = -0.144$, n.s.). A non-linear relationship between subsidiary size and subsidiary decision-making autonomy as suggested by recent autonomy studies (Johnston, 2005; Johnston & Menguc, 2007) can also not be identified in our sample: if the squared term and the linear term of size are included in our model, these report non-significant effects while all other effects remain the same.

Our statistical evidence indicates that the agency perspective is most relevant to our setting: when country context distance increases, the decision-making autonomy of a subsidiary decreases at least in terms of economic and geographic distance. The MNEs in our sample respond to distance by increasing control and, in so doing, attempting to reduce information asymmetry and goal incongruence that is to their disadvantage. The question is whether this finding for overall decision-making autonomy also applies to each and every business function for which decision-making autonomy applies. We had a unique opportunity to test this using our multi-level database and in doing so, offer a fine-grained perspective of i) different dimensions of country context distance on ii) different dimensions of business functions for which the distribution of decision-making autonomy between headquarters and their foreign subsidiaries in CEE countries is relevant. Table 4 provides these regression results. As explained, the extent of

decision-making autonomy for each business function is measured on a four-point scale (ranging from decisions are made ‘only by foreign parent’, ‘mainly by foreign parent’, ‘mainly by foreign affiliate’, to ‘only by foreign affiliate’). Following Wooldridge (2002), we used ordered probit estimation methods to estimate the seven models using a categorically scaled dependent variable. To evaluate whether the models as such are significant, we performed the Wald-test under assumptions of consistency and asymptotic normality. The latter results indicate that our final model fits the data significantly better than a model without any predictors. The tests for multicollinearity and heteroscedasticity also indicate no issues for each of the seven models.

[Insert Table 4 about here]

The estimation results for each of the seven business functions yield four main conclusions. First, agency theory continues to be supported by geographic distance. For this particular dimension of country context distance, subsidiary decision-making autonomy is limited with varying degrees of significance, irrespective of any particular business function. Second, agency theory is also supported by economic distance, albeit that here the effects are not systematically significant per business function. In other words, whether decision-making autonomy is limited when economic country context distance increases depends on the particular business function. This latter limiting effect is found for finance and investment, strategic management, research and innovation, purchases and supplies, but not for marketing, distribution and sales and operational management. This is an interesting finding as it suggests that headquarters and their foreign subsidiaries carefully decide about the distribution of decision-making autonomy when this feature of country context distance emerges. Third, in adopting a fine-grained perspective, we are also able to identify an effect for cultural distance. Again, the agency theory perspective dominates over the business network perspective, given that cultural distance, when significant, reduces decision-making autonomy in terms of marketing ($\beta = -0.122, p < .10$) and research and innovation ($\beta = -0.159, p < .05$). Finally, a business network

perspective does offer added value in understanding the distribution of decision-making autonomy. Table 4 shows that the decision-making autonomy of subsidiaries with respect to operational management increases with language distance ($\beta = 0.249, p < .01$). This would appear to make sense given that operational management requires many day-to-day decisions which subsidiary autonomy renders efficient for both headquarters and subsidiaries, and less challenging for headquarters given the relative mundanity of operational issues compared to other more strategic business functions. Taken together, we conclude that country context distance limits the decision-making autonomy of subsidiaries though that this can depend on i) the particular dimension of country context distance and ii) the particular business function to which the autonomy applies.

Robustness analysis

As a test of robustness, we performed several additional analyses. First, we estimated the models using an alternative measure for decision-making autonomy. Recalling that decision-making autonomy was originally measured on a factor score, an alternative measure, we summed the individual scale items for this construct. The resulting aggregated index ranges from a minimum of 7 to a maximum of 28: the higher the score on the index, the greater the extent of a subsidiary's decision-making autonomy. This does not affect the regression results, neither when using OLS estimation techniques nor for negative binomial estimation methods (the latter following a suggestion that scale can be interpreted as a count variable).

Second, we also estimated our model using a Tobit estimation approach, since both measures of the dependent variable (i.e. in terms of i) factor scores or ii) a summed scale) are potentially left and right censored, which could affect the results. We found that the corresponding Tobit estimation results do not differ from the OLS estimates in terms of the signs and significance of the estimated parameter coefficients.

