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MNE Organizational Structures and Subsidiary Role and Capability

Development: The Moderating Role of Establishment Mode

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MNE Organizational Structures and Subsidiary Role and Capability Development: The Moderating Role of Establishment Mode

ABSTRACT

Multinational enterprises (MNEs) develop structural configurations for managing their geographically dispersed and disaggregated activities. These structures can be classified as: (a) simple headquarters configurations (involves corporate, regional, divisional headquarters and mandated units) involving few direct reporting relationships; (b) network organizations involving no direct reporting relationships; and (c) matrix configurations involving multiple reporting relationships. While these structures are built for handling various complexities and purposes, it is unclear how they influence subsidiary role and capability development. We hypothesize how these structures influence subsidiary development and propose a moderating role of MNE establishment mode on the direct structure-subsidiary development relationship. Based on data from 429 foreign subsidiaries in New Zealand, our results show that subsidiary development varies across the structures such that simple headquarters configurations experience the least opportunities to develop. While the matrix and network structures as complex configurations offer distinct paths to subsidiary development, subsidiaries managed under the former are more likely to follow the developmental path of networking and interunit learning, and the subsidiaries managed under the latter are more likely to follow the path of autonomy and innovation. Furthermore, the positive association of network structure with subsidiary initiatives and autonomy is stronger for greenfield subsidiaries, whereas the positive association of matrix structure with subsidiary mandates is stronger for acquired subsidiaries.

Keywords: MNE organizational structures, subsidiary roles, subsidiary capability, reverse knowledge transfers, subsidiary initiatives.

MNE Organizational Structures and Subsidiary Role and Capability Development: The Moderating Role of Establishment Mode

INTRODUCTION

Multinational enterprises (MNEs) are complex organizations involving management of geographically dispersed and organizationally disaggregated activities (Contractor et al., 2010; Meyer et al., 2020; Nell et al., 2017). To effectively manage their global operations, MNEs develop various management configurations or organizational structures, through which they manage their administrative and entrepreneurial activities (Birkinshaw et al., 2006; Nell et al., 2017). The administrative activities mainly involve MNE-subsidiary coordination and controlling activities (Martinez & Jarillo, 1989), and the entrepreneurial activities involve resource acquisitions, market development, knowledge transfers, and other related activities (Nell et al., 2017).

Organizational structures are designed to facilitate different ways in which a subsidiary reports to the MNE. These include: Direct MNE corporate headquarters (CHQ)-subsidiary interactions, which can be dyadic or multi-leveled (geographically dispersed), depending upon the activity (Baaij et al., 2015; Baaij & Slangen, 2013; Kunisch et al., 2019); a regional headquarters/office (Enright, 2005a, 2005b; Nell et al., 2011) as an intermediary between the CHQ and subsidiary (Pla-Barber et al., 2021), involving management of activities for a geographical region; a mandated subsidiary unit (Alfoldi et al., 2012) assigned management mandates; a matrix structure (Egelhoff, 2020; Egelhoff & Wolf, 2017; Sayles, 1976) involving subsidiary reporting to multiple controlling authorities; or a network structure (Birkinshaw & Pedersen, 2010; Hedlund, 1986; Prahalad & Doz, 1981) involving

less dominant vertical relationships, loose lateral interconnectedness and spontaneous (context specific) coordination (Wolf & Egelhoff, 2012).

However, the research on MNE organizational structures has still not reached its full potential and there are some significant gaps that remain to be filled. First, while different MNE organizational structures are developed to handle different levels of management complexities (Celo et al., 2015) and are seen as an important contingency to subsidiary roles and development (Enright & Subramanian, 2007), their varying effects on the development of subsidiary roles and capabilities (Raziq et al., 2019) and knowledge sharing (Asakawa, 2020) remain unclear. Research suggests various drivers or paths of subsidiary development. More specifically, studies offer a dual path to performance, suggesting that subsidiaries may evolve either through taking a path involving higher autonomy and innovation or a path involving networking and interunit learning (Venaik et al., 2005). However, it remains unclear as to how different organizational structures are conducive to differences between subsidiaries in their development paths; in other words, how a subsidiary with a specific structure within the MNE follows a particular development path.

The research gap identified above exists partly because, for the sake of simplicity, MNE-subsidary research typically conceptualizes MNEs with a single headquarters, mostly the CHQ (Birkinshaw & Pedersen, 2010; Hoenen & Kostova, 2014), showing a dyadic relationship with the subsidiary. However, empirical evidence suggests disaggregation and dispersion of MNE headquarters' activities (Decreton et al., 2017; Kunisch et al., 2019; Nell et al., 2017), suggesting that a subsidiary interacts with multiple actors in the MNE. The simplistic conceptualization overlooks various possibilities under which subsidiaries can be managed or developed. Likewise, the opportunity to explore whether some structures facilitate a certain type of evolutionary path remains overlooked.

Second, MNE-subsidary studies explicitly assume that subsidiary development is characteristic of a network structure (Birkinshaw, 1998; Decreton et al., 2019; Johnson & Medcof, 2007; Schmid et al., 2014), which allows the subsidiary a certain level of autonomy and entrepreneurial opportunities. This perspective discounts the scope for other structural possibilities through which subsidiaries may develop, such as an intermediary or a mandated unit, or a matrix structure, which are the most complex and studied mainly in terms of their coordinating and controlling characteristics (Egelhoff, 2020; Egelhoff & Wolf, 2017; Egelhoff et al., 2013; Goold & Campbell, 2002; Levinthal & Workiewicz, 2018).

However, these issues have been noted and studies have called for further research on the role of various headquarters configurations (Benito et al., 2011; Hoenen & Kostova, 2014; Levinthal & Workiewicz, 2018; Menz et al., 2015; Meyer & Benito, 2016; Nell et al., 2017; Pla-Barber et al., 2020) and their influences on subsidiary development (Wolf & Egelhoff, 2010, 2012). Responding to such calls, Asakawa (2020) show the varying effects of different headquarters (CHQ, RHQ, DHQ)¹ on subsidiary knowledge sharing activity, suggesting the importance of studying the subsidiary reporting relationships in the MNE. Other than that, little is known.

Connected to the research gaps identified above, research also ignores various contingencies or underlying mechanisms involving the relationship between MNE organizational structures (Levinthal & Workiewicz, 2018) and subsidiary development. Existing research has mainly studied organizational structures in isolation and there is a need for examining contingency models to help understand what motivates the adoption of a particular structure (Wolf & Egelhoff, 2010). Since adoption of particular structures reflects MNE motives and purposes with regard to how the MNE seeks to relate headquarters and/or

¹ Corporate, regional, and divisional headquarters, respectively.

other units with the focal subsidiaries, and in other words maintain a strategy-structure fit (Stopford & Wells, 1972), it is important to study the determinants of MNE strategy in the host country. In this regard, subsidiary establishment mode (Canabal & White III, 2008; Zhao et al., 2021), which reflects the MNE's intended product/market (Sharma & Erramilli, 2004), as well as control strategy (Pan & David, 2000) in the host country, can better reflect the MNE's purposes of assigning a particular structure to the subsidiary and help uncover and explain the possible link between particular organizational structures and subsidiary development as a major contingency factor.

Establishment modes are relevant to the organizational structure-subsidiary development relationship. First, subsidiaries are generally assigned roles which reflect the purpose of their creation and could be broad as competence-creating or narrow such as limited to merely sales, indicating that role and capability development may not be the objective of all subsidiaries. Second, studying organizational structures and their influences alongside establishment mode as a moderating factor can reveal patterns with regard to subsidiary development, which are consistent with the MNEs' product, market and control strategies. Taking the establishment mode into context, hence, may rationalize the effect of structures on subsidiary development.

However, since MNE organizational structures are rarely studied in relation to subsidiary establishment mode, it is unclear whether a subsidiary being established as a greenfield or an acquisition has an effect on the relationship between MNE organizational structures and subsidiary development. There are also calls for studying establishment modes and their implications, especially in overlooked contexts (Alon et al., 2020; Brouthers & Hennart, 2007; Hennart & Slangen, 2015).

To this end, we aim to address the gaps identified above by examining the relationship between MNE organizational structures and subsidiary development, as well as the moderating effect of establishment mode in this relationship. MNE organizational structures differ in terms of complexity, which provides various challenges and opportunities for subsidiary development. We pose two research questions: (i) do simple versus complex organizational structures differ with regard to their influences on subsidiary role and capability development?; and (ii) does establishment mode moderate the relationship between simple/complex MNE organizational structures and subsidiary development? We identify three distinct types of MNE organizational structures (Celo et al., 2015; Levinthal & Workiewicz, 2018) and classify them across the level of structural complexity from relatively simple to complex: (a) Simple headquarters configurations (involving fewer direct reporting relationships); (b) network organizations (involving no direct reporting relationships); and (c) matrix configurations (involving multiple reporting relationships). The simple headquarters category comprises CHQ, RHQ, DHQ and mandated units (Nell et al., 2017) with few, typically dyadic interactions in the MNE. The other two categories cover more intricate MNE organizational designs that attempt to address higher strategic and external complexities (Egelhoff & Wolf, 2017; Egelhoff et al., 2013; Wolf & Egelhoff, 2012).

While geographical dispersion and disaggregation are key characteristics of today's MNEs, the complexity of network and matrix structures can be quantified in terms of the number of subsidiary horizontal and vertical relationships in the MNE. The difference between them is that the network structure involves informal MNE-subsidiary relationships (Martinez & Jarillo, 1989), allowing subsidiaries to integrate both horizontally and vertically to form a network (Birkinshaw & Pedersen, 2010; Prahalad & Doz, 1981). Compared to network structures, subsidiaries in matrix structures involve a higher level of complexity (Wolf & Egelhoff, 2012), as they are engaged in multi-directional formalized communication

(Bartlett & Ghoshal, 1989) and report to multiple lines of authority simultaneously, such as a functional or international division, a geographical region, or a worldwide product division (Egelhoff & Wolf, 2017).

