

**Beyond Subsidiary Embeddedness –
A Framework for Future Analysis of MNC Embeddedness**

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Abstract

This paper aims to contribute to the conceptualization of MNC embeddedness into their environment as a key characteristic of the modern MNC. Based on a review of current research on MNC embeddedness we identify limitations and inconsistencies of this important research stream that has contributed a lot to our understanding of the modern network MNC. Furthermore, we develop a framework integrating missing dimensions of MNC embeddedness, and we explain their relevance for strategy and organization research. We argue that one crucial aspect to be acknowledged is the multi-level nature of many networks, and that therefore the simultaneous investigation of subsidiary-level and parent-level external linkages are important. We conclude with defining some future research opportunities that will help to better understand the amalgamation of internal and external networks and its consequences for the internal functioning of the network MNC.

Keywords: MNC, networks, embeddedness, HQ-subsidiary relationships

Introduction

Today, it is widely acknowledged that the embeddedness of firms into their external networks is an important explaining variable for firm performance (Uzzi 1996; Dyer & Singh 1998; McEvily & Zaheer 1999; Gulati, Nohria et al. 2000; McEvily & Marcus 2005). The underlying idea is that firms are embedded in social, economic and professional networks with other actors (Granovetter 1985). Key to the concept of embeddedness is the assumption that an actor's behavior is in part determined by the set of relationships and connected relationships the actor is embedded in (Granovetter 1985). Hence, the focus is put on the characteristics of the relationships between actors in the network and the overall network structure, such as the size of the network or the diversity of actors.

Important for the conceptualization of embeddedness is the distinction between *structural* and *relational* embeddedness (Gulati 1998). First, firms are directly linked to actors in the environment through relationships e.g. to customers or suppliers. This dyadic perspective highlights the differences of characteristics of direct relationships such as the strength (e.g. frequency of interaction), the content (e.g. trust or knowledge sharing), or multiplexity of ties (Brass, Butterfield et al. 1998). Second, structural embeddedness refers to the fact that firms are embedded in sets of *connected* relationships (Cook & Emerson 1978). Here the perspective moves from the dyadic relationship (e.g. firm to customer) towards the integral network including for example customers' customers or customers' suppliers. In this structural perspective, emphasis is set on the structure of the overall network and its characteristics such as the overall network density, or the number of existing structural holes (Brass & Burkhardt 1993; Brass, Butterfield et al. 1998).

Embeddedness research has proven to be appropriate for studying complex environments (Dacin, Ventresca et al. 1999). MNCs like domestic firms can be embedded differently in networks and their networks can have different structural characteristics (Halinen & Törnroos 1998; Dacin, Ventresca et

al. 1999). The topic of *MNC* embeddedness into the environment has similarly been a growing stream of literature in recent years (Asakawa 2001; Andersson, Forsgren et al. 2002).

Scholars in International Business have adopted the idea of two intertwined networks: the internal corporate network of the MNC and the environmental network (Forsgren 2004; Ciabuschi 2006). The MNC is seen as a network organization with differentiated subsidiaries (Hedlund 1986; Bartlett & Ghoshal 1988; Ghoshal & Nohria 1989) each more or less embedded in its local context. This degree of embeddedness of subsidiaries has been shown to be an important element for the internal functioning of the MNC and for the MNC's ability to develop sustainable competitive advantage (Andersson, Forsgren et al. 2002). Subsidiary embeddedness produces informational and control advantages from which subsidiaries can profit when they are highly embedded, i.e. when they have developed strong, cohesive ties to important actors in their local network. For example, embedded subsidiaries have been shown to develop critical capabilities and innovations which are important to the rest of the MNC (Mu, Gnyawali et al. 2007). Regarding the control benefits it has been suggested that embedded subsidiaries profit from high levels of strategic influence in the MNC, are shielded from corporate control (Ambos & Schlegelmilch 2007), and are relatively autonomous (Andersson & Forsgren 1996).

Gaps in the conceptualization of MNC embeddedness

To this end, *subsidiary embeddedness* is an important research stream that has added a lot to our understanding of the functioning of the modern MNC. Yet, we believe that there are some important avenues for future research that need to be addressed:

First, contrary to the work in the non-international context, scholars in the International Business domain have rarely focused on the firm-level but more on subsidiary level embeddedness. Subsidiaries are seen as “quasi-firms” (Forsgren 2004) which occupy the position of a bridging tie between the local environment and the MNC organization (Asakawa 2001). However, subsidiaries are not

necessarily quasi-firms. They belong to bigger entities which provide resources or constrain subsidiary activity. In addition, the modern multi-center and multi-level MNC is embedded in a more holistic way than just on the subsidiary level. Current research simplifies the complexity which in reality exists. This limits the research on the amalgamation of the internal and external network.