Third, we tested for the possibility of non-linear relationships between our variables of interest. Given that the theory predicts opposite signs, a combination of the two could result in a hypothesized decreasing or increasing marginal return of country context distance to subsidiary decision-making autonomy. The estimation results for this robustness test do not indicate any statistically significant non-linear relationships between decision-making autonomy and any of the country context distance measures.

Fourth, we also tested whether or not our results remain robust after the inclusion of host country controls. The estimation results for this robustness test report unchanged values for the estimated parameter coefficients, indicating that our main results are not affected by unobserved host country heterogeneity.

Fifth, in our model we do not take time zone differences and colonial ties between home and host countries into account because i) time zone difference and geographic distance in our sample are highly correlated ($r = 0.92$, $p < 0.01$), and ii) Central and Eastern European countries have no or very few colonial ties. As an alternative, we estimated models with two other frequently used measures concerning the relationships between two countries: i) whether or not a bilateral investment treaty between a home and a host country was in force at the time of entry to the CEE country by the foreign investor (based on UNCTAD classifications), and ii) whether the home country was one of the 27 European Union member countries at the time of entry. Given that all the host countries are European countries, these additional variables control for the potential effect of coming from another member of the European Union has on facilitating the MNE's investment. The robustness tests show that these effects are not significant while all other results hold.

Sixth, our model includes various headquarters characteristics. Notwithstanding the added value of our data, we were unable to control for specific headquarters senior management team characteristics, which is an acknowledged limitation of this study offering opportunities for

future research. However, in a robustness test we were able to measure other headquarters characteristics that measure international experience in general and for our European transition economies in particular. Heterogeneity in international experience is potentially important for the distribution of decision-making autonomy. Based on ORBIS, we constructed three new variables to measure this: i) the international experience of the headquarters (measured by the natural logarithm of the total number of other foreign affiliates worldwide per relevant foreign affiliate investor), ii) the experience of the headquarters in the host country (measured by the natural logarithm of the number of other foreign affiliates within the respective host country per relevant foreign affiliate investor), and iii) the experience of the headquarters in other European transition economies (measured by the natural logarithm of the number of other foreign affiliates within other CEE transition economies per relevant foreign affiliate investor). The robustness tests show that these effects are not significant while all other results hold.

DISCUSSION AND CONCLUSIONS

Contributions to IB research and implications

This study investigates the relationship between country context distance and subsidiary decision-making autonomy. In the context of CEE countries, we find support for the contention that greater country context distance limits subsidiary decision-making autonomy. We elaborate on our main conclusion and our main findings below.

First, this study develops our understanding of the differences between home and host countries and how this matters for MNE strategy and behaviour (Verbeke, 2010). This topic is important because geographic expansion is one of the most important strategies for MNEs growth in the modern world economy. Entering new markets enables firms to increase their production volumes and business outcomes (Slangen & Beugelsdijk, 2010). Taking advantages of international markets enables MNEs to optimize their country-specific asset profiles. We have

highlighted that MNEs increasingly use and adapt firm-specific assets available from foreign subsidiaries (Rabbiosi, 2011). We argued that the role of foreign subsidiaries changes from enabling access to cheap labour and production processes to knowledge centres and innovation partners (Birkinshaw & Hood, 1998; Gammelgaard et al., 2012a, b). Notwithstanding the potential important opportunities that an expansion of a company's activities into new geographic markets offer, and the resulting innovation alliances with foreign subsidiaries which might be forthcoming, we suggested that such strategies also align with disadvantages and breakdown risks. These are reflected in the IB literature in terms of the liabilities of foreignness and of newness (Hymer, 1976). MNEs constantly assess and readjust their portfolios of countries and foreign subsidiaries. The production and management of their value-adding chains is a dynamic process and one in which the interrelatedness between headquarters and subsidiaries increasingly becomes important in order to meet the increasing demands faced by headquarters to design and introduce new products and services in their markets. For these reasons, we argued that MNEs can be reflected as constellations of intra-firm alliances in which the coordination and control of all activities remains crucially important (Ciabuschi et al., 2011). We conceptualize MNEs as a network of globalizing relationships enabling them to draw on the benefits of international intra-firm links, such as improved performance or access to new or less costly intermediate inputs. We have extended the IB literature by disentangling valid theoretical arguments, empirically identifying distinct dimensions of country context distance and reporting their effects on subsidiary decision-making autonomy in the context of CEE countries.