Regarding subsidiary development, following Venaik et al. (2005), in this study we classify the two paths for subsidiary development as (i) autonomy and innovation, and (ii) networking and interunit learning. We group subsidiary development factors such as autonomy, initiatives and competence into category (i), and external embeddedness, subsidiary mandates, and reverse knowledge transfers into the category (ii). Our selection of subsidiary development factors is consistent with the subsidiary evolution framework (see Birkinshaw & Hood, 1998; Filippov & Duysters, 2014; Pedersen, 2006).

We draw on survey data from 429 foreign-owned subsidiaries in New Zealand. A sampling frame of 952 subsidiaries in New Zealand was computed and questionnaires were sent to country managers or heads of the foreign subsidiaries in New Zealand. Online survey questionnaires were first sent via email to all respondents and then through post to those who did not respond to the online surveys. The 429 completed responses represented a somewhat equal share of manufacturing and services industry subsidiaries.

Data are analyzed using structural equation modeling with results providing support to our hypotheses. The results show that subsidiaries managed under simple structures experience the least opportunities to develop. Subsidiaries managed under network structures follow a developmental path of autonomy and innovation and this link is more pronounced for greenfield subsidiaries. Subsidiaries managed under a matrix structure follow the developmental path of networking and interunit learning and this link is more pronounced for acquired subsidiaries. We make a number of contributions. First, drawing on the dual path model of Venaik et al. (2005), our study addresses the question of how MNE organizational

structures influence subsidiary role and capability development. Our empirical evidence shows that subsidiaries vis-à-vis their structures follow their own distinct paths of development. Second, we contribute to the subsidiary development research, which associates subsidiary development mainly with network structures. By studying subsidiary development in the context of formal structures, we address the calls for such research (see Wolf & Egelhoff, 2010, 2012). Lastly, by proposing and testing the role of establishment modes as a contingency for the relationship between MNE structures and subsidiary development, we add to a number of exchanges on MNE structures and subsidiary roles and capability development (Canabal & White III, 2008; Enright & Subramanian, 2007; Levinthal & Workiewicz, 2018; Wolf & Egelhoff, 2010; Zhao et al., 2021).

THEORETICAL OVERVIEW

MNE Organizational Structures

MNEs are complex inter-organizational networks (Ghoshal & Bartlett, 1990) and face various challenges in controlling and coordinating their specialized and differentiated units worldwide (Martinez & Jarillo, 1989). To overcome the challenges, MNEs seek to achieve internal integration (Martinez & Jarillo, 1989) and align subsidiaries to certain organizational structures (Birkinshaw & Pedersen, 2010; Kostova et al., 2016), which result in MNE-subsidiary relationships across various degrees of centralization and formalization (Gates & Egelhoff, 1986). The CHQ is at the organizational apex of MNEs, facing the complex task of governing heterogeneous and complex organizations in geographically dispersed locations (Nell et al., 2017). While CHQs may directly monitor and control subsidiaries, the increase in costs to monitor and coordinate subsidiaries preclude or make it difficult for the CHQ to manage subsidiaries directly when MNEs expand and their units increase in number (Richter, 2014). MNEs therefore delegate their functions to intermediaries such as regional (Aguzzoli &

Hunek, 2019; Mahnke et al., 2012; Nachbagauer, 2019) and/or divisional headquarters, or to other units to which they assign regional/global mandates (Alfoldi et al., 2012; Benito et al., 2011; Decreton et al., 2017; Decreton et al., 2019; Goold & Campbell, 2002). These structures are relatively simple as they involve either dyadic or few direct reporting relationships (Levinthal & Workiewicz, 2018). However, for some projects with high strategic importance, subsidiaries can also interact simultaneously with the CHQ and the intermediary (Birkinshaw et al., 2016; Decreton et al., 2017).

Some subsidiaries are managed via multiple controlling authorities or involve multiple controlling units interlinked in the form of a matrix. These are the most complex organizational structures as they comprise multiple hierarchies within a structure (Egelhoff, 2020; Egelhoff & Wolf, 2017; Egelhoff et al., 2013; Levinthal & Workiewicz, 2018; Sayles, 1976; Wolf & Egelhoff, 2012), overlapped across functions and divisions (Davis & Lawrence, 1977) and products and geographies, through which subsidiaries typically report to multiple divisions and/or supervisory entities (Davis & Lawrence, 1977; Donaldson, 2009; Wolf & Egelhoff, 2012). A matrix involves elements of worldwide functional and product divisions as well as geographical regions, leading to four different types: function-product matrix, product-region matrix, function-region matrix, and function-region-product matrix (Wolf & Egelhoff, 2012). Examples of MNEs adopting matrix structures include Nestle and Unilever. Unilever for example, divides its product categories/divisions (oral care, beverages etc.) and functions (HR, R&D etc.) across geographical markets/divisions (Asia, Europe etc.).

While the two structures described above represent formal hierarchies, the network is an emerging structure, representing heterarchy and informality (Hedlund, 1986). This third type of structure is more autonomous, albeit being complex (Burton et al., 2020; Levinthal & Workiewicz, 2018), particularly in terms of internal differentiation (Ghoshal & Bartlett, 1990; Wolf & Egelhoff, 2012). The MNE-subsidiary relationships are informal (Martinez &

Jarillo, 1989), and subsidiaries are allowed to integrate both horizontally and vertically to form a network (Birkinshaw & Pedersen, 2010; Prahalad & Doz, 1981). A network structure can be described as one where the MNE allocates resources in a decentralized manner (Baker, 1992) and integrates its global strategy through distributed inter-reliant resources (Malnight, 1996). The heterarchical MNE-subsidiary relationships involve social relationships, informal communications, heterogeneity, looser interconnectedness, spontaneous (context-specific) coordination, and lack dominant vertical relationships (Wolf & Egelhoff, 2012). Such subsidiaries tend to be less supervised, and their independence gives them the latitude to function without having to constantly seek approval from the CHQ for their strategic and operational decisions. MNEs adopting a network structure include professional service firms such as Deloitte, Ernst & Young, KPMG, and PWC. Deloitte, for example, has its CHQ in the UK, and its subsidiaries have autonomy and status as separate legal entities in their respective host countries.

Here it is important to note that while both matrix and network organizations are complex, involve reporting to multiple authorities, and are found predominantly in transnational corporations (Guadalupe et al., 2014), the matrix involves formality and the network informality (involving easier vertical and horizontal integration in MNEs) in relationships with a certain level of autonomy. The formality of a matrix makes it difficult for subsidiaries to decide whom to comply with when guidance and recommendations among the multiple authorities conflict (Levinthal & Workiewicz, 2018), and hence, as argued earlier, it can be seen as more complex than the network structure (Wolf & Egelhoff, 2012). Conflicts are arguably less pervasive in a network structure where subsidiary relationships within the MNE are less formal, or subsidiaries have a certain level of autonomy. Thus, both of these structures pose coordination complexities and are less likely to be handled with typical

hierarchies (Levinthal & Workiewicz, 2018), which we refer to here as simple headquarter configurations.

Subsidiary Development

Subsidiary development is indicated by the level of growth in subsidiary resources, capabilities and scope of activity/mandate (Birkinshaw & Hood, 1998; Meyer et al., 2020; Pu & Soh, 2018), and is seen as a result of the interactions of factors in the three environments a subsidiary usually interfaces with: the MNE HQ, the subsidiary's own environment, and the subsidiary local (host-country) environment (Birkinshaw et al., 1998; Figueiredo et al., 2020; Verbeke et al., 2007). Hence, research on subsidiary development is twofold. It looks at what factors determine or drive subsidiary development, focusing on subsidiary autonomy (HQ determinant), subsidiary initiative (subsidiary choice), and external embeddedness (local environment determinism). It also examines what indicating factors reflect the level to which a subsidiary is developed, focusing on subsidiary role or scope of activity and its capability level (Birkinshaw & Hood, 1998; Filippov & Duysters, 2014; Pedersen, 2006). However, since the subsidiary drivers and outcomes interact with each other in a cyclical manner, it is often difficult to distinguish the predictor from the outcome. Therefore, we refer to the two paths of subsidiary innovation and performance suggested by Venaik et al. (2005) as (i) autonomy and innovation, and (ii) networking and interunit learning. Drawing from the subsidiary development literature (Birkinshaw & Hood, 1998), Venaik et al. (2005) propose that factors such as autonomy, networking, and innovation offer implications for subsidiary performance and broader MNE competitive advantage. We discuss the elements of subsidiary development as follows.

Starting off with subsidiary autonomy, it refers to the capacity of subsidiaries to self-govern and determine their paths independently in the MNE (Deci & Ryan, 1985). Whereas

early perspectives on subsidiary autonomy view this as a matter of power within the MNE (Egelhoff, 1984; Picard, 1977), later perspectives emphasize the need for autonomy to enable subsidiary development, particularly to respond to threats and opportunities in subsidiaries' local environments (Birkinshaw, 1997; Birkinshaw & Hood, 1998; Paterson & Brock, 2002; Young & Tavares, 2004). Subsidiary initiatives entail innovative and autonomous actions reflecting entrepreneurial behavior (Birkinshaw, 1997, 2014) for continuing the subsidiary strategy or taking up new ventures (Verbeke et al., 2007) for the local, internal or global markets (Birkinshaw, 1997, 2014).

Subsidiary resources are tangible or intangible assets that, if unique, subsidiaries can use to effectively achieve a competitive advantage (Barney, 2001). A specialized resource reflects the subsidiary's level of development (Birkinshaw & Hood, 1997). Likewise, a capability may be seen as a subsidiary's ability to utilize its resources (Collis & Montgomery, 1995). Furthermore, if sufficiently unique and recognized by the MNE, such resources and capabilities may be deemed as competencies and may help subsidiaries develop MNE-wide firm-specific advantages (Birkinshaw et al., 1998; Rugman et al., 2011).