Second, by highlighting subsidiary embeddedness, the investigation is strongly focused on relational embeddedness (Forsgren 1992). Structural aspects of embeddedness have been investigated scarcely in the context of the MNC – despite some attempts to integrate it into the analysis (cf. Andersson, Forsgren 1996). Therefore, aspects of over-embeddedness (Uzzi 1996; 1997) have not been analyzed, since over-embeddedness mainly refers to the negative performance effects of a densely connected network with a high level of redundancies (Andersson, Forsgren, Holm 2002). Hence, simultaneous investigation of structural and relational embeddedness is warranted (Moran 2005).

In sum, there is an urgent need to study MNC embeddedness by assuming a more complex perspective of the MNC as a corporate network (departing from the equation of a subsidiary as a quasi-firm) embedded in the environmental network. The **purpose of this paper** is to synthesize the current literature and to develop a framework of MNC embeddedness which goes beyond the embeddedness of single units (such as subsidiaries). It tries to capture the complexities of today's internal and external networks and emphasizes the multi-level and multi-center character of the modern MNC and its network partners. By doing so, it offers a way to capture structural embeddedness effects in addition to relational embeddedness.

The rest of the paper is structured as follows. First, we start by giving an overview of research on embeddedness of firms and on MNC embeddedness in particular. Second, we develop a framework for analyzing MNC embeddedness and explain its relevance for the IB field. We then conclude with describing some potential avenues for further research.

Embeddedness research

In the last decades, MNCs were increasingly forced to develop flexible organizational forms due to the trend of globalization, technological advancements and a general increase of instability and uncertainty. The resulting difficulties for management forced MNCs to explore the opportunities of less hierarchical structures and inter-organizational relationships such as those developed through alliances, joint ventures and other forms of cooperation (Ghoshal & Bartlett 1990).

Hence, modern conceptualizations see the MNC as an organizational network which itself is embedded in an environmental network (Hedlund 1986; Ghoshal & Bartlett 1990). The internal network is characterized by a web of semi-independent units and a multi-center structure in which hierarchical forms of coordination and control are used to a low extent in favor of high levels of socialization and intra-firm interdependence. Subsidiaries are said to be located in differing local environments holding different resources and capabilities, making it necessary for the MNC to differentiate its management styles (Ghoshal & Nohria 1989; Nohria & Ghoshal 1994).

However, traditionally, researchers viewed the firm as having a clear boundary to the environment and scholars studying the firm-environment interface have regarded its environment as a faceless “anything not part of the organization itself” (Miles 1980) which was measured using general constructs such as environmental complexity, uncertainty and dynamism. Only recently, researchers have begun to analyze the environment in greater detail and have overcome the view of an impersonal marketplace (Gulati, Nohria et al. 2000).

The basic idea is that sources of competitive advantage cannot be understood without analyzing specific relationships to the external environment in depth (Forsgren, Pedersen et al. 1999). Markets are viewed as more or less stable networks of relationships (Forsgren & Johanson 1992). It is assumed that relationships to these network partners gradually develop from arm’s-length to closer and more interdependent relationships and that this emerging network defines the opportunities available to the

firm (Björkman & Forsgren 2000). In sum, the external network is seen as an important strategic resource of the MNC (Gulati 1998; Gulati, Nohria et al. 2000).

Research on relational and structural embeddedness

At the organizational level¹, embeddedness into the environmental networks has been analyzed to detect its effect on the organization and its behavior: Scholars have found evidence that firms which are strong in **relational** embeddedness, i.e. which have very close, intense relationships, profit from high levels of information exchange, trust, joint problem solving and mutual adaptation (Uzzi 1996; Uzzi 1997; McEvily & Marcus 2005). The embedded relationships based on trust and mutual adaptation are advantageous for the exchange of more fine-grained information (Uzzi 1996). The underlying logic is that strong ties make the relationship more capable of exchanging tacit knowledge which is the basis for learning and innovative behavior (Lane & Lubatkin 1998). Hence, firms make considerable investments in such business relationships. Over time, they develop collaborative capabilities (Dyer, Singh 1998) and the network relations become a significant asset (Hakansson 1982). Studies have empirically supported this logic, and have shown that highly embedded firms are high performers (Uzzi & Gillespie 2002; Fisher & Pollock 2004) with a higher chance of survival (Uzzi 1996, 1997).

Regarding **structural** embeddedness, researchers found evidence that a firm's network position has an effect on firm behavior (Gnyawali & Madhavan 2001), the development of knowledge and competitive capabilities (Jones & Hesterly 1997; McEvily & Zaheer 1999), reputation (Gulati 1998; Karamanos 2003) and new alliances (Gulati 1999).

From a theoretical perspective there are two competing views of what constitutes the network benefits that stem from structural embeddedness which makes it particularly interesting for research (Moran

¹ Embeddedness research has been conducted on multiple levels mostly at the individual level but also at the small group, organizational and national level (Moran 2005). We are focussing on the organizational level research only.