Second, this study adds meaningfully to the existing body of research on subsidiary decision-making autonomy (e.g. Gammelgaard et al., 2012a). As noted earlier, given the increased importance of subsidiary activities for headquarters performance, the question of how much decision-making autonomy subsidiaries have has become a key issue. Heterogeneity in concepts, definitions, research settings and methods restricts a comparison of our research to

existing subsidiary studies. We build on the subsidiary literature that highlights the importance of decision-making autonomy in the relationship between headquarters and foreign affiliates (Gammelgaard et al., 2012a, b; Johnston & Menguc, 2007; O'Donnell, 2000; Rabbiosi, 2011). Research on subsidiary decision-making autonomy has focused on MNE and subsidiary characteristics (Fenton-O'Creevy, Gooderham & Nordhaug, 2008; Schüler-Zhou & Schüler, 2013), industry peculiarities (Birkinshaw & Hood, 2000) and the embeddedness of the subsidiary in the host country (Ambos, Asakawa, & Ambos, 2011; Chiao & Ying, 2013). Our study complements this domain by showing that distance between home and host country contexts is another essential yet largely overlooked determinant of decision-making autonomy.

Third, we supplement the distance literature, which suggests different concepts for identifying and measuring geographic and other barriers for MNE performance and behaviour (Ambos & Håkanson, 2014; Brewer, 2007; Dow & Karunaratna, 2006; Evans, Mavondo, & Bridson, 2008; Nordstrom & Vahlne, 1994; O'Grady & Lane, 1996). Existing research has analysed the role of distance in the selection of foreign markets and location choices (Berry, Guillen, & Zhou, 2010; Stottinger & Schlegelmilch, 1998; Whitelock & Jobber, 2004), entry strategies (Ellis, 2008) and MNE and subsidiary performance (Dikova, 2009; Evans & Mavondo, 2002; O'Grady & Lane, 1996). We contribute to this literature by showing how country context distance also matters for one of the key features of successful MNE organization, namely the distribution of decision-making autonomy between headquarters and subsidiaries.

Fourth, we add to the IB literature by offering new theoretical foundations. Our study is among the first to intertwine the theoretical perspectives bridging country context distance with subsidiary research and to further advance our knowledge by testing two key hypotheses which result from our interdisciplinary perspective. Agency theory suggests that great distance between home and host countries is likely to increase agency problems in headquarters-subsidiary relationships, and therefore increase the control of headquarters exerts over subsidiaries.

Business network theory offers an alternative perspective, since it can be argued that headquarters delegate much decision-making autonomy to their distant foreign affiliates, enabling them to adapt to local circumstances by building local networks with different stakeholders and as such, become a legally embedded and legitimate strategic partner. The need to do so is less acute for foreign subsidiaries in host country contexts similar to the home country. Accordingly, in theory, we showed that the arguments go both ways, leading us to predict ex-ante both a positive and a negative association between country context distance and subsidiary decision-making autonomy.

Fifth, our empirical setting offers novel contributions to existing subsidiary and country context research. We designed and used a unique database with firm-level information on subsidiary autonomy based on a carefully designed questionnaire and a data collection strategy in five of the most prominent EU accession countries in the Central and Eastern European region – the Czech Republic, Hungary, Poland, Romania and the Slovak Republic. These countries are in a transition from being centralized government-owned economies to market-based nation states. As a result, a new class of entrepreneur has established business activities, often in collaboration with foreign multinationals. European transition economies offer an interesting research setting to test our hypotheses: they are characterized by an environment of economic and institutional change associated with significant risks (Meyer & Peng, 2005; Peng, 2000). Foreign investors who use local foreign affiliates from this region as export platforms or as knowledge suppliers within their own vertical production network can have great advantages over those who do not, but also face substantial risks related to securing and enforcing contractual obligations such as timely deliveries and quality standards (Filatotchev et al., 2008). MNEs entering these CEE countries have their headquarters and main operations in advanced economies, making country context distance a prominent factor for decisions about independence, which is all the more so because such market entry strategies often involve

