The Consequences of Subsidiaries’ Strategic Initiatives: A Resource-Dependence Perspective

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Abstract: In this paper, we adopt a resource-dependence perspective to shed light on the consequences of subsidiary’s strategic initiatives. We investigate how a subsidiary’s strategic initiatives contribute to its bargaining power, and how headquarters intervention – through granting attention or monitoring – affects the realization of its goals. Using structural equation modeling, our hypotheses are tested by drawing on a sample of subsidiaries located in three different countries. Our results show that subsidiaries are not able to increase their inter-unit power through initiatives unless they get headquarters attention. Subsidiary initiatives have a direct effect on subsidiary autonomy but the caveat is that initiatives also evoke headquarters monitoring, which in turn decreases the subsidiary’s autonomy.

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INTRODUCTION

In recent scholarly and managerial writings there is plenty of evidence on foreign affiliates of multinational corporations that take an active part in the development of their own strategy as well as impact the overall corporate strategy (Galunic and Eisenhardt, 1996; Birkinshaw, 1997; Birkinshaw and Hood, 1998; Burgelman, 1983; Bartlett and Ghoshal, 1989; Rugman and Verbeke, 2001; Cantwell and Mudambi, 2005). For example, NCR’s Scottish subsidiary developing the automatic teller machine, GE’s Canadian subsidiary developing a new business unit (Birkinshaw and Fry, 1998), or T-Mobile’s US subsidiary innovating in wireless technology (Ambos and Schlegelmilch, 2005). And there exists further anecdotal evidence on subsidiaries that have independently developed new products for international markets, prepared acquisitions of other companies or attracted major investments. Such entrepreneurial undertakings that occur outside the home country of the multinational corporation and allow the subsidiary to tap into new opportunities have been summarized under the label of subsidiary initiatives (Birkinshaw and Ridderstrale, 1999; Birkinshaw, 1997).

While some of these subsidiaries have gained world-wide reputation and became lead units in their companies (Birkinshaw, 1996; Holm and Pedersen, 2000), other initiatives have been blocked by the corporate parent or failed altogether (Birkinshaw and Fry, 1998). Indeed the results initiatives have for subsidiaries are very mixed and despite the fact that corporate entrepreneurship is recognized as one of the key value drivers in recent conceptualizations of the MNC (Burgelman, 1983; Bartlett and Ghoshal, 1989; Rugman and Verbeke, 2001; Cantwell and Mudambi, 2005) we know relatively little about the consequences subsidiaries’ of entrepreneurial initiatives.
The majority of existing studies on subsidiary entrepreneurship has focused on the antecedents rather than the effects of initiatives (Bower, 1970; Burgelman, 1983, Birkinshaw and Hood, 1998, Birkinshaw et al., 1998), but scholars highlighted that subsidiary initiatives provide important benefits for the subsidiary, such as charter changes in the subsidiary’s favor (Galunic and Eisenhardt, 1996; Birkinshaw, 1997; Dörrenbächer and Gammelgaard, 2006) and result in increases in subsidiary capabilities and informal headquarters-subsidiary communications (Birkinshaw and Ridderstrale, 1999). While the primary purpose of initiatives is to enhance the subsidiary’s position (Taggart, 1997; Birkinshaw and Lingblad, 2005), such undertakings may also increase the contributory role of the subsidiary (Birkinshaw et al, 1998) and benefit the entire organization as they lead to the transfer of proprietary capabilities within the corporate network (Rugman and Verbeke, 2001; Cantwell and Mudambi, 2006). From headquarters’ perspective, however, it is often difficult to judge, whether subsidiary initiatives have the potential to create value for the whole organization or whether they only serve the subsidiary’s self-interest. Thus, headquarters’ role to leverage the benefits and organizational threats from subsidiary entrepreneurship has been compared to the “immune system”, which filters and often rejects the initiative as an alien body (Birkinshaw and Ridderstrale, 1999), but our understanding of this process is rather scarce and practically no attempt has been made to explain this phenomenon theoretically.