2005). Burt (1992) suggests that a focal actor's network benefits arise from the position of "bridging tie" between otherwise unconnected actors. This position of bridging a structural hole yields information and control benefits (Burt 1992):

The information benefits refer to the early access to valuable information. The control benefits refer to the advantages of being a "tertius", i.e. a third connecting element (Simmel 1950). This latter advantage derives from conflicting group affiliations and is based on the assumption that there is some sort of tension between the otherwise unconnected actors of the network. The tertius that spans the structural hole has opportunities to broker information between the parts, and can play the unconnected actors against each other (Burt 1992).

In contrast, a different perspective is suggested by Coleman (1990), postulating that the value of the network originates from its closeness, i.e. when all network actors are closely connected to each other. This is expected to lead to greater cohesion, reduced exchange risk, less exploitative behavior (rent-seeking), higher levels of cooperation and less redundancy of information.

In general, there is empirical evidence that the structural and relational mechanisms of embeddedness are strongly interrelated (Brass, Butterfield et al. 1998; Rowley, Behrens et al. 2000).

In a non-international context it has been empirically shown that the characteristics of the network (the overall network size and its structural composition in terms of structural holes or closeness) are influencing the effects of relational embeddedness and can lead to counterproductive outcomes. An example is when strong redundancy of a network limits the "newness" of information circling within the network, thereby restricting firm behavior (Venkatraman & Chi-Hyon 2004) and the adaptability of the whole system (Uzzi 1996, 1997). Regarding capability development it has been reported that a large network, consisting of structural holes and a limited number of strong ties, is most beneficial to a focal organization (McEvily, Zaheer 1999). Hence, the structure of the overall network matters as well as the characteristics of the dual relationships (Walker, Kogut et al. 1997).

Research on the embeddedness of MNCs

As mentioned above, embeddedness research has been a growing field in the IB literature. Yet, it is not so much the MNC itself that has been analyzed. Probably due to the increased complexity of large MNCs active in many different countries, most of the research has focused on the level of organizational subunits, more specifically the subsidiary level. In congruence with the conceptualization of the MNC as a differentiated network, each subsidiary is expected to develop idiosyncratic relationships to actors in its local environment such as customers or suppliers (see Figure 1: Linkage B). Consequently, scholars have mostly applied a relational embeddedness perspective and have primarily studied subsidiary relational embeddedness into their local environment.

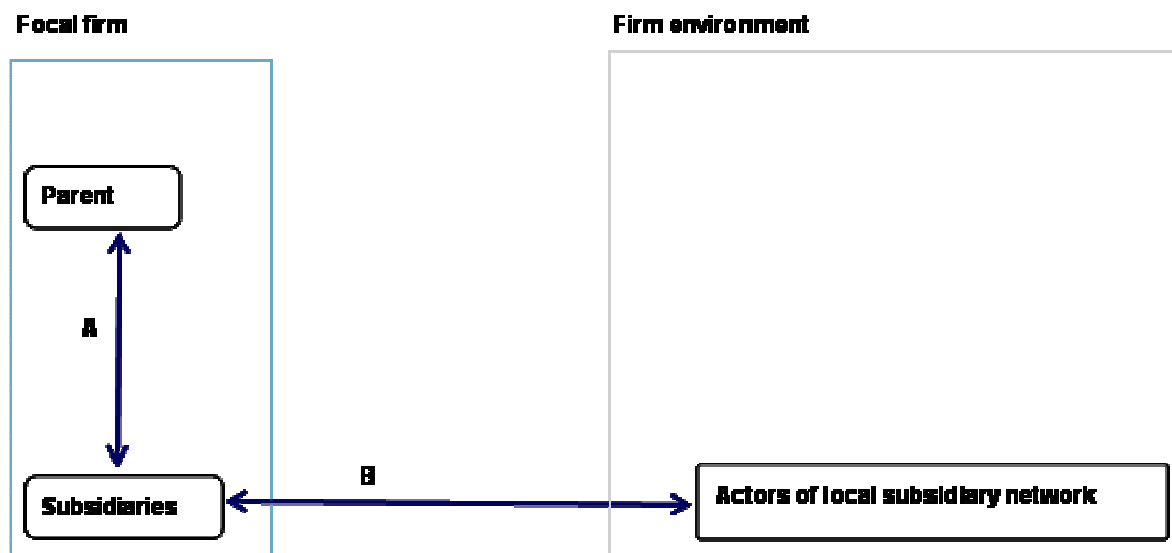


Figure 1: Main relationships in studies on MNC embeddedness

Empirical findings

There is strong empirical evidence that subsidiaries' level of relational embeddedness to the external network which is "local to the subsidiary" (linkage B) has several effects, both on the subsidiary itself, as well as on the MNC as a whole and the relationship between the subsidiary and its parent (linkage A). There are two basic explanations. Firstly, the idiosyncratic patterns of relationships expose

subsidiaries to diverse knowledge, opportunities and ideas upon which the subsidiary can build and develop critical capabilities. Secondly, embedded subsidiaries can have substantial influence on their own status and their responsibilities within the MNC. This reflects the information and control advantages of an organization's network embeddedness as previously described. Hence, consistent with the research on embeddedness of domestic firms, subsidiary embeddedness has been found to lead to knowledge and capability development, and innovative behavior (Hakanson & Nobel 2001; Schmid & Schurig 2003; Andersson, Björkman et al. 2005; Schmid & Daub 2006; Mu, Gnyawali et al. 2007). As a consequence, highly embedded subsidiaries are more important for other units' competence development (Andersson & Forsgren 2000), and it is more likely that they become Centers of Excellence (Frost, Birkinshaw et al. 2002; Andersson 2003). Additionally, corporate headquarters expect strong market performance from such subsidiaries (Andersson, Forsgren et al. 2001; Andersson, Forsgren et al. 2001).