substantial investments, contributing to a need for above-average performance for CEE based subsidiaries. Our study builds on CEE studies (Meyer & Peng, 2005) and presents a unique database that further develops our understanding of MNE organization. The design of this database builds on empirical achievements in the IB literature relevant for our research aim and question. The country-level information predominantly derives from the Dow & Karunaratna (2006) and Hofstede (2001) databases. The former offers us the opportunity to assess and combine distance features such as differences in language, religion and economic development and the latter, cultural differences. What is new here is the combination of data sources in one multi-level database. The combination of firm-level survey-based data with country-level distance measures from different sources minimized the bias from common method variance (Chang et al., 2003). In line with Podsakoff et al. (2003), we collected measures for the independent and independent variables from different sources and as such, *ex ante* minimized any potential common method bias.

Sixth, our empirical efforts lend support to recent perspectives that country context distance is a multi-dimensional concept (Håkanson & Ambos, 2011; Prime et al., 2009). Rather than adopting a unidimensional perspective such as cultural distance alone, we include various different distance features in our empirical assessment of our focal causal relationship. Such a multidimensional contextual perspective is valuable because any single-unit context perspective could overlook other potentially important explanatory contextual factors for our research question. This study further develops our understanding of the characteristics of country context distance. Factor analysis of seven potential country context distance aspects revealed five distinct dimensions: economic, language, religious, cultural and geographic distance. By including all of the original factors we were able to identify these characteristics as separate dimensions of country context distance in our research setting. This enriches our understanding of country context distance and its effects on subsidiary decision-making autonomy.

Seventh, our empirical results help solving the dilemma between the opposite theoretical hypotheses concerning country context distance and the division of decision-making autonomy. Our empirical study lends support to subsidiary research that has indicated that some MNE affiliates have great decision-making autonomy whereas others are under strict control by the headquarters (Cantwell & Mudambi, 2005). Following this fact, the current paper demonstrates empirically that particular dimensions of country context distance do indeed matter to the amount of formal control imposed upon affiliates. From our results we conclude that country context distance limits decision-making autonomy, at least in terms of economic and geographic distance (with economic distance consolidating distance in terms of education, industrial development and political systems). As noted earlier, subsidiary research identified various underlying mechanisms determining the level of subsidiary decision-making autonomy. What is new here is that we demonstrate empirically that country context distance also matters for the distribution of decision-making autonomy.

Eight, we also make an important contribution by disentangling decision-making autonomy for seven distinct business functions: finance and investment, strategic management, marketing, research and innovation, purchases and supplies, distribution and sales, and operational management. Ours is among the first to offer such a finegrained perspective for subsidiary decision-making autonomy. Our empirical achievements here show that our main conclusion largely holds when analysing decision-making autonomy for the particular business functions: the greater the distance, the lower the decision-making autonomy. Our study at business function level also reports interesting results because it shows that particular dimensions of country context distance affect particular business functions more strongly than others, including the notable exception of a positive effect for language distance on operational management. Economic distance materializes in lower autonomy for finance and investment, strategic, research and innovation, and purchases and supplies decisions. This is complemented

with the findings for geographic distance that limits autonomy for all business functions and for cultural distance that limits subsidiary autonomy for marketing and research and innovation decision-making autonomy. Our study provides evidence that the impact of distance on subsidiary decision-making of foreign affiliates differs depending on the business function in question. Similar findings have been reported elsewhere. Berry et al. (2010), for example, find opposing effects of political and demographic distance on the location for affiliates in manufacturing and distribution. There is also evidence that geographic distance has a weaker impact on the location of R&D compared to manufacturing activities (Castellani, Jiminez, & Zanfei, 2013). The in-depth and new functional approach to study decision-making in MNEs presented here therefore seems promising.

