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ANETTE BJÖRKMAN

TOWARDS EXPLAINING THE USE OF  
CONTROL MECHANISMS IN  
FOREIGN SUBSIDIARIES OF MNCS

Helsingfors 2007

# Towards Explaining the Use of Control Mechanisms in Foreign Subsidiaries of MNCs

Key words: multinational corporations, headquarters-subsidiary relationship, control mechanisms, language competence, physical distance, agency theory, resource dependence theory

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Anette Björkman  
Swedish School of Economics and Business Administration  
Department of Management and Organization  
P.O.Box 479  
00101 Helsinki, Finland

Distributor:

Library  
Swedish School of Economics and Business Administration  
P.O.Box 479  
00101 Helsinki, Finland

Telephone: +358-9-431 33 376, +358-9-431 33 265  
Fax: +358-9-431 33 425  
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## **PART 1: CONCEPTUAL BACKGROUND AND KEY FINDINGS**



# 1 INTRODUCTION

## 1.1 Control in MNCs

As the existence of business organizations is dependent on their ability to organize operations more efficiently than markets (Coase 1937), it is clear that an important aspect of management is control and coordination of business activities. Control and coordination refer to tasks undertaken in order to ascertain that activities in different parts of the organization occur in an appropriate and timely manner.

The increasing significance of knowledge as an important factor of competitiveness (Barney 1991, Grant 1996) has brought new challenges to control, as the headquarters is no longer able to provide all the necessary knowledge and must consequently increasingly rely on subsidiaries as sources of knowledge. Firstly, knowledge is difficult to control. Secondly, when knowledge is gained through acquisitions, the headquarters controls subsidiaries that have an administrative heritage different from that of the parent organization. Thirdly, as subsidiaries possess knowledge that is vital for the organization as a whole (Forsgren & Pahlberg 1992) and acquire specific roles such as centers of excellence (Andersson & Forsgren 2000, Frost et al. 2002), they may become more powerful and resist or challenge the authority and control of headquarters. However, the subsidiaries may also have fewer chances to influence the MNC operations and the headquarters-subsidiary relationship, as they are facing increasing pressures to be competitive and restructuring of activities becomes more common.

As business organizations grow, spread and develop into multinational corporations (MNCs), control is also rendered more difficult. Today the largest MNCs have activities in nearly all corners of the world and their turnovers exceed those of nations (UNCTAD 2005). The dispersion of activities means that the headquarters may control subsidiaries embedded in different cultural, political, legal and educational systems across physical, i.e. geographical, distances, while dealing with a multitude of languages. Improvements and innovations in travel and communication technologies can only alleviate some of the problems associated with cross-national organizations.

Dispersed organization, different subsidiary contexts and knowledgeable subsidiaries makes the headquarters' control task more demanding. In face of these challenges, how are foreign subsidiaries controlled? This is important as control is "at the center of all managerial and strategic problems faced by MNC managers: how to "make the most" of far-flung and diverse activities" (Martinez & Jarillo 1989, p. 508). Existing research on foreign subsidiary control is abundant and provides important insights into the management of multinational corporations, but more remains to be learned.

Early studies focused on structural characteristics of the MNC and found that MNCs are colored by their national heritage and that this is reflected in the headquarters-subsidiary relationship and foreign subsidiary control (e.g. Gates & Egelhoff 1986, Harzing 1999, Hedlund 1981, Taggart & Hood, 1999). However, the effects of other characteristics (such as size and degree of internationalization) on foreign subsidiary control are inconclusive. This may be due to the underlying assumption that the headquarters can freely choose and implement any type and degree of control. The existence of powerful subsidiaries challenging the headquarters is seldom acknowledged in these studies. By type of control I denote any means by which the headquarters can achieve control; or in other words, different control mechanisms. The degree of control is conceived as the extent to which such control mechanisms are used.

Later studies turned their focus from MNC characteristics to the headquarters-subsidiary relationship and the competences and resources of the subsidiaries, recognizing that subsidiaries can negotiate aspects of the headquarters-subsidiary relationship (Ferner 2000). However, with their focus on structural factors (e.g. interdependences in the MNC, subsidiary age, establishment mode and size) these studies tend to forget the organizing need of the headquarters and its hierarchical superiority. Alternative control mechanisms to those studied are therefore seldom explored concurrently.

Any attempts to explain foreign subsidiary control should thus recognize the interests of the headquarters and the subsidiary and examine factors related to both. Still this is seldom done; most researchers select one perspective (for exceptions see e.g. Chang & Taylor 1999, O'Donnell 2000) resulting in important factors being neglected from their models, potentially leading to model misspecification. I argue that studies on foreign subsidiary control need to recognize that both the headquarters and the subsidiary

influence the degree of foreign subsidiary control. This means including both structural factors and power sources of the two parties into the model.

Firstly, although it is possible to study the overall level of foreign subsidiary control, most studies focus on one or two control mechanisms, forgetting or ignoring that headquarters have different means of control that can be used in different situations. Since there are different ways in which foreign subsidiaries can be controlled, it becomes important to include a range of control mechanisms and explore the interplay between them. Each mechanism may be a function of other control mechanisms and therefore MNC and/or subsidiary characteristics may not be sufficient to explain variations in the uses of different control mechanisms. Therefore, the focus here will be on a whole system of control mechanisms.

Secondly, it has been argued that resources play a central role in gaining power (Pfeffer & Salancik 1978). Typically the headquarters possesses such resources and is thus able to reinforce its hierarchical power; however, by possessing competences (a form of resource) the subsidiaries can also shape the headquarters-subsidiary relationship and the control over it. One such subsidiary competence is unique knowledge concerning its activities and environment. Another subsidiary competence, which is born from the nature of the MNC, is its language competence. Although control (and other aspects of management) takes place across language borders, language has only recently been included into international management research (Barner-Rasmussen 2003, Barner-Rasmussen & Björkman 2005, Marschan-Piekkari et al. 1996/1999a/1999b, Luo & Shenkar 2006). Nevertheless the subsidiary staff's ability to communicate in a shared language (i.e. one which is spoken by people at the headquarters and in the subsidiary) renders interactions between the headquarters and the subsidiary possible. Language competence is here seen as a power source of the subsidiary. Lack of language competence limits the subsidiary's ability to communicate and negotiate with the headquarters. This can lead to more control, since no negotiations can take place, or to less control, since the subsidiary can ignore headquarters and hide behind the language (Marschan et al. 1997, Welch et al 2005).

Thirdly, the headquarters-subsidary relationship itself may influence foreign subsidiary control. By headquarters-subsidary relationship I refer here to characteristics of the relationship, not to the quality of the relationship. Hence I will not focus on issues such as social capital; instead the attention will be on structural factors of the relationship. One such factor is the interdependences between the subsidiary and its headquarters (or the rest of the MNC). Another factor is the distance between the headquarters and the subsidiary. Whereas previous research has used cultural distance to explain variations in foreign subsidiary control (e.g. Harzing 1999), I include physical distance as a possible influencing factor. With increasing physical distance, communication and face-to-face interactions become more difficult and expensive. It also becomes more challenging for the headquarters to collect up-to-date information on the activities and the environment of the subsidiary. Consequently, foreign subsidiary control becomes harder.

## **1.2 Aim**

The aim of the thesis is

*to explore different types of control mechanisms and explain the degree to which they are used to control foreign subsidiaries.*

Power plays a central role in the thesis and the explanatory factors will be drawn from both the headquarters level and the subsidiary level as well as from the headquarters-subsidary relationship level. The sub-questions are:

1. How does the use of one control mechanism affect the use of other control mechanisms in foreign subsidiary control?
2. How do subsidiary-specific resources and competences, such as language, and knowledge, affect the type and degree of foreign subsidiary control?
3. How do the characteristics of the headquarters-subsidary relationship such as interdependences and physical distance, affect the control exercised over the subsidiary?

### **1.3 Key terms**

*Control* – By control I mean here the overall level of foreign subsidiary control and hence do not refer to any specific control mechanism

*Control mechanism* – By control mechanism I mean a specific type of control, such as centralization and socialization, and by degree of control I mean the extent to which the control mechanisms is used to control the subsidiary.

*Headquarters-subsidiary relationship* – By headquarters-subsidiary relationship I generally mean the characteristics of the headquarters in terms of interdependences and distances. I do not refer to the quality of the relationship as discussed, for example, in the literature on social capital (e.g. Nahapiet & Ghoshal 1998).

### **1.4 Structure of the Thesis**

The thesis consists of five chapters. Chapter 2 begins with the conceptualization of control and different control mechanisms. Thereafter follows a short introduction to MNCs and headquarters-subsidiary relationships, and previous research on foreign subsidiary control is reviewed and discussed. The focus then turns to power and the resources which both parties possess and use to influence the headquarters-subsidiary relationship. Special attention is given to different control mechanisms, physical distance, language competence of the subsidiary staff and knowledge. Chapter 3 presents the methodology and describes the research design, the sample and the data collection. Chapter 4 summarizes the four individual articles which make up the empirical part of the thesis. Chapter 5 concludes the thesis with a synthesis of the findings. Their importance is discussed and implications are elaborated upon. Lastly, limitations of the thesis are raised and suggestions for further research are presented.

## 2 CONTROL IN MNCS

### 2.1 Conceptualization of Control and Control Mechanisms

Control is central to management and the interest in control probably appeared already with the emergence of organizations in society. In fact, Cray (1984, p. 85) argues that “for *any large complex organization* the problem of ensuring that its constituent parts act in accordance with overall policy is a central and continuing concern<sup>1</sup>”. Although there is already a considerable body of research on control, the emergence and growth of MNCs has renewed the interest in control as MNCs clearly are complex organizations facing circumstances beyond those of national organizations.

*Control* can be viewed in different ways. Cray (1984) sees control as a direct intervention into the operations of the subsidiary, whereas Child (1977, p. 117) defines control as “concerned with regulating the activities within an organization so that they are in accord with the expectations established in policies, plans and targets”. The latter view implies that control need not be direct. This is reflected in other views of control as an activity that guarantees successful implementation of strategies (Geringer & Hebert 1989), ensures “minimum levels of duplication, wastage and ineffective processes” (Fenwick et al. 1999, p. 108), “reduces uncertainty, increases predictability, and ensures that behaviors originating in separate parts of the organization are compatible and support common organizational goals” (Egelhoff 1984, p. 73) and minimize idiosyncratic behavior (Tannenbaum 1962). Based on these views, I see control as

*a process by which the headquarters ensures that the activities in different parts of the organization (i.e. in subsidiaries) are carried out in accordance with the overall goals of the MNC.*

Although the focus of the thesis is on control, it should be noticed that control is closely related to coordination and integration, as suggested by Egelhoff’s (1984) claim that control and coordination are important integrative mechanisms in organizations. In fact, many researchers use control and coordination practically synonymously in their

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<sup>1</sup> Italics added for emphasis.

research (e.g. Alpander 1977, Gupta & Govindarajan 1991); however, this appears to be due more to the fact that control and coordination can be achieved through some of the same mechanisms rather than to a conscious choice. Yet, the concepts are at least marginally different. Whereas control can be seen in a more vertical fashion, *coordination* clearly has horizontal aspects, which can be detected through definitions of coordination such as “situating the subsidiary in a network of responsibilities to other parts of the firm” (Cray 1984, p. 88), “function of ensuring that subunits’ behaviors are properly interwoven, sequenced, and timed so as to accomplish some joint activity or task completion” (Mascarenhas 1984, p. 94) and “the process of integrating activities that remain dispersed across subsidiaries” (Martinez & Jarillo 1991, p. 431). Coordination is thus a process through which activities in different units are brought together to a whole, but it must not be carried out by headquarters only; other units can also take on a coordinating role. In practice, though, the headquarters may also handle the coordination, as control can be seen as a means to attain coordination which in turn is used to achieve common organizational goals (Harzing 1999).

Integration is closely related to coordination and it is difficult to separate the concepts. However, *integration* often refers to the union with something or the incorporation into a larger unit (Merriam-Webster Online 2005), which indicates that separate parts together appear to be a whole unit. Integration can be achieved through coordination and control. In fact, in studies on mergers and acquisition, researchers often refer to mechanisms of control and coordination when they discuss how acquired units can be integrated with the acquiring company (Kim et al. 2003, Lubatkin et al. 1998). Integration and coordination may hence be the goals of headquarters’ control; however, I do not consider the explicit intentions of the headquarters here. The focus is on control as it is exercised and implemented in foreign subsidiaries.

A *control mechanism* is any instrument or tool that is used to ascertain alignment in goals between the headquarters and the subsidiary (Harzing & Sorge 2003) and to regulate the activities of the various subsidiaries of the MNC (Nobel & Birkinshaw 1998). There are a number of different control mechanisms available to the headquarters in its control of foreign subsidiaries. Several researchers have attempted to identify and classify the mechanisms available. For example, Martinez and Jarillo (1989) made a

classification based on the degree of formality and identified nine different categories, which were not mutually exclusive and which included an aspect that could be considered part of the organizational structure (departmentalization). Furthermore, they identified behavioral control as a separate control mechanism, which arguably is misleading, as all control mechanisms are essentially trying to modify behavior in various ways (Harzing 1999). Another classification was made by Geringer and Hebert (1989) who used the focus of control mechanisms to identify three categories: context-, content- and process-oriented mechanisms; however it is not completely clear what the difference between content and process-oriented mechanisms are, because both can include direct interventions by the parent. Harzing (1999) split the control mechanisms along two dimensions (direct/indirect and personal/impersonal) and arrived at four different control mechanisms: centralization, formalization, output control and socialization (see Kim et al. 2003 for a similar categorization). However, there is one drawback with this categorization: expatriate control does not easily fit into the scheme, as expatriates can be considered means of both centralization and socialization. The author herself recognized this on the basis of the empirical results and I will therefore differentiate between five control mechanisms in my thesis: centralization, formalization, output control, socialization and expatriate control. It should be recognized that, as a consequence of including a separate category for expatriate control, centralization and socialization must be defined more narrowly.

### **2.1.1 Centralization**

*Centralization* refers to decision-making located at higher levels in the organizational hierarchy (Alexander 1991, Child 1972/1973a, Pugh et al. 1968). Gates and Egelhoff (1986) argue that centralization is an important aspect of the structure of the headquarters-subsidary relationship in MNCs. By requiring that decisions concerning subsidiary activities are made at the headquarters, the headquarters can directly control the actions of a subsidiary. However, the headquarters does not need to confine all decision to the headquarters, and centralization can therefore be seen as a spectrum indicating the division of decision-making authority between the headquarters and its subsidiaries (Calori et al. 1994). On the opposite side of the spectrum, one finds decentralization, which is often used as a synonym to *autonomy* (e.g. Garnier 1982,

Garnier et al. 1979, O'Donnell 2000). Yet one should note that whereas decentralization includes the notion of the headquarters delegating decision-making powers to the subsidiary, autonomy contains a trace of subsidiary assertiveness. The autonomy of a subsidiary can be the result of a bargaining process between the headquarters and the subsidiary (Taggart 1997, Taggart & Hood 1999). Although I consent to the notion of centralization and autonomy being at opposite ends of a spectrum, I acknowledge that the concept of autonomy can also be viewed more broadly. According to the Merriam-Webster Online Dictionary (2005) autonomy can refer to “the quality or state of being self-governed”, which would go beyond decision-making power. It would entail the subsidiary being free also from other headquarters control mechanisms, such as formalization and socialization. In other words, this broader view entails the subsidiary having the ability to make decisions about the subsidiary without any kind of restrictions and influences by the headquarters.

It should also be noted that in the control literature centralization is sometimes discussed in terms of complete or no centralization. However, as was mentioned above, the headquarters does not have to confine all decisions to the headquarters. Instead it can choose to make decision regarding certain functions or issues that are of most strategic value to the organization as a whole (Ghoshal & Nohria 1989). Therefore, it makes sense in some situations to differentiate between centralization of different issues. This is sometimes done along functional lines (e.g. Garnier et al. 1979, Kallinikos 1984), for example, marketing and production, but this approach has been criticized as there are few decisions that concern only one function (Hedlund 1981). Most decisions involve several functions. For that reason, a division is often made between *strategic* and *operational* issues (e.g. Edwards et al. 2002, Hedlund 1981, Negandhi & Baliga 1981). Strategic issues are matters of long-term importance for the MNC as a whole, regardless of the function they belong to, whereas operational issues concern short-term activities of the organization. Because of their importance for the MNC, strategic issues tend to be more centralized than operational issues. The main critique against this approach is that the arguments can easily become tautological (Brooke 1984) – strategic issues are those that are more centralized and the centralized issues are those of strategic importance. Although one has to be careful about this

tautology, it must not necessarily be true. Not all strategic issues are centralized and not all operational issues are decided at the subsidiary level.