Furthermore, it has been assumed that relation specificity, stickiness of relation-specific knowledge and bounded rationality make it difficult for outsiders to understand the complexity of a focal relationship (Ghoshal & Bartlett 1990; Forsgren, Holm et al. 2005). Top management is considered to only have a vague idea about the characteristics and the importance of the external relationships that their subsidiaries have (Holm, Johanson et al. 1995). Hence, relationships are of critical importance but difficult to understand for an outsider due to the complex interdependencies (including technical, logistic, social, cognitive, and economic interdependencies) (Forsgren 2004) which develop in the embedding process. Thus, knowledge of a relevant network is an important source of power (Krackhardt 1990). Mudambi and Navarra (Mudambi & Navarra 2004) have shown that increasing subsidiary knowledge leads to diminished HQ control. This gives rise to a situation in which subsidiaries can exploit considerable influence on strategic decisions within the MNC and are highly autonomous (Andersson & Forsgren 1996), disapproving efforts for standardization (Newbury 2001). To this end, subsidiary embeddedness impacts the HQ-subsidiary relationship.

However, the parent can influence subsidiary embeddedness by certain control mechanisms e.g. the use of expatriates or the specification of the incentive system for subsidiary managers (Andersson, Björkman, Forsgren 2005). Therefore, the role of the HQ can be described as a situation in which it “involves a never-ending process of seeking to understand what is going on in different parts of the organization, and a continuous struggle for influence in competition with other MNC units” (Forsgren, Holm, Johanson 2005, p. 192). A further mechanism for curbing subsidiary control benefits is subsidiary internal embeddedness, defined as the extent to which a subsidiary has embedded relationships to internal customers and suppliers (Forsgren 2004). For instance, subsidiary internal embeddedness has been shown to reduce subsidiary autonomy (Taggart & Hood 1999) and power, and it increases the importance of subsidiary knowledge for the MNC (Forsgren, Holm, Johanson 2005).

In sum, the findings show that the relationships A and B are strongly dependent on each other. A key strength of the research on subsidiary embeddedness is its integration of the external and internal network. This advances earlier conceptualizations of the MNC as a differentiated network (e.g. Nohria, Ghoshal 1997) that emphasize the internal network only.

What is more, research shows that subsidiary embeddedness is a mixed blessing in that it is required to tap into local, contextualized knowledge which is considered as the basis for MNC competitive advantage (Kogut & Zander 1992). However, at the same time MNC-wide leveraging of this knowledge becomes more difficult for the parent (Forsgren, Holm, Johanson 2005; Asakawa 2001). There is tension between the information advantages based on subsidiary embeddedness on the one hand, and the corporate integration mechanisms designed to limit subsidiary control benefits on the other.

Beyond subsidiary local embeddedness

MNC embeddedness – completing the picture

Despite its obvious strengths, extant research on MNC embeddedness does not meet some key characteristics of the modern MNC. Probably due to the immense complexity of the MNC, researchers have applied a very confined conceptualization of MNC embeddedness, i.e. subsidiary embeddedness. The subsidiary is seen as a local “quasi-firm” (Forsgren 2004) in a unique embeddedness situation. Corporate-level embeddedness which has been analyzed in Management research (e.g. McEvily, Zaheer 1999; Gulati 1999) has been neglected to a large extent.

The strong focus on subsidiary embeddedness has clearly produced important and relevant results and started a new stream of research. Yet, the conceptualization of the MNC as a differentiated network operating with multiple centers also includes that relationships to the external network exist at many different levels of the organization (e.g. local, regional or corporate levels) (Halinen, Törnroos 1998). The strong emphasis on subsidiary embeddedness has led to neglecting other levels’ external relations, although there have been early calls for integrating cross-level analysis into the embeddedness literature (Dacin et al. 1999). Yet, these missing relationships are highly relevant and should be analyzed when studying MNC embeddedness in order to attain a more realistic picture of complex MNC organizations and their linkages to external actors. What is more, the external network has seldom been modeled as a network. Often, the subsidiaries’ local network seems to be distinct from other sister unit’s networks – relationship partners appear isolated. Yet, completing the picture in Figure 1 shows that these partners are also connected to each other. This complete framework is shown in Figure 3.