Subsidiaries are assigned various roles by the MNE, and these are based on factors such as the scope of their activity as well as several other factors, which may be based on the characteristics of the host market. Subsidiaries with broader mandates are better able to facilitate dual knowledge flows in the MNE (Lee et al., 2020). Subsidiary mandates, however, may also be a result of subsidiaries' unique resources and efforts of the subsidiary managers (Meyer et al., 2020). With regard to the above, the concept of reverse knowledge transfers is the key; that is, the transfer of subsidiary competencies to the MNE (Mudambi, Piscitello, et al., 2014; Raziq et al., 2021). Subsidiaries transferring valuable competencies to the MNE are developed at the individual subsidiary level as well as the broader MNE level, indicating a higher level of subsidiary development.

Subsidiaries are also engaged in networks outside the MNE. Subsidiaries are argued to be externally embedded when they adapt to resources, procedures and processes of the collaborating organizations in their network (Gammelgaard et al., 2011). Subsidiaries learn from their local networks and embeddedness, leading to the development of subsidiary competences (Andersson et al., 2005; Andersson et al., 2002; Schmid & Schurig, 2003), innovation (Isaac et al., 2019), market performance, and manufacturing and development processes (Andersson et al., 2002).

HYPOTHESIS DEVELOPMENT

Building on the theoretical review presented above, we develop a conceptual model that examines the relationships between different types of organizational structure and subsidiary development, as well as the moderating effect of subsidiary establishment mode on these relationships. The model is summarized in Figure 1. In this model, the relationships between organizational structures and subsidiary development are examined in terms of: (1) Simple headquarters configuration versus complex network structures (H1a and H1b), (2) matrix versus network structure (H2a and H2b), (3) simple headquarters configuration versus complex matrix structure (H3a and H3b), and (4) the moderating effects of subsidiary establishment mode on the relationships between organizational structure and subsidiary development (H4a and H4b). The arguments for each of the hypothesized relationships are developed next.

******* Insert Figure 1 about here *******

Simple Headquarters Configurations versus Complex Network Structures

Autonomous subsidiaries (as in a network structure) have better options for dual embeddedness (Andersson et al., 2001; Chatzopoulou et al., 2020; Cheng & Huang, 2021), compared to less autonomous subsidiaries. Hence, subsidiaries managed under a network

structure are better motivated to seek and absorb external knowledge in different institutional environments, compared to subsidiaries managed under centralized organizational structures (Zeng et al., 2019). A decentralized organizational structure enables the MNE to better process and use external information for decision-making and reduce costs associated with the local environment (Rabbiosi & Santangelo, 2019). Network structures (see Figure 1) enable innovation through encouraging openness (Schoellhammer & Gibb, 2020), along with autonomy and lateral internal interactions so that subsidiary entrepreneurship is better facilitated (Pla-Barber et al., 2020).

In a simple hierarchical parent-child relationship with the MNE, the subsidiary has limited discretion and is expected to only undertake the tasks assigned by HQ. Such subsidiaries have narrower roles and are less likely to be involved in strategic management either at the subsidiary or corporate level. Furthermore, the subsidiary's opportunity to take on initiatives and form local networks is constrained by increased monitoring and visibility of the subsidiary (Ambos et al., 2010; Birkinshaw, 2014; Birkinshaw & Hood, 1998; Birkinshaw et al., 2005). Vertical formal relationships leave the subsidiary with limited opportunities for taking up its own agendas, and the relationship between the MNE and the subsidiary is hence more a principal-agent type where the MNE shows low confidence in the subsidiary's capability and high suspicion towards the subsidiary's managers (Birkinshaw & Ridderstråle, 1999). Hence,

Hypothesis 1a: *Subsidiaries managed under simple headquarters configurations are less likely to take the developmental path involving autonomy and innovation compared to subsidiaries managed under complex network organizations.*

Hypothesis 1b: *Subsidiaries managed under simple headquarters configurations are less likely to take the developmental path involving networking and interunit learning compared to subsidiaries managed under complex network organizations.*

Matrix versus Network Structures

Like the parent-child dyadic sort of hierarchical relationship outlined above, one that involves an intermediary between the CHQ and the subsidiary in the form of regional headquarters (Aguzzoli & Hunek, 2019; Nachbagauer, 2019), divisional headquarters (Benito et al., 2011), regional office or a mandated subsidiary, is a relatively simple hierarchical relationship, as the reporting lines between the subsidiary and the management offices involve fewer reporting relationships. However, the situation may be different in cases where subsidiaries are engaged in multiple hierarchical relationships, such as those seen in a matrix structure. In such complex multi-hierarchical relationships, subsidiaries report to multiple lines of authority or multiple elementary units of the MNE simultaneously, which typically involve divisions such as a functional division, an international division, a geographical region or a worldwide product division (Egelhoff & Wolf, 2017). In such settings, a single subsidiary interfaces with multiple units of the MNE, and, while this may be complex, the subsidiary sees better opportunities for integration and internal embeddedness than a subsidiary that is linked with one or a few offices (see Figure 1). Internal embeddedness positively influences MNE knowledge transfers and subsidiary innovativeness (Gölgeci et al., 2019).

Wolf and Egelhoff (2010) argue that broader charters, roles and mandates are not always achieved through subsidiaries' own strategies, as they may be determined by the MNE's motives for corporate internationalization or based on a subsidiary's geographical location. A matrix structure may provide some benefits, since taking up broader roles requires close coordination within the MNE network and a certain level of formality helps

manage vertical and horizontal relationships across product, market, functional or regional dimensions. Such close coordination serves many other purposes, such as adaptation and modification of knowledge and practices transferred (particularly in cases of institutionally distant home and host contexts) from headquarters to subsidiary (Ansari et al., 2014), which require translation in terms of filtering, coupling, and repurposing (Moon et al., 2020). Wolf and Egelhoff (2010) argue that network organizations receive less formal guidance from HQ and are less visible (to HQ) in terms of their capabilities than matrix subsidiaries. A matrix structure offers benefits of internal embeddedness, providing subsidiaries with opportunities for resource and capability development (Ciabuschi et al., 2014; Pu & Soh, 2018).

However, a matrix structure is still a hierarchical structure, which constrains subsidiary discretion and curbs entrepreneurial initiatives in taking up its own strategy with or without the approval of the HQ. From a network model perspective, subsidiaries interface with multiple opportunities in their external networks, which they lose if they are overly constrained and embedded in the MNE. As the network structure allows dual embeddedness and facilitates realization of opportunities that drive initiatives and external embeddedness (both of which involve a certain level of subsidiary autonomy), the network structure will be favorable for subsidiary development. While complex matrix configuration would facilitate reverse knowledge transfers and mandate development for the subsidiary, the subsidiaries under a network structure would be more exposed to factors that drive subsidiary development. Hence,

Hypothesis 2a: *Subsidiaries managed under matrix configurations are less likely to take the developmental path involving autonomy and innovation compared to subsidiaries managed under network organizations.*

Hypothesis 2b: *Subsidiaries managed under matrix configurations are more likely to take the developmental path involving networking and interunit learning compared to subsidiaries managed under network organizations.*

Simple Headquarters Configurations versus Complex Matrix Structures

Compared to simple headquarters configurations, complex matrix configurations provide the subsidiary with superior levels of autonomy, initiative, and external embeddedness. Multi-hierarchical relationships imply broader exposure, and interaction with multiple bosses (Egelhoff, 2020; Levinthal & Workiewicz, 2018), thus potentially providing benefits that are less attainable for subsidiaries reporting to a single unit. For example, developing relationships with multiple supervisory units, especially at the corporate level, should improve subsidiaries' issue-selling ability (Birkinshaw & Ridderstråle, 1999; Monteiro, 2015). In addition, a matrix structure facilitates reverse knowledge transfers (Wolf & Egelhoff, 2012), and because such transfers help subsidiaries gain bargaining power in the MNE, they may pursue their own development agendas more effectively (Mudambi & Navarra, 2004; Mudambi, Pedersen, et al., 2014; Mudambi, Piscitello, et al., 2014). While opportunities for subsidiary development also exist under simple headquarters configurations, such opportunities are more easily leveraged under matrix configurations (see Figure 1). Accordingly, we hypothesize that:

Hypothesis 3a: *Subsidiaries managed under simple headquarters configurations are less likely to take the developmental path involving autonomy and innovation compared to subsidiaries managed under complex matrix configurations.*

Hypothesis 3b: *Subsidiaries managed under simple headquarters configurations are less likely to take the developmental path involving networking and interunit learning compared to subsidiaries managed under complex matrix configurations.*

Moderating Role of Establishment Mode

Subsidiary development is contingent upon various firm-specific, subsidiary-specific, and location-specific factors (Benito, 2015; Birkinshaw & Hood, 1998; Enright & Subramanian, 2007; Yip, 1995; Yip & Hult, 2012), and establishment mode is one such factor that may influence subsidiary development (Cantwell & Mudambi, 2005; Enright & Subramanian, 2007; Yip, 1995). According to the network model, an MNE is a differentiated network (Nohria & Ghoshal, 1997) which involves vertical and lateral relationships, which can be differentiated in terms of various aspects such as resources, entry modes, and business contexts.

Acquired subsidiaries reflect the MNE's motives to enter the host market rapidly and get ready access to local resources (Khan et al., 2021; Reiche et al., 2017). Acquisitions carry relatively little risk compared to greenfield investments (Dikova & Van Witteloostuijn, 2007; Liu & Yu, 2018), and provide better access to market knowledge and a decision-making ability which the MNEs may benefit from (Andersson & Forsgren, 1996; Liu & Yu, 2018; Taggart & Hood, 1999). Alongside their deeper external embeddedness, acquired subsidiaries in general have a broader resource base (Andersson & Forsgren, 1996; Birkinshaw, 2014). Thus, acquired subsidiaries typically have broader mandates and are mostly assigned a greater level of autonomy than greenfield subsidiaries (Raziq et al., 2013).

