Ulf Andersson

Some Notes on Subsidiary Network Embeddedness and its Effects on the Multinational Corporation
Introduction

The notion that the multinational corporation can be considered to be a system of interdependent units with flows of knowledge, products and capital between them in different countries is not new (see, e.g. Bartlett and Ghoshal, 1989; Gupta and Govindarajan, 1991). Although recognising that there are differences in the foreign units' local conditions, only internal interdependence is discussed. Ghoshal and Bartlett (1990) have explained different attributes of a multinational corporation in terms of the characteristics of the networks within which the different subsidiaries are embedded using a resource dependence perspective (Pfeffer and Salancik, 1978). The subsidiaries are dependent on specific resources for their operations. In the literature on resource dependence, the environment and its resources are defined as resource areas rather than specific relationships (Larsson, 1985; Forsgren, 1989). In contrast, network theory recognises that critical resources are linked to the subsidiaries' specific exchange relationships with customers, suppliers and other counterparts (Tichy, et al., 1979; Snehota, 1990; Axellsson and Easton, 1992; Håkansson and Johanson, 1993). Thus, network theory offers a more precise description of the critical resources and recognises that for each unit, the most important resource is the web of specific relationships in which it is embedded. In this paper the perspective of the subsidiaries' relevant network is widened to include external counterparts, such as suppliers, customers and other counterparts who are outside the legal borders of the multinational corporation, but are nevertheless interlinked with it through their relationships with the subsidiaries.
Defining the subsidiary's environment as identifiable direct exchange relationships with business partners and indirect exchange relationships connected to the direct ones has implications for our perception of control, integration, performance and influence in the multinational corporation. When the subsidiaries are embedded in such business network structures, we have reason to believe that the ability of headquarters to make a correct evaluation of the behaviour and performance of the subsidiaries diminishes because headquarters lacks knowledge of the subsidiaries' specific operating environments (Holm, Johanson and Thilenius, 1995). Furthermore, adaptation and interdependence result in exchange partners in business networks being important to each other and enables them to exercise a certain amount of control over one another. One consequence is that, when trying to control the subsidiaries' behaviour, top management must compete with the subsidiaries' exchange partners' influence.

Embeddedness is an approach that avoids the atomisation of actors when studying their behaviour.

"Embeddedness’ refers to the fact that economic action and outcomes, like all social action and outcomes, are affected by actors’ dyadic relations and by the structure of the overall network of relations."
(Grabher, 1993, p. 4)

By using the resource dependence perspective, it has been recognised that different attributes of an MNC can be explained by the characteristics of the networks within which the different subsidiaries are embedded (Ghoshal & Bartlett, 1990 and 1993). The embeddedness of individuals in ongoing social relationships has proved to have a profound impact on behaviour (Granovetter, 1985). And even if his discussion of the concept of embeddedness is on the level of individuals, there is reason to believe that the behaviour of collectives, for instance companies, divisions and subsidiaries, is also constrained by their embeddedness in ongoing relationships (see Cook, 1977; Grabher, 1993).

Consequently, the concept of embeddedness is here used to describe how deeply involved the subsidiaries are in their business networks, and thereby how strongly influenced they are by them. An embedded firm is one that has recurrent exchange
with its counterparts to which it has adapted its activities. In contrast to when the relevant environment is viewed as a pure neo-classical market (Granovetter, 1985).

It is argued that one cannot rule out the impact from ongoing social relations when the behaviour of social actors is being studied (Granovetter, 1985; Grabher, 1993). The fact that social and, above all, economic actions take place in an environment consisting of relationships makes the embeddedness approach useful when trying to understand the subsidiaries’ behaviour and development. The influence from the surrounding system of business relationships, that is to say, from the network, on the subsidiaries’ development and behaviour is likely to have consequences for headquarters’ ability to control and integrate the subsidiaries. Further, the resources created in the subsidiaries’ networks may have implications for subsidiary performance and the role that it play in the multinational corporations.