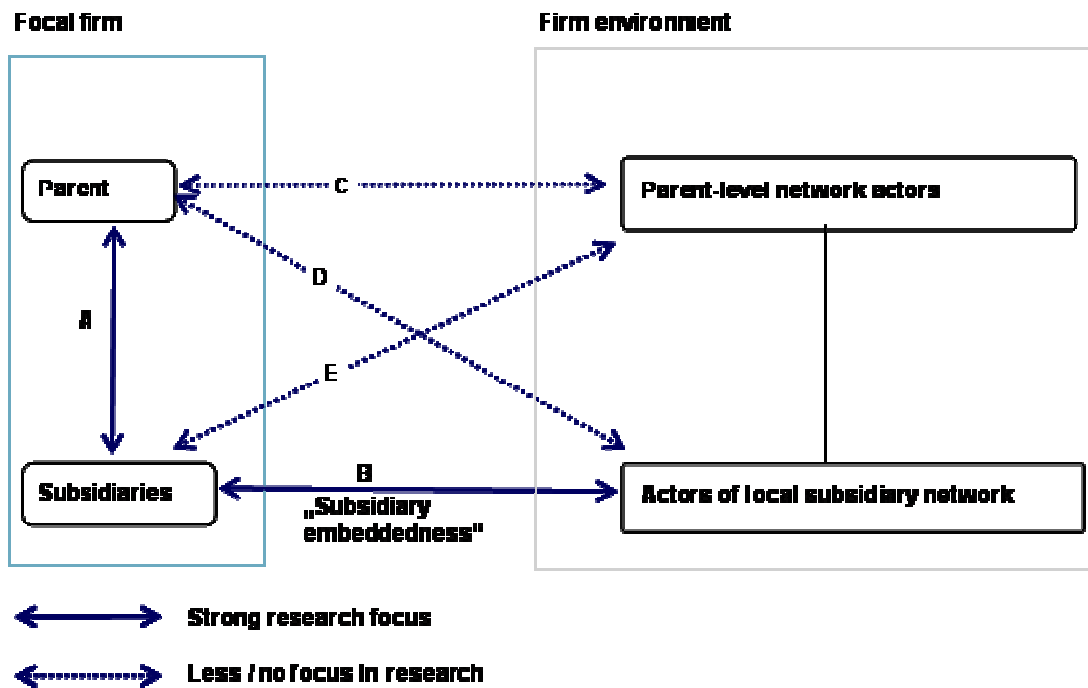


Figure 2: Framework of relationships in research on MNC embeddedness

Parent-level embeddedness

In general, not only subsidiaries can be embedded but also other organizational units of the parent company (linkages C and D). It has been argued that the opportunity for such linkages has increased with the trend towards globalization. Globalization can be interpreted “as a disembedding process that strips individuals and firms from their local structures and allows for restructuring at a more global level” (Dacin et al 1999; p: 341).

Researchers who have focused on subsidiary embeddedness have acknowledged the role of parent level external relationships to *local* network actors (linkage D). For instance, Andersson et al. (2002, p.992) note that “the HQ must take part and develop its own relationships with important customers and suppliers in the subsidiary’s network” in order to recognize and understand differences in subsidiary external embeddedness. And Yamin & Forsgren (Yamin & Forsgren 2006) argue that HQs need to develop their own relationships to the subsidiary network if they want to overcome their lack of knowledge of the local context which is crucial for effective management and the retention of power.

Furthermore, HQ linkages to the local subsidiary network are not the only relationships at the HQ level. HQs can also relate to parent units of their partners (linkage C). For instance, HQ managers might meet regularly with HQ managers of its most important customer the firm is dealing with in several countries in order to discuss the general relationship quality, agree on joint strategic moves, or even to discuss some particular business in a specific country. It is reasonable to assume that, for parent-level managers, this knowledge gathered through interaction with a third party can prove very valuable. Parents might acknowledge the value of this knowledge since the potentially biased subsidiary opinion is not the only source of information. Finally, parent linkages to higher-level actors yield informational benefits to the parent, e.g. regarding strategic motives and directions of their external network partners. These are informational benefits which are not directly accessible to the subsidiary as the subsidiary is a connected outsider to these higher-level relationships if they do not have own direct links. Hence, these relationships can be highly relevant for the functioning of the MNC, as parents acquire at least second hand knowledge about industry trends and the overall relationship to an external actor.

Empirical research on parent-level relationships in addition to subsidiary embeddedness is rare. To our knowledge, only three studies have contributed to our understanding of what multi-level external relationships mean for the internal functioning of the firm (Frost 2001; Forsgren, Holm et al. 2005; Andersson, Forsgren et al. 2007 forthcoming). Additionally, parent-level embeddedness has been operationalized as “HQ knowledge of local context” (Andersson, Forsgren et al. 2007 forthcoming) which means that the level of embeddedness and the effect of that embeddedness (HQ gathering of local knowledge) have been combined to a more general, i.e. more “fuzzy” construct.