### **2.1.2 Formalization**

*Formalization* refers to use of procedures, policies, standard rules and instructions (Child 1972/1973a/b, Pugh et al. 1968), which are written at the headquarters and distributed to the subsidiaries as guidelines for their activities. An important reason for using procedures and manuals is to routinize decision-making (Hedlund 1981, Ghoshal & Nohria 1989, Nobel & Birkinshaw 1998) and ensuring consistent behavior in the subsidiaries. By having written prescribed guidelines that subsidiaries must follow, the headquarters is effectively limiting the number of actions available to the subsidiary (Calori et al. 1994).

### **2.1.3 Output Control**

*Output control*<sup>2</sup> is a form of performance reporting system that involves measuring a desired quality and/or quantity of output (Chang & Taylor 1999). It carries the notion of there being a desired level to be achieved and repercussions if the goals are not met. If this is not the case, the control mechanism cannot be effective. Output control can be carried out on two organizational levels: the subsidiary level and the subsidiary management level. On the subsidiary level, output control is often associated with formalization, as it is mostly based on written reports between the headquarters and the subsidiary. However, in the case of output control the subsidiary reports different measures, such as sales figures and measures of profit and productivity, to the headquarters. On the management level, output control is often a performance management system. It is normally an important part of the compensation system for managers, encompassing the extent of variable pay given to the subsidiary management and the criteria used to determine those bonuses (O'Donnell 1999).

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<sup>2</sup> Some researches use the term bureaucratic control, which refers to Weber's notion of what a bureaucracy is. By bureaucratic control researchers often mean formalization (e.g. Child 1973a/b, Jaeger 1982, Snodgrass & Szewczak 1990); however, sometimes the concept is used as a control mechanism on a higher abstract level and then it includes both formalization and output control (e.g. Ferner 2000).

#### **2.1.4 Socialization and socialization mechanisms**

*Socialization*<sup>3</sup> refers to a process by which members of an organization learn and internalize organizational behaviors, rules, norms and practices (e.g. Edström & Galbraith 1977, Ferner 2000, Gupta & Govindarajan 1991, Nobel & Birkinshaw 1998). It is a matter of infusing the organizational culture throughout the MNC. The desired outcome of socialization is a greater alignment of values and practices of the headquarters and the subsidiaries (Nohria & Ghoshal 1994). Mostly in the literature this is referred to as shared values; however, in line with Hofstede et al. (1990), I prefer to call it *shared practices*. The reason for this is that values are something people learn throughout life, but especially during the primary socialization by their families. The values become part of a person's personality and govern the way people see other people, the way they act, etc., and therefore people do not change values easily. This does not mean that there is no socialization taking place in the work place; however, in the work place people learn practices governing that work place and hence we should talk about shared practices.

Socialization in MNCs occurs through various mechanisms. Formal *socialization mechanisms* include, for example, visits between the headquarters and the subsidiary, training sessions in which people from different units participate, and committee work or teamwork consisting of people from different units. Socialization also takes place through informal means in conjunction with and outside formal events; however, the informal socialization process is more difficult to manage and therefore the focus here will be on the formal socialization mechanisms (from now: socialization mechanisms). It should also be noted that socialization mechanisms can also function as an information forum for the participants.

#### **2.1.5 Expatriate Control**

*Expatriate control* refers to the use of expatriates in foreign subsidiaries. Expatriates tend to be trusted managers who have learned the corporate norms, values and practices. They are often employees from the parent country, i.e. headquarters, but sometimes also

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<sup>3</sup> Some international business researchers use the terms social control or cultural control instead of socialization, however the latter terms are basically synonymous to socialization (Chang & Taylor 1999, Ferner 2000, Snodgrass & Szewczak 1990).

third country nationals with tenure in the company. Expatriate control can be seen as a control mechanism that introduces centralization (Marschan et al. 1996) to the subsidiary, since expatriates, through their indoctrination, can be expected to act as agents of the headquarters – agents who manage the subsidiary in accordance to the stipulations of the headquarters. Even when the expatriates do not belong to the subsidiary top management team, they can act as supervisors for the headquarters by monitoring and reporting subsidiary activities directly to the headquarters. Expatriate control can also be seen as a socialization mechanism, as the expatriates through their presence in foreign subsidiaries can diffuse organizational values and practices to the personnel in the subsidiary (Baliga & Jaeger 1984, Fenwick et al. 1999). Although expatriates could thus be included in centralization or socialization, it is here considered separately. One reason for this choice is that the purpose for using expatriates may not be clear. Another reason is that, even if there is a clear purpose, expatriates may in practice carry out both functions. In addition, it should not be forgotten that expatriates may also be employed for other purposes than control and coordination. Headquarters may use expatriates for position filling, organizational development (e.g. knowledge transfer) or management development (Edström & Galbraith 1977). However, in all three cases the expatriates can also function as a control mechanism, even when it is not their primary task (Harzing 2001). Thus it makes sense to keep expatriate control separate from other control mechanisms.

## **2.2 Previous Research on Foreign Subsidiary Control**

Over the last two decades researchers have moved away from the hierarchical model of the MNC. Instead the MNC is conceptualized as an ‘interorganizational network’ (Ghoshal & Bartlett 1990), which allows for multiple centers of power and vertical and horizontal relations and which accepts that resources are found throughout the organization (e.g. Bartlett & Ghoshal 2002, Ghoshal & Nohria 1989, Gupta & Govindarajan 1991, Hedlund 1986). However, notwithstanding the increasing importance of horizontal relations in such MNCs, research shows that the headquarters-subsidiary relationship still matters (e.g. Birkinshaw et al. 2000, O’Donnell 2000). As owner of its subsidiaries the headquarters has some rights and tends to remain hierarchically superior to the subsidiaries. Thus, the headquarters continues to exert

considerable influence over the organization as a whole, even if it takes place within a network of interdependent relationships with its subsidiaries.

The introduction of the ‘interorganizational MNC’-view (Ghoshal & Bartlett 1990) led to renewed discussions on how foreign subsidiaries are controlled. It was argued that since the subsidiaries differ concerning their importance, competences, etc., the particular characteristics of the relationship between headquarters and a subsidiary is likely to influence the way in which the latter is controlled (e.g. Ghoshal & Nohria 1989). This appears also to be the case: already 30 years ago about half of all MNCs differentiated partly or totally among their subsidiaries (Alpander 1977). It thus makes sense to study single subsidiaries and not the whole systems of MNC subsidiaries.

The change from the hierarchical to the inter-organizational MNCs can also be noted in existent research on control. Over time an evolution of the research on MNCs and the headquarters-subsidiary relationships can be observed (Paterson & Brock 2002). Whereas the concentration initially was on MNC-wide factors, the focus later turned to subsidiary-specific issues. The change in focus represents the growing recognition that subsidiaries within an MNC face different environments and are different with regard to their competences and importance to the organization and that they therefore are controlled differently (e.g. Ghoshal & Nohria 1989, Gupta & Govindarajan 1991). This recognition has led to a consequent change in the type of factors on which foreign subsidiary control research concentrates. Whereas the early studies often focused on structural aspects of the MNC and the subsidiary, newer research has concentrated on competences and relational factors to a greater extent, recognizing that the headquarters-subsidiary relationship is dynamic and that the balance between the headquarters and the subsidiary influences the control system.

### ***2.2.1 Factors on MNC Level***

The early research on foreign subsidiary control focused on MNC level factors. The research question was simply, how do MNCs control their subsidiaries? MNC characteristics that were deemed interesting were nationality, size, degree of internationalization and strategy, but the results are rather mixed. In many cases researchers present results that are opposite to others studies.

The *nationality of the MNC* is one factor that has been considered important in explaining foreign subsidiaries control. The findings indicate that MNCs are influenced by the institutional characteristics of the nation, in terms of business systems, and that this is reflected in their use of control mechanisms; however, the impact may be stronger for some mechanisms than for others (e.g. Harzing 1999, Harzing & Sorge 2003, Youssef 1975). Centralization seems particularly prone to nationality effects (Hedlund 1981, Negandhi & Baliga 1981, Taggart & Hood 1999), whereas socialization appears less affected (Harzing 1999). The results indicate that whereas American firms prefer all types of formal control, i.e. centralization (e.g. Gates & Egelhoff 1986, Harzing 1999), formalization (Harzing 1999) and output control (Egelhoff 1984, Harzing 1999), European and Japanese firms favor expatriate control (Chang & Taylor 1999, Egelhoff 1984, Harzing 1999, Harzing 2001). A further exploration of differences among MNCs from different European countries shows a striking similarity between UK MNCs and American MNCs (Calori et al. 1994, Egelhoff 1984, Harzing 1999/2001, Harzing & Sorge 2003, Harzing et al. 2002). UK MNCs are in all aspects of control more similar to American MNCs than to MNCs from other European countries.

The *strategy of the MNC* has been considered another important factor affecting foreign subsidiary control. However, while it has been shown that subsidiaries of multidomestic MNCs are controlled less than subsidiaries of other MNCs (Harzing 1999), at the same time it has been found that these subsidiaries are controlled more by socialization and expatriate control (Sullivan 1992) and that they consequently are more centralized (Vachani 1999). Subsidiaries of global MNCs on the other hand are more tightly controlled (Harzing 1999) through centralization, formalization and expatriate control (Harzing 1999, Harzing & Sorge 2003, Hedlund 1981, Sullivan 1992). However, it has also been argued by other researchers that that these subsidiaries have some autonomy (Alexander 1991, Cray 1984, Vachani 1999). Finally, subsidiaries of transnational MNCs are controlled more tightly than subsidiaries of multidomestic firms, but quite similarly to those of global firms; the biggest difference between global and transnational MNCs lies in the extensive use of socialization in the latter (Harzing 1999).

The *size of the MNC* may be associated with greater control of foreign subsidiaries. As the MNC grows there is a greater use of all control mechanisms (Child 1973a, Harzing 1999, Harzing & Sorge 2003, O'Donnell 2000) except of output control for which the results are unclear (Harzing 1999, O'Donnell 2000). However, the increase in centralization may be limited to certain decision areas such as marketing (compare, for example, Garnier 1982, Gates and Egelhoff 1986, Hedlund 1981). The effect of the *degree of internationalization* on all control mechanisms are unclear (Egelhoff 1984, Garnier 1982, Gates & Egelhoff 1986, Harzing 1999, Hedlund 1981, Youssef 1975), as is the effect of *industry*. Whereas Harzing (1999) did not find any differences regarding the use of control mechanisms across industries, Egelhoff (1984) did mention some differences, which may be related to differences in marketing autonomy (Gates & Egelhoff 1986).

### **2.2.2 Factors on Subsidiary Level**

The subsidiary-based research has grown quite extensive by now. This body of work can be split into research on structural factors and competences. The structural factors include establishment mode, location, ownership structure, subsidiary age, size and subsidiary importance, whereas the competences include functions, subsidiary roles and resources. As with MNC characteristics the findings are rather mixed.

Among the structural factors *establishment mode* appears to be the only factor that has explained consistently the degree of control exercised by headquarters over its subsidiaries. In comparisons of acquired units and greenfield investments, it has become clear that not only are acquired units less centralized than greenfield investments (Andersson & Forsgren 1996, Hedlund 1981), they are also controlled less by expatriates (Harzing 1999).

Another factor that can potentially influence foreign subsidiary control is the *location of the subsidiary* (Egelhoff 1984, Harzing 1999). For example, foreign subsidiaries in France may be more closely controlled than foreign subsidiaries in Great Britain (Cray 1984); however, the former may be more centralized than subsidiaries in Mexico (Garnier 1982). Subsidiaries in developed countries may be controlled less through expatriate control (Youssef 1975) and formalization (Hedlund 1981).

It has furthermore been argued that *ownership structure* will affect the degree of control, as the MNC in some cases is not the only owner of the foreign subsidiary. Despite the logic behind the claim, the results are mixed (Chang & Taylor 1999, Gates & Egelhoff 1986, Hedlund 1981, Youssef 1975) and no conclusions can be drawn. However, it is possible that joint ventures are more formalized than wholly owned subsidiaries (Hedlund 1981).

An equally unclear picture emerges for *subsidiary age*; age seems to have no effect on formalization and socialization (Harzing 1999, Welge 1981) and its influence on centralization (Gates & Egelhoff 1986, Garnier 1982, Harzing 1999, Taggart & Hood 1999), output control (Egelhoff 1984, Harzing 1999) and expatriate control (Harzing 1999, Welge 1981) is inconclusive.

Similarly, the effect of *subsidiary size* is unclear, although it has frequently been used in research on foreign subsidiaries control. It has been claimed to have a negative effect on the degree of subsidiary control (Chang & Taylor 1999; Cray 1984; Prahalad & Doz 1981), but support has also been found for a positive relationship (Child 1973a/b, Egelhoff 1984, Harzing 1999, Harzing & Sorge 2003) and no effect (Garnier 1982, Taggart & Hood 1999). Whereas size only refers to a subsidiary being small or large, *subsidiary importance* compares the size of the subsidiary to the MNC to which the subsidiary belongs. It may be more important for foreign subsidiary control than the absolute size of the subsidiary, as it can be seen as a proxy of the bargaining power that the subsidiary can bring to bear on the headquarters-subsidiary relationship. After all, power is not simply a quality that one has or one has not; it is something that one has in relation to another party (Emerson 1962). Some researchers have claimed that important subsidiaries can negotiate and influence the control exerted over them (e.g. Ferner et al. 2004), while others have argued that, because control is costly in terms of time and money, important subsidiaries will be controlled more than unimportant subsidiaries (Chang & Taylor, 1999). However, the empirical findings so far are mixed (Chang & Taylor 1999, Cray 1984, Garnier 1982, Hedlund 1981).

Finally, subsidiary function, subsidiary roles and competences may impact on the control exercised over it. Although Chang and Taylor (1999) did not discover any association between control and *subsidiary function*, other researchers have found some relationships between different control mechanisms and subsidiaries functions. For example, manufacturing subsidiaries are slightly more autonomous than service firms (Garnier 1982). R&D subsidiaries can, to a lesser extent than other subsidiaries, be controlled by centralization, formalization and socialization (Harzing 1999). However, sales subsidiaries may be less prone to overall degree of control.

The functions performed by the subsidiary thus do not appear to be as important for subsidiary control as the role of the subsidiary. This may be due to the conceptualization of *subsidiary roles*; the roles are based on more differentiations that go beyond mere functions such marketing, manufacturing and sales. Gupta and Govindarajan (1991), for example, conceptualized subsidiaries roles in terms of the transactions and flows between the subsidiary and the rest of the MNC. Ghoshal and Nohria (1989) used local resources and environmental complexity to identify different roles and Martinez and Jarillo (1991) based their categorization on local adaptation and global integration. The main findings seem to rest upon the extent of subsidiary resources and the market scope of the subsidiary. Subsidiaries with few local resources tend to be controlled tighter, especially through centralization and socialization, than those with more resources (Ghoshal & Nohria 1989, Nobel & Birkinshaw 1998). The results also show that subsidiaries with a focus only on the local market are controlled less (especially through formalization) than subsidiaries with a regional or global focus (Edwards et al. 2002, Garnier 1982, Martinez & Jarillo 1991, Nobel & Birkinshaw 1998).

Subsidiary roles may be formal in the sense that they have been decided upon by the headquarters. However, subsidiaries may also develop informal roles that are based on resources or competences residing in the subsidiary, and which can affect the amount of control exercised over them (Ferner 2000). One such source is *knowledge*, which is of great importance in the headquarters-subsidiary relationship as the subsidiary often functions as an interpreter of the local environment (Ferner 2000). The subsidiary can also possess other aspects of knowledge, such as knowledge of procedures, production processes and products. Existent research shows that the possession of unique

information has implications for foreign subsidiary control; subsidiaries with unique information tend to be centralized (Edwards et al. 2002) and formalized (Ferner 2000; Hedlund 1981) to a lesser extent than subsidiaries with little or no unique information. Other subsidiary resources can also affect control. For example, Gomez and Sanchez (2005) found that subsidiaries with higher level of education were controlled by socialization to a larger extent than by formal control mechanisms.

### ***2.2.3 Factors on Headquarters-Subsidiary Relationship Level***

The structural characteristics of the headquarters-subsidiary relationship include cultural distance and (inter-)dependence. The findings are rather clear for interdependences but more mixed for cultural distance.