These findings offer some important implications for subsidiary and headquarters managers. Our in-depth analysis helps subsidiary and headquarters managers in designing strategies to obtain the optimal level of subsidiary decision-making autonomy that best fosters subsidiary performance, and thus enhances the MNEs competitive advantages. Subsidiary managers may have an incentive to decentralize decision-making as this increases their absolute and relative power within the MNE network. However, headquarters managers may have the opposite incentive. The risk is that MNEs will end up with medium levels of decision-making autonomy as an attempt to satisfy both groups of managers potentially contributing to ambiguous roles of subsidiaries. To reduce the potential tension between headquarters and subsidiary managers both need to be aware of the fundamental underlying causal mechanisms that influence the distribution of decision-making autonomy. The insights generated in this research help to increase this understanding: it helps managers to design appropriate governance structures and strategies, which reduce the autonomy-control tension inherent in many the relationships between headquarters and subsidiaries. Our empirical results clearly show that the level of decision-making autonomy may be different depending on the distance between home and host

countries. A subsidiary with larger economic and geographic distance from the headquarters country has a lower level of decision-making autonomy for the purpose of reducing information asymmetry between headquarters and subsidiaries. Our study also shows that this distance effect varies per particular business function enabling managers to review their case for each of these. At a short notice, changing geographical distances between headquarters and subsidiaries may perhaps not be viable because this requires a relocation of business (albeit that this aligns with the recent trends of insourcing implying that headquarters return parts of the added value chains originally outsourced to foreign subsidiaries to their home country basis). The economic distance dimension can be dealt with by managers with enhanced knowledge, experience and learning (Sousa & Bradley, 2008).

Limitations of this study

We would like to mention a number of limitations which offer opportunities for future research. First, the use of cross-sectional data from firms in CEE countries limits the generalizability of our results. Although our data circumvents common method variance and enables the attainment of good insights into the role of distance in driving the decision-making autonomy of foreign subsidiaries, it remains cross-sectional in nature and therefore inhibits a causal analysis of the processes that determine the outcomes observed. A firm-level panel dataset would offer the opportunity to address this limitation. New data from a similar set of companies would enable testing whether country context distance has an impact on autonomy over time. Our assessment relies on the questionnaire-based personal judgements of one respondent per company. Although management research like ours often obtains reliable information from single respondents, biases can arise owing to a person's vested interests. Future research could incorporate information from multiple subsidiary respondents and from headquarters management. The latter enables the verification of differences in decision-making autonomy and

whether headquarters managers respond differently to distance issues than subsidiary management.

Second, despite the unique nature of our database and the inclusion of important distance measures, the number of available observations requires that we nonetheless estimate parsimonious models. For example, data limitations hampered an opportunity to study the impact of each of the six Hofstede dimensions that we used to construct the measure for cultural distance using the Kogut & Singh approach. New data would enable additional tests of robustness to analyse if and to what extent distance in terms of, for example, long-term orientation or uncertainty avoidance has similar relationships with the distribution of decision-making autonomy than reported for the overall Kogut & Singh measurement. In a similar vein, it would be worthwhile to study whether, and if so, how, within country variations matter for the distribution of decision-making autonomy. Following recent methodological innovations (Beugelsdijk & Mudambi, 2013; Goerzen, Rasmussen & Nielsen, 2013), future research could construct variance-based measures for those applied in this study and, in doing so, offer an opportunity to test whether the distribution of decision-making autonomy responds differently to mean-based or variance-based measures. Furthermore, the types of activity performed by a subsidiary – for example design, marketing or production activities – could also be affected to different extents, as some are more reliant on tacit knowledge and information (Gereffi, Humphrey, & Sturgeon, 2005) and therefore more subject to the impediments or enrichments that cultural distances can produce.

Third, the CEE region offers a natural laboratory to test our propositions. The countries differ in market structures, state ideologies, institutional frameworks and entrepreneurial vividness. Nonetheless, a logical subsequent step would be to test our model in other regions and, in so doing, determine whether the role of contextual distance for MNE organization is

similar. New data from MNEs operating subsidiaries in, for example, Asian countries would allow testing of the general validity of our findings in other regions.

Finally, although this study includes a number of parent firm characteristics (including measures that address heterogeneity in international experience, as reported in the robustness tests) other potentially important firm and/or individual level data which allows us to understand how national objective factors will impact differently on firms' strategies needs to be included. For example, Smith, Dowling and Rose (2011) provide a framework which considers differences across firms, even when they face the same national-level factors and have the same information about a foreign market at their disposal. This is because, at the individual level, managers will receive stimuli differently and they will react to them according to their personal histories and characteristics, so that in the end, their firms' international strategies may develop in dissimilar ways. The personal relationships between managers in an MNE network form a central determinant of success, both within the firm and in its external interactions (Conklin, 2011). Long-standing interpersonal relationships and trust between managerial levels in an organization could also facilitate the renegotiation of contracts. These aspects are likely to trigger different responses in internationalization strategy, including decisions about the control and decision-making autonomy of foreign affiliates.