Yet, the empirical findings show that there is substantial variance concerning the parent level direct relationships to local actors of the subsidiary network (linkage D) (Forsgren, Holm, Johanson 2005).

These relations can enhance legitimacy and reputation of a subsidiary (Frost 2001) or reduce the level of strategic influence of the embedded subsidiary (Andersson, Forsgren et al. 2007 forthcoming). However, other scholars could not verify that there is a significant link between HQ local knowledge

and HQ influence (Forsgren, Holm, Johanson 2005), which might be due to very different conceptualizations of “influence” used in these two studies². Another ambiguity arises with the finding of Andersson, Forsgren and Holm (2007) who report that subsidiary embeddedness does not have significant effects on HQ knowledge of the local context which is at odds with the basic assumption that relationship outsiders have severe problems of knowing what is going on in a specific relationship. Other findings suggest that HQ local knowledge positively affects outward knowledge flows from these subsidiaries to the MNC and leads to a lower use of centralization of decision-making (Forsgren, Holm, Johanson 2005).

In sum, HQ external relations to the local network seem to function as an indirect control mechanism which helps managing semi-independent subsidiaries (Yamin & Forsgren 2006). These external relationships drive parent knowledge and understanding of the local and international industry context. There is some initial evidence that parent-level embeddedness to the local networks curbs subsidiary control advantages (Andersson, Forsgren et al. 2007 forthcoming). Hence, the examination of linkage D has produced some important results. Yet, it is not free from ambiguity and simultaneous investigation of linkage E is currently missing in the existing research on MNC embeddedness. By implementing the proposed framework of MNC embeddedness these gaps could be filled.

Embeddedness to purely domestic vs. multinational network actors

Related to the first aspect is the next aspect of MNC embeddedness. Research on subsidiary embeddedness is relatively silent on the question to which *kind* of network partners the subsidiary is connected to. To be precise, many studies do measure the level of embeddedness of subsidiaries with regard to different categories of external network partners. The categories distinguish between external and internal network partners and different kinds of organizations such as customers and suppliers, distributors, competitors, R&D institutions and government institutions (Luo 2001; Andersson,

² Forsgren, Holm and Johanson (2005) measure subsidiary concessions to HQ managers while Andersson, Forsgren, Holm (2007) measure subsidiary influence on investment decisions within the MNC division the subsidiary belongs to.

Forsgren et al. 2002; Schmid & Schurig 2003; Ambos & Schlegelmilch 2007). Yet, these partial embeddedness measures are mostly aggregated in order to derive an overall average measure for subsidiary embeddedness. This is done for example by calculating the network density of the focal unit and dividing it by the predetermined theoretical maximum level of density (Ambos, Schlegelmilch 2007) or by summing up the embeddedness score to each partner and dividing it by the number of external relationships (Andersson, Forsgren, Holm 2002). This means that in most of the studies no distinction is made in further analyses. One exception is Schmid and Schurig (2003) who found that the parent (HQ) is the most important internal partner and market customers are the most important external network partners for the development of critical capabilities by the subsidiary.

We want to stress another distinction of network partners: purely domestic actors vs. multinational actors. Similar to the focal MNC, the network partners are possibly not only purely domestic firms but belong to larger entities as well. For a focal MNC to have a customer operating in the same countries as the MNC offers the possibility to build relationships in *many* country markets between their subsidiaries (linkage B), on higher hierarchical levels between corporate, divisional or regional HQs (linkage D), and between subsidiaries and the parent-company of the network partner (linkage C).

Regarding linkage B, based on the discussion above, it might be quite important to differentiate whether a relationship partner is a purely domestic firm, strongly embedded in a local context by itself, or whether it is a local unit belonging to another large international MNC to which the focal MNC is in contact with in different markets (Newburry 2001). Research has shown that affiliates of foreign MNCs differ from domestically-owned, single-country firms (Roth & Kostova 2003). Foreign affiliates suffer from liability of foreignness (Zaheer 1995) and from the fact that their legitimacy in the local context is challenged (Kostova & Zaheer 1999). This has consequences on their networking behavior. Subsidiaries which are connected to purely local firms might receive different knowledge input, and might face different isomorphic pressures than those which are connected to local affiliates of other multinational firms.

In addition, within the field of strategic management, multi-market contact between competitors has a substantial impact on strategic behavior in specific markets as well as on corporate strategy. In a non-competitive but collaborative setting as in supplier-customer relationships, multi-market contact supposedly is important as well. First, subsidiaries lose their uniqueness as the point of contact to the network partner. Second, HQs' ability to understand relationships between their subsidiaries and purely domestic actors is probably lower than when the relationship partners are multinational organizations which the HQ staff encounters in several different markets. The underlying idea is that the higher the number of subsidiaries which are embedded locally to local affiliates of the *same* network partner, the more interesting this partner becomes for the HQ. Hence, HQs will probably be more active in gaining knowledge about these relationships and in developing their own relationships to this partner. Finally, this can lead to a situation in which the multi-national network partners are operationally and strategically managed on a higher level, e.g. the corporate HQ-level, while the remaining purely domestic partners are connected to the subsidiaries only. In other words, there is a complete separation between embeddedness on the subsidiary level and embeddedness on the parent-level in terms of to which kind of actors the units are embedded to.