*Cultural distance* is the differences in values and norms between two parties. Perhaps the most common measurement used in international management research is the cultural distance index (Kogut & Singh 1988) based on Hofstede's (1980) four cultural dimensions (masculinity/femininity, power avoidance, individuality/collectivism, and uncertainty avoidance). The four dimensions are supposed to constitute the elements of culture.<sup>4</sup> Cultural distance may affect foreign subsidiary control as cultural distance influences the communication and interactions between the headquarters and its subsidiaries; cultural distance can make it more difficult for them to understand each other. The empirical findings indicate that, with increasing cultural distance between the headquarters and a subsidiary, there appears to be greater use of expatriate control (Harzing 1999/2001) but lesser use of formalization and output control. No effect on centralization has been found (Garnier 1982, Hedlund 1981).

The characteristic that has been most consistently related to control is *dependence* and *interdependence*, which are related aspects of the subsidiary's integration with its headquarters and the rest of the MNC. The concepts have been used rather synonymously. Theoretically it has been argued that subsidiary dependence and

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<sup>4</sup> It should be noted that the cultural distance measure has been exposed to considerable criticism over the years (see e.g. Shenkar 2001). For example, the measurement has been criticized for its assumptions that culture is homogeneous within national borders, that culture is stable and that cultural distance is symmetrical. Also, all the respondents were employed by the same multinational corporation, although they were of different nationalities.

interdependence with the headquarters (or the MNC) for different resources will lead to greater subsidiary control (Prahalad & Doz 1981); however, interdependence may also have the opposite effect as interdependence increases the headquarters' (MNC's) dependence on the subsidiary also. Nonetheless the empirical results tend to support a positive relationship between control and dependence/interdependence (e.g. Andersson & Forsgren 1996, Edwards et al. 2002, Harzing 1999, Martinez & Jarillo 1991, Mascarenhas 1984, O'Donnell 2000, Sullivan 1992), although it should be acknowledged that some non-significant effects have also been found (Chang & Taylor 1999, Garnier 1982). The positive relationship furthermore only holds for dependence on internal units, i.e. other units of the MNC; if the subsidiary is dependent on external partners, the effect on control is the opposite (Andersson & Forsgren 1996, Harzing 1999).

## **2.3 What Remains to Be Learned about Foreign Subsidiary Control**

### ***2.3.1 Need for Theoretical Perspectives***

In the current literature on foreign subsidiary control there is a tendency to avoid problematization of the headquarters-subsidiary relationship. Either the headquarters wants to control the subsidiary and, choosing freely among the control mechanisms, is able to implement any degree of control, or the headquarters is not able to control foreign subsidiaries as subsidiaries are too powerful. The failure to explicitly contemplate the headquarters-subsidiary relationship may be due to limited use of theory in studying foreign subsidiary control. Ghoshal and Westney (1993) argued roughly a decade ago that organizational research was divided in two; one strand of research was driven by organization theory, the other by empirical data. Whereas the former did not consider the uniqueness of MNCs, the latter often ignored theory arguing that it did not fit the complex MNCs and therefore the two strands of research have seldom been combined.

In studies on foreign subsidiary control where researchers have used theoretical perspectives, they have tended to focus on one perspective, mostly the strategy/structure framework and contingency theory. Although this has led to more structured

research, critical issues are still neglected as these theories do not always consider the complexity of MNCs, in terms of, for example, geographical, cultural and linguistic diversity. One consequence of excluding important factors is that too much or too little weight is given to the factors included in the analysis and hence the model will be misspecified. Another consequence is that included factors may be used as crude proxies for variables that were excluded even though they should have been included. This can partly explain the mixed results of previous studies: structural characteristics are found to be statistically significant if the right factors are not included in the study. It is furthermore possible that there is an indirect relationship between structural characteristics and control. The structural characteristics may explain another (excluded) factor which in turn influences the degree of control. Finally, it is also possible that the relationships which are found represent the sample rather than the population.

In order to increase our understanding of foreign subsidiary control, different perspectives must be combined. Although more recent research have heeded the call for increasing the use of theoretical perspectives (Chang & Taylor 1999, O'Donnell 2000), the bulk of studies still uses only one perspective or none at all. Considering the nature of the headquarters-subsidary relationship, which Ghoshal and Nohria (1989) sees as a mixed-motive dyad in which members have both interdependent and independent interests, two theoretical perspectives seem important for its understanding: agency theory and resource dependence theory. The two theories take into consideration the power of both the headquarters and subsidiaries and balance the view of the headquarters-subsidary relationship and can therefore help guide research on foreign subsidiary control.

#### *2.3.1.1 Agency Theory*

Agency theory is concerned with the principal-agent relationship and the agency problem. The principal (here: the headquarters) contracts the agent (the subsidiary) to perform a task on its behalf (Jensen & Meckling 1976; see also Eisenhardt 1989 for a review). However, the interests of the subsidiaries do not always converge with those of the headquarters and the subsidiaries can sometimes work in self-interest. At the same

time, the subsidiaries tend to have better information about the subsidiary activities and environment than the headquarters. The physical distance between the headquarters and the subsidiary may also render it more difficult for the headquarters to collect and update necessary information about the subsidiary. The goal incongruence and information asymmetry causes a situation of uncertainty for the headquarters (the principal), which it tries to solve by limiting the activities of the subsidiary (the agent). In other words, the headquarters seeks to increase predictability and ascertain that tasks are carried out in an acceptable manner by controlling the subsidiaries; agency theory suggests that control will occur either through output control or monitoring (here: expatriate control). Output control will be used when measures of output can easily be collected and there is a clear means-end relationship. When this is not the case, monitoring will be used. Agency theory thus acknowledges the controlling needs of the headquarters and recognizes that there are different ways to control the agent.

However, output control and expatriate control are only two control mechanisms available to the headquarters in their control of subsidiaries. It appears unlikely that the headquarters will choose between these two control mechanisms only, when there are other potential mechanisms. I will therefore go beyond these two control mechanisms and include five types of control in my study on foreign subsidiary control even when drawing directly on agency theory. This idea is not completely new – Ouchi (1980) claimed that in addition to output control and monitoring (here: expatriate control), socialization could also be used to alleviate the agency problem. As agency theory suggests, some control mechanisms can surely be used as substitutes, however, it is also possible that some control mechanisms are reinforcing each other.

### *2.3.1.2 Resource Dependence Theory*

By exploring the headquarters-subsidary relationship from a resource dependence perspective, the power aspect is further raised to the surface. The theory is based on the premise that the party which develops or have access to resources will be able to influence the other party in the relationship (Pfeffer & Salancik 1978; see also Casciaro & Piskorski 2005 for a review). This suggests that the headquarters will find it easy to control the subsidiary, as long as the headquarters have some unique and demanded

resource that the subsidiary needs, such as knowledge or financial resources (Otterbeck 1981), as it makes the subsidiary dependent upon the headquarters. However, once the headquarters does not possess the resource or have exclusive rights to it and the subsidiary develops resources by itself, or finds alternative ways to acquire them, the subsidiary's power vis-à-vis the headquarters grows. The headquarters may subsequently find it increasingly difficult to control the subsidiary, as the subsidiary may challenge the headquarters and influence the control exercised over it. In fact, Ferner (2000, p. 521) sees control and its use as a reflection of "the realities of political processes within the company and the struggles for control and autonomy between different interest groups that underlie them." Interdependences, or mutual dependence, between a subsidiary and its headquarters (or other units in the MNC) may lead to similar challenges for control; however, it is also possible that interdependent subsidiaries will be controlled more as they become more integrated with the MNC and thus are less able to act autonomously of the MNC.

### ***2.3.2 Missing links***

Based on agency theory and resource dependence theory, three important areas for foreign subsidiaries control emerge: multiple control mechanisms, subsidiary resources such as knowledge and language competence, and physical distance. All areas may at least partly explain the mixed results of previous research.

Agency theory draws attention to the fact that the headquarters has several means of control that it can use to control foreign subsidiaries. Concentrating on one or two control mechanisms can under- or overestimate the role of that control mechanism or constitute an unacceptable measure of the degree of subsidiary control. For example, a subsidiary may appear rather autonomous in its decision-making but the subsidiary management may have learned the company way-of-thinking and thus it is still controlled, only more indirectly. Hence, a range of control mechanisms need to be included in the study of foreign subsidiaries control.

Through resource dependence theory the focus turns to the subsidiary's competences and resources and their role as power sources in the subsidiary. An important competence that seldom has been considered in foreign subsidiary control research is

language competence. This is curious as the MNC can be seen as a multilingual community (Luo & Shenkar 2005, Barner-Rasmussen & Björkman 2005), where competence in a shared language is necessary in order for interactions to take place between the headquarters and its subsidiaries.

Both resource dependence theory and agency theory draw our attention to the physical distance between a subsidiary and its headquarters. Typically the subsidiary has better knowledge of the local context than its headquarters, which therefore may seek to collect and update its knowledge of the subsidiary; however, physical distance (particularly when coupled with other types of distances such as cultural distance and psychic distance) will render the task more difficult. Consequently, physical distance can increase the agency problem of the headquarters while providing the subsidiary with the potential to avoid scrutiny by the headquarters.

#### *2.3.2.1 Interplay of Different Control Mechanisms*

Research has shown that different aspects of the same control mechanism (e.g. strategic and operational centralization) tend to be highly related (Egelhoff 1984, Youssef 1975). For example, Egelhoff (1984) found that the use of output control in marketing was related to output control in manufacturing and so on. However, the relationships between different control mechanisms have not been explored to the same extent and our knowledge of these relationships is limited. For example, it is not clear whether control mechanisms are substitutes or complements. In fact, Ferner (2000) argues that the interaction between different control and coordination types has been understated so far in the research.

The assertion that different control mechanisms are substitutes for each other would support the notion that the headquarters can choose among a number of control mechanisms. For example, Edström and Galbraith (1977) claimed that socialization would reduce centralization and allow for more decentralization, suggesting that centralization can be used instead of socialization or vice versa. Based on empirical research Child (1972) found a negative relationship between centralization and formalization, as did Negandhi and Baliga (1981). Although Snodgrass and Szewczak (1990) found some support for this notion in their study on social and formal forms of

control, the correlation was quite low and therefore the researchers suggested that only a limited extent of substitutability was taking place.

Others have therefore suggested that control mechanisms are not alternatives (or substitutes), but cumulative stages: once more direct types of control such as centralization, output control and formalization are in use, the headquarters will increase its usage of indirect control, i.e. socialization (Martinez & Jarillo 1989). Related to the issue of cumulative stages is the matter of complementary relationships. Fenwick et al. (1999) argued that even when socialization mechanisms are in use there will be a need for some degree of output control and formalization. Ferner (2000) took it a step further yet arguing that socialization is the foundation on which bureaucratic control (output control and formalization) rests. Empirical support for a positive relationship between output control and centralization (Chang & Taylor 1999, O'Donnell 2000) and for a relationship between centralization and formalization (Hedlund, 1981) has been found, which would indicate that combinations of control are dependent upon each other.

However, Ouchi (1977) found no relationship between formalization and the use of output control, and Egelhoff (1984) did not find any association between the use of expatriate control and output control. Taken together with the weak relationship found by Snodgrass and Szewczak (1990), these findings suggest that the relationship between different control mechanisms may be weak at least in some cases.

All in all, the relationship between different control mechanisms remains unclear. The most extensive study on control mechanisms (Harzing 1999) to date found that most control mechanisms were positively related, which would indicate a cumulative process or complementary relationships. The only exceptions were expatriate control, which was only related to centralization, and socialization, which was not related to centralization. Similarly, Lubatkin et al. (1998) found that socialization was not related to any other control mechanism. Further exploration is clearly needed. From an agency theoretical perspective we would expect control mechanisms to be substitutes. If one control mechanism cannot be used in a certain situation, then the headquarters will choose another mechanism to lessen the agency problem. However, it is also conceivable that all control mechanisms are not as effective in themselves, and therefore some of them may be used as complements.

### 2.3.2.2 *Subsidiary Competences and Resources*

Communication is a central aspect of any relationship and the headquarters-subsidiary relationship is no exception. Communication plays an important role in foreign subsidiary control. Whereas both written and oral communication is needed for all control mechanisms, their relative importance may differ. For example, socialization demands rather good (oral) communication skills. In order to learn and internalize the norms, values and practices existing in the MNCs (socialization) the subsidiary management must interact with the headquarters staff and other socialized managers. The interaction takes place through visits, teamwork and training session as well as through other get-togethers. If the subsidiary management cannot communicate with the managers from the headquarters, no interchange takes place. Another example is formalization, which may demand more written skills. In order for manuals and formal guidelines to work, the subsidiary managers must be able to read and understand them. Thus communication skills are of great value in foreign subsidiary control.

In MNCs, control is carried out across physical, cultural and language borders. This means that communication associated with implementation of foreign control may take place in a variety of languages. In order to facilitate internal communication many corporations have introduced a corporate language. Still, one problem remains: MNCs have activities in many countries and therefore the corporate language will most likely not be the native language of the staff. The communication may hence take place mostly between non-native speakers and the level of competence in the language matters. Needless to say, *language competence* has an important place in MNCs and especially in the headquarters-subsidiary relationship.

Despite the profusion of research on control, the effect of language has seldom been considered directly (for important exceptions see the empirical work of Marschan-Piekkari et al. 1997/1999a/b and the theoretical work of Feely & Harzing 2002/2004). It could be argued that the lack of research reflects a lack of appreciation for language problems, especially among the Anglo-Saxon researchers; however, the importance of language has been mentioned in several studies (e.g., Chang & Taylor 1999, Fenwick et al. 1999, Ferner 2000, Keegan 1972, Pucik & Katz 1986, Sullivan 1992). The problem seems to be that its importance is assumed – in practice it is not being investigated or it

is included in the cultural distance concept. Still, the measure of cultural distance that has been used in research (Hofstede 1980, Kogut & Singh 1988) does not include a direct link to language, but refers to differences in values and the ways people understand concepts, etc. This is in contrast to the concept 'psychic distance', which was introduced to cover factors that can prevent or disturb information flows in international business (Johanson and Wiedersheim-Paul 1975). Cultural distance constitutes only one aspect of psychic distance; other aspects are language, political systems, level of education and level of industrial development. It thus makes sense to study language as a separate factor.

Language competence can be seen as a specific resource possessed by the subsidiary and as such it can affect the type and degree of control exercised over the subsidiary. Subsidiaries with good language skills find it easier to communicate and interact with the headquarters. Thereby they can convey information about their activities and the context in which they operate to the headquarters. As 'interpreters of the local environment' (Ferner 2000, pp. 530) the headquarters must depend on them for the information. However, being interpreters also gives them the opportunity, for example, to be selective in their reporting so that they can influence the type and extent of control. Being competent in a shared language helps them negotiate (Ferner 2000). Hence, resource dependency theory would suggest that the headquarters will find it difficult to control a subsidiary with good language skills. However, it is also possible that headquarters may find it easier to control subsidiaries that have sufficient language skills. For example, research has shown that subsidiaries with low language competence can ignore, 'misunderstand' or amend formal policies sent from the headquarters (Marschan et al. 1997, Monks 1996, Sippola & Smale 2005). It has furthermore been shown in qualitative studies that subsidiary staff that lacks language competence is excluded from company events such as visits and training (Andersen & Rasmussen 2004, Barner-Rasmussen 2003, Marschan-Piekkari et al. 1999a). Thus, foreign subsidiary control can be hindered by lack of language competence on behalf of the involved parties, which would suggest that there are fewer control options available to the headquarters.

### 2.3.2.3 *Characteristics of the Headquarters-Subsidiary Relationship*

Headquarters' control may be influenced by distance between the headquarters and the subsidiary. Previous research has revealed a relationship between *cultural distance* and control, which is logical since cultural differences can color the way people perceive each other and make it more difficult to exert influence. Differences in cultural background do make it harder for people from different parts of the world to understand each other; however, people are usually aware of the differences and prepare for them. It is therefore possible that cultural distance has been used as a proxy for other issues, especially since the measures of cultural distance used are normally measured at the national level, which means that differences may be overrated - individual members of the headquarters and/or the subsidiary can have experiences from the country in which the other party is located and then the cultural distance for the MNC will not be as large as that suggested by the Kogut and Singh (1988) index.