Extensive work on industrial firms and their market conditions reveals a picture of the firm as having long-lasting and close relationships with a limited number of counterparts (Håkansson, 1982; Håkansson and Snehota, 1995; Turnbull and Valla, 1986). Hence, relationships develop through interaction and exchange processes between the firm under study and its counterparts. Gradually the exchange partners learn from and adapt to each other until, with time, the relationship becomes stronger and more difficult to substitute. Within the network perspective, relationships are considered to form complex patterns of technical, economic and social interdependence. The relationships are not isolated from each other, but, rather, are interwoven in a complex web, connected to each other to different degrees and in various ways. This means that exchange in one relationship is very often dependent on or conditioned by exchange in others (Cook and Emerson, 1978). Business networks can be defined as "sets of connected exchange relationships between actors controlling business activities" (Forsgren and Johanson, 1992). The consequence of this is that actors involved in a business network can exercise some control over each other.

In this paper I will discuss how MNC headquarters possibilities to integrate and control subunits is affected by subsidiary network embeddedness. I will also discuss the connection between subsidiary network embeddedness and market performance and subsidiary influence in the MNC.
Subsidiary Network Embeddedness

A subsidiary’s environment is first of all its set of direct exchange relationships with other counterparts and indirect exchange relationships that are connected to the direct ones. One way of defining the degree of embeddedness in such a set is to estimate the number of connections in relation to possible connections, often called density (see e.g. Aldrich and Whetten, 1981; Ghoshal and Bartlett, 1990). Density measures to what extent each actor is linked to every other actor in the set. Even if density reflects the tightness of the set of relationships and therefore also to some extent an actor’s degree of embeddedness in the network, there are two problems with this definition.

First, it does not cover the attributes of the exchanges in terms of activity interdependence and adaptation between actors. The stronger the specific activity interdependence between the subsidiary and other actors, the more they will be inclined to develop close relationships rather than conducting business through arms-length negotiations. Inversely, two actors who are engaged in a close relationship will tend to strengthen their specific interdependence, with time, in order to increase the joint productivity of their activities. We can assume that the closer a subsidiary’s relationships, the higher the subsidiary’s degree of embeddedness because close relationships are more difficult to substitute.

Secondly, the concept of density assumes that it would be possible to estimate “from above” the number of actors and connections in a network. But networks in terms of exchanges are most of all enacted. They can only be subjectively defined from an actor’s point of view and the border of such a network is vague in terms of number of relevant counterparts. Therefore, a subsidiary’s degree of embeddedness should be defined by letting the subsidiary estimate its relevant direct and indirect counterparts in terms of interdependence and adaptation.

It follows from the discussion above that the more transparent the counterparts are to the subsidiary, the more its behaviour and activities are likely to be influenced by these network actors. The more dependent the subsidiary is on its counterparts to pursue its activities and the more adapted it is to its counterparts, the more embedded it is. If these counterparts in their turn are dependent on and adapted to the subsidiary, this is likely to strengthen the subsidiary’s embeddedness because interdependence is more prone to produce long term relationships. Therefore, the more pronounced the
Interdependence between the subsidiary and their counterpart, the more embedded the subsidiary is in its network.

Interrelationships between actors and the actual interdependence and adaptation can take different forms. Porter (1985), for instance, makes a distinction between tangible interrelationships, intangible interrelationships and competitor interrelationships. Tangible interrelationships arise from the opportunity to share activities in the same value chain, while intangible interrelationships involve the transfer of management know-how among separate value chains. Competitor interrelationships link corporate units through common rivals, so called multipoint competitors. Although embeddedness, in a broad sense, can include intangible elements and competitors’ interrelationships, here the concept focus mainly on tangible relationships. That is, on the exchange between units in terms of technology, marketing, procurement activities, etc. (Porter, 1985, p. 327). In contrast to Porter, though, embeddedness includes exchange between corporate units as well as non-corporate ones.