As acquired subsidiaries are more likely to be competence-creating (Cantwell & Mudambi, 2005), they require a structure that better enables resource transfers across the MNE and the handling of their broader mandates. As hypothesized earlier, matrix configurations improve the capacity of subsidiaries to transfer locally acquired knowledge and expertise to the MNE (see Figure 1). These subsidiaries are embedded in their local contexts, but also expected to transfer their unique competencies back to the MNE. Hence,

such subsidiaries are arguably both exploring and exploiting their subsidiary-specific advantages in the host country (Rugman & Verbeke, 2001).

Acquisitions and matrix structures converge at the point of ambidexterity (exploration and exploitation) in some ways. For an MNE that seeks to create a balance between organizational ambidexterity, a matrix structure is appropriate (Egelhoff, 2020; Wolf & Egelhoff, 2012). Exploitation in a matrix can be achieved because of its elements of centralization and formalization, and exploration can be achieved, as subunits forming a matrix are mostly specialized units in terms of product and market (Wolf & Egelhoff, 2012), which facilitate new knowledge creation. A matrix structure suits acquired subsidiaries because of their ability to successfully achieve ambidexterity, i.e. exploration and exploitation (Meglio et al., 2015; Phene et al., 2012). Empirical evidence positively links post-acquisition integration with ambidexterity (Zhang et al., 2020). Hence, a matrix structure facilitates knowledge sharing and ambidexterity (Wolf & Egelhoff, 2012), and knowledge sharing between the acquirer and acquired firm leads to ambidexterity (Egelhoff, 2020; Hughes et al., 2020). Therefore, acquired subsidiaries strengthen the positive effects of a matrix structure on subsidiary development.

Greenfield subsidiaries reflect the MNE's motives to reduce business and financial risks (Liu & Yu, 2018), although they still carry risks as a new venture (Dikova & Van Witteloostuijn, 2007). Greenfield subsidiaries start off with knowledge that has been transferred to them by the parent MNE, and their development takes time compared to acquired subsidiaries, particularly with regard to creating local linkages and knowledge (Mudambi, Piscitello, et al., 2014). Being new to the host environment, MNEs encourage such subsidiaries to explore the local market and develop relationships early on. For example, Valentino et al. (2018) argue that greenfield subsidiaries seek to develop social relationships with the host market first, before converting these social relationships to business

relationships. Research suggests that when seeking to explore the market and develop relationships, subsidiaries need more heterarchical than hierarchical types of relationships with the MNE (Wolf & Egelhoff, 2012). From the aspect of socialization, network structure and greenfield mode converge, because the network structure allows vertical and horizontal integration in a decentralized and informal manner (Chen & Huang, 2007; Raziq et al., 2020).

Network structures are equally effective for developing contexts. Greenfield investments are preferred by MNEs, for example, for relation-based countries characterized by corruption and poor legal systems (Alon et al., 2020) where a network structure is well suited to compete in turbulent host environments (Foss et al., 2012). Greenfield subsidiaries are less likely to lose connectivity with their external network compared to acquired subsidiaries, and so seek to maintain a balance between the external and the internal contexts (Anand, 2011). Supporting the greenfield subsidiary entrepreneurial initiatives and providing guidance are critical issues for the MNE and the subsidiary (Valentino et al., 2018). Empirical evidence suggests that entrepreneurship, autonomy and external embeddedness are features of network organizations (Birkinshaw, 2014; Schmid et al., 2014), and this is where greenfield mode and network structure converge (see Figure 1). Therefore, greenfield subsidiaries strengthen the positive effects of a network structure on subsidiary development.

Hypothesis 4a: *The positive link between network organizations (versus complex matrix configurations) and subsidiary development (through autonomy and innovation) is stronger in the case of greenfield subsidiaries.*

Hypothesis 4b: *The positive link between matrix configurations (versus network organization) and subsidiary development (through networking and interunit learning) is stronger in the case of acquired subsidiaries.*

DATA AND METHODS

Data

The empirical context of this study is the foreign subsidiaries in New Zealand. New Zealand is a geographically isolated economy, which attracts significant levels of foreign investments mainly coming from Australia, the USA, the UK and other European economies (Raziq et al., 2019; Scott-Kennel, 2004). The small size as well as geographic remoteness of subsidiaries in New Zealand from major investors reflects dispersion of MNE activity requiring additional management layers. As a result, it can be expected that subsidiaries in New Zealand are managed in a variety of ways. For example, some MNEs from the USA might prefer to have the New Zealand subsidiary managed through a regional headquarters placed in Australia or another country which is about midway between the home and the host country. Other MNEs may have assigned a fine-sliced activity to the subsidiary requiring a divisional headquarters or a matrix structure. Some MNEs from a relatively close country, Australia for example, may prefer a subsidiary managed directly through the CHQ in Australia, or some European MNEs may assign a management mandate to the subsidiary in Australia. Similarly, some MNEs may prefer a network structure, allowing the subsidiary easier vertical and horizontal integration within the MNE. Hence, the New Zealand context is highly interesting and relevant to the study of MNE organizational structures.

Data were collected through a survey conducted in 2012-2013. A survey seemed a pragmatic choice with regard to the research objectives (Silverman, 2013) as well as the approach adopted in previous studies (see Hurmerinta-Peltomäki & Nummela, 2004). Appropriate to our philosophical stance (Blumberg et al., 2005), we adopted a ‘positivist’ approach, using deductive reasoning (Bryman, 2012) involving hypotheses tested through quantitative methods (Hair et al., 2019).

A sampling frame of 1,037 foreign-owned firms was compiled using Kompas New Zealand as the principal source. The listing was screened for accuracy and telephone calls were made to all firms in the sampling frame. The screening reduced the useable sample population to 952 firms, which can reasonably be assumed to comprise a near-complete record of foreign-owned subsidiaries in New Zealand at the time of the study. A questionnaire was developed and sent to the CEO (or head) of the subsidiary in New Zealand with information sought on the New Zealand-based operations as a whole. CEOs or subsidiary heads are relevant as they have formal authority and compared to line or middle-level managers are better linked in the MNE as well as the external networks.

A pilot study was conducted with five subsidiaries through post, prior to the survey. The responses showed that the questions were well understood by the respondents. An online survey was developed then using Qualtrics software. All respondents were sent the online survey first via email. Reminders were sent after a week. Those who did not respond to the email surveys were sent surveys through post with a return envelope attached to the questionnaire. Reminders were sent and the survey was concluded after a total of 435 responses were received. Six responses were only half filled and hence discarded, leaving 429 completed responses. As the responses included early as well as late responses, we checked for non-response bias using the extrapolation method (Armstrong & Overton, 1977; Pace, 1939). Early responses comprised around 60% of the total and the late ones (requiring reminders) around 40%. We grouped them and compared mean scores for the survey constructs across the two groups. We employed analysis of variance, which showed clearly non-significant results for the two groups, indicating little or no non-response bias.

Measurement and Analysis

The study involves an independent variable, a moderator, and dependent variables. The independent variable *MNE Organizational Structure* is categorical and measured by asking the respondents to indicate to whom the subsidiary reports in the MNE. In line with previous studies (Birkinshaw, 1998; Birkinshaw & Hood, 1997; Enright, 2005b; Wolf & Egelhoff, 2012), the choices provided are: (1) corporate headquarters, (2) intermediary headquarters (e.g., regional or divisional), (3) a (non-HQ) mandated subsidiary unit, (4) matrix structure (with multiple reporting authorities), and (5) a network structure. Options 1, 2 and 3 denote simple headquarters configurations, option 4 matrix configurations, and option 5 the network organization. The moderator variable *Establishment Mode* follows Canabal and White III (2008) with two options, greenfields and mergers/acquisitions, to indicate the origins of the subsidiary's establishment in New Zealand.

With regard to dependent variables for subsidiary development, 5-point Likert scales measures were used, with options ranging from 'strongly disagree' to 'strongly agree'. The *Subsidiary Initiative* construct was developed from Birkinshaw (1997), and consists of seven items representing different types of entrepreneurial initiatives the subsidiary had taken in the local, internal, and global markets in the last 5 years prior to the survey. An exploratory factor analysis resulted in loading scores ranging from 0.668 to 0.876. The local initiative items comprise offering new products/services in New Zealand, enhancements to existing products/services, market development, and new technology adaptation. The global initiative items comprise developing new products/services to be sold internationally and expanding R&D activity. The internal initiative item was expanding company operations in New Zealand. The *Subsidiary Autonomy* construct is taken from Birkinshaw et al. (1998). It includes 10 items measuring the extent to which the subsidiary has power to make decisions with regard to issues of a strategic and operational nature. The items are hiring senior officials, outsourcing product/services, new market development, new product development,

annual budget setting, changes in organization of activity, changes in standard operating procedures, changes in product/service design, choice of technology, and overall autonomy. *Subsidiary External Embeddedness* is a single item construct taken from Birkinshaw et al. (2005) that measures the extent to which the subsidiary makes collaborative agreements locally.