Conclusion

In this study, we identified a major gap in the existing international business literature regarding the understanding of subsidiary decision-making autonomy. The level and speed of inter-country convergence due to the increasing globalization or internationalization of for-profit and government activities is subject to a debate which leaves the conclusion that there are inter-contextual differences in home and host countries largely unchanged. Such differences do exist and still matter in the strategy and structure of MNEs. What is new here is that we have studied

whether, and if so, how, country context distance also matters for the distribution of decision-making autonomy. As such, we argue for an interdisciplinary, refined and multi-level perspective. By combining subsidiary and distance literature, we contributed to closing the existing research gap. We theoretically advanced the IB literature presenting new hypotheses from two valid but opposing theoretical frameworks: agency theory and business network theory. In our particular research setting of Central and Eastern European countries, the empirical results help solving the dilemma between the opposite theoretical hypotheses concerning country context distance and the division of decision-making autonomy. Country context distance negatively affects overall subsidiary decision-making autonomy. With a notable exception, this finding is supported when the multifaceted nature of both concepts is accounted for. We find evidence for our main effects while controlling for a large number of parent company, affiliate, industry and country characteristics. The results are robust with respect to alternative control variables, measurements and estimation techniques, which builds confidence in our main conclusions. With the limitations acknowledged, we are confident that this study makes an important contribution to IB research by explaining how the relations with various dimensions of country context distance and various dimensions of subsidiary decision-making autonomy varies.

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Appendix A.

We use the Dow & Karunaratna (D&K) (2006) database for a subset of our country distance measures following among others Avloniti & Filippaios (2014) who argued that the D&K indicators are among the most consistent of all country-distance measures. The D&K database presents various drivers of 'psychic distance'. The drivers of psychic distance have value in themselves and are a solution to the lack of data for perceptual measures of distance (Avloniti & Filippaios, 2014). The D&K measures of distance comprise macro-level factors identified by other distance researchers (Boyacigiller, 1990; Evans et al., 2000; Evans & Mavondo, 2002; Johanson & Vahlne, 1997). A major language for a given country is defined by D&K as any language spoken by more than 20 percent of the population, or a language that holds a special official status within the country. The D&K value for language distance in our sample varies between -3.38 and 0.52, with low values indicating a little linguistic distance and high values indicating great linguistic distances between home and host countries.

The second dimension concerns differences in the major religions between home and host countries. A major religion is defined by D&K as any religion to which more than 20 percent of the population claims affiliation. Furthermore, within a major religion, only divisions that represent at least one quarter of that religion's adherents are considered relevant. The D&K value for religious distance in our sample varies between -1.29 and 1.27, with low values indicating little religious distance between countries and high values indicating great religious distance between home and host countries.

The third dimension concerns differences in the educational level between home and host countries. Differences in the educational levels between countries in the D&K database are measured using three scales, i.e. the difference in the proportion of literate adults between home and host countries, and the differences in the proportions of the populations enrolled in secondary- and tertiary-level education. The D&K value for educational distance in our sample

varies between -1.25 and 2.25, with low values indicating little educational distance between home and host countries and high values indicating great educational distance between home and host countries.

The fourth dimension concerns differences in industrial development between home and host countries. This dimension in the D&K database is measured by differences in the degree of industrial development between home and host countries through nine different aspects: GDP per capita, the consumption of energy, vehicle ownership, the percentage of employment in agriculture, the percentage of GDP from manufacturing, the difference in the degree of urbanization and differences in communication infrastructure development (numbers of newspapers, radios, telephones and televisions per 1,000 population). The D&K value for industrial development distance in our sample varies between -1.78 and 1.78, with low values indicating little industrial development distance between home and host countries and high values indicating great industrial development distance between home and host countries.