Our paper aims to shed light on the consequences of subsidiary’s strategic initiatives, i.e. successful bids for corporate investments in the subsidiary’s country, acquisitions led by the subsidiary, or new corporate investments in R&D and new product development, by building on resource-dependence theory. The study focuses on subsidiary entrepreneurship as a central source of a subsidiary’s bargaining power and addresses the salient question which role headquarters
play in leveraging subsidiary initiatives. Recently, scholars have increasingly reverted to resource-dependence theory (Pfeffer and Salancik, 1978) to explain inter-unit relationships within the MNC (e.g. Ambos and Schlegelmilch, 2007), as it is best suited to include multiple dependence relationships without being restricted to dyadic or hierarchical relationships (Mudambi and Pedersen, 2007). Further, it provides a theoretical basis for a political view of the firm, which takes into account shifting political coalitions (March and Simon, 1958; Forsgren et al., 2005) and internal competition within the MNC (Birkinshaw and Hood, 1998; Birkinshaw and Lingblad, 2005). We use this theoretical framework to conceptualize subsidiary initiatives as a basis of bargaining power (in terms of resource-dependence) because subsidiaries that are controlling resources which are potentially valuable for the MNC will be able to exert the strongest influence on corporate decision making (Andersson, et al. 2007).

The contributions of this research are twofold: For one, we add to a stream of literature, which conceptualizes subsidiaries as influential and powerful actors in their own right (Nohria and Ghoshal, 1994; Hedlund, 1994; Birkinshaw et al., 1998), but has so far largely failed to explain the sources of subsidiary power and the mechanisms of bargaining with headquarters. We argue that subsidiaries strive for two goals, which have often been treated as separate or even contradictory outcomes in prior research: autonomy and inter-unit power. Second, by modeling headquarters reaction to subsidiary initiatives, we also enhance our understanding of headquarters’ role in this process and critically review headquarters’ value-adding function.

The paper is structured as follows: First we discuss the theoretical foundations of the initiative process and subsidiaries’ bargaining power in the MNC. Second, we include the role of headquarters and develop hypotheses about the role they may play when confronted with
subsidiary initiatives. Subsequently we describe our methodology, data collection and relevant constructs before we test the proposed structural equation model. The paper closes with a discussion and conclusion of our findings.

THEORETICAL BACKGROUND

Conceptualizing the Initiative Process in the MNC

The decreasing dependence of subsidiaries on the parent (Prahalad and Doz, 1981) has led scholars to conceptualize the multinational corporation (MNC) as a network of semi-autonomous units, which control differentiated stocks of resources (e.g. Bartlett and Ghoshal, 1989; Nohria and Ghoshal, 1994, Hedlund, 1986). This view has had important implications for the role of subsidiaries, headquarters and their relationships. Subsidiaries are seen as semi-autonomous actors that set strategic priorities and have the ability to influence the scope of their own operations as well as firm-wide strategy. As Forsgren et al. (1999) put it: “A common assumption in the recent literature on headquarters-subsidiaries relations is that some subsidiaries in the MNC will have, or ought to have, a strategic role in the organization, which goes beyond their local undertakings and is quite different from the role of a mere implementer of the parent company’s decision.” Representing the flip side of the coin, headquarters are perceived as an orchestrator of knowledge and resources (Foss and Pedersen, 2002) rather than an authoritarian planner. Thus, their task is to facilitate and coordinate the exchange of knowledge and best practices within the network, engage in portfolio management and investment planning, and craft the strategic agenda jointly with subsidiaries. Headquarters-subsidiary relationships are consequently characterized as mixed-motive dyads, where both parties are taking bargaining positions and are trying to optimize their own agenda (Ghoshal and Nohria, 1989; Andersson et al., 2007). These
developments have not only shifted the locus of organizational decision making in the MNC but also raised important questions regarding the value creating role of headquarters.