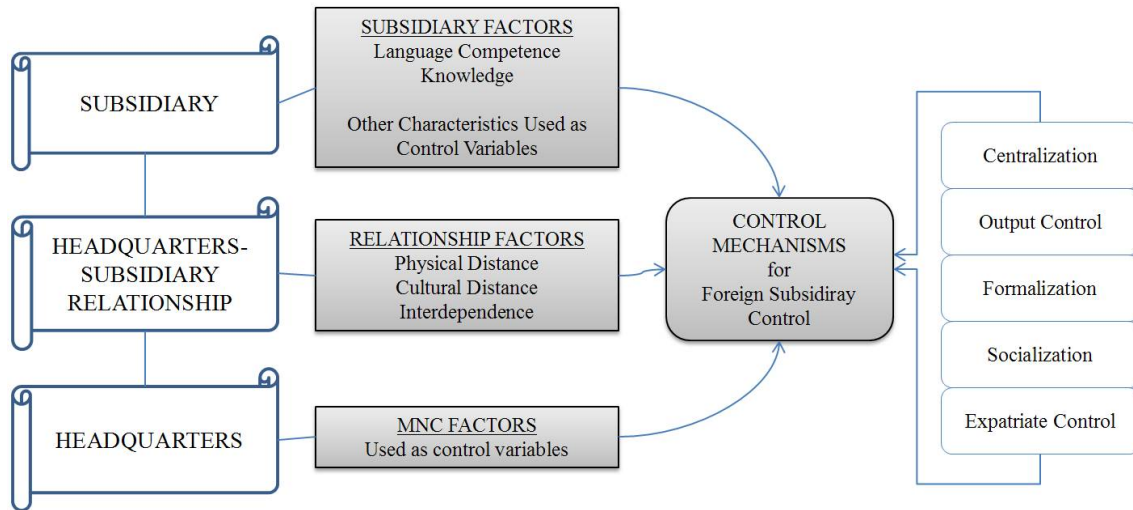
*Physical distance* does not appear to be recognized in recent research and earlier research (Hedlund 1981, Keegan 1972, Sullivan 1992, Welge 1981), while acknowledging it, mostly mentioned it in passing. Still physical distance constitutes an important barrier to communication (Keegan 1972, Welge 1981). The first reason is communication costs – it is more expensive to communicate internationally or intercontinentally than within a country. Although improvements and innovations in communication have lowered the costs in recent years, there is still a time barrier. Subsidiaries may be located in different time zones and when they are located largely in the same time zones, differences in working hours can impede efficient communication. E-mail has facilitated communication, but it still is not as effective as face-to-face communication and oral communication (Cano et al. 2005, Zack 1993).

Physical distance can also slow down or hinder the headquarters from obtaining information about the subsidiary and its context, thus increasing the agency problem. It may therefore become more difficult for the headquarters to, for example, centralize decision-making of subsidiaries that are located physically distant from the headquarters. Such subsidiaries may hence be more autonomous than subsidiaries located closer to the headquarters (Hedlund 1981, Keegan 1972), but they may be controlled by other means of control.

The intensity and frequency of interaction could also be affected by physical distance, as it is directly related to travel distance and costs (Welge 1981). With increasing physical distance it should become more difficult for the headquarters to control the subsidiary in different ways, especially since it will take time before the headquarters discovers and can react to deviations by the subsidiary (Welge 1981). Hence the subsidiary management will have ample opportunity to act in a self-enhancing manner, regardless if the management act in pure self-interest or in the interest of the subsidiary, its products or the region (Sullivan 1992). Taken together, we would therefore expect subsidiaries that are located farther from the headquarters to be controlled to a lesser extent than subsidiaries located closer to the headquarters. However, some control mechanisms may be more sensitive to physical distance than others.

#### **2.4 Overall framework**

Figure 1 shows the layout of the thesis in graphic form. The thesis rests on three pillars: the headquarters, the subsidiary, and the headquarters-subsidary relationship. From each of these pillars the explanatory factors for the control mechanisms used for foreign subsidiary control are drawn. Whereas aspects of the headquarters-subsidary relationship and subsidiary factors are used to directly explain foreign subsidiary control, MNC factors are only used as control variables. The figure also shows that there are five different control mechanisms (centralization, output control, formalization, socialization and expatriate control) that the headquarters can use to steer a subsidiary. However, each of the control mechanisms may also be used to explain and predict the use of the other mechanisms.



**Figure 1** Overview of the Thesis

### **3 METHOD**

#### **3.1 Research Design**

This study examines the headquarters-subsidary relationship in Western MNCs. The focus is on the use of different mechanisms in the control of foreign subsidiaries. Consequently the study does not consider intentions by the headquarters nor possible differences between intentions and implementation. By headquarters I simply mean the headquarters that the subsidiary reports to. In some cases this is the corporate headquarters, in others it is the regional or divisional headquarters. In a few cases this can also be a unit located at a level below these (e.g. a regional headquarters if a division is further divided into different regions).

To be able to study trends of control on a larger scale, a cross-sectional quantitative study was deemed appropriate. The study was carried out within a larger research project run at the Department of Management and Organization at the Swedish School of Economics and Business Administration with financing from the Foundation for Economic Education and the Academy of Finland. With regard to its use of quantitative data this study does not differ from previous research on foreign subsidiary control; however, it distinguishes itself from other similar studies, as part the study is based on panel data (data collected at two points in time in the same corporations). Previously, only qualitative studies have been of dynamic nature. There have to my knowledge only been two studies (Alexander 1991, Selmer & de Leon 2002) so far that have quantitatively examined changes in control, that is, measured the same people/subsidiaries at two or more different points in time. The advantage of such an approach is that it allows for the exploration of the extent to which changes in control are actually occurring and the extent to which these changes are accompanied by changes in other variables.

The data collection was carried out at three different times in two different settings. First, data was collected in January – May 2000 in foreign subsidiaries in Finland. A follow up was carried out in January – April 2004. Second, data was collected in foreign subsidiaries in China in March 2001 – June 2002. The different data collections meant

firstly, that control of subsidiaries could be studied internationally and secondly, that changes in control over time could be explored.

### **3.2 Population and Sample**

The target group was foreign subsidiaries of Western MNCs. The reason for choosing only Western MNCs was that Western and Asian MNCs differ greatly with regard to management (see e.g. Baliga & Jaeger 1984, Jaeger 1983) and any variation in use of control would surely have been explained mostly by national background. By choosing two subsidiary countries it was possible to see if the subsidiaries in the two countries are controlled in the same way by Western MNCs. Finland and China were chosen as they represent two different contexts. Finland is a rather small and industrialized country, whereas China is a large country that has only recently begun to industrialize and open up for foreign investment.

Foreign subsidiaries in Finland were identified through the Dun and Bradstreet database; in China foreign embassies and Chambers of Commerce provided us with lists of foreign subsidiaries. All subsidiaries in the Finnish sample were wholly-owned foreign subsidiaries, whereas the Chinese sample included some joint ventures (JVs), where the foreign partner was the majority-holder. In Finland the 150 largest foreign-owned subsidiaries were contacted, whereas in China some 400 subsidiaries were contacted. The subsidiaries were first contacted by an introductory letter, as previous research has shown that a pre-contact letter can increase the response rates (e.g. Goldstein & Jennings 2002, Walker & Burdick 1977). All letters were in English and it described the project and ensured the respondents confidentiality in their responses. In Finland this letter was sent by postal mail, in China it was sent by e-mail or faxed. The subsidiaries were later contacted and a time and day for an interview was agreed upon.

A total 164 subsidiaries agreed to participate in the study in the first round of data collection, yielding a response rate of nearly 30%. This must be considered good for a study involving the top management of firms (Baruch 1999). However, the response rate varied greatly between Finland and China, as 89 subsidiaries were located in Finland and 75 in China. The response rate in Finland was close to 60%, whereas in China it was only around 20%. This disparity may partly be explained by the fact that

there has traditionally been a close relationship between the academia and business world in the Nordic countries (Björkman & Forsgren 2000). It is also possible that the Chinese subsidiaries lacked personnel that were competent in English and thus were not able to respond to the introductory letter. However, the response rates may also be considered normal for each country, as previous research has also indicated that Finland tend to have rather high response rates compared to other countries, especially Asian countries such as Hong Kong and Singapore (Harzing 1999).

In the second round of data collection we sought a follow-up on the situation in the subsidiaries that were surveyed in Finland in 2000. The target group was thus the 89 Finnish subsidiaries from the first round, and 61 of them agreed to participate (70%). The most common reason for not choosing to participate was lack of time on part of the intended respondent. However, in some cases the subsidiaries had also gone through such organizational changes that comparisons were no longer meaningful for the project and the intended respondent declined participation. For example, in one case the subsidiary had been acquired by a Finnish company and was thereby no longer part of our population. In another case, the subsidiary had been acquired by different foreign firm and several of its functions and competences had been spread throughout the corporation and hence very little remained of the original subsidiary.

Of the 164 interviews in the first round, I personally carried out 50 interviews, 35 in Finland and 15 in China. Of the 61 interviews in the second round, I interviewed 15 subsidiary managers. The rest of the interviews were carried out by other researchers within the project (Wilhelm Barner-Rasmussen, Ingmar Björkman, Patrick Furu, Li Li, Riikka Sarala and Jennie Sumelius).

### **3.3 Data Collection and Measurement**

The data was collected through structured face-to-face interviews with the general manager of the foreign subsidiaries. The reason for choosing face-to-face interviews was to increase the response rate, to ensure that the right person answers the questions and to generally raise the quality of the responses (e.g. Webster (1997) showed that being present when the respondent fills out a survey leads to fewer items being omitted). The general manager was here deemed the most knowledgeable person of the

issues discussed during the interview (actual control of subsidiary, subsidiary know-how and contacts with the headquarters). Clearly, questioning key personnel in both the subsidiary and the headquarters would have been ideal, but this was not practically feasible due to time and cost considerations – the MNC headquarters were located all over Europe and in the United States. In addition, previous research has pinpointed difficulties in receiving matched responses (e.g. Harzing 1999) and shown evidence of high inter-correlation in responses from subsidiary managers and headquarters managers (e.g. Ghoshal & Bartlett 1988, Harzing 1999). This suggests that the general manager of the subsidiary may act as a bridge between the subsidiary and the headquarters.

It should be acknowledged that recent research has stressed that perception gaps can be found between the headquarters and its subsidiaries concerning, for example, the issues studied in this thesis (Birkinshaw et al. 2000, Chini et al. 2005). This is not contradictory, because, even if responses are highly correlated, they are not perfectly correlated. For example, both the headquarters and the subsidiary may state that decision-making is centralized; however, the headquarters may see it more centralized than the subsidiary (Hedlund 1981). It should furthermore be remembered that, even if there are perception gaps between the headquarters and the subsidiary, the main focus in this thesis is on the situation-as-is in the subsidiary. The headquarters and the subsidiary may not be in total agreement concerning the absolute level of, for example, control, however, the statistical methods that I use show if higher (or lower) levels of one aspect of control are associated with a higher or lower level of some other variable. Thus the findings indicate the direction of the relationship between the variables, even if the coefficients themselves are not completely correct. Also, it can be argued that in the study of foreign subsidiary control, the correct measure to examine is the subsidiary's perception of control. After all, the subsidiary managers' perceptions of how controlled they are will influence their consequent behavior.

During the interview, the general manager and the interviewer went through a pre-tested questionnaire. The pre-test had indicated that the questionnaire was not perceived problematic; however, some minor modifications were made, mainly in the structure of the questionnaire, to facilitate the flow of the interview. Since the study focused on

foreign subsidiaries, it was decided that the questionnaires would be available in English only instead of translating it into a multitude of languages. However, potential misunderstandings during the interviews could be solved by rephrasing the question or by reverting to Swedish, Finnish or Chinese (depending on the language skills of the interviewer and those of the interviewees). This was nonetheless seldom necessary, as the respondents generally had a good command of English. As general managers of foreign subsidiaries, the respondents were used to international communication (see Welch et al. 2002).

The questionnaire consisted of two parts. The first part contained questions regarding background information, control (e.g. centralization of decision-making, output control) and MNC-level issues. The second part focused on four relationships that the subsidiary had with other MNC units. The general manager could largely choose the units, however, one had to be the headquarters and the others had to be sister units within different regions (Nordic countries/China, Europe/Asia, rest of the world). The questions here concerned, among others, similarities in organizational culture, language competence, the use of socialization mechanisms. The analyses in this thesis are based on the data from the general section and that from the relationship with the headquarters. The questions were largely drawn and adapted from previous research and thus had been tested before. Some questions were based on absolute numbers (e.g. size, nationality, locations, percentage of subsidiary's total sales and purchases taking place within the MNC, and number of managers participating in visits). Others were Likert-like questions on a 5- or 7-point scale (e.g. locus of decision-making, importance of output measures, knowledge development).

The questionnaire was modified slightly between the different rounds of data collection. Each time the questionnaire was shortened. For example, some questions were deleted from the original questionnaire before the data collection in China. One reason was to shorten the questionnaire, and another reason was that some questions were not considered important in the Chinese context. None of these changes affected this thesis. In addition, questions that did no longer appear relevant were deleted before the second round of data collection in Finland. Some questions were also added, while others were modified to make the questionnaire more function-based, i.e. based on subsidiary

functions. For example, whereas we previously had questions on the locus of decision-making concerning advertisement, purchasing, pricing, etc., in the second round of data collection we inquired about the locus of decision-making regarding marketing, production and R&D. This had some effects on the present study as they were questions that were included in this study. For example, the number of decision-making issues was reduced slightly as some issues were combined.

## 4 SUMMARY OF ESSAYS

### 4.1 Essay 1: Language and Foreign Subsidiary Control: An Empirical Test

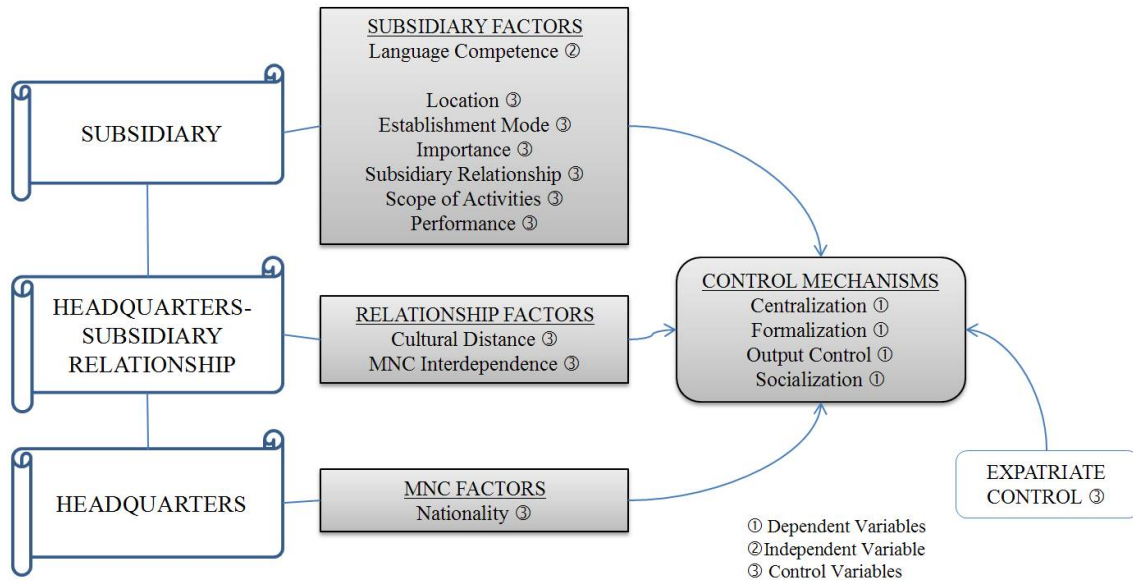
Authors: Anette Björkman & Rebecca Piekkari

Data: 119 cases from Finland and China (interviewed 2000-2002)

Status: Submitted to *Journal of International Management* in November 2006 (earlier versions presented at European International Business Academy Conference 2002 and Vaasa Conference on International Business 2003)

A growing strand of research on international management has established the importance of language for international management processes (e.g. Barner-Rasmussen & Björkman 2005, Buckley et al. 2005, Marschan-Piekkari et al. 1999a/b, Sunaoshi et al. 2005). Still the effect of language on foreign subsidiary control has mostly been assumed or mentioned in passing (e.g. Chang & Taylor 1999, Fenwick et al. 1999, Ferner 2000, Keegan 1972), although foreign subsidiary control often involves the crossing of language boundaries. Normally language appears to be subsumed into the concept of cultural distance. Existent foreign subsidiary control research that has placed language at the center stage centers mostly on socialization mechanisms (Barner-Rasmussen 2003, Barner-Rasmussen & Björkman 2005, Marschan-Piekkari et al. 1999a), and therefore the effect of language competence on other control mechanisms remains unclear.