It is not only direct relationships that influence a subsidiary's degree of embeddedness. Customers' customers, complementary suppliers, suppliers' suppliers etc. that strongly influence the subsidiary's direct relationships will also increase its embeddedness. The more prominent such indirect relationships are to the subsidiary, the tighter the structure of the network and thereby the more embedded the subsidiary is.

Recognising the multinational corporation as an interorganisational network, (Ghoshal and Bartlett, 1990), where the subsidiaries' specific environments consist of their important exchange counterparts (Håkansson, 1982; Thorelli, 1986; Turnbull and Valla, 1986; Håkansson and Sneehota, 1989; Forsgren and Johanson, 1992), gives us reason to believe that integration of foreign subsidiaries is not primarily a question of designing the organisation in such a way as to achieve adequate levels of cooperation between the units. Rather, it is a matter of trying to promote flexibility and economies of scope and scale among units embedded in different business networks, which are not actually suited to integration.

Allowing the specific external exchange partners to affect the analysis of subsidiaries’ and multinational corporations’ development by using the network perspective also gives us reason to investigate what the implications are for headquarters’ ability to exercise control and manage the subsidiaries. One reason for
this is that, by definition, exchange partners have some influence over the subsidiaries through adaptation and interdependence. We would expect that the more embedded the subsidiaries are in their networks, the greater the chance there is that the headquarters’ ability to control the subsidiaries’ behaviour has been curtailed (Ghoshal and Bartlett, 1990). Additionally, viewing the subsidiaries' relevant environments as business networks enables us to study how resources created in these networks impinge on the subsidiaries' ability to influence development and behaviour in the multinational corporations. Resources controlled by one subsidiary and needed by other subsidiaries in the multinational corporation may allow the subsidiary to influence strategic behaviour if resource dependence so dictates (Kallinikos, 1984). In summary, an analysis of the subsidiaries and their relationships in their business networks, i.e., their embeddedness can help us to understand issues of integration, control and subsidiary influence and performance in multinational corporations better.

**Subsidiary network embeddedness and integration in the MNC**

A major issue in the literature of the multinational corporation is managements need to find the right balance between global integration and local adaptation. Local capabilities in the different subsidiaries are seen as important resources that should be employed on a global scale to achieve competitive advantage. Although different scholars emphasise the importance of integration within the MNC, little attention is paid to the problem of transforming capabilities developed at the subsidiary level into competitive advantage for the whole MNC. Gupta and Govindarajan (1994), for instance, recognise MNCs as networks of different flows, where subsidiaries play different strategic roles. But this, and similar models, do not take the subsidiary’s external network into account, nor the influence of important actors in the local business context.

MNCs belong to multiple business networks. These networks are first of all sets of exchange relationships in which the subsidiaries are embedded. The counterparts in terms of customers, suppliers, competitors, governments, trade unions etc. exert influence on the separate subsidiaries through these relationships. This influence can or cannot be in accordance with integration and a coherent strategy at the headquarters level. An analysis of both the needs and possibilities of integrating different units in a multinational corporation must take networks of business
relationships into account. The issue of integration in the MNC should therefore be somewhat reformulated. It is not only a question of designing the organisation in such a way that sufficient integration and co-operation between units is reached, but also of obtaining flexibility and economy of scale and scope among a set of subsidiaries, which are embedded in different networks. The question of integration should be extended to a question of embeddedness in networks both inside and outside the MNC. The degree of a subsidiary’s integration into a corporate system must be evaluated against its embeddedness in the external network of specific relationships.

As can be seen in Figure 1, the focal subsidiary can be more embedded in some relationships than in others. It is the total degree of interdependence in all involved relationships that build up the focal company's embeddedness.

**Figure 1.** The embeddedness of a focal subsidiary in its network

![Diagram](image)

As is indicated in Figure 1, it is not just the focal subsidiary’s dependence on and adaptation to its counterparts that constitutes embeddedness, but also the counterparts’ dependence on and adaptation to the focal company. In other words, it is the strength of the interdependence that exists in the focal company's enacted network that constitutes the focal subsidiary’s embeddedness.