Although no agreement has been reached on what ultimately causes a subsidiary to increase its importance in the MNC (Forsgren et al., 1999), entrepreneurial initiatives have been found to be among the most important mechanisms (Birkinshaw and Hood, 1998; Cantwell and Mudambi, 2005; Rugman and Verbeke, 2001). From a resource dependence perspective, subsidiary initiatives represent increases in a subsidiary’s bargaining power as “power is held by divisions that are the most important for coping with and solving the critical problems of the organization that arise from its environment.” (Pfeffer and Salancik, 1977, p. 16) Consequently, they may result in the control of critical assets and resources and headquarters’ dependence on subsidiaries is likely to increase.

If we conceptualize initiatives as a strategy process model (e.g. Burgelman, 1993, Noda and Bower, 1996), subsidiaries start by developing unique resources and relationships over time (Prahalaad and Doz, 1981), which provide a basis for their evolution within the MNC (Birkinshaw and Hood, 1998). The subsidiary’s ability to raise resources and influence the firm’s activities through relationships with other actors inside and outside the MNC will determine its relative strength (Andersson and Pahlberg, 1997) and its potential for role enhancement (or charter gain) in the MNC (Birkinshaw and Hood, 1998). However, as Nohria and Ghoshal (1994, p. 492) argue: “Local interests of subsidiaries may not always be aligned with those of the headquarters or the MNC as a whole.” And, as subsidiaries undertake initiatives, headquarters become aware of these actions and get involved. Thus, the subsidiaries’ gain from the initiative, expressed through its role within the MNC, is shaped by a headquarters-subsidiary bargaining process.
(Coff, 1999; Mudambi and Navarra, 2004). The initiative process within the MNC is visualized in Figure 1.

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

**Manifestations of Subsidiaries’ Bargaining Power**

From a resource-dependence perspective, subsidiaries are increasing their bargaining power through initiatives as they rise beyond their scope and other MNC units become more dependent on them. Traditionally defined as ‘the ability to get others to do something that they would otherwise not do.’ (Dahl, 1957), the issue of (sub-unit) power has received increasing attention over the last years (Mudambi and Navarra, 2004; Ambos and Schlegelmilch, 2007, Andersson et al. 2007). While we posit that the overall objective of subsidiaries is to achieve *bargaining power* within the MNC (Mudambi and Navarra, 2004, Andersson et al., 2007), this strive for power may result in different manifestations in the firm.

For one, subsidiaries with strong bargaining power can resist headquarters’ attempts to control their resources in the internal capital market (Mudambi, 1999; Mudambi and Navarra, 2004). Thus, the greater the subsidiary’s resources, the greater headquarters’ dependence on the subsidiary - and the greater the subsidiary’s degree of autonomy (e.g. Prahalad and Doz, 1981, Roth and Nigh, 1992).1 Thus subsidiary autonomy is positively related to “getting the headquarters off the sub-unit’s back” (Ferner, 2000, p. 533) and the level of autonomy enjoyed or negotiated by the subsidiary has been identified as a critical parameter to determine the

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1 Subsidiary autonomy based on bargaining power is fundamentally different from autonomy based on discretion. In contrast to agency theory, subsidiaries with strong bargaining power have a degree of ‘ownership’ over decision rights rather than holding them at the pleasure of headquarters (see also Mudambi and Pedersen, 2007).
subsidiary’s position in the MNC network (e.g. Taggart, 1997, Birkinshaw and Morrison, 1995; Jarillo and Martinez, 1990; Ghoshal et al., 1994). While a subsidiary’s power in terms of its degree of independence (vis-à-vis headquarters) is certainly important and has been subject to a large stream of research, the often neglected flip side of a subsidiary’s power is its level of strategic influence over the MNC as a whole (Gaerber and Ambos, 2007).