The purpose of this study was therefore to empirically (and quantitatively) test how subsidiaries with varying degrees of language competence were controlled. More specifically, our aim was to explore how subsidiary language competence affected the use of four control mechanisms: centralization, formalization, output control and socialization. By language we meant everyday spoken and written languages such as English and Spanish, not discourses, which are “framing devices, systems of shared meaning” used in speaking or writing about a particular subject matter (Tietze et al. 2003, p. 78). We furthermore focused on ‘shared language’ to show that the staff from headquarters and the subsidiaries tend to use a common language in interactions, whether it is the corporate language or any other language.



**Figure 2** Essay 1 and its Connection to the Thesis

We found that language competence did influence the implementation of different control mechanisms. Subsidiaries with low language competence were controlled through centralization to a greater extent than subsidiaries with higher language competence. Subsidiaries with low language competence tend to have difficulties communicating with the headquarters and it is possible that the headquarters takes over some of the decision-making in order to avoid misunderstandings and uncertainties (Feely & Harzing 2004). Subsidiaries with high competence, on the other hand, will not have the same challenges communicating decisions to the headquarters and they may therefore also be able to influence the decisions and the location where the decisions take place (Ferner 2000).

We also found that subsidiaries with low language competence were controlled through formalization to greater extent than subsidiaries with high language competence. This was an unexpected finding considering previous research, which has found formalization to be a less effective control mechanism in subsidiaries with low language competence (e.g. Monks 1986, Sippola & Smale 2005). It is possible that the headquarters are not aware of the ease by which subsidiary staff can ignore or alter

written guidelines and policies communicated in the ‘wrong language’. However, it is also probable that the subsidiaries with higher language competence may influence the extent of formalization exercised over them (Ferner 2000) or that they do not perceive themselves as being as restricted by formalization as they are able to communicate with the headquarters.

No relationship was found between language competence and output control and socialization respectively.<sup>5</sup> We had not expected any relationship between language competence and output control, as output control – with its basis in numbers – can be seen as a standardized control mechanism that can be used regardless of language competence of the subsidiary staff. However, based on previous findings we had expected a positive relationship between language competence and the use of socialization mechanisms (e.g. Barner-Rasmussen 2003, Marschan-Piekkari et al. 1999a). One possible explanation for the deviation lies in the distinction between formal and informal socialization mechanisms. Previous studies have focused mostly on informal mechanisms, whereas the focus here was on formal mechanisms. It is plausible that informal socialization mechanisms are more language-dependent than formal mechanisms. However, it is also possible that formal socialization mechanisms require knowledge of the corporate language, which may differ from the shared language studied in our paper.

The findings also suggested that language competence and cultural distance are different concepts and should be explored separately (see also Dow & Karunaratna 2006 and Johanson & Wiedersheim-Paul 1975). Not only were language competence and cultural distance not correlated, but the two concepts also had different effects on the control mechanisms. Language competence had an effect on centralization, whereas cultural distance influenced output control concerning production performance. However, both language competence and cultural distance helped explain formalization.

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<sup>5</sup> A factor analysis used to confirm the uniqueness of the control mechanisms indicated that output control actually consisted of three different factors: output control regarding financial performance, market performance and production performance. Since financial performance had an alpha of 0.26, it was deleted from the analysis. Neither of the other aspects of output control (market performance and production performance) was related to language competence in a statistically significant manner.

Finally, a comment concerning the other control variables. Centralization was also related to MNC interdependence. Subsidiary importance, performance and role explained the market performance aspect of output control, whereas establishment mode and cultural distance explained the production performance aspect. Formalization was influenced by subsidiary scope of activities and role, while the use of socialization mechanisms was associated with MNC interdependence and subsidiary location.

#### **4.2 Essay 2: Subsidiary Decision-Making Autonomy – The Effect of Subsidiary Resources and Headquarters’ Use of Control Mechanisms**

Author: Anette Björkman

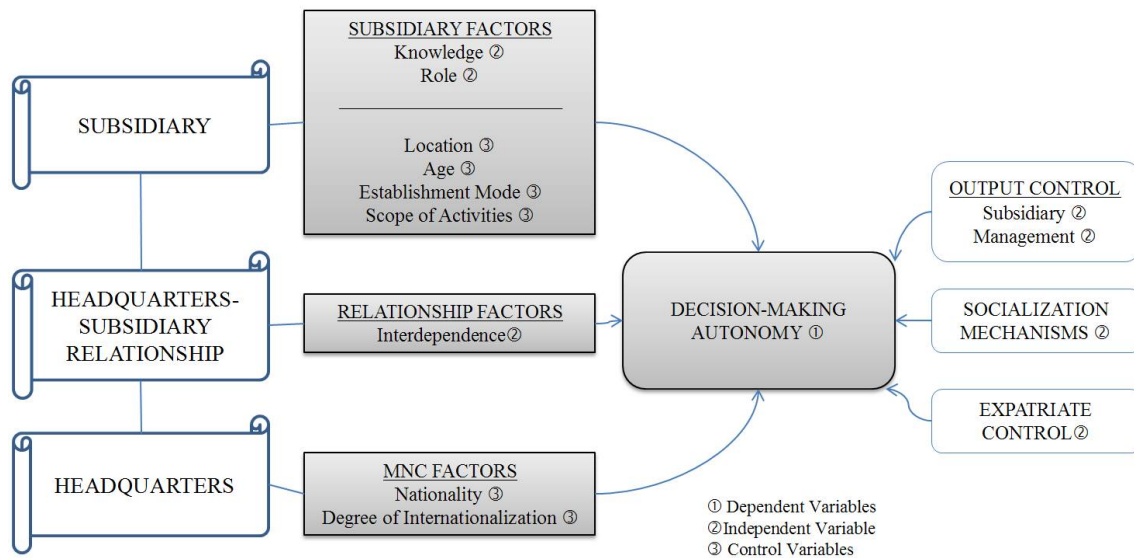
Data: 132 cases from Finland and China (interviewed 2000-2002)

Status: Revised and resubmitted to *International Business Review* in June 2006 (earlier version presented at European International Business Academy Conference 2003)

The degree of decision-making autonomy can be of substantial strategic importance. On the one hand, subsidiary autonomy has been considered important for motivation, creativity and innovation (Birkinshaw 1999, Birkinshaw et al. 1998, Ghoshal & Bartlett 1988) and for decreasing the risk of information overload at the headquarters. On the other hand, centralization of decision-making to the headquarters might be important in order to increase predictability and efficiently coordinate resources within the MNC (Egelhoff 1984). The extent of subsidiary decision-making autonomy can therefore constitute a dilemma for the headquarters.

Previous findings on factors affecting the degree of subsidiary decision-making autonomy are largely inconclusive. The reasons may be a limited use of perspectives from organization theory or a predominant focus on headquarters or subsidiary factors. This study built on previous research on subsidiary autonomy by explicitly using two theories (agency theory and resource dependence theory) that recognized the power struggle inherent in the headquarters-subsidiary relationship. I argued that foreign subsidiaries possess certain power sources (such as knowledge and special roles) that it can use to increase its decision-making autonomy and that that the headquarters can

compensate for increases in subsidiary autonomy through other control mechanisms (output control, socialization mechanisms and expatriate control). The specific aim of the study was to explore the extent to which power sources of the subsidiary affected its decision-making autonomy and to what extent the autonomy was constrained by the headquarters' use of other control mechanisms.



**Figure 3** Essay 2 and its Connection to the Thesis

The results indicated that subsidiaries possessing knowledge (in e.g. management, marketing and production) that was considered superior to that of other MNC units tended to be more autonomous in their decision-making than subsidiaries with little or no specific knowledge. Subsidiary role (i.e. whether it has formally a local or a global/regional role), on the other hand, was not related to subsidiary decision-making autonomy. This may seem contradictory; however, knowledge and subsidiary role must not necessarily be similar in their effect on autonomy. Subsidiaries that have been given a formal role by their headquarters may not possess specific knowledge that can be used as leverage in the headquarters-subsidary relationship. It is also possible that the headquarters give subsidiaries with formal roles some knowledge.

Surprisingly interdependence was not a consistent predictor of subsidiary autonomy, although previous studies have indicated this as one of the most important variables influencing subsidiary autonomy (e.g. Hedlund 1981, O'Donnell 2000). The correlation

matrix indicated that there was a statistically significant and negative relationship between interdependence and subsidiary decision-making autonomy; however, in the multivariate analysis the relationship was reduced to non-significance. It is possible that the interdependences only have an indirect effect on subsidiary autonomy. It is also possible that interdependence should have been operationalized differently. The variable was based on trade (the sum of purchases from and the sales to the MNC)<sup>6</sup> and constituted to great extent of the subsidiary's dependence on the MNC (i.e. purchases from the MNC). It should perhaps also have included other forms of interdependences (for example in manufacturing).

The results indicated further that the headquarters did not systematically use socialization mechanisms or expatriate control to constrain the decision-making autonomy of the subsidiary. On the contrary, it is possible that the headquarters might have lessened its use of expatriate control. However, subsidiaries with greater decision-making autonomy were controlled more through output control, which indicates that the headquarters does not abandon all interest in autonomous subsidiaries. Subsidiary top management tended to be compensated on the basis of individual and subsidiary performance to a larger extent than top management of less autonomous subsidiary and there was greater use of output control on the subsidiary level. Although this latter finding appears contradictory to previous research, it is possible that the difference lies in the operationalization of output control. Previous studies has often conceptualized output control in terms of financial measures and in frequency of reporting, whereas this study focused on a wide range of measures (i.e. return on investments/equity, net/operating profits, sales, customer satisfaction, market share, productivity, quality, knowledge development and transfer of knowledge to other corporate units) and their importance in the headquarters' evaluation of the subsidiary. It is possible that measuring the importance of a range of items is a better way of measuring output control as it indicates the perceived level of output control in the subsidiary.

Overall it appears that resource dependence theory provided some insight into the degree of subsidiary decision-making autonomy. Being able to develop resources from

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<sup>6</sup> We did not specifically state what the managers should include in the figures of internal purchases and sales. The measure may therefore include merchandise, services and intellectual property, but we do not the division between the different kinds of products.

inside will provide the subsidiary with more decision-making autonomy. Agency theory also provided some insight, although to lesser extent. Agency theory suggests that as the principal gives up some decision-making powers, s/he will control the agent through other control mechanisms. However, only output control appeared to be related to the subsidiary's decision-making autonomy, which although in agreement with the theory, is only one alternative control mechanism.

Finally, it should be noted that the MNC degree of internationalization and age of the subsidiary also affected the degree of decision-making autonomy. Both had a negative effect, suggesting that with time (as the MNC expands its geographical presence and as the subsidiary becomes older) the MNC tends to centralize decision-making.

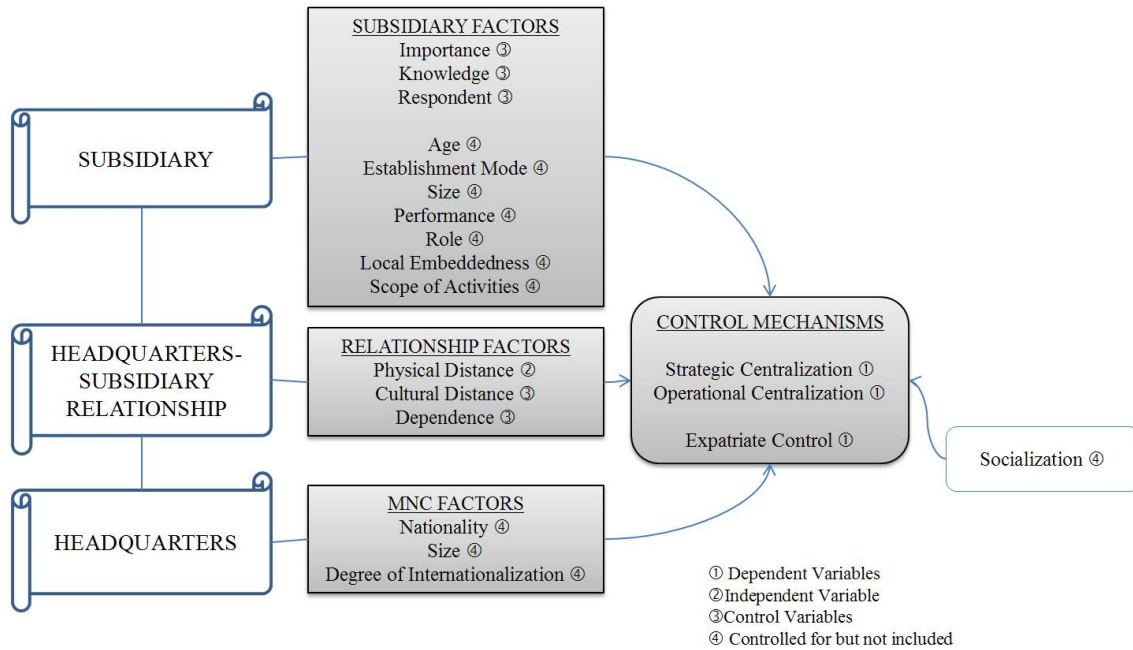
### **4.3 Essay 3: Relocation of Headquarters in Multinational Corporations: An Exploratory Quantitative Analysis of the Consequences for the Headquarters-Subsidiary Relationship**

Authors: Wilhelm Barner-Rasmussen & Anette Björkman

Data: 61 foreign subsidiaries in Finland (interviewed in 2000 and 2004)

Status: Earlier version presented at European International Business Academy Conference 2005

What happens to the headquarters-subsidiary relationship when an MNC is reorganized and the (division) headquarters as a consequence is moved? So far we have little knowledge about the effects of internal restructuring on internal dynamics (e.g. Cappelli 1999, Vaara et al. 2003), and we know even less about how geography and physical space affects the management of MNCs, as most previous research has used cultural distance to explain issues that are not easily understood in MNCs (e.g. Garnier 1982, Harzing 1999). The research question was thus, what effects do headquarters relocation and the subsequent difference in physical distance have on the headquarters-subsidiary relationship? Specifically, we focused on the effect of physical distance on centralization of strategic and operational decision-making and expatriate control.



**Figure 4** Essay 3 and its Connection to the Thesis

The results indicated that during the four-year period extensive restructuring took place in the MNCs to which the subsidiaries in Finland belonged. Roughly half of the subsidiaries had their (division) headquarters relocated at least once. This reflects the extent to which MNCs have been reorganizing: 85% of corporate headquarters have reportedly undergone one or more significant reorganizations since the 1990s (Schwier 2005). The findings furthermore indicated that, although Stockholm remained the most important location of (division) headquarters for subsidiaries in Finland, the (division) headquarters were being moved from more peripheral locations (such as Helsinki, Kristinehamn and Illinois) and to more central locations (e.g. London and Paris).

The paper showed that the physical distance between a subsidiary and its headquarters matters. An increase in the physical distance led to the subsidiary having more strategic and operational decision-making autonomy. At the same time, however, there was an increase in the use of expatriate control. The opposite occurred in subsidiaries which found themselves physically closer to the headquarters after the restructuring. This suggests that relocations of the (division) headquarters may be related to agency problems. Being located farther away from the subsidiary means increasing problems collecting necessary information.

It ought to be noted that physical distance should not be confounded with cultural distance – changes in cultural distance do not produce the aforementioned effects on autonomy and expatriate control. It should also be mentioned that other variables than physical distance influenced the changes in centralization and expatriate control. Subsidiaries with higher levels of knowledge (about management, marketing and service) in 2000 became less controlled by expatriates; however, they also became more centralized with regard to strategic decision-making. Centralization of decision-making (both strategic and operational) was also associated with increasing dependence on the MNC (for purchases), while increases in subsidiary importance were related to increases in autonomy in operational decision-making.