The fifth component concerns differences in the political system between home and host countries. In the D&K database, two distinct aspects measure the difference in the political systems between home and host countries: the degree of democracy and the political ideology of the group in power. The D&K value for political system distance in our sample varies between -0.50 and 2.04, with low values indicating little political system distance between home and host countries and high values indicating great political system distance between home and host countries.

Table 1. Variations in decision-making autonomy of CEE subsidiaries

Decision-making...	Low autonomy functions				Medium autonomy functions				High autonomy functions					
	Finance and Investment		Strategic Management		Marketing and Market research		Research and Innovation		Operational Management		Purchases and Supplies		Distribution and Sales	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Only by affiliate	58	11.44	103	20.24	179	36.16	156	33.19	299	57.39	275	53.40	242	47.27
Mainly by affiliate	158	31.16	169	33.20	128	25.86	137	29.15	174	33.40	138	26.80	144	28.13
Mainly by investor	191	37.67	163	32.02	99	20.00	99	21.06	26	4.99	58	11.26	64	12.50
Only by investor	100	19.72	74	14.54	89	17.98	78	16.60	22	4.22	44	8.54	62	12.11
<i>Total</i>	<i>507</i>	<i>100</i>	<i>509</i>	<i>100</i>	<i>495</i>	<i>100</i>	<i>470</i>	<i>100</i>	<i>521</i>	<i>100</i>	<i>515</i>	<i>100</i>	<i>512</i>	<i>100</i>

Table 2. Descriptive statistics and correlation coefficients

	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Autonomy	-0.20	0.93	1.000														
Subsid. Sales	30.34	2.10	-0.337	1.000													
Subsid. Supplies	32.59	1.98	-0.263	0.286	1.000												
Subsid. R&D	0.48	.028	0.197	-0.051	-0.215	1.000											
Subsid. HQ Kn.	0.57	.028	-0.255	0.195	0.329	-0.089	1.000										
Subsid. OFDI	0.04	.011	0.094	-0.027	-0.019	0.136	-0.101	1.000									
Subsidiary size	4.30	.068	-0.097	0.124	-0.076	0.163	0.058	0.118	1.000								
HQ Greenfield	0.63	.027	-0.152	0.097	0.204	-0.120	0.169	-0.078	-0.106	1.000							
HQ Ownership	88.21	1.27	-0.238	0.090	0.117	-0.047	0.174	-0.061	0.154	0.072	1.000						
Industrial Sector	0.47	.028	-0.107	0.109	-0.106	0.165	-0.028	0.022	0.308	-0.138	0.063	1.000					
Economic Dist.	-0.15	.039	0.188	-0.203	-0.211	0.070	-0.193	-0.000	-0.252	-0.146	-0.080	-0.052	1.000				
Language Dist.	-0.10	.055	-0.028	-0.004	-0.074	-0.010	0.021	0.042	0.067	-0.044	0.077	-0.045	0.140	1.000			
Religious Dist.	-0.11	.044	-0.035	-0.059	-0.016	0.017	-0.015	-0.044	0.027	-0.020	0.006	-0.010	0.281	0.008	1.000		
Cultural Dist.	0.02	.052	-0.035	0.151	0.102	-0.004	0.048	-0.024	-0.034	0.004	0.064	-0.015	-0.338	0.127	0.087	1.000	
Geographic Dist.	-0.03	.054	-0.049	-0.014	-0.113	0.102	-0.034	0.007	0.065	-0.048	-0.092	0.041	-0.246	0.196	0.360	0.123	1.000

Correlation coefficients larger than |0.15| are significant at $p < .05$ and larger than |0.20| significant at $p < .01$.

Table 3. The effect of country context distance on overall decision-making autonomy

	Overall Autonomy (1)	Overall Autonomy (2)
Country context distance		
Economic distance		-0.205** (0.081)
Language distance		0.041 (0.052)
Religious distance		0.020 (0.049)
Cultural distance		-0.033 (0.059)
Geographic distance		-0.189*** (0.052)
Controls		
Subsidiary relative MNE sales	-0.009*** (0.001)	-0.009*** (0.001)
Subsidiary relative MNE supplies	-0.003** (0.001)	-0.004*** (0.001)
Subsidiary R&D	0.183** (0.089)	0.205** (0.091)
Subsidiary dependence HQ R&D	-0.160 (0.101)	-0.151 (0.102)
Subsidiary ownership FDI	0.319* (0.184)	0.428*** (0.149)
Subsidiary size	-0.032 (0.040)	-0.028 (0.040)
HQ greenfield entry mode	-0.112 (0.095)	-0.136 (0.094)
HQ ownership in subsidiary	-0.009*** (0.002)	-0.009*** (0.002)
Industrial sector	-0.181* (0.095)	-0.144 (0.095)
Constant	1.232*** (0.213)	1.179*** (0.217)
Observations	318	310
R2	0.292	0.322
F-value	18.10***	14.20***