Even if both its dependence on business partners and the business partners’ dependence on the subsidiary constitute a subsidiary’s embeddedness, these two dependencies are not unrelated. Based on network theory we would expect that if one
actor over time adapts its resources and activities to some other actor a corresponding adaptation will also be carried out by the latter (see e.g. Hallén, Johanson and Seyed-Mohamed 1991).

Corporate and External Embeddedness

Different scholars have treated integration in different ways: direct contacts, planning procedures, liaison roles, teams and matrix structures are administrative devices that can be related to integration (Galbraith and Nathanson 1978). These integrative devices are supposed to enhance information exchange and co-operation in the company. The more of these devices, the stronger the integration. The degree of integration can also be estimated more directly by mapping the closeness of the headquarters and the subunits (Egelhoff 1988). A more tangible way of estimating integration is to measure the actual flows of goods and services between the subsidiary and the rest of the company (Gupta and Govindarajan 1991). Even if administrative devices can be implemented to enhance such integration, it is the actual outcome of integrative efforts that is reflected in the flows between the subsidiary and the rest of the multinational corporation (ibid.).

If we define integration as a subsidiary's realised integration in terms of the flows of goods and services between the subsidiary and other corporate units, we can call this corporate embeddedness. Corporate embeddedness shows how deeply a subsidiary is involved in its business relationships with other internal units. But we also have to consider that the subsidiary is embedded in specific business relationships with counterparts outside the multinational corporation. We call this external embeddedness. It is the configuration of the subsidiary's network and strength of its corporate and external embeddedness respectively, that determines the management's possibilities to enhance the integration of the subsidiary's activities with the rest of the multinational corporation.

Managing Subsidiaries Embedded in Networks

It has been pointed out by several scholars within the field of international business that implementing global strategies will give headquarters a pivotal role in controlling subsidiary behaviour. (see e.g., Doz & Prahalad, 1981; Cray, 1984; Kogut, 1985; Bartlett & Ghoshal, 1989; Doz, et al., 1990; Hedlund & Rolander, 1990;
Chakravarthy & Doz, 1992) There has also been extensive discussion about the mechanisms that can be used by headquarters to accomplish the required control (see, e.g., Edström & Galbraith, 1977; Doz & Prahalad, op.cit; Baliga & Jaeger, 1984; Egelhoff, 1984 and 1988; Martinez & Jarillo, 1989; Bartlett & Ghoshal, 1995).

Headquarters' control becomes more difficult because, rather than being a single entity facing a homogeneous environment, the MNC is, as said above, composed of a set of differentiated structures and processes, each of which existing in one of the subunits of the organisation (Rosenzweig & Singh, 1991; Ghoshal & Westney, 1993). For instance, it has been argued that the control mechanisms, formal as well as more informal and subtler ones, used by the headquarters must be adapted to environmental and resource contingencies faced by the different subsidiaries (Bartlett & Ghoshal 1989; Ghoshal & Nohria, 1989).

But headquarters' subsidiary control is not only a question of designing the control mechanisms in accordance with the subsidiaries' different characteristics. Many scholars have pointed out that dependence is an important source of control, (Yuchtman & Seashore, 1967; Jacobs, 1974; Pfeffer & Salancik, 1978; Aldrich, 1979; Pfeffer, 1981; Astley & Sachdeva, 1984) and in particular that the resource dependence theory also provides a useful analytical tool for studying the management of the MNC (Forsgren, 1989; Doz & Prahalad, 1993). Different subsidiaries can obtain resources that are difficult for other actors, including headquarters, to secure. These affect the control possibilities within the MNC and, as said above, sometimes circumscribe the possibility of incorporating subsidiary behaviour into an integrated corporate strategy.