In addition, subsidiaries might have developed relationships to parent units of their most important network partners, for example to corporate, divisional or regional HQs of their customers, or to international higher-level organizations such as the EU or international trade agencies (linkage E in Figure 3). Subsidiaries which hold international mandates or which have developed into Centers of Excellence are certainly open to these relationships. Higher-level organizational units such as HQs differ from their local subsidiary units with regard to their knowledge of local context, their modes of interpretation, their goals, and their power and influence within their overall network. Therefore, presumably, relationships to units on the parent level increase the variance of informational input for the subsidiary and could be a basis for the focal subsidiary's influence within their own MNC network.

In sum, we suggest that considering the distinction between domestic vs. multinational network partners is highly relevant for the research on MNC embeddedness. It would be a first step towards

also integrating structural embeddedness arguments into the analysis thereby encouraging a more holistic perspective of the external network. A situation in which all linkages B, C, D and E exist matches the close network idea of Coleman (1990). Yet, building and maintaining all these relationships to the network partner simultaneously on all these levels is costly. Subsidiary and parent managers sacrifice time and attention to their external network.

MNC embeddedness – Cross-border relationships on multiple levels of the MNC

A final aspect that has been widely neglected is the international dimension of the relationships B, C, D and E. Reflecting on the above discussion of MNC embeddedness, it becomes clear that all relationships between the MNC and the external partner can potentially cross national borders. Regarding subsidiary embeddedness, it has been argued that the current focus on subsidiary embeddedness into the local, i.e. domestic environment is too simple (Ciabuschi 2006). Yet, this also holds for C, D and E.

On the one hand, in the Business Network approach (Björkman & Forsgren 2000; Forsgren 2004; Forsgren, Holm et al. 2005) it has been argued that this differentiation is irrelevant to the analysis of MNC embeddedness. In contrast, information and control benefits captured by subsidiaries stem from relational embeddedness to the most *important* business actors, meaning that the question of where the business network partner is located is irrelevant, as long as the relationships are of importance (Forsgren 2004; Forsgren, Holm, Johanson 2005).

On the other hand, there is literature providing some empirical evidence to the existence and relevance of subsidiaries' linkages. Many subsidiary typologies have been developed in the last decades, and a great number of these studies describe subsidiaries with country-spanning responsibilities (cf. Patterson, Brock 2002 for an overview). Subsidiaries may have global or regional administrative or operational mandates, and develop into so-called Centers of Excellence (Birkinshaw & Morrison 1995; Surlemont 1998; Taggart 1998). This "lateral centralization" (O'Donnell 2000) increases the likelihood

that subsidiaries maintain *international* relationships to suppliers, customers and other network actors in their environment. Birkinshaw and Hood (Birkinshaw & Hood 2000) have empirically verified that subsidiaries embedded in cutting-edge industry clusters have a greater international market scope. Finally it is presumed that subsidiary potential for knowledge development and thus for power and influence within the MNC is higher when subsidiaries are linked to a large variety of diverse actors (Burt 1992; Powell, Koput et al. 1996; McEvily & Zaheer 1999). Foreign network partners in addition to domestic partners certainly are a valid source of variance and should therefore have an impact.

Conclusion

In sum, we see an urgent need to study embeddedness of the MNC in a more realistic way. In detail, future research should account for the probability that network linkages

- exist on more than just one level of the MNC,
- do cross borders, and
- connect the focal MNC not only to purely domestic actors but also to affiliates and HQs of multinational organizations.

Figure 4 shows our proposition of an enlarged framework for MNC embeddedness. It integrates not only subsidiary embeddedness to the local network, but adds linkages C, D and E as discussed in the previous paragraphs. Furthermore, it covers the additional dimensions called the international dimension (cross-border linkages) and the affiliation dimension (linkages to purely domestic partners vs. affiliates of other MNCs).