The notion of strategic influence becomes particularly relevant if we depart from a hierarchical dyadic view of headquarters-subsidiary relationships (as advocated by agency theory O’Donnell, 2000; Eisenhardt, 1989) and acknowledge that relationships with peer-subsidiaries are equally important sources of power in the MNC (Bartlett and Ghoshal, 1989 etc). Inter-unit power, which affects the lateral relationships between peer subsidiaries, helps the unit to form coalitions and push its own agenda (March and Simon, 1958, Forsgren et al., 1999). These lateral relationships are also affected by subsidiary entrepreneurship because there is an internal competition for subsidiary charters in the MNC (Birkinshaw and Hood, 1998; Birkinshaw and Lingblad, 2005).

In short, subsidiaries also aim to maximize their influence on other units – or, put the other way round, others dependence on them (Astley and Sachdeva, 1984; Pfeffer and Salancik, 1978). And a strong power base within the organization will also positively influence the subsidiary’s ability to take independent actions vis-à-vis headquarters (Andersson and Forsgren, 1996; Young and Tavares, 2004).

Despite their relatedness, both forms of subsidiary bargaining power, autonomy and inter-unit power, are driven by different dependence relationships (Gaerber and Ambos, 2007). While a subsidiary’s autonomy is a function of its positive net dependence vis-à-vis HQ and relates to the subsidiary’s ability to remain control over its own resource base (Mudambi and Navarra, 2004),
its degree of strategic influence is largely reflected in its ability to influence the future direction of the MNC as a whole (Andersson et al. 2007). In sum, subsidiaries that build up their bargaining power vis-à-vis headquarters through subsidiary initiatives are likely to increase their autonomy as well as inter-unit power.

\[ H1: \text{Subsidiary entrepreneurship has a positive effect on the subsidiary’s autonomy.} \]
\[ H2: \text{Subsidiary entrepreneurship has a positive effect on the subsidiary’s inter-unit power.} \]

**The Role of Headquarters in the Initiative Process**

Research that focused on strategically influential subsidiaries has usually attributed this position to specific capabilities, market characteristics or the unit’s position in the network (e.g. Center of Excellence) (Holm and Pedersen, 2000; Kümmerle, 1999, Frost et al., 2001). Consequently, the role of headquarters in this process has either been neglected or has been reduced to a resource allocation role (Birkinshaw and Hood, 1998; Andersson et al., 2007) so that the question whether headquarters’ add value by supporting or corrupting subsidiary initiatives remained in the dark. In line with our theoretical framing, we suggest that headquarters’ power is equally based on the control of strategic resources within the organization and is often expressed in terms of budgets and resource allocations (Pfeffer and Moore, 1980; Mudambi and Navarra, 2004).

Building on an orchestrator role for headquarters, we would assume that headquarters’ main interest is an efficient allocation of resources that allows the corporation to exploit local opportunities while maintaining a global focus (Bartlett and Ghoshal, 1989; Nohria and Ghoshal, 1994). As subsidiaries are taking initiatives beyond their assigned area of control and competence, they are stretching their power base and will not remain unnoticed, resulting in some
form of reaction from headquarters’ part (Birkinshaw and Fry, 1998). From a resource-dependence perspective, headquarters may try to limit the subsidiary’s reach for higher bargaining power by monitoring them vigorously, and thus increasing their dependence on headquarters. Alternatively, headquarters may also increase subsidiary’s dependence by endorsing the initiative and supporting it. As the initiative becomes a corporate priority and the subsidiary’s undertaking is legitimized (for a similar argument in inter-organizational relationships, see also Podolny and Stuart, 1995; Stuart et al., 1999). Thus, two scenarios seem likely: Headquarters either act as the “corporate immune system” (Birkinshaw et al., 1999) and restrict the autonomous actions of subsidiaries or it may realize the value of certain initiatives for the corporation and grant supportive attention to them (Bouquet and Birkinshaw, 2008; Birkinshaw et al., 2007). We will develop each of these perspectives in turn.