#### **4.4 Essay 4: Changes in the Use of Socialization Mechanisms**

Author: Anette Björkman

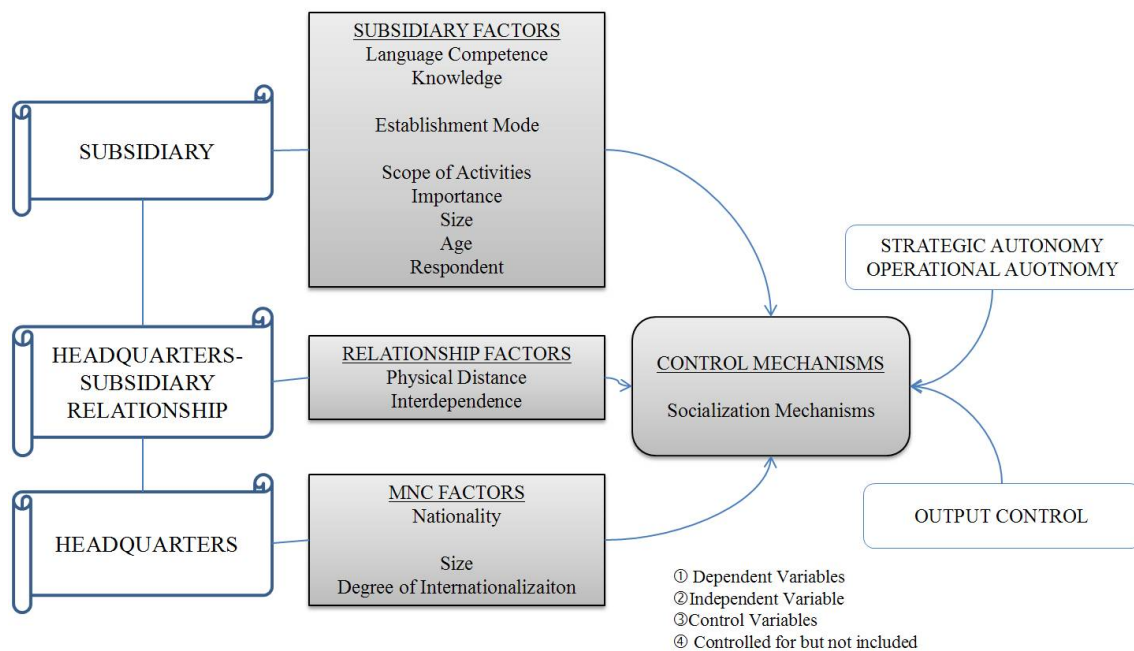
Data: 51 foreign subsidiaries in Finland (interviewed in 2000 and 2004)

Status: Earlier version presented at Doctoral Tutorial of Vaasa Conference of International Business 2005

A strand of research argues that socialization is a superior means of headquarters' control in situations of turbulence, uncertainty and complexity (Baliga & Jaeger 1984, Ouchi 1980). However, despite the interest researchers have shown control, the importance it has for the business world and the assertion that socialization is increasingly used to control foreign subsidiaries, there is little research on socialization and the factors affecting its use in MNCs. It has also been claimed that foreign subsidiary control is tailored according to the particular context of each subsidiary and to the specific headquarters-subsidary relationship (Ghoshal & Nohria 1989, Gupta & Govindarajan 1991, Nobel & Birkinshaw 1998). Consequently, the use of socialization mechanisms may be influenced by subsidiary competences, such as knowledge and language competence, by aspects of the headquarters-subsidary relationship, here: physical distance and interdependence, and by alternative control mechanisms – namely centralization of strategic and operational decision-making and output control – that the

headquarters uses. The aim of the study was hence to explore how these factors influenced the use of socialization mechanisms.

The analysis was based on panel data, collected in the same subsidiaries in 2000 and 2004. The reason for using panel data was to explore if there are changes in foreign subsidiary control, here specifically the use of socialization mechanisms, and if changes in the different subsidiary and headquarters-subsidary relationship factors are related to the changes in the socialization mechanisms.



**Figure 5** Essay 4 and its Connection to the Thesis

The use of socialization mechanisms varied over time in the subsidiaries studied; however, the changes were not very large during the four-year period. An interesting, and unexpected, finding was that strategic and operational decision-making autonomy had different effects on the use of socialization mechanisms. Whereas the use of socialization mechanisms tended to increase in the subsidiaries that lost strategic decision-making autonomy, it tended to decrease in the subsidiaries that lost operational decision-making autonomy. It is possible that as strategic decision-making is centralized, it becomes more important to build acceptance for the decisions through shared values. The socialization mechanisms, which were operationalized as consisting

of visits, meetings and training, can also be used as an information forum, where the headquarters can gather important information about the subsidiary situation and make sure that the strategic decisions are implemented. Socialization mechanisms may also be used as information forums for subsidiaries that have operational decision-making autonomy in order to coordinate certain activities with the headquarters (or other MNC units) and that the coordination may be facilitated by shared practices.

The results also indicated that as the importance of output control increased, the use of socialization mechanisms also increased. This supports previous findings showing that shared values and practices can facilitate the understanding of why and how the formal measures should be used. Hence, when the use of output control changes, there will be an increase in the use of socialization mechanisms to back up, inform and build acceptance for the change. However, it is also possible that output control and socialization mechanisms are concurrently used as they target different aspects of subsidiary activities.

With regard to subsidiary competences it was shown that knowledge stock had no effect on the use of socialization mechanisms. Language competence, on the other hand, had a positive effect on the use of socialization mechanisms, which meant that as the language competence of the subsidiary staff increased, the subsidiary was controlled by socialization to a larger extent. This suggests that it may be more difficult to control a subsidiary with low language competence through socialization mechanisms and hence other control mechanisms must be used to control subsidiaries with low language competence. However, since socialization mechanisms are also used for information exchanges, low language competence means being excluded from company happenings (see also Marschan-Piekkari et al. 1999a), and consequently limited possibilities for the subsidiary to influence and learn.

Two aspects of the headquarters-subsidary relationship were studied. Whereas MNC changes in interdependence had no effect on the use of socialization mechanisms, increases in the physical distance between a subsidiary and its headquarters had a significant negative effect. Changes in the physical distance indicated that the MNC had been restructured during the four-year period and that the (division) headquarters had as a consequence been moved to another location. The results showed that as the

headquarters moved to a location closer to the subsidiary, the use of socialization mechanisms in that subsidiary increased. It is possible that this is due to the lower travel costs as a result of shorter distance between the headquarters and the subsidiary. It is also possible that the headquarters move closer to subsidiaries that needs more control.

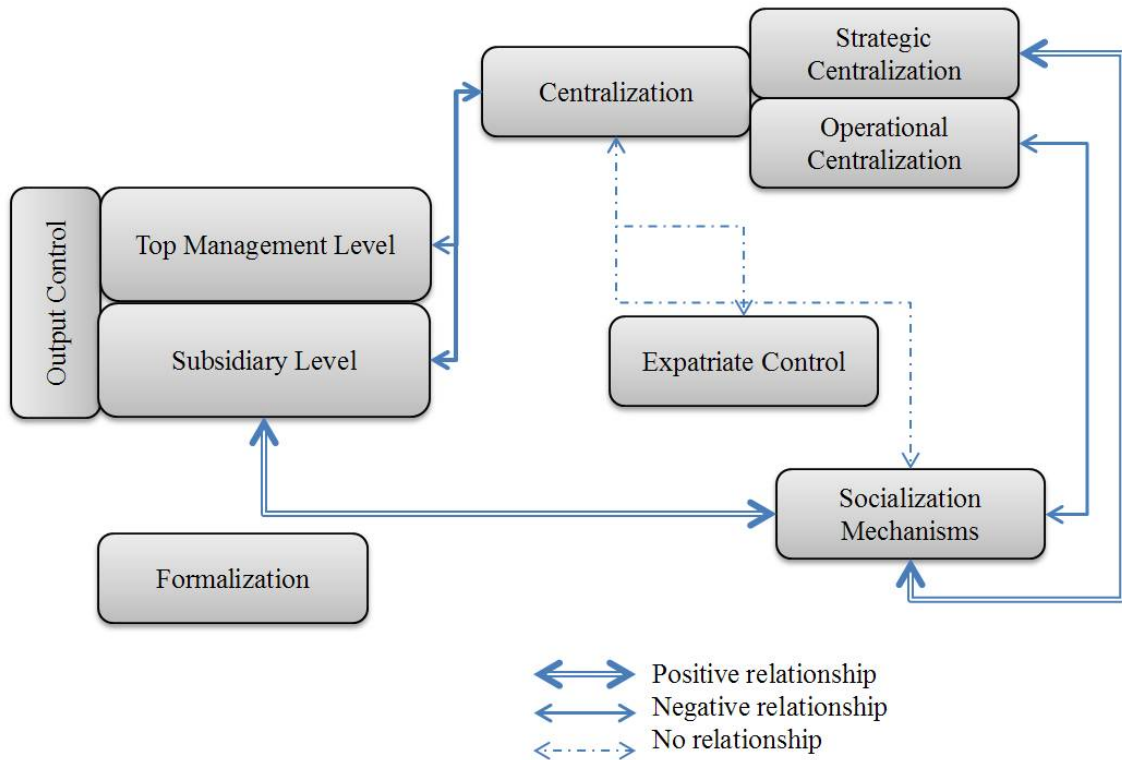
Finally, it should be noted that the establishment mode of the subsidiary also had an effect on changes in the use of socialization mechanisms. It appears that there was an increased use of socialization mechanisms over time in acquired subsidiaries.

## 5 DISCUSSION

### 5.1 Main Findings and Contributions

The aim of the thesis was to explore different types of control mechanisms and explain the degree to which they were used to control foreign subsidiaries. This was done loosely within a framework of agency theory and resource dependence theory, which were used jointly to account for potential tensions in the headquarters-subsidary relationship. Agency theory was partly used to contemplate the interplay between different control mechanisms, but also to highlight physical distance as a possible factor that may increase the agency problem in the headquarters-subsidary relationship. Resource dependence theory was used to highlight competences and resources that the subsidiary may use to influence the foreign subsidiaries control and also the effects of interdependences in the headquarters-subsidary relationship on foreign subsidiaries control. The focus was on implemented control mechanisms in foreign subsidiaries in Finland and China.

I first sought to explore how the use of one control mechanism affected the use of other control mechanisms in foreign subsidiary control. The overall degree of centralization of decision-making appears to be related to the use of output control. Subsidiaries that had autonomy in their decision-making tended to be controlled more through output control. This is logical. When subsidiaries make more decisions locally, the headquarters is not always aware of the subsidiary' activities and hence it is more important for headquarters to receive some information and steer the subsidiaries in certain directions through output control. On the other hand, when the headquarters makes the decisions concerning subsidiary activities, it is also more responsible for and knowledgeable of the subsidiary performance and consequently has less need for the subsidiary to report such output measures. The results furthermore suggest that output control and the use of socialization mechanisms are related. Subsidiaries that found themselves controlled more than previously through output control, also experienced an increase in the use of socialization mechanisms (see also Ferner 2000).



**Figure 6 Relationships between Different Control Mechanisms**

There appears to be no relationship between the degree of centralization of decision-making and the use of expatriate control and socialization mechanisms respectively. However, the findings in essay 4 suggested that the lack of relationship between socialization mechanisms and centralization might have been due to strategic and operational centralization having different effects on the use of socialization mechanisms. An increase in strategic centralization may require an increase also in the use of socialization mechanisms in order to build acceptance for headquarters' decisions and to ensure the proper implementation of decisions in the subsidiary. An increase in operational centralization, however, may require lesser use of socialization mechanisms, as it is possible that the subsidiary hence has less need to coordinate activities with other MNC units.

The combined findings of the essays (mainly 2 and 4) indicated that there are mixed relationships among the control mechanisms. Some are substitutes, some are

complements (Nobel & Birkinshaw 1998, Snodgrass & Szewczak 1990), and others appear unrelated (Figure 6). Consequently, this thesis does not provide conclusive findings; however, the results indicate that the degree of any control mechanisms may influence the use of other mechanisms. Since there are inter-relationships among the control mechanisms, it is possible that there are also interaction effects although this possibility was not considered here.

Secondly, I sought to explore how subsidiary-specific resources and competences, such as language, and knowledge, affected the type and degree of foreign subsidiary control. The most important contribution in this category was to empirically and quantitatively explore the effect of language competence on different control mechanisms, as previous research on foreign subsidiary control seldom has put language at the center stage. It was shown that language mattered for all control mechanisms except output control. The findings suggest that low language competence can be costly for the headquarters. Not only are the subsidiaries with low language competence controlled more through strategic centralization and formalization (which requires more resources on behalf of the headquarters), they are also controlled less through the use of socialization mechanisms. However, it should also be noted that the relationship between language competence and the use of socialization mechanisms could only be verified using panel data not in the larger sample of foreign subsidiaries in Finland and China. It is possible that the use of socialization mechanisms fluctuates over time and hence absolute numbers do not detect the association with language competence. It is also possible that the effect on socialization mechanisms is clearest shortly after an increase in the language competence of the subsidiary staff. It should furthermore be noted that although the effect of language competence on expatriate control was not tested explicitly in the study, essay 1 revealed a positive bivariate relationship. This suggests that the headquarters may send expatriates to subsidiaries with low language competence, hence alleviating the language problem quickly.

The results also indicated that subsidiaries through their knowledge in different areas, such as management, marketing and production, could to some extent increase their decision-making autonomy in general and in strategic matters in particular. However, subsidiary knowledge may not have any effect on the headquarters' use of socialization

mechanisms. It should also be noted that knowledge was related to expatriate control (Table 1), yet this should most likely not be seen as subsidiaries being able to affect the degree of expatriate control through knowledge. Since the level of knowledge in 2000 led to a decrease in expatriate control over the next four years, it is possible that the decrease in expatriate control should be seen as the expatriates leaving the subsidiaries after having transferred knowledge to the subsidiary.

**Table 1** Effect of Subsidiary Competences/Resources on Control Mechanisms

Control Mechanism	Language Competence	Knowledge	Role
Centralization		–	x
Strategic centralization	–	+	
Operational centralization		x	
Output control			
Market performance	x		–
Production performance	x		x
Formalization	–		+
Socialization mechanisms	+ / x	x	x
Expatriate control		–	

(+) positive effect; (–) negative effect; (x) no effect

The subsidiary's formal role as a local or regional/global player does not appear to have the same effects on foreign subsidiary control as knowledge. Subsidiaries which had been formally assigned a local role were more likely to be controlled through output control concerning market performance and through formalization than subsidiaries with other roles. No effects were discovered regarding socialization mechanisms and centralization, which means that the results do not really tell us how subsidiaries with regional and global roles are controlled.

Finally, I sought to describe how the characteristics of the headquarters-subsidiary relationship such as interdependences and physical distance, affected the control exercised over the subsidiary. It was argued that, in addition to the previously studied interdependences with the headquarters or the MNC and cultural distance, physical distance should also be introduced as a factor that can potentially influence foreign subsidiary control.

**Table 2** Effect of Distances on Control Mechanisms

Control Mechanism	Physical distance	Cultural distance
Centralization		
Strategic centralization	–	x
Operational centralization	–	x
Output control		
Market performance		x
Production performance		+
Formalization		+
Socialization mechanisms	–	
Expatriate control	+	x

(+) positive effect; (–) negative effect; (x) no effect

The findings (Table 2) indicate that with increasing physical distance, the headquarters decentralize decision-making (both strategic and operational) and decrease its use of socialization mechanisms; however, the use of expatriate control increases. These findings suggest that the restructuring of an organization and a consequent relocation of the (division) headquarters may have consequences for the subsidiary beyond those of foreign subsidiary control. Subsidiaries that find themselves farther away from the headquarters find themselves more isolated from the headquarters (and the MNC). They receive more decision-making autonomy but participate less in socialization mechanisms. The increased use of expatriates may not compensate for the loss of venues where subsidiaries staff normally has the opportunity to meet staff from other units, to influence the activities of the MNC and to learn, i.e. socialization mechanisms. The same effects should not be expected for cultural distance and changes in cultural distance. Cultural distance had no effects on centralization (compare essay 1 and 3 where different methods were used), nor on socialization mechanisms and expatriate control. Instead cultural distance could help explain formalization and output control concerning production performance. It is possible that cultural distance is a better predictor of more formal and bureaucratic forms of control than of more personal and informal control mechanisms.

A final aspect of the headquarters-subsidary relationship that was investigated was (inter)dependences, a factor that has previously been found related to foreign subsidiary control. Surprisingly, interdependence was not consistently significant (Table 3). In this study, interdependence had no effect on output control, formalization or expatriate

control. Furthermore, it also had no effect on changes in the use of socialization mechanisms (i.e. in the panel data from Finland); however, it had a positive effect on the overall level use of socialization mechanisms (in data from Finland and China). There was also no association between changes in interdependence and the overall degree of centralization, but there was but a positive relationship between the level of interdependence and both strategic and operational centralization. This latter finding may be due to slight differences in operationalization. However, interdependence may also not be so important for foreign subsidiary control when other factors are controlled for. It should also be pointed out that this was not the first study to have found non-significant results (e.g. Chang & Taylor 1999, Garnier 1982). Further, Casciaro and Piskorski (2005) argue that the use of interdependence is not a good measure and that it makes more sense to divide it into power imbalance and mutual dependence.