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Table 4. The effect of country context distance on decision-making autonomy per business function

	(1) Finance and Investment	(2) Strategic Management	(3) Marketing	(4) Research and innovation	(5) Purchases and supplies	(6) Distribution and sales	(7) Operational Management
Country context distance							
Economic distance	-0.231** (0.091)	-0.246** (0.104)	-0.151 (0.115)	-0.251*** (0.097)	-0.226** (0.112)	0.065 (0.096)	-0.072 (0.091)
Language distance	0.021 (0.066)	-0.002 (0.066)	0.079 (0.064)	-0.060 (0.069)	0.082 (0.068)	-0.052 (0.065)	0.249*** (0.064)
Religious distance	0.067 (0.058)	0.096 (0.064)	0.083 (0.063)	0.140 (0.087)	-0.002 (0.065)	0.079 (0.073)	0.108 (0.083)
Cultural distance	-0.058 (0.071)	-0.075 (0.067)	-0.122* (0.069)	-0.159** (0.068)	0.009 (0.067)	-0.044 (0.066)	-0.046 (0.077)
Geographic distance	-0.241*** (0.066)	-0.255*** (0.074)	-0.233*** (0.070)	-0.150** (0.072)	-0.140* (0.076)	-0.139** (0.070)	-0.138** (0.059)
Controls							
Subsidiary MNE sales	-0.005*** (0.002)	-0.007*** (0.002)	-0.013*** (0.002)	-0.006*** (0.002)	-0.003* (0.002)	-0.019*** (0.002)	-0.004** (0.002)
Subsidiary MNE supplies	-0.003* (0.002)	-0.003 (0.002)	-0.001 (0.002)	-0.006*** (0.002)	-0.008*** (0.002)	-0.001 (0.002)	-0.004* (0.002)
Subsidiary R&D	0.198* (0.118)	0.174 (0.120)	0.110 (0.117)	0.398*** (0.123)	0.204* (0.118)	0.273** (0.125)	-0.118 (0.122)
Subsidiary HQ R&D	-0.209 (0.131)	-0.160 (0.128)	-0.047 (0.132)	-0.375*** (0.134)	-0.111 (0.125)	0.078 (0.135)	-0.088 (0.132)
Subsidiary ownership FDI	0.122 (0.233)	0.063 (0.207)	0.433 (0.304)	0.687* (0.360)	0.044 (0.266)	0.646* (0.338)	0.227 (0.308)
Subsidiary size	-0.020 (0.051)	-0.002 (0.055)	-0.037 (0.056)	0.038 (0.054)	-0.053 (0.054)	-0.139** (0.055)	0.081 (0.052)
HQ greenfield entry mode	-0.238* (0.125)	-0.063 (0.127)	-0.131 (0.128)	-0.092 (0.125)	-0.167 (0.126)	0.104 (0.136)	0.005 (0.132)
HQ subsidiary ownership	-0.013*** (0.003)	-0.010*** (0.003)	-0.005* (0.003)	-0.008*** (0.003)	-0.006** (0.003)	-0.004 (0.003)	-0.009*** (0.003)
Industrial sector	-0.204 (0.132)	-0.075 (0.127)	-0.425*** (0.124)	0.145 (0.132)	-0.139 (0.130)	-0.250* (0.135)	0.121 (0.124)
Observations	360	369	369	347	372	371	374
Pseudo-R2	0.073	0.066	0.111	0.106	0.057	0.188	0.0498
Wald-Chi2	91.29***	75.27***	97.03***	115.50***	57.11***	166.8***	46.13***
Log Likelihood	-435.6	-430.0	-436.2	-411.7	-423.4	-390.3	-395.5

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1