In its operations the subsidiary is dependent on specific resources. Headquarters can offer some of these resources, for instance capital. But in theories of business networks, it is recognised that, to a large extent, critical resources are linked to the subsidiary's specific relationships with customers, suppliers and other counterparts, (Tichy, et. al., 1979; Snehota, 1990; Axelsson & Easton, 1992; Håkansson & Johanson, 1993). Thus, network theory offers a more precise description of critical resources than is usually the case in the resource-dependence literature, and a unit's most important resource is the web of specific relationships in which the subsidiary is embedded (see discussion on p. 1). Thus any study of headquarters’ control, to which a subsidiary objected, has to consider this web of relationships.
In this paper it is argued that subsidiary behaviour is shaped by two different factors. On one hand, headquarters use different control mechanisms in order to integrate their subsidiaries according to the overall strategy of the company. On the other hand, subsidiaries are embedded in business networks that include other actors inside and outside the MNC (Ghoshal & Westney, 1993). The subsidiary's role in the network is shaped and developed in interaction with these actors rather than through any specific decision by headquarters (Forsgren, 1990). The subsidiary's strategic role assigned by headquarters does not have to correspond with its role in the network. On the contrary, there is a fundamental difference. Its strategic identity in the network is assumed to be based on business relationships developed over a long time. Its role in the corporate strategy designed by headquarters can be changed quite quickly (even if this role can allow for the business relationships). The tension between the corporate role and the resource control related to the business network can be considerable and may also be interpreted differently by subsidiary and headquarters. The latter's role is supposed to be the implementation of a common strategy, in which every unit has its own special position within the MNC. The subsidiary's own view is likely to be much more influenced by its business relationships. Against headquarters' search for co-ordination in the group, we may posit the subsidiaries' involvement in business activities based on successive and reciprocal adaptations to business counterparts within the network.

An exemple may clarify this: In one of the largest Swedish multinationals, the cost for R&D is enormous. It is therefore of the utmost importance to co-ordinate the different subsidiaries' R&D activities to avoid the duplication of investments and to reach large-scale economy in production and development. The ability to integrate R&D is assumed to be one of the most critical competitive forces among the main competitors in the industry. But the driving forces behind product development are, to a large extent, local. Specific customers demand special product adaptations which sometimes result in more or less customized R&D activity at the subsidiary level. From the subsidiary’s point of view there can be a good reason to commence such activity, especially for a large customer. From the perspective of the headquarters, though, it is important whether or not the results anticipated from such investments have a wider application to the group as a whole.

One of the largest subsidiaries of this group is located in Italy. Italy is one of the firm's biggest markets and this subsidiary has always been very profitable. The
subsidiary has an important role in the group’s R&D function, both as the developer of so called *standard applications*, that is applications suitable for several markets, and *market applications*, meaning those applications suited to the Italian market only. But market applications have always been dominant in the Italian subsidiary. Changes in the organization of R&D within the group, initiated by the headquarters to increase the proportion of standard applications, have not led to any profound change in this situation. One important reason for this is that almost every request from one very dominant Italian customer is defined and handled by the subsidiary as a request for a market application. This is due to the old and strong commercial and social link between the subsidiary and the customer, an important and profitable relationship for both parties. From the subsidiary’s point of view, it is more important to maintain and develop this relationship by servicing the customer’s special needs than to initiate the development of products which are applicable to customers in other countries, even though that would be more beneficial for its sister companies in the group (Andersson & Forsgren, 1995).

This case illustrates that different contexts produce conflicting interests resulting in different behaviour at different places within the multinational and hence that the subsidiary’s own business network plays an important role in these contexts.

This view of the multinational is in accordance with what has sometimes been called the political view of the firm (Forsgren, 1989; Forsgren & Johanson, 1992; Forsgren, et. al., 1995). It is based on the idea of power as a relational concept that has been derived from social exchange theory, and on the assumption that the control of critical resources is an important basis of power. Power based on the control of critical resources is multidirectional and can flow upwards, downwards or horizontally, i.e., from subsidiaries to headquarters as well as the other way. Within this perspective it is claimed that relationships with the actors that surround the subsidiary are sources of power that affect the subsidiary and can be used by it to exert influence on other actors.