Subsidiary Competence and *Reverse Knowledge Transfers* are specified as second-order constructs. Both constructs involve two (each) first-order constructs. The first-order constructs for *Subsidiary Competence* comprise subsidiary resources and management capability levels relative to other units in the MNE. The constructs are adapted from Harzing and Noorderhaven (2006). The subsidiary resources construct measures the level of subsidiary resources with regard to aspects such as research and development, innovation and entrepreneurship, production/manufacturing, marketing and sales, logistics, human resources, financial management, IT/information systems, and managing international activities. The capability construct measures the level of subsidiary management capability with regard to aspects such as new product development, personnel development, product quality, and innovation. The first-order constructs for *Reverse Knowledge Transfer* comprise knowledge outflows to HQ and knowledge outflows to subsidiaries. The constructs are adapted from Andersson and Forsgren (2000), Gupta and Govindarajan (1991), Harzing and Noorderhaven (2006), and Monteiro et al. (2008). Knowledge outflows to HQ and knowledge outflows to other subsidiaries measure the extent of transfer of knowledge and expertise from the subsidiary to the HQ, as well as other subsidiaries, respectively, on functions such as product design, marketing, distribution, and management systems and practices. The *Subsidiary Mandates* construct is adapted from Birkinshaw et al. (1998) and Harzing and Noorderhaven (2006), and measures the extent to which the subsidiary has global mandates to perform R&D activity, product management, and supplying of inputs/parts to the MNE as a whole.

The model includes five control variables: subsidiary age (1=less than five years, 2=5-10 years, 3=11-20 years, and 4=more than 20 years), subsidiary size (1=up to 50 employees, and 2=more than 50 employees), industry (1=primary, 2=manufacturing, and 3=services), MNE internationalization motives (natural resource-seeking, market-seeking, strategic asset-seeking, strategic sourcing/suppliers; see Benito, 2015) measured on a 5-point Likert scale, and subsidiary home country (1=Anglo-American, 2=Others) (Soskice, 1999). We add internationalization motives to reflect the parent MNE's intended purpose for the subsidiary, which is also reflected through our variables of subsidiary autonomy and subsidiary mandates.

With regard to analysis techniques, we applied structural equation modeling using the SmartPLS tool (version 3.2.9) (Ringle et al., 2015) to estimate the measurement and the structural models. Furthermore, as we take on a subsidiary perspective, hence focusing on their perceptions of their role and position within the corporate system, our data lacks HQ perspective on the subsidiary, particularly with regard to their objectives and agenda. While we do have some reflections of the HQ with regard to subsidiary assignment of autonomy and mandates, we did some further supplementary analysis. We performed ANOVA to examine whether being assigned a particular structure varies across aspects of MNE internationalization motives, subsidiary age, subsidiary home country, and establishment mode.

RESULTS

Following Podsakoff et al. (2003), we took steps to reduce the chances of common method variance prior to the survey, which included the way we measured our variables. For example, the independent variable (IV) (MNE organizational structures), moderator variable (establishment modes) and dependent variables (DVs) are measured differently with the IV and moderator measured as 'concepts' on categorical scales, and the DVs as constructs

requiring indirect measurement on a Likert scale. In this way we avoided the respondents' understanding of the possible relationships among variables as well as automatic responses. As an *ex post* check, the Harman (1967) one-factor test was also employed. It showed a total variance of 24.634%, which is well below the 50% limit. We also checked for multicollinearity. The inner variance inflation factor (VIF) values between the independent and the dependent variables were all around 1.00, which is less than the threshold of 5 for variance-based structural equation modeling (Ringle et al., 2015).

A breakdown of the sample with respect to industry shows that 237 responses come from the service industry, 187 from manufacturing, and 5 from primary industries². Regarding size (in terms of number of employees), around half of the subsidiaries had more than 50 employees. In terms of age, around 83% of the subsidiaries were over 10 years old. For the country of origin, subsidiaries owned by Australian and US MNEs are predominant in New Zealand. Fewer subsidiaries come from individual European countries, although collectively, Western Europe accounted for 30% of respondents, compared to 27% from Oceania, 27% from North America (the USA and Canada), and 16% from Asia.

With regard to MNE organizational structures, the predominant structure of MNE subsidiary management and control in New Zealand is the simple headquarters structure (288), whereby 226 are managed under a regional structure, 44 are under the direct control of CHQ, and the remaining 18 are mandated subsidiary units. There are 126 subsidiaries managed under a network structure, which is sizeable for a small remote country such as New Zealand. However, only 15 subsidiaries are managed under matrix structures. We address this later on in the discussion section.

² The small number of foreign primary industry subsidiaries in New Zealand as compared to the services and manufacturing subsidiaries is mainly because primary processing in New Zealand is predominantly domestically owned.

We conducted confirmatory factor analysis (CFA) to check the properties of the measurement scales (see Tables 1 and 2), and test reliability and validity. AVE scores were above 0.5, composite reliability scores above 0.7, and Cronbach's alpha scores above 0.6, thus above the recommended thresholds for reliability and validity (Hair Jr et al., 2016). Following Fornell and Larcker (1981), we calculated the square roots of the AVE values to check whether they were higher than the correlation coefficients between the latent variables (see Table 2).

******* Insert Table 1 here *******

******* Insert Table 2 here *******

To test the hypotheses and the validity of the proposed model, we employed the bootstrapping technique (Preacher & Hayes, 2008) using 5,000 samples and conducting *t*-tests (see Table 3). First, with regard to hypothesis 1a comparing simple headquarters configurations with network organizations, the results in Table 3 show that the latter scores significantly higher in terms of autonomy ($\beta=0.380, p<0.001$), initiatives ($\beta=0.251, p<0.001$), and competence ($\beta=0.199, p<0.001$). Similarly, with regard to hypothesis 1b, network organizations show significantly higher scores on subsidiary mandates ($\beta=0.102, p<0.05$) only. There is also support for reverse knowledge transfers, although marginal ($\beta=0.090, p<0.1$). Hence, our hypothesis 1a is fully supported and 1b partially supported.

With regard to hypothesis 2a, involving subsidiaries managed via matrix configurations versus network organizations, the results show that the latter score significantly higher on initiative ($\beta=0.128, p<0.05$), autonomy ($\beta=0.325, p<0.001$), and competence ($\beta=0.129, p<0.01$) than the former. With regard to hypothesis 2b, matrix configurations score significantly higher on mandates ($\beta=-0.285, p<0.001$) and reverse

knowledge transfers ($\beta=-0.112, p<0.05$), but no association was found with regard to external embeddedness. Thus, hypothesis 2a is fully supported, but 2b is partially supported.

***** **Insert Table 3 here** *****

With regard to hypothesis 3a, the results (Table 3) show that subsidiaries managed via complex matrix configurations score higher on initiatives ($\beta=0.145, p<0.05$) than subsidiaries managed under simple headquarters configurations. No differences are found on autonomy and competence aspects. With regard to hypothesis 3b, the former score higher on mandates ($\beta=0.241, p<0.001$) and reverse knowledge transfers ($\beta=0.118, p<0.05$) than the latter. Again, no association was found for external embeddedness. Hence, we find partial support for both the hypotheses 3a and 3b.

Regarding hypotheses 4a and 4b on the moderating role of establishment mode, subsidiaries managed via network structures score higher on autonomy ($\beta=-0.160, p<0.05$) and initiative ($\beta=-0.171, p<0.05$) levels than subsidiaries managed via matrix structures, and the relationship is stronger for subsidiaries established as greenfields. No moderating effect was found with regard to subsidiary competence. Thus, our hypothesis 4a is partially supported. A higher level of mandates ($\beta=0.122, p<0.05$) is more prevalent for subsidiaries with matrix configurations than subsidiaries with network relationships with the MNE, and this is more likely for acquired subsidiaries. Hence, our hypothesis 4b is also partially supported. We present these moderating effects graphically (see Figures 2, 3, and 4).

Our supplementary analysis through ANOVA (Table 4) reveals that subsidiaries managed under a network or matrix configurations are older than subsidiaries managed under simple headquarters. Subsidiaries managed under a network are larger than subsidiaries managed under simple headquarters. Subsidiaries managed under a network are more likely to be acquired compared to simple headquarters configurations. With regard to the MNE

motives of operation in New Zealand, subsidiaries managed under simple headquarters configurations are more likely to operate with the MNE motives of market-seeking and strategic sourcing/suppliers compared to the other two alternative structures. Subsidiaries managed under matrix configurations are more likely to be explorative with the MNE motive of strategic-asset-seeking compared to the other two alternative structures. Subsidiaries managed under a network are more likely to be exploitative and operate with the MNE motive of market-seeking compared to the matrix configurations.

******* Insert Table 4 here *******

DISCUSSION, IMPLICATIONS AND LIMITATIONS

Our results offer implications for subsidiary development vis-à-vis the various MNE organizational structures, which we conceptualize across internal complexity of the structures. We find that subsidiaries managed under simple headquarters configurations anticipate the least opportunities to develop compared to more complex configurations of either the network or the matrix. The latter two are more likely to lead to subsidiary development, such that the network organization is more associated with the path involving autonomy and innovation, and the matrix structure with the path involving networking and interunit learning. Furthermore, subsidiary development through a matrix structure is more likely to occur for acquired subsidiaries, while subsidiary development through a network structure is more likely to occur for a greenfield subsidiary. We discuss these findings as follows.

First, with regard to the relationship between simple headquarters configurations and network organizations, the results show that subsidiaries managed under a network have higher levels of decision-making autonomy, engagement in entrepreneurial initiatives,

competence, mandates and reverse knowledge transfers, and hence higher opportunities to develop. We can explain this relationship from the perspective of resource dependence. Guadalupe et al. (2014) argue that network structures tend to be adopted by larger MNEs. They possess broader resources (Peng & Beamish, 2014) compared to smaller ones, and hence broader opportunities to develop. This finding is also substantiated by our supplementary analysis, which shows that network organizations are larger in size compared to subsidiaries managed under simple headquarters configurations.