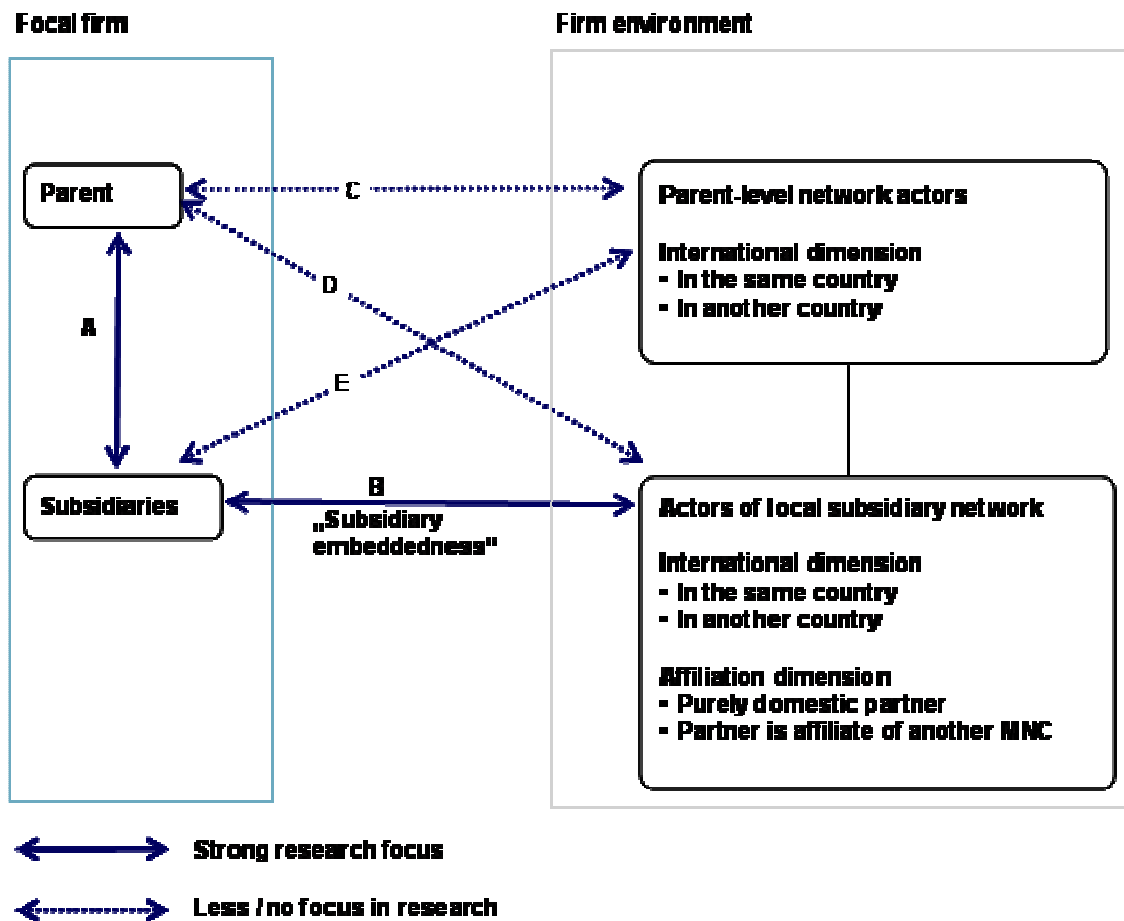


Figure 3: Enlarged framework on MNC embeddedness

By implementing the above framework future research will be enriched and the network mechanisms and effects can be revisited.

Regarding a subsidiary's knowledge and competence creation, we expect that the ratios of national vs. international and purely domestic partners vs. affiliates of other MNCs have an effect. Heterogeneity in their knowledge sources offers subsidiaries a wide spectrum of new and potentially interesting ideas and opportunities (Burt 1992; Moran 2005).

Regarding a subsidiary's control benefits, it might also be interesting to acknowledge the additional parent-level linkages to the external network as the scarce literature on the A-B-D triangle has shown. One important question is where these network linkages overlap and what the effect of this overlap is for the MNC. The possible outcomes are manifold since HQ external linkages can support the subsidiary (Frost 2001), crowd out subsidiary embeddedness (Dacin, Ventresca et al. 1999), or even

create tensions and conflicts since there might be a certain competitive aspect between parent-units and subsidiaries about the question: who is the prime contact to the external network partner.

In addition, as mentioned above, overlapping relationships are costly to develop and maintain. One interesting question could be when and to what extent parent units should actively seek network linkages. Parents probably want to avoid tensions but ensure cost-efficient coordination and control of their subsidiaries. Geographic, organizational and cultural distance probably increases these costs of building and maintaining such relationships which should as well be considered.

Related to this question is the very interesting research stream on the structural network effects which has not been covered in “traditional” subsidiary embeddedness research. An MNC’s network strong in overlap is similar to Coleman’s (1990) closed network which should – according to Coleman – yield a number of benefits such as greater cohesion, reduced exchange risk, less exploitative behavior and better cooperation. The more a parent develops external relationships in addition to the subsidiary the more the network will be closed. Yet, the disadvantage of a closed network is that the variety of information shared in the network is limited as every network agent is connected to every other (Burt 1992). This could be further developed into some propositions regarding the different extent of MNC embeddedness needed for competence creating versus competence exploiting units.

In conclusion, the proposed framework offers important ways to enhance research on MNC embeddedness. Typical network effects (relational and structural) can and should be analyzed with this framework covering issues such as knowledge creation, knowledge dissemination, subsidiary coordination and control research could be done stepwise for example by focusing on isolated parent-level embeddedness. However, the true strength of the framework and true complexity of reality can only be captured when the parent-level and subsidiary-level embeddedness are investigated simultaneously. This implicates multi-level analysis.

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