Consequently, the control of subsidiaries in an MNC can be exercised in different ways and by different interest groups. Stakeholders who try to shape its behaviour in accordance with their own interests surround the individual subsidiary. Headquarters uses different combinations of control mechanisms depending on the conditions under which the subsidiaries operate (Merchant, 1985; Ghoshal & Nohria, 1989; Goupta & Govindarajan, 1994). The efficiency of this control will increase if
headquarters are in control of resources, for instance financial resources or technology, needed by the subsidiary. Other actors than headquarters can exert control over the subsidiary to the extent that they have business relationships with it. The efficiency of other actors' control depends on the importance the subsidiary attaches to these relationships.

Such a control concept is in accordance with the notion that one need not differentiate between control and influence (see, e.g., Etzioni, 1961; Tannenbaum, 1968) and this viewpoint considers control to be something which emanates from social relations within and between organisations (Pfeffer & Salancik, 1978; Astley & Sachdewa, 1984). In the literature about management control systems, control mechanisms used by management are sometimes referred to collectively as the "core control system", while that influence exerted by others is called a "control context factor" (see, e.g., Flamholtz et al, 1985). One such context factor is the external environment.

If we assume that the subsidiary business network and the headquarters are two separate, and sometimes contradictory, forces affecting the subsidiary's behaviour, one interesting question will be to what extent the degree of subsidiary embeddedness circumscribes headquarters’ control of its subsidiaries.

We can hypothesise that the degree of embeddedness has a direct impact on top-management's possibilities of controlling the subsidiaries. By definition, a high degree of embeddedness means that there are other specific actors than headquarters in the subsidiary's enacted environment that the subsidiary considers important. Headquarters has to compete with these actors when trying to influence the subsidiary's behaviour. Such a competition is less likely in a situation with a low degree of embeddedness when other network actors are more anonymous. The more visible and tangible a subsidiary's relationships are, compared to a "market-like" relationships, the greater the likelihood that the business network will influence subsidiary activities and therefore compete with headquarters’ control. This is similar to Ghoshal & Bartlett's conclusion that remote control loses efficacy when "localness", by itself, is the key requirement for maintaining relationships in the subsidiary network (Ghoshal & Bartlett, 1990 and 1993).

Based on the discussion above about the link between embeddedness and control the following proposition can be formulated: The higher the degree of subsidiary embeddedness, the lower the degree of perceived control.
By perceived control is meant the extent to which the subsidiary considers headquarters to exert influence on its behaviour.

The link between the degree of embeddedness and control may be somewhat different if we consider that some exchange relationships are corporate and some external. By corporate embeddedness is meant exchange relationships between sister units and the focal subsidiary, that is, relationships that go beyond administrative links because of adherence to a common organisational entity. By external embeddedness is meant the subsidiary's exchanges with actors outside the organisational entity. On the one hand, if we assume that headquarters task is above all planning, co-ordinating and controlling, this can always be challenged by the influence of actors in the network, irrespective of whether these actors are corporate or external. It is the degree of embeddedness that counts not the organisational border. As headquarters often has a better knowledge of corporate units than they have of other actors in the network, we can expect the challenge to the headquarters' control to be greater the more external the subsidiary's network is.

Even though this discussion is limited to a resource dependence perspective, other factors than the actual configuration of the subsidiary business network have to be considered. For instance, headquarters’ knowledge of the subsidiary network (Krackhardt, 1990; Holm, et al, 1995), the existence of personal relationships and "shared values" between headquarters and subsidiary management (Bartlett & Ghoshal, 1995) are crucial factors for headquarters to be able to exert control.

In the light of subsidiaries differing in terms of their organisational context (Ghoshal & Nohria, 1989; Rosenzweig & Singh, 1991; Gupta & Govindarajan, 1994), we can also expect that the type of control exercised by headquarters would differ between the subsidiaries. For instance, there is reason to assume that headquarters will control operationally interdependent subsidiaries through different integrative mechanisms while operationally independent subsidiaries will experience a higher degree of autonomy.