While the finding that network structures show broader prospects of development is consistent with existing research (Birkinshaw, 1998, 2014; Kutner et al., 2004; Pla-Barber et al., 2021; Schmid et al., 2014; Zeng et al., 2019), we offer some further insights with regard to the different effects of reporting channels. Prior research at one end links subsidiary development with network organizations, which involve multiple vertical and horizontal relationships in the MNE, but at the other end treats HQ-subsidiary relationships as simplistic and dyadic or in other words (Hoenen & Kostova, 2014; Nell et al., 2017), assuming fewer reporting relationships as can be seen in simple headquarter configurations. The nature of reporting relationships between the subsidiary and headquarters is missing from existing research (Wolf & Egelhoff, 2010), and our findings provide a novel comparison between the simple headquarters and the network. Thus, by answering calls for studying the organizational structures/reporting channels in more detail (Levinthal & Workiewicz, 2018; Nell et al., 2017; Pla-Barber et al., 2020, 2021), this study makes a contribution since comparison of different structures offers a more realistic picture of MNE-subsidiary relationships (Asakawa, 2020).

Second, and connected to the above, we compared simple headquarters configurations with complex matrix configurations with regard to subsidiary development and found that subsidiaries managed under a matrix structure possess broader mandates and show higher

levels of engagement in initiatives and reverse knowledge transfers compared to simple headquarters configurations. Given that prior research lacks such a comparison – in fact matrix structures in general (let alone in the context of subsidiary development) are rarely studied (Egelhoff, 2020; Levinthal & Workiewicz, 2018) – this is our second key contribution. Particularly interesting here is the finding on initiatives, as research has rarely looked upon initiatives vis-à-vis matrix structures. Our explanation of the relationship above is as follows. Although matrix structures are hierarchical like simple headquarters configurations, the multiple reporting lines in a matrix involve units that are usually specialized in terms of products and markets (Egelhoff & Wolf, 2017; Wolf & Egelhoff, 2012) and hence, potentially offer broader opportunities for new knowledge creation, efficient knowledge transfers, and product/market mandate development. Such specialization is generally lacking in simple headquarters configurations, as the subsidiary is reporting mostly to headquarters.

This can be explained by taking an evolutionary perspective on subsidiaries. As subsidiaries age and evolve, their internal and external networks broaden, the experience curve is enhanced, and they are in a better position to take on broader roles. The MNE may then adopt a matrix or a network structure as a whole or for some of its important subsidiaries. This is substantiated with our supplementary analysis, which shows that subsidiaries managed under a matrix configuration or a network structure are older than subsidiaries managed under simple headquarters configurations. While the matrix and network structures are embedded in multiple relationships (Levinthal & Workiewicz, 2018), the former is more likely to involve multiple direct reporting relationships and the latter multiple informal relationships. Thus, whether a subsidiary would report formally or engage informally in the MNE is the headquarters' choice, and it can be inferred that MNE organizational structures are linked to the evolution of subsidiaries. This finding addresses

the call by Wolf and Egelhoff (2010) for exploring the motives (or drivers) of MNEs for adopting a particular organizational structure.

Third, we compare matrix structures with network structures regarding subsidiary development. Both structures are complex and follow their own, and perhaps different, routes to development, with the matrix showing broader mandates and higher engagement in reverse knowledge transfers, while networks show higher levels of autonomy, competence and engagement in initiatives. With regard to network structure, we again connect to our discussion above, that although research predominantly links autonomy and initiatives with network structures, the contribution we make is a comparison through which we address a number of research calls (Levinthal & Workiewicz, 2018; Nell et al., 2017; Pla-Barber et al., 2020). More specifically, by showing distinct routes to development we offer some explanations about how subsidiaries evolve under different structures.

Our key explanation is that an informal structure allows subsidiary autonomy and initiative opportunities (Pla-Barber et al., 2020), and the matrix structure allows engagement with specialized units in the MNE through which the subsidiaries in a matrix develop resources, engage in knowledge transfers, and assume product/market/R&D mandates. Wolf and Egelhoff (2010) and Egelhoff and Wolf (2017) propose that subsidiary initiatives are more favored by hierarchical structures, and that initiatives can be easier to ‘market’ when a subsidiary has well developed hierarchical relationships with the parent company. However, our findings support the predominant understanding that initiatives and autonomy are key features of network structures. Furthermore, our supplementary analysis suggests that exploration (strategic-asset-seeking) is a more a feature of matrix structures, whereas exploitation (market-seeking) is more a feature of network structures. Hence, we contribute by showing the relationship between MNE motives and adopting certain structures, as well as

by addressing calls for studying determinants of structures from an MNE perspective (Wolf & Egelhoff, 2010, 2012).

Fourth, our study demonstrates that establishment mode moderates the relationships between MNE-subsidary relationships and subsidiary development. In particular, we find that greenfield establishment significantly increases the initiatives and autonomy for network subsidiaries, while matrix subsidiaries have significantly broader subsidiary mandates when they are acquired. To the best of our knowledge, our study is the first that studies various MNE organizational structures with regard to subsidiary role and capability development as well as offering a contingency explanation on how establishment modes interact with the MNE organizational structure and subsidiary development relationship. We address research calls, as existing research has mainly studied organizational structures in isolation and there is a need for examining contingency models to help understand what motivates the adoption of a particular structure (Wolf & Egelhoff, 2010). Furthermore, research on structures is mainly limited to offering performance implications of the structures (see e.g. Celo et al., 2015; Levinthal & Workiewicz, 2018), with very limited focus on subsidiary development.

Finally, we offer some empirical contributions through focusing on the rarely studied context of New Zealand. While the MNE-subsidary research is growing, there are only a handful of studies focusing on New Zealand. Subsidiaries in New Zealand feature geographical remoteness from the MNE headquarters, and, hence, their management is arguably complex. Furthermore, subsidiaries in small economies face issues in role and capability development (Bouquet & Birkinshaw, 2008) compared to those in larger host economies. Research suggests the effectiveness of complex structures for MNEs' parenting activity (Egelhoff, 2020; Wolf & Egelhoff, 2012), and we demonstrate through the New Zealand context that these structures are also conducive to subsidiary role and capability development. Using the context of New Zealand, we also address some calls for studying

establishment modes and their implications further using overlooked contexts (Alon et al., 2020; Brouthers & Hennart, 2007; Hennart & Slangen, 2015). As such, we offer some insights that may point to a way forward for subsidiaries in New Zealand. Our results are likely generalizable and applicable to similar small open advanced economies (Scott-Kennel & Saittakari, 2020).

Our findings have implications for management practice, as they suggest two ways in which subsidiaries can develop. One involves an informal structure characterized by subsidiary autonomy, competence, and initiatives. The other involves a structure with multiple reporting relationships, formality, and decentralization. The former is an autonomous network structure and the latter a formal matrix structure. Both structures are complex, involving multiple relationships, and offer distinct paths to subsidiary development, with the former more linked to the autonomy and innovation path, and the latter to the networking and interunit learning path. However, to get the best of both worlds, the MNEs may develop structures that feature characteristics of both the network and the matrix structures (Egelhoff, 2020; Egelhoff & Wolf, 2017; Egelhoff et al., 2013). Such a structure would also have positive implications for subsidiaries, as on the one hand the needed integration with the MNE will be met, and on the other, the subsidiary entrepreneurial drive and networking needs will be met. Both the HQ and subsidiary managers may work out ways to develop relationships and reporting structures which are conducive to their subsidiary's development. For example, subsidiary managers may develop ideas about needed changes and use them as a basis for initiatives.

A limitation of this study is that its data mainly map the perceptions of subsidiary managers. The views held by HQ are obviously also important in order to understand the link between MNE-subsidary relationships and subsidiary development. Future studies may recognize this aspect and analyzing HQ alongside focal subsidiaries would provide more

systematic comparisons across organizational levels. Another limitation is our cross-sectional design, which limits us to studying subsidiary evolution with regard to structures and establishment modes. For example, over time there could be implications for a greenfield investment, whereby the subsidiary structure (hierarchical/heterarchical) influences the subsidiary evolution differently. Future research may look at this aspect. A further limitation is that while we drew on a large sample and aimed to capture a nationwide experience, we got responses from a relatively small number (15) of subsidiaries managed under a matrix structure. However, with our efforts to seek nationwide data coverage, and with a high response rate of 45%, there is a high likelihood that our 15 matrix subsidiaries are indeed representative of the total matrix subsidiary population in New Zealand. It is noteworthy that the results are significant despite the small number in the category. It is important to note that while a matrix structure is adopted by many large transnational corporations (Guadalupe et al., 2014), given the small market size of New Zealand, with subsidiaries predominantly having narrower roles (Harzing & Noorderhaven, 2006), it is possible that few MNEs see a need for a matrix structure there. Our small set of matrix subsidiaries is consistent with other large scale studies in New Zealand (Scott-Kennel, 2001). Since context matters in international business research, a final limitation is that this study deals with only one host country – future studies may benefit from multi-country settings. Being among the first studies on the subject, we believe the results from this study also apply to settings such as small and developed European economies (Benito et al., 2003).

CONCLUSIONS

This paper examines two important questions: (i) do simple versus complex organizational structures differ regarding their influences on subsidiary role and capability development?, and (ii) do establishment modes moderate the relationship between simple/complex MNE organizational structures and subsidiary development? Our study based on data from 429

foreign subsidiaries in New Zealand suggests ‘yes’ on both counts with some explanations on how the structures differ and how the establishment modes interact. The findings suggest that simple headquarters configurations are associated with the lowest opportunities for development. MNE-subsidiary relationships characterized by a network tend to be the most competent and have the most opportunities to develop, whereas subsidiaries embedded in matrix configurations have broader mandates and higher engagement in reverse knowledge transfer. Subsidiaries managed under a network structure are more likely to follow a path of autonomy and innovation, compared to subsidiaries managed under matrix structures, which are more likely to follow the developmental path of networking and interunit learning. Regarding establishment mode, the key findings from the study are that the positive association between network structures and subsidiary development is stronger in the case of greenfield subsidiaries, while that between matrix structures and subsidiary development is stronger in the case of acquired subsidiaries.