**Table 3** Effect of (Inter-)dependence on Control Mechanisms

Control Mechanism	(Inter-)dependence
Centralization	x
Strategic centralization	+
Operational centralization	+
Output control	
Market performance	x
Production performance	x
Formalization	x
Socialization mechanisms	+/x
Expatriate control	x

(+) positive effect; (-) negative effect; (x) no effect

Finally, considering the combined findings of this thesis, it is clear that, when studying foreign subsidiary control, it is of utmost importance to consider which factors may really explain the use of different control mechanisms. In most cases in the thesis the significance of MNC and subsidiary characteristics (such as size and nationality) decreased or completely disappeared as other factors were included. This may indeed help explain previous inconsistent findings. It is possible that the MNC and subsidiary characteristics should be used to explain differences for example, in subsidiary knowledge and interdependences, but not for foreign subsidiary control per se.

## 5.2 Management implications

As this thesis did not include a performance variable, I cannot claim that one control mechanism, or one combination of control mechanisms, is better than another. However, the thesis increases our general understanding of control issues. Besides suggesting that some control mechanisms are used to enhance others or in *lieu* of another and that there are complex interrelations between the different control mechanisms, it also points to the importance of recognizing the effects of language competence and physical distance on foreign subsidiary control and considering them when carrying out changes in the MNC. Subsidiaries with low language competence tend to be controlled more by strategic centralization, formalization and less by socialization mechanisms than subsidiaries with high competence. By centralizing strategic decision-making the headquarters must collect information about the subsidiary's activities and environment in order to make well-informed decisions; however, it may be difficult to get this information from the subsidiary since low language competence tends to hinder communication. It may also be difficult to implement the decisions. A similar problem emerges with formalization. Subsidiaries with low language competence can easily ignore written guidelines and policies, especially if they arrive in another language than the subsidiary language, and therefore formalization may not be such an effective control mechanism for subsidiaries with low language competence. Furthermore, being excluded from socialization mechanisms also mean that subsidiaries with low language competence has fewer opportunities to network, learn and influence the MNC activities which may have consequences for knowledge sharing in MNCs. This is also true for subsidiaries that are located physically distant from the headquarters. The increase in decision-making autonomy and use of expatriate control in such subsidiaries may not compensate for the loss of such opportunities. Considering their impact on control mechanisms, language competence and physical space should be considered quite candidly in MNCs so that control decisions can be made based on choices of efficiency instead of having to employ the only possible control mechanism(s).

### **5.3 Limitations and Suggestions for Future Research**

The thesis has some important general limitations which may be corrected in future studies. First, the focus of the thesis was on the use of different control mechanisms and hence we asked the general managers of foreign subsidiaries to respond to our questionnaire. This makes sense as implemented or perceived, not the intended, control alters the behavior of the subsidiaries. However, the relationships between different control mechanisms and explanatory factors may be stronger if one considers the intentions and beliefs of the headquarters. Now I may only speculate on these.

Second, and related to the former, the data is based on perceptions of single respondents: the general manager. Although many questions are completely objective and there is not a socially desirable answer to the perceptive questions, it is possible that the perceptions of the control exercised over the subsidiary are colored by the mood of the general manager on the day of the interview or that their perceptions do not correspond to those of others in the subsidiary or at the headquarters. As always, the study would have benefited from multiple respondents. This would also have enabled studies of perception gaps between the headquarters and the subsidiary and their effect on the relationships studied in the thesis.

Third, the data collection only took in Finland and China. Finland is a rather small market economy, whereas China is a large planned economy that has recently been opened to foreign investment. Although the inclusion of two distinctive countries increases the generalizability, the contexts can by some accounts be considered marginal compared to the larger Western industrialized countries. Thus, it is uncertain to which extent these results can be generalized to explain foreign subsidiaries control in other countries. For example, in Paper 2 the relationship between subsidiary age was opposite of that in many previous studies. It is possible that particularities of the two contexts make them distinct from other contexts.

Fourth, the study was based on cross-sectional data. This means that, in the studies based on the data from Finland and China, the causality between variables must be theoretically argued. However, since part of the data is based on panel data collected at two points in time (2000 and 2004) in the same organization, changes occurring during

a certain period can be related to each other. It is also possible to explore how the level of a variable in 2000 influences another variable to change during the subsequent four-year period. In order to increase generalizability panel data, collected at two or more times, should be used more in studies on headquarters-subsidary relationships and thereby causality could also be explored better.

Fifth, some of the measurements in the study could have been improved or other aspects of the variable could have been included. For example, the operationalization of formalization (the extent to which there is a formal policy in the division to transfer knowledge to other units) was a rather crude proxy. Also the output measure could have been complemented with information on how often these measures were collected. The language measure could have included other aspects than written and oral skills, such as skills concerning reading and understanding, information about specific languages and corporate languages, and language skills of specific people. Furthermore, here we only considered language competence of the subsidiary staff; other competences such as education were not included although they could also play a role for foreign subsidiary control (see e.g. Gomez and Sanchez 2005).

Based on the findings there are additional possible research venues to be followed. The study shows that some control mechanisms are related to each other as complements or substitutes. This suggests that studies on the interplay of control mechanisms should also consider interaction terms as the existence of two control mechanisms can provide a combined effect beyond that of the two individual control mechanisms. Furthermore, as Essay 4 showed that strategic and operational autonomy developed in different directions during the four-year period, it may be important to study aspects of different control mechanisms and their relationships to aspects of other control mechanisms.

The effect of language on control is also worth exploring further. In this thesis I only considered one aspect of language: the competence in a shared language, but there are also other aspects. For example, some languages may be more important than others. Speaking the language of the headquarters management may enrich the relationship between the subsidiary and the headquarters as that language may enable access to the power base of the corporation (Barner-Rasmussen 2003). The number of people speaking the language may also be important. A person at the headquarters (or in

another subsidiary) who speaks the subsidiary language can function as a node in the network and thus all communication may occur through that person (Marschan-Piekkari et al. 1999b), which could have far-reaching effects on the control of the subsidiary. Furthermore, introduction of a corporate language is one way to facilitate and improve the language competence of the company, as the organization then can employ only people that are competent in the corporate language. Thus, the effect of having a corporate language should be studied. Besides everyday languages, it would also be interesting to explore company speak and professional jargon. If managers share such languages the communication may still flow at an acceptable level although there is limited knowledge of a shared language. Finally, the mediating effect of communication mode, frequency and importance could be included in future studies.

The findings indicated that language competence and physical distance were separate concepts from that of cultural distance, which has frequently been used in international management studies. It is perhaps time to go beyond the use of the overarching, “simple” solution of cultural distance to explain differences and instead include more direct measures of elements that are affecting the headquarters-subsiary relationship (such as linguistic, physical, institutional and cultural distances). Time-consuming and expensive traveling and basic communication problems may be more detrimental to the headquarters-subsiary relationship than cultural distance, for which the company may be prepared and which in most cases is measured on a national level instead of the individual or company level. Still, acknowledging the criticism of Hofstede’s (1980) cultural dimensions and the Kogut and Singh (1988) index of cultural distance, it could still be worthwhile to test other measures of cultural distance as well as organizational distances. The effects of restructuring and relocation should also be studied further. Although changes in the structure of the MNC may appear to be effective, we still know little about the effects on the internal activities. This study shows that a change in the physical distance between the headquarters and the subsidiary does change aspects of their relationship. Not only can it increase the agency problem, but it can also alter personal relations in the organization.

Finally, three interesting issues regarding subsidiary control arose in the interviews but unfortunately they were beyond the scope of the present project and could for that

reason not be explored with the existing data material. The first point was that, when a subsidiary works within certain limited boundaries, the control of the subsidiary can be extremely restricted. This is different from formalization, because no detailed manuals are given. Instead the headquarters gives a slogan, a vision or something similar to the subsidiary and then the subsidiary is free to interpret it as it sees fit. Although the headquarters still steers the subsidiary in a certain direction, it is practically free to function without further constraints. This indicates that control may be more complex than typically previously envisioned; control is exercised in subtle ways, but the subsidiary appears largely free of control. This way of control may seem similar to socialization; however, contrary to socialization one does not learn certain values or practices. The slogan or vision can and do change with seasons, for example. However, it is also possible that the subsidiary manager takes such a control system into consideration when responding to the questions. For example, when answering where the decisions concerning subsidiary strategy is made, the manager may respond that it is done in cooperation with the headquarters although in practice it is made in the subsidiary. An increasing number of MNCs is furthermore introducing intranet, which is available throughout the organization. The intranet is used to facilitate organizational communication and knowledge sharing. General managers can enter information on subsidiary activities into a database, and other subsidiary managers can access it to find solutions to existing problems or ideas for future activities. However, the intranet can also be used for subsidiary control, as the information is readily available to the headquarters as well. The extent to which the headquarters use this information and take action based on it should be investigated. The third issue that appeared in the interviews was 'virtual' headquarters. Some subsidiaries mentioned that their headquarters did not exist as a physical location; instead the management of the headquarters was distributed among different subsidiaries. Although this should not alter the findings in the thesis (Essays 3 and 4), as the subsidiaries still report to a person or a function, this indicates that organizational boundaries between units may become increasingly blurred. A subsidiary manager can also be a member of the headquarters team, which means that the headquarters is effectively located in the subsidiary, but the subsidiary may appear free of control.

In conclusion, control (and coordination) still plays an important role in MNCs for them to function effectively. Still we have limited knowledge of the functioning and interplay of different control mechanisms. Factors such as language competence and physical distance can facilitate or impede foreign subsidiary control and modern technology and restructuring allows for more subtle ways of control of which we do not yet know much. It appears that the view and role of the headquarters as traditionally seen is changing, but much work remains to further augment our understanding of these changes and what their effects on control will be.

## REFERENCES

- Alexander, J.A. (1991). Adaptive Change in Corporate Control Practices. *Academy of Management Journal*, Vol. 34, Iss.1, pp. 162-193.
- Alpander, G.G. (1977). Control Mechanisms in Multinational Corporations. *Academy of Management Proceedings*. Pp. 302-306.
- Andersen, H., and Rasmussen, E.S. (2004). The Role of Language Skills in Corporate Communication. *Corporate Communication: An International Journal*. Vol. 9, Iss. 2, pp. 231-242.
- Andersson, U., and Forsgren, M. (1996). Subsidiary Embeddedness and Control in the Multinational Corporation. *International Business Review*, Vol. 5, Iss. 5, pp. 487-508.
- Andersson, U., and Forsgren, M. (2000). In Search of Centre of Excellence: Network Embeddedness and Subsidiary Roles in Multinational Corporations. *Management International Review*, Vol. 40, Iss. 4, pp. 329-350.
- Baliga, B.R., and Jaeger, A.M. (1984). Multinational Corporations: Control Systems and Delegation Issues. *Journal of International Business Studies*, Vol. 15, Iss. 2, pp. 73-83.
- Barner-Rasmussen, W. (2003). *Knowledge Sharing in Multinational Corporations: A Social Capital Perspective*. Ph.D. thesis, Swedish School of Economics and Business Administration, number 113, Helsinki: Yliopistopaino.
- Barner-Rasmussen, W., and Björkman, I. (2005). Surmounting International Barriers: Factors Associated with Interunit Communication Intensity in the Multinational Corporation. *International Studies of Management and Organization*, Vol. 35, Iss. 1, pp. 28-46.
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, Vol. 17, Iss. 1, pp. 99-120.
- Bartlett, C.A., and Ghoshal, S. (2002). *Managing Across Borders: The Transnational Solution*. 2<sup>nd</sup> ed. Boston: Harvard Business School Press.
- Baruch, Y. (1999). Response Rate in Academic Studies – A Comparative Analysis. *Human Relations*, Vol. 52, Iss. 4, pp. 421-438.

- Birkinshaw, J. (1999). The Determinants and Consequences of Subsidiary Initiative in Multinational Corporations. *Entrepreneurship Theory and Practice*, Vol. 24 Iss. 1, pp. 9-36.
- Birkinshaw, J., Hood, N., and Jonsson, S. (1998). Building Firm-Specific Advantages in Multinational Corporations: The Role of Subsidiary Initiative. *Strategic Management Journal*, Vol. 19, Iss. 3, pp. 221-241.
- Birkinshaw, J., Holm, U., Thilenius, P., and Arvidsson, N. (2000). Consequences of Perception Gaps in the Headquarters-Subsidiary Relationship. *International Business Review*, Vol. 9, Iss. 3, pp. 321-344.
- Björkman, I., and Forsgren, M. (2000). Nordic international business research: A review of its development. *International Studies of Management and Organization*, Vol. 30, Iss. 1, pp. 6-26.
- Brooke, M.Z. (1984). Autonomy and Centralization in Multinational Firms. *International Studies of Management and Organization*, Vol. 14, Iss. 1, pp. 3-22.
- Buckley, P.J., Carter, M.J., Clegg, J., and Tan, H. (2005). Language and Social Knowledge in Foreign-Knowledge Transfer to China. *International Studies of Management and Organization*, Vol. 35, Iss.1, pp. 47-65.
- Calori, R., Lubatkin, M., and Very, P. (1994). Control Mechanisms in Cross-border Acquisitions: An International Comparison. *Organization Studies*, Vol. 15, Iss. 3, pp. 361-379.
- Cano, C.R., Boles, J.S., and Bean, C.J. (2005). Communication Media Preferences in Business-to-Business Transactions: An Examination of the Purchase Process. *Journal of Personal Selling & Sales Management*, Vol. 25, Iss. 3, pp. 283-294.
- Cappelli, P. (1999). *The New Deal at Work: Managing the Market-Driven Workforce*. Boston, MA: Harvard Business School Press.
- Casciaro, T., and Piskorski, M.J. (2005). Power Imbalance, Mutual Dependence, and Constraint Absorption: A Closer Look at Resource Dependence Theory. *Administrative Science Quarterly*, Vol. 50, Iss. 2, 167-199.
- Chang, E., and Taylor, M.S. (1999). Control in Multinational Corporations (MNCs): The Case of Korean Manufacturing Subsidiaries. *Journal of Management*, Vol. 25, Iss. 4, pp. 541-565.
- Child, J. (1972). Organization Structure and Strategies of Control: A Replication of the Aston Study. *Administrative Science Quarterly*, Vol. 17, Iss.2, pp. 163-177.

- Child, J. (1973a). Strategies of Control and Organizational Behavior. *Administrative Science Quarterly*, Vol. 18, Iss. 1, pp. 1-17.
- Child, J. (1973b). Predicting and Understanding Organization Structure. *Administrative Science Quarterly*, Vol. 18, Iss. 2, pp. 168-185.
- Child, J. (1977). *Organization: A Guide to Problems and Practice*. London: Harper & Row Ltd.
- Chini, T., Ambos, B., and Wehle, K. (2005). The Headquarters-Subsidiary Trench: Tracing Perception Gaps within The Multinational Corporation. *European Management Journal*, Vol. 23, Iss. 1, pp. 145-153.
- Coase, R.H. (1937). The Nature of the Firm. *Economica*, Vol. 4, Iss. 16, pp. 386-405.
- Cray, D. (1984). Control and Coordination in Multinational Corporations. *Journal of International Business Studies*, Vol. 15, Iss. 2, pp. 85-98.
- Dow, D., and Karunaratna, A. (2006). Developing a Multidimensional Instrument to Measure Psychic Distance Stimuli. *Journal of International Business Studies*, Vol. 37, Iss. 5, pp. 578-602.
- Edström, A., and Galbraith, J.R. (1977). Transfer of Managers as a Coordination and Control Strategy in Multinational Organizations. *Administrative Science Quarterly*, Vol. 22, Iss. 2, pp. 248-263.
- Edwards, R., Ahmad, A., and Moss, S. (2002). Subsidiary Autonomy: The Case of Multinational Subsidiaries in Malaysia. *Journal of International Business*, Vol. 13, Iss. 1, pp. 183-191.
- Egelhoff, W.G. (1984). Patterns of Control in U.S., UK, and European Multinational Corporations. *Journal of International Business Studies*, Vol. 15, Iss. 2, pp. 73-83.
- Eisenhardt, K. (1989). Agency Theory: An Assessment and Review. *Academy of Management Review*, Vol. 14, Iss. 1, pp. 57-74.
- Emerson, R.M. (1962). Power-Dependence Relations. *American Sociological Review*, Vol. 27, Iss. 1, pp. 31-41.
- Feely, A.J., and Harzing, A.-W. (2002). Forgotten and Neglected — Language: The Orphan of International Business Research. Paper presented at the Academy of Management Meeting, Denver, 9-14 August 2002.