The connection between subsidiary network embeddedness and performance

Here I argue that subsidiaries seek to perform well in both the local market place and in the corporate network, the latter being where the political process for making
strategic decisions within the MNC is based. Along with Forsgren et al. (1998) the terms: market performance and organizational performance is used for these two different, but related, types of subsidiary performance. The market performance is the performance in the market place where the subsidiary competes with all other companies, while the organizational performance is the performance in the political process inside the MNC, where the subsidiary aims to influence strategic decisions of relevance to the subsidiary.

Many researchers have pointed out that a unit’s performance is contingent on its ability to obtain valuable resources from the environment. For instance, resource dependence theory stresses the ability to cope with strategic interdependencies in the environment as a crucial factor for its performance in the market place (Yuchtman and Seashore, 1967; Jacobs, 1974; Pfeffer and Salancik, 1978). In contingency theory, survival and success is dependent on the unit’s responses to diverse environments (Lawrence and Lorch, 1967; Stopford and Wells, 1972; Galbraith, 1973; Egelhoff, 1988). The importance of the ability to obtain resources from the environment is also apparent in theories which deal with factors behind a unit’s power within an organization (Crozier, 1964; Hickson et al., 1971; Provan et al., 1980; Pfeffer, 1981; Krackhardt, 1990). Theories focusing on geography in an organizational context also emphasise the importance of the firms’ ability to selectively tap the environment of knowledge (Piore and Sabel, 1984; Amin and Thrift, 1994; Porter, 1990; Sölvell and Zander, 1995).

Later writings about organizational learning explicitly focus on the firm’s ability at all levels to acquire new knowledge from the environment (see e.g. Levitt and March, 1987; Cohen and Levinthal, 1990; Kogut and Zander, 1996; Lane and Lubatkin, 1998; Nahapiet and Ghoshal, 1998). Cohen and Levinthal (1990) coined the term absorptive capacity of a firm. By absorptive capacity what is meant is the firm’s ability to recognize the value of new, external information, and its ability to assimilate it and apply it to a commercial end. This ability is assumed to be crucial for the firm’s competitive advantage. Firms learn from each other and the efficiency of such a learning process is dependent on the characteristics of the relationships the focal organization has with other organizations. For instance, in the literature about strategic alliances, the focus has shifted from traditional resource or risk-sharing alliances to alliances where the primary benefits is learning (Hamel, 1991; Dunning, 1996; Kumar and Nti, 1998). Through learning in the alliance the firms can acquire
and exploit knowledge developed by others, which often allows the firms to respond more quickly to market changes than their rivals.

The acquisition of external knowledge through interorganizational learning can be carried out in different ways. However, a basic distinction can be made between passive and active learning. Passive learning means acquiring objective and observable facts of the other firm’s capability. This learning occurs at arms-length and only the most visible parts of another firm’s knowledge can be acquired. Active learning, on the other hand, means also acquiring tacit knowledge embedded in a firm’s social context which is, therefore, more difficult for others to imitate (Lane and Lubatkin, 1998). It is difficult to acquire such knowledge without having an interactive relationship with the other firm, built on trust, personal ties, relation specific investments and path dependence (Håkansson, 1989; De Laat, 1997; Uzzi, 1997; Nahapiet and Ghoshal, 1998). If we assume that the acquisition of tacit, non imitable, knowledge is crucial for a firm’s competitive advantage, we can state that the quality of the relationships with other firms is of decisive importance.

The concept of active learning is intellectually related to the term social capital, as it has been used in studies of different social phenomena (for an overview see Nahapiet and Ghoshal, 1998). The central proposition of social capital theory is that networks of relationships, characterized by mutual acquaintance and recognition, constitute a valuable resource in them selves. The social capital influences the actors’ possibilities of combining and exchanging knowledge and therefore their ability to develop their capabilities. The process of active learning is therefore contingent on the social capital of the network.