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FIGURES AND TABLES

Figure 1. MNE organizational structures, subsidiary development and establishment mode

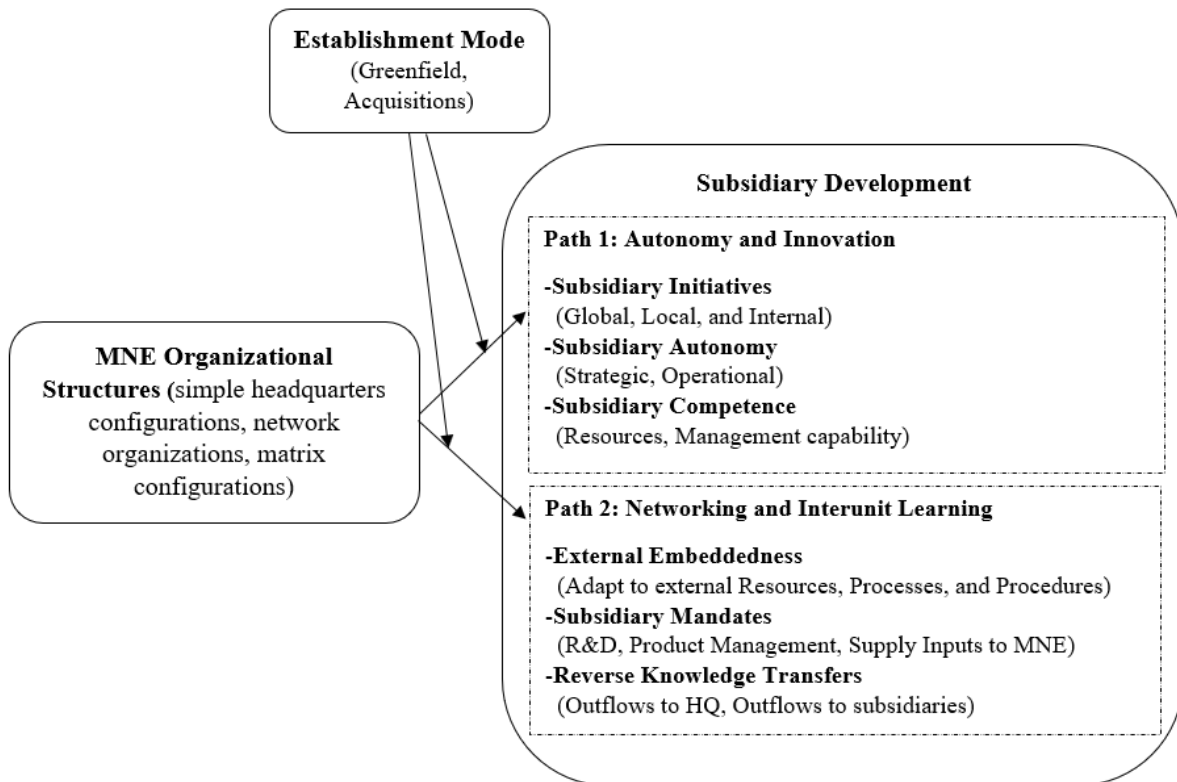


Figure 2. Interaction of MNE organizational structures and establishment mode with subsidiary initiatives

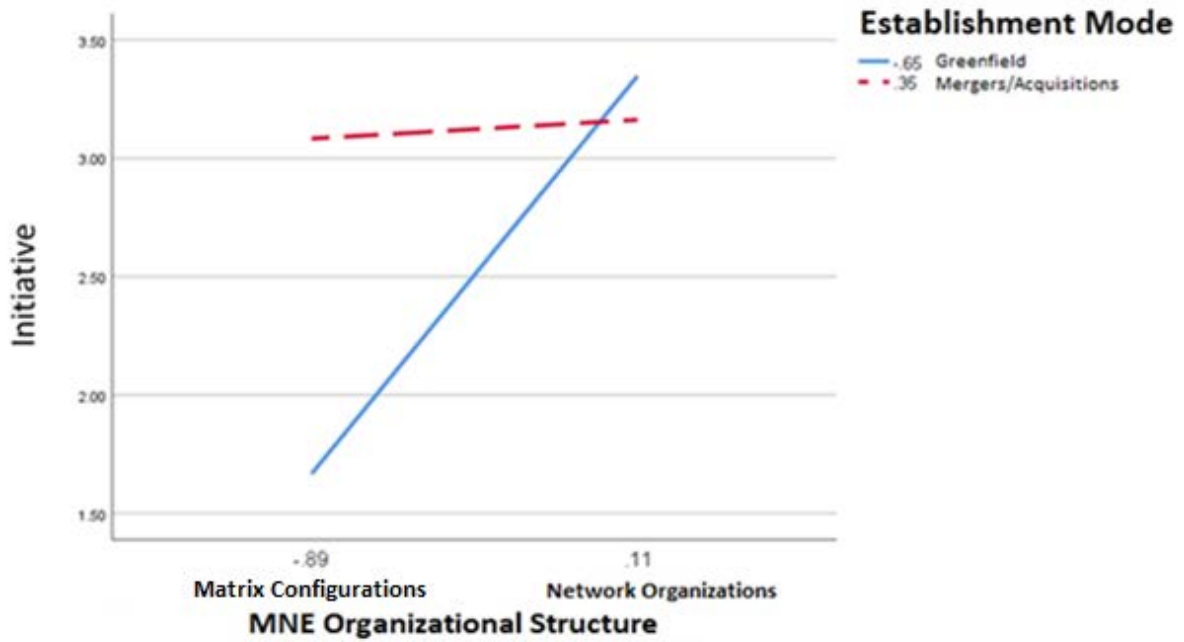


Figure 3. Interaction of MNE organizational structures and establishment mode with subsidiary autonomy

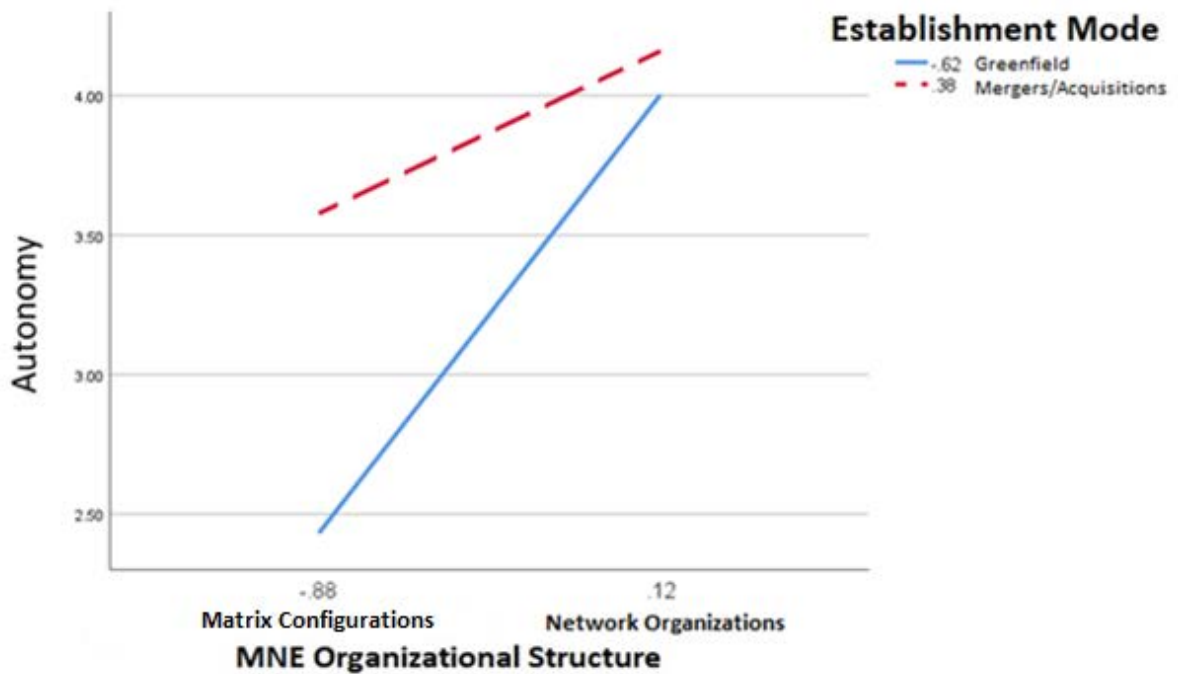


Figure 4. Interaction of MNE organizational structures and establishment mode with subsidiary mandates