- Feely, A.J., and Harzing, A.-W. (2004). The Language Barrier and its Implications for HQ-Subsidiary Relationships. Paper presented at the Academy of Management Meeting, New Orleans, 6-11 August 2004.
- Fenwick, M.S., De Cieri, H.L., and Welch, D.E. (1999). Cultural and Bureaucratic Control in MNEs: The Role of Expatriate Performance Management. *Management International Review*, Vol. 39, Special Issue 3, pp. 107-124.
- Ferner, A. (2000). The Underpinnings of Bureaucratic Control Systems: HRM in European Multinationals. *Journal of Management Studies*, Vol. 37, Iss. 4, pp. 521-539.
- Ferner, A., Almond, P, Clark, I., Coling, T., Edwards, T., Holden, L., and Muller-Camen, M. (2004). The Dynamics of Central Control and Subsidiary Autonomy in the Management of Human Resources: Case-Study Evidence from US MNCs in the UK. *Organization Studies*, Vol. 25, Iss. 3, pp. 363-391.
- Forsgren, M., and Pahlberg, C. (1992). Subsidiary Influence and Autonomy in International Firms. *Scandinavian International Business Review*, Vol. 1, Iss. 3, pp. 41-51.
- Frost, T.S., Birkinshaw, J.M., and Ensign, P.C. (2002). Centers of Excellence in Multinational Corporations. *Strategic Management Journal*, Vol. 23, Iss. 11, pp. 997-1018.
- Garnier, G.H. (1982). Context and Decision Making Autonomy in the Foreign Affiliates of U.S. Multinational Corporations. *Academy of Management Journal*, Vol. 25, Iss. 4, pp. 893-908.
- Garnier, G.H., Osborn, T.N., Galicia, F., and Lecon, R. (1979). Autonomy of the Mexican Affiliates of U.S. Multinational Corporations. *Columbia Journal of World Business*, Vol. 14, Iss. 1, pp. 76-90.
- Gates, S.R., and Egelhoff, W.G. (1986). Centralization in Headquarters-Subsidiary Relationships. *Journal of International Business Studies*, Vol. 17, Iss. 2, pp.71-92.
- Geringer, J.M., and Hebert, L.(1989). Control and Performance of International Joint Ventures. *Journal of International Business Studies*, Vol. 20, Iss. 2, pp. 235-254.
- Ghoshal, S., and Bartlett, C.A. (1988). Creation, Adoption, and Diffusion of Innovations by Subsidiaries of Multinational Corporations. *Journal of International Business Studies*, Vol. 19, Iss. 3, pp. 365-388.

- Ghoshal, S., and Bartlett, C.A. (1990). The Multinational Corporation as an Interorganizational Network. *Academy of Management Review*, Vol. 15, Iss. 4, 603-625.
- Ghoshal, S., and Nohria, N. (1989). Internal Differentiation within Multinational Corporations. *Strategic Management Journal*, Vol. 10, Iss. 4, pp. 323-337.
- Ghoshal, S., and Westney, D.E. (1993). Introduction and Overview. In: S. Ghoshal and D.E. Westney, eds. *Organization Theory and the Multinational Corporation*, New York: St. Martin's Press, Inc., pp. 1-23.
- Goldstein, K.M., and Jennings, M.K. (2002). The Effect of Advance Letters on Cooperation in a List Sample Telephone Survey. *Public Opinion Quarterly*, Vol. 66, Iss. 4, pp. 608-617.
- Gomez, C., and Sanchez, J.I. (2005). Human Resource Control in MNCs : A Study of the Factors Influencing the Use of Formal and Informal Control Mechanisms. *International Journal of Human Resource Management*, vol. 16, Iss. 10, pp. 1847-1861.
- Grant, R.M. (1996). Toward a Knowledge-Based Theory of the Firm. *Strategic Management Journal*, Vol. 17, Special Issue, pp. 109-122.
- Groot, T.L.C.M., and Merchant, K.A. (2000). Control in International Joint Ventures. *Accounting, Organizations and Society*, Vol. 25, Iss. 6, pp. 579-607.
- Gupta, A.K., and Govindarajan, V. (1991). Knowledge Flows and the Structure of Control within Multinational Corporations. *Academy of Management Review*, Vol. 16, Iss. 4, pp. 768-792.
- Harzing, A-W. (1999). *Managing the Multinationals: An International Study of Control Mechanisms*. Cheltenham: Edward Elgar.
- Harzing, A-W. (2001). An Analysis of the Functions of International Transfer of Managers in MNCs. *Employee Relations*, Vol. 23, Iss. 6, pp. 581-598.
- Harzing, A-W., and Sorge, A. (2003). The Relative Impact of Country of Origin and Universal Contingencies in Internationalization Strategies and Corporate Control in Multinational Enterprises: Worldwide and European Perspectives. *Organization Studies*, Vol. 24, Iss. 2, pp. 187-214.
- Harzing, A-W., Sorge, A.M., and Paauwe, J. (2002). Headquarters-Subsidiary Relationships in Multinational Companies: A British-German Comparison. In: M.Geppert, D. Matten, and K. Williams, eds. *Challenges for European*

*Management in a Global Context – Experiences from Britain and Germany.*  
New York: Palgrav, pp. 96-118.

- Hedlund, G. (1981). Autonomy of Subsidiaries and Formalization of Headquarters-Subsidiary Relationships in Swedish MNCs. In: L. Otterbeck, ed. *The Management of Headquarters-Subsidiary Relationships in Multinational Corporations*, Hampshire: Gower, pp. 25-78.
- Hedlund, G. (1986). The Hypermodern MNC – A Heterarchy?. *Human Resource Management*, Vol. 25, Iss. 1, pp. 9-35.
- Hofstede, G. (1980). *Culture's Consequences*. Beverly Hills: Sage.
- Hofstede, G., Neuijen, B., Ohayv, D.D., and Sanders, G. (1990). Measuring Organizational Cultures: A Qualitative and Quantitative Study Across Twenty Cases. *Administrative Science Quarterly*, Vol. 35, Iss. 2, pp. 286-316.
- Jaeger, A.M. (1982). Contrasting Control Modes in the Multinational Corporation: Theory, Practice, and Implications. *International Studies of Management and Organization*, Vol. 12, Iss. 1, pp. 59-82.
- Jaeger, A.M. (1983). The Transfer of Organizational Culture Overseas: An Approach to Control in the Multinational Corporation. *Journal of International Business Studies*, Vol. 14, Iss. 2, pp. 91-114.
- Jensen, M.C., and Meckling, W.H. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, Vol. 3, Iss. 4, pp. 305 – 360.
- Johanson, J., and Wiedersheim-Paul, F. (1975). The Internationalization of the Firm: Four Swedish cases. *Journal of Management Studies*, Vol. 12, Iss. 3, pp. 305-322.
- Kallinikos, J. (1984). *Control and Influence Relationships in Multinational Corporations: The Subsidiary's Viewpoint*. Ph.D. Dissertation, Uppsala University, Sweden.
- Keegan, W.J. (1972). Multinational Marketing Control. *Journal of International Business Studies*, Vol. 3, Iss. 2, pp. 33-47.
- Kim, K., Park, J-H., and Prescott, J.E. (2003). The Global Integration of Business Functions: A Study of Multinational Businesses in Integrated Global Industries. *Journal of International Business Studies*, Vol. 34, Iss. 4, pp. 327-344.

- Kogut, B. & Singh, H. (1988). The Effect of National Culture on the Choice of Entry Mode. *Journal of International Business Studies*, Vol. 19, Iss. 3, pp. 411-423.
- Lubatkin, M., Calori, R., Very, P., and Veiga, J.F. (1998). Managing Mergers across Borders: A Two-Nation Exploration of a Nationally Bound Administrative Heritage. *Organization Science*, Vol. 9, Iss. 6, pp. 670-684.
- Luo, Y., and Shenkar, O. (2006). The Multinational Corporation as a Multilingual Community: Language and Organization in a Global Context. *Journal of International Business Studies*, Vol. 37, Iss.3, 321-339.
- Marschan, R., Welch, D., and Welch, L. (1996). Control in Less-hierarchical Multinationals: the Role of Personal Networks and Informal Communication. *International Business Review*, Vol. 5, Iss. 2, pp. 137-150.
- Marschan, R., Welch, D., and Welch, L. (1997). Language: The Forgotten Factor in Multinational Management. *European Management Journal*, Vol. 15, Iss. 5, pp. 591-598.
- Marschan-Piekkari, R., Welch, D., and Welch, L. (1999a). In the Shadow: The Impact of Language on Structure, Power and Communication in the Multinational. *International Business Review*, Vol. 8, Iss. 4, pp. 421-440.
- Marschan-Piekkari, R., Welch, D., and Welch, L. (1999b). Adopting a Common Corporate Language: IHRM Implications. *The International Journal of Human Resource Management*, Vol. 10, Iss. 3, pp. 377-390.
- Martinez, J.I., and Jarillo, J.C. (1989). The Evolution of Research on Coordination Mechanisms in Multinational Corporations. *Journal of International Business Studies*, Vol. 20, Iss. 3, pp. 489-514.
- Martinez, J.I., and Jarillo, J.C. (1991). Coordination Demands of International Strategies. *Journal of International Business Studies*, Vol. 22, Iss. 3, pp. 429-444.
- Mascarenhas, B. (1984). The Coordination of Manufacturing Interdependence in Multinational Companies. *Journal of International Business Studies*, Vol. 15, Iss. 3, pp. 91-106.
- Merriam-Webster Online (2005). [www.m-w.com](http://www.m-w.com) [accessed 13 October 2005]
- Monks, K. (1996). Global or Local? HRM in the Multinational Company: The Irish Experience. *International Journal of Human Resource Management*. Vol. 7, Iss. 3, pp. 721-735.

- Nahapiet, J., and Ghoshal, S. (1998). Social Capital, Intellectual Capital and the Organizational Advantage. *Academy of Management Review*, Vol. 23, Iss. 2, pp. 242-266.
- Negandhi, A.R., and Baliga, B.R. (1981). Internal Functioning of American, German and Japanese Multinational Corporations. In: L. Otterbeck, ed. *The Management of Headquarters-Subsidiary Relationships in Multinational Corporations*, Hampshire: Gower, pp. 107-120.
- Nobel, R., and Birkinshaw, J. (1998). Innovation in Multinational Corporations: Control and Communication Patterns in International R&D Operations. *Strategic Management Journal*, Vol. 19, Iss. 5, pp. 479-496.
- Nohria, N., and Ghoshal, S. (1994). Differentiated Fit and Shared Values: Alternatives for Managing Headquarters-Subsidiary Relations. *Strategic Management Journal*, Vol. 15, Iss. 6, pp. 491-502.
- O'Donnell, S. (1999). Compensation Design as a Tool for Implementing Foreign Subsidiary Strategy. *Management International Review*, Vol. 39, Iss. 2, pp. 149-165.
- O'Donnell, S.W. (2000). Managing Foreign Subsidiaries: Agents of Headquarters, or an Interdependent Network. *Strategic Management Journal*, Vol. 21, Iss. 5, pp. 525-548.
- Ouchi, W.G. (1977). The Relationship between Organizational Structure and Organizational Control. *Administrative Science Quarterly*, Vol. 22, Iss. 1, pp. 95-113.
- Ouchi, W.G. (1980). Markets, Bureaucracies, and Clans. *Administrative Science Quarterly*, Vol. 25, Iss. 1, pp. 129-141.
- Otterbeck, L. (1981). Concluding Remarks – And a Review of Subsidiary Autonomy', In: L. Otterbeck, ed. *The Management of Headquarters-Subsidiary Relationships in Multinational Corporations*. Hampshire: Gower, pp. 337-343.
- Paterson, S.L., and Brock, D.M. (2002). The Development of Subsidiary-Management Research: Review and Theoretical Analysis, *International Business Review*, Vol. 11, Iss. 2, pp. 139-163.
- Pfeffer, J., and Salancik, G.R. (1978). *The External Control of Organizations – A Resource Dependence Perspective*. New York: Harper & Row Publishers.
- Prahalad, C.K., and Doz, Y.L. (1981). An Approach to Strategic Control in MNCs. *Sloan Management Review*, Vol. 22, Iss. 4, pp. 5-13.

- Pucik, V., and Katz, J.H. (1986). Information, Control, and Human Resource Management in Multinational Firms. *Human Resource Management*, Vol. 25, Iss. 1, pp. 121-132.
- Pugh, D.S., Hickson, D.J., Hinings, C.R., and Turner, C. (1968). Dimensions of Organization Structure. *Administrative Science Quarterly*, Vol. 13, Iss. 1, pp. 68-105.
- Schwier, J. (2005). Partner, Boston Consulting Group. Presentation at Helsinki School of Economics, Helsinki, April 20<sup>th</sup>, 2005.
- Selmer, J., and de Leon, C.T. (2002). Parent Cultural Control of Foreign Subsidiaries through Organizational Acculturation: A Longitudinal Study. *International Journal of Human Resource Management*, Vol. 13, Iss. 8, pp. 1147-1165.
- Shenkar, O. (2001). Cultural Distance Revisited: Towards A More Rigorous Conceptualization and Measurement of Cultural Differences. *Journal of International Business Studies*, Vol. 32, Iss. 3, pp. 519-535.
- Sippola, A., and Smale, A. (2005). The Global Integration of Diversity Management: A Longitudinal Case Study. Paper presented at the 31<sup>st</sup> Annual Conference of the European International Business Academy, Oslo, Norway, December 10-13, 2005.
- Snodgrass, C.R., and Szewczak, E.J. (1990). The Substitutability of Strategic Control Choices: An Empirical Study. *Journal of Management Studies*, Vol. 27, Iss. 5, pp. 535-553.
- Sullivan, D. (1992). Organization in American MNCs: The Perspective of the European Regional Headquarters. *Management International Review*, Vol. 32, Iss. 3, pp. 237-250.
- Sunaoshi Y., Kotabe, M., and Murray, J.Y. (2005). How technology transfer really occurs on the factory floor: A case of a major Japanese automotive die manufacturer in the United States. *Journal of World Business*. Vol. 40, Iss. 1, pp. 57-70.
- Taggart, J.H. (1997). Autonomy and Procedural Justice: A Framework for Evaluating Subsidiary Strategy. *Journal of International Business Studies*, Vol. 28, Iss. 1, pp. 51-76.
- Taggart, J.H., and Hood, N. (1999). Determinants of Autonomy in Multinational Corporation Subsidiaries. *European Management Journal*, Vol. 17, Iss. 2, pp. 226-236.

- Tannenbaum, A.S. (1962). Control in Organizations: Individual Adjustment and Organizational Performance. *Administrative Science Quarterly*, Vol. 7, 2, pp. 236-257.
- Tietze, S., Cohen, L., and Musson, G. (2003). *Understanding Organizations through Language*. London: Sage.
- UNCTAD – United Nations Conference on Trade and Development (2005). [www.unctad.org](http://www.unctad.org). [accessed 14 October 2005]
- Vaara, E., Tienari, J., and Hammarkvist, K.-O. (2003). Understanding the Organizational Implications of Industrial Restructuring. *Nordiske Organisasjonsstudier/ Nordic Organization Studies*, Vol. 5, Iss. 1, pp. 3-10.
- Vachani, S. (1999). Global Diversification's Effect on Multinational Subsidiaries' Autonomy, *International Business Review*, Vol. 8, Iss.5-6, pp. 535-560.
- Walker, B.J., and Burdick, R.K. (1977). Advance Correspondence and Error in Mail Surveys. *Journal of Marketing Research*, Vol. 14, Iss. 3, pp. 379-382.
- Webster, C. (1997). Effects of Researcher Presence and Appeal in Response Quality in Hand-Delivered Self-Administered Surveys. *Journal of Business Research*, Vol. 38, Iss. 2, pp. 105-114.
- Welge, M.K. (1981). The Effective Design of Headquarters-Subsidiary Relationships in German MNCs. In: L. Otterbeck, ed. *The Management of Headquarters-Subsidiary Relationships in Multinational Corporations*. Gower: Hampshire, pp. 79-106.
- Welch, C., Marschan-Piekkari, R., Penttinen, H., and Tahvanainen, M. (2002). Corporate Elites as Informants in Qualitative International Business Research. *International Business Review*, Vol. 11, Iss. 5, pp. 611-628.
- Welch, D., Welch, L., and Piekkari, R. (2005). Speaking in Tongues – The Importance of Language in International Management Processes. *International Studies of Management and Organization*, Vol. 35, Iss. 1, pp. 10-27.
- Youssef, S.M. (1975). Contextual Factors Influencing Control Strategy of Multinational Corporations. *Academy of Management Journal*, Vol. 18, Iss. 1, pp. 136-143
- Zack, M.H. (1993). Interactivity and Communication Mode Choice in Ongoing Management Groups. *Information System Research*, Vol. 4, Iss. 3, pp. 207-239.