That the embeddedness aspect is very much in line with the discussion of a firm’s absorptive capacity is apparent in Cohen and Levinthal’s (1990) notion that such a capacity is something that develops over time, is path dependent and therefore builds on prior knowledge of an other organization’s capacity.

By combining the notion of embeddedness in business network theory with the discussion of organizational learning and the capacity to absorb new technology, we can conclude that the latter capacity is dependent on the degree of embeddedness in specific relationships of the firm’s business network. The more a certain relationship with a customer, supplier or some other counterpart has developed into a close relationship, the higher the possibility for a firm to acquire new knowledge through exchange with this counterpart.
This conclusion is also relevant for subsidiaries in a multinational corporation. The embeddedness of the subsidiary network is decisive for its ability to acquire external, tacit knowledge about new technology. Further, if we assume that technological development is a key resource of economic growth and competitive advantage (Mansfield, 1968; Bartlett and Ghoshal, 1990; Chesnais, 1986; Dosi et al., 1988; De Meyer, 1992) we can conclude that technological embeddedness is positively related to the subsidiary’s market performance and organizational performance. Technology embeddedness reflects the importance of the network relationships for the continual improvement of how work is done in the subsidiary (Scott, 1981. A more precise definition of technology is provided in the empirical section).

We would also expect that the subsidiary’s market performance have a positive impact on its organizational performance. A profitable subsidiary, or a subsidiary with good market prospects, will be more influential within the MNC than a non-profitable subsidiary, ceteris paribus (Larsson, 1985). The reason for this is twofold. First, market performance reflects the subsidiary’s ability to obtain financial resources from the environment. Second, market performance is itself considered by other members of the MNC to be the ultimate sign of the subsidiary’s ability to contribute to the MNC’s economic well being. Both these factors will improve the subsidiary’s possibility to be influential within the MNC.

On the basis of the discussion above of technological embeddedness and absorptive capacity we would also expect that subsidiary environments differ in terms of their perceived strategic importance for the rest of the MNC, irrespective of their market performance. A subsidiary that has a high capacity to identify and assimilate knowledge about new technology, because of its technology embeddedness, will be considered important by the corporate headquarters. Such a subsidiary will be in a favourable position to affect the MNC’s strategic decisions.

But if we base our reasoning on the assumption that intraorganizational power has to do with resource dependence, we would argue that the relationship between a subsidiary’s technological embeddedness and its organizational performance is contingent on the MNC’s dependence on the subsidiary. In resource dependence theory power is based on resource exchange between parties. That is, the more A is dependent on resource exchange with B, the higher B’s power is - enacted or potential - over A (Emerson, 1962; Blau, 1964, Cook & Emerson 1984; Pfeffer, 1981;
Krackhardt, 1990). Applied to the MNC, this would mean that the more the rest of the MNC is dependent on exchange of resources with a subsidiary, the greater the possibility that the latter can affect the MNC’s strategic decisions.

**Concluding remarks**

In this paper it has been shown that avoiding the atomisation of studied actors by using the concept of subsidiary network embeddedness can help us to better understand the problems associated with controlling and integrating subsidiaries in the international corporation. Further, it has been argued that the embeddedness of subsidiaries in networks of suppliers, customers and others has a strong impact on the development of subsidiaries in terms of market performance and influence on strategic decisions within the international corporation.

By recognising that subsidiaries are embedded in business relationships that take the form of a business network, and assessing their degree of embeddedness in these networks, we can further extend our knowledge of the management of the international corporation. In addition, it help us to better understand that the development of the international corporation is an interdependent process of strategic decisions and influence from external actors participating in the subsidiaries business activities.

As always, the key question of managing the international corporation boils down to finding the right trade of between local adaptation and integration of subsidiaries. By perceiving the embeddedness of subsidiaries the complexity, but also the accurateness, of knowledge needed for taking strategic action increase. A difficult but necessary task for management of the international corporation is to gather knowledge about the subsidiaries’ contexts.
References