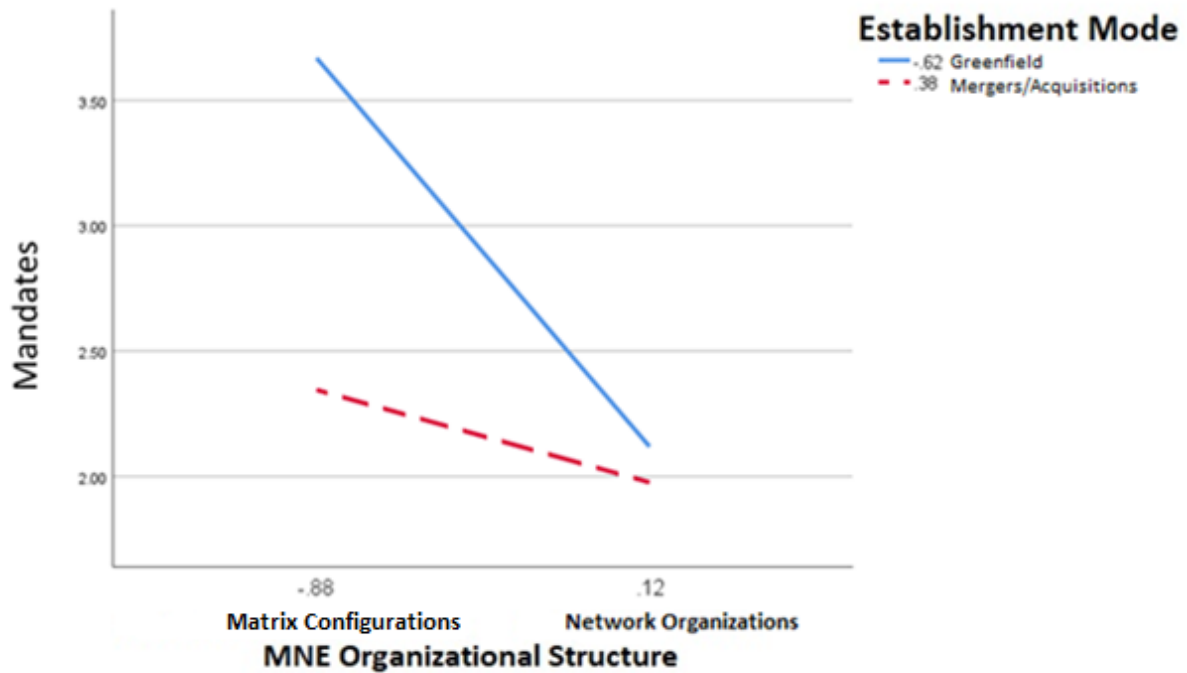


Table 1. Constructs' Validity and Reliability

MNE Structures	Simple Headquarters Configurations (0) versus Network Organizations (1)			Simple Headquarters Configurations (0) versus Matrix Configurations (1)			Matrix Configurations (0) versus Network Organizations (1)		
	C.A.	C.R.	AVE	C.A.	C.R.	AVE	C.A.	C.R.	AVE
Subsidiary Development									
Subsidiary Initiative	0.713	0.820	0.536	0.688	0.807	0.514	0.641	0.803	0.577
Subsidiary Autonomy	0.889	0.909	0.502	0.812	0.859	0.505	0.820	0.868	0.524
Subsidiary Competence	0.912	0.926	0.512	0.914	0.928	0.504	0.852	0.888	0.507
Resources	0.892	0.914	0.573	0.890	0.913	0.543	0.840	0.886	0.610
Capability	0.725	0.829	0.548	0.724	0.829	0.549	0.695	0.829	0.627
Subsidiary Mandates	0.759	0.847	0.652	0.788	0.876	0.702	0.708	0.836	0.630
Rev. Knowledge Tr.	0.887	0.911	0.563	0.900	0.920	0.593	0.862	0.894	0.517
RKT – HQ	0.797	0.869	0.624	0.824	0.839	0.884	0.751	0.844	0.578
RKT – Subsidiaries	0.806	0.875	0.639	0.826	0.839	0.886	0.772	0.856	0.602

Table 2. Intercorrelations and Discriminant Validity

Constructs	1	2	3	4	5	6	7	8	
Simple Headquarters Configurations versus Network Organizations									
1	Subsidiary Autonomy	0.709							
2	Subsidiary Competence	0.316	0.715						
3	Subsidiary Mandates	0.201	0.459	0.807					
4	External Embeddedness	0.200	0.057	0.053	1.000				
5	Subsidiary Initiative	0.461	0.657	0.626	0.140	0.732			
6	MNE Organizational Structures	0.380	0.199	0.102	0.020	0.251	1.000		
7	Reverse Knowledge Transfers	0.122	0.120	0.315	-0.025	0.312	0.090	0.750	
8	Establishment Mode	0.136	0.050	0.020	0.014	0.110	0.11	0.040	1.000
Simple Headquarters Configurations versus Matrix Configurations									
1	Subsidiary Autonomy	0.710							
2	Subsidiary Competence	0.257	0.710						
3	Subsidiary Mandates	0.210	0.448	0.838					
4	External Embeddedness	0.171	0.069	0.074	1.000				
5	Subsidiary Initiative	0.414	0.612	0.628	0.199	0.717			
6	MNE Organizational Structures	0.061	0.006	0.241	0.029	0.145	1.000		
7	Reverse Knowledge Transfers	0.121	0.103	0.335	-0.028	0.268	0.118	0.770	
8	Establishment Mode	0.120	0.050	-0.031	0.121	0.100	0.030	-0.001	1.00
Matrix Configurations versus Network Organizations									
1	Subsidiary Autonomy	0.724							
2	Subsidiary Competence	0.246	0.712						
3	Subsidiary Mandates	-0.103	0.264	0.794					
4	External Embeddedness	0.101	0.087	-0.036	1.000				
5	Subsidiary Initiative	0.082	0.528	-0.108	0.108	0.759			
6	MNE Organizational Structures	0.325	0.129	-0.285	-0.028	0.155	1.000		
7	Reverse Knowledge Transfers	-0.014	0.055	0.333	-0.030	-0.446	-0.118	0.719	
8	Establishment Mode	0.094	0.003	0.006	-0.166	-0.104	0.034	0.082	1.00

AVE square root values on the diagonal (in bold)

Table 3. Structural Model

MNE Organizational Structures, Establishment Modes*, Subsidiary Development		Path Coefficients	<i>p</i>
Simple Headquarters Configurations (0) versus Network Organizations (1)			
Path 1	MNE Organizational Structures → Subsidiary Initiative	0.251	0.000
	MNE Organizational Structures → Subsidiary Autonomy	0.380	0.000
	MNE Organizational Structures → Subsidiary Competence	0.199	0.000
	Moderating Effect → Subsidiary Initiative	-0.014	0.760
	Moderating Effect → Subsidiary Autonomy	0.770	0.297
	Moderating Effect → Subsidiary Competence	-0.022	0.612
Path 2	MNE Organizational Structures → External Embeddedness	0.020	0.676
	MNE Organizational Structures → Subsidiary Mandates	0.102	0.047
	MNE Organizational Structures → Reverse Knowledge Transfers	0.090	0.066
	Moderating Effect → External Embeddedness	-0.144	0.000
	Moderating Effect → Subsidiary Mandates	0.042	0.433
	Moderating Effect → Reverse Knowledge Transfers	0.041	0.339
Simple Headquarters Configurations (0) versus Matrix Configurations (1)			
Path 1	MNE Organizational Structures → Subsidiary Initiative	0.145	0.015
	MNE Organizational Structures → Subsidiary Autonomy	0.061	0.479
	MNE Organizational Structures → Subsidiary Competence	0.006	0.874
	Moderating Effect → Subsidiary Initiative	0.007	0.925
	Moderating Effect → Subsidiary Autonomy	0.023	0.036
	Moderating Effect → Subsidiary Competence	0.014	0.575
Path 2	MNE Organizational Structures → External Embeddedness	0.029	0.535
	MNE Organizational Structures → Subsidiary Mandates	0.241	0.000
	MNE Organizational Structures → Reverse Knowledge Transfers	0.118	0.014
	Moderating Effect → External Embeddedness	0.013	0.143
	Moderating Effect → Subsidiary Mandates	-0.071	0.167
	Moderating Effect → Reverse Knowledge Transfers	-0.021	0.687
Matrix Configurations (0) versus Network Organizations (1)			
Path 1	MNE Organizational Structures → Subsidiary Initiative	0.128	0.030
	MNE Organizational Structures → Subsidiary Autonomy	0.325	0.000
	MNE Organizational Structures → Subsidiary Competence	0.129	0.003
	Moderating Effect → Subsidiary Initiative	-0.171	0.012
	Moderating Effect → Subsidiary Autonomy	-0.160	0.037
	Moderating Effect → Subsidiary Competence	-0.029	0.342
Path 2	MNE Organizational Structures → External Embeddedness	-0.028	0.695
	MNE Organizational Structures → Subsidiary Mandates	-0.285	0.000
	MNE Organizational Structures → Reverse Knowledge Transfers	-0.112	0.014
	Moderating Effect → External Embeddedness	-0.150	0.000
	Moderating Effect → Subsidiary Mandates	0.122	0.027
	Moderating Effect → Reverse Knowledge Transfers	0.052	0.348

* Greenfield (0), Mergers/Acquisitions (1); Path 1 (autonomy and innovation), Path 2 (networking and interunit learning)

Table 4. Analysis of Variance (Kruskal-Wallis test)

Dimensions	MNE (Hierarchical) Management Structures											
	Simple Headquarters' Configurations versus Matrix Configurations				Simple Headquarters' Configurations versus Network Organizations				Matrix Configurations versus Network Organizations			
	Mean Rank (SHC)	Mean Rank (CMC)	H	Sig	Mean Rank (SHC)	Mean Rank (NO)	H	Sig	Mean Rank (CMC)	Mean Rank (NO)	H	Sig
Subsidiary Age	149.50	200.00	5.821	0.016	199.45	225.89	5.378	0.020	84.0	69.45	2.512	0.113
Subsidiary Size	150.75	176.07	1.493	0.222	197.37	230.65	8.231	0.004	73.57	70.69	0.087	0.768
Subsidiary Industry	152.29	146.50	0.084	0.772	212.41	196.28	2.127	0.145	70.60	71.05	0.002	0.966
Greenfield-Mergers/Acquisitions	150.31	184.37	2.663	0.103	199.78	225.14	4.795	0.029	76.03	70.40	0.309	0.578
Subsidiary Home Country	152.71	138.40	0.553	0.457	204.75	213.79	0.711	0.399	62.30	72.04	1.067	3.02
Natural Resource-seeking Motive	150.02	190.10	3.852	0.049	198.92	227.10	6.121	0.013	79.73	69.96	0.906	0.341
Market-seeking Motive	155.74	80.13	12.399	0.000	222.35	173.56	16.826	0.000	52.13	73.25	3.945	0.047
Strategic-asset-seeking Motive	148.42	220.70	13.381	0.000	202.61	218.67	2.174	0.140	96.50	67.96	8.089	0.004
Strategic sourcing/suppliers Motive	154.60	102.03	5.522	0.019	223.49	170.96	18.156	0.000	63.40	71.90	0.625	0.429

H: Chi-Square; Higher Mean values in Bold.