**Monitoring Subsidiaries**

It is well documented in the corporate entrepreneurship literature that new ideas often encounter resistance from established power bases (e.g. Burgelman, 1983). Thus, as subsidiaries that gain power will naturally evoke resistance from headquarters, a subsidiary’s competence development in the form of initiatives is likely to create tensions between headquarters and subsidiaries (Mudambi and Navarra, 2004; Birkinshaw and Ridderstrale, 1999). In addition to the threat of potential deviation from the overall MNC strategy there is an eminent threat of subsidiaries becoming autonomous barons (Taggart, 1997). Headquarters are likely to react by increased monitoring of the focal subsidiary in order to prevent any clandestine and unexpected behavior (Eisenhardt, 1989). Consequently we propose that subsidiary entrepreneurship will trigger headquarters’ monitoring.
**H3a:** Subsidiary entrepreneurship has a positive effect on headquarters monitoring of the subsidiary.

Monitoring of subsidiaries constitutes an expression of headquarters’ power that constrains the subsidiary’s bargaining power and limits its rent-seeking opportunities. While a high degree of autonomy contributes to expanding the flexibility needed to cope with the local environment, adapt business practice to local demands, and create and diffuse innovations (Bartlett and Ghoshal, 1989; Harzing, 1999; etc.), monitoring decreases the subsidiary’s scope of independent action and increased its dependence on headquarters. Consequently, headquarters’ monitoring will limit the extent of the subsidiaries’ autonomy.

**H3b:** Headquarters monitoring has a negative effect on the subsidiary’s autonomy.

**Granting Attention**

Subsidiary initiatives also prompt headquarters managers to attend to issues they would otherwise not attend to. To counter the subsidiary’s attempts to increase power, headquarters may decide to legitimize the initiative and thus, appropriate its value for the organization. While this strategy will increase the subsidiary’s dependence on headquarters, subsidiaries may actively seek headquarters’ attention as, by definition, subsidiaries “entrepreneurially” deal with resources they do not entirely control (Kirzner, 1973; Stevenson and Jarillo, 1990) and need to solicit headquarters’ consent. Thus, in many respects, the subsidiary initiative process can be compared to issue selling (see Dutton and Ashford, 1993; Ling et al., 2005), which focuses on the mobilization of resources around new ideas through middle managers who aim to attract top managers’ attention. Subsidiary initiatives prompt headquarters managers to attend to issues and
an indicator of (issue selling) success is the amount of time and attention headquarters devote to the initiative. Thus, we hypothesize:

**H4a:** Subsidiary entrepreneurship has a positive effect on headquarters attention granted to the subsidiary.

While headquarters attention decreases the subsidiary’s independence, it may still enable the subsidiary to increase its bargaining power vis-à-vis peer subsidiaries. Attention ‘implies withdrawal from some things in order to deal effectively with others’ (James, 1890), and as such attention to one subsidiary’s initiatives automatically means less attention to others (Ocasio, 1997, Bouquet and Birkinshaw, 2008, Birkinshaw et al., 2007). Characterized by bounded rationality and limited information processing capacity, headquarters managers develop informal procedures or heuristics to help them evaluate and choose between the multitudes of initiatives that they are asked to lend their support to (Tversky and Kahneman, 1974; Dutton and Ashford, 1993; Sharma, 2000). Consequently, only few issues will get attention and be endorsed by the entire organization. Through such a legitimating process (Podolny and Stuart, 1995; Stuart et al., 1999), headquarters maintains power vis-à-vis the subsidiary, but at the same time enable the subsidiary to increase its bargaining power vis-à-vis peer subsidiaries. Even if headquarters do not immediately contribute financial resources to the project the identity and reputation effect is an important success factor (Ling et al., 2005) and will help to enhance the unit’s position within the MNC. Thus, through headquarters’ attention, subsidiaries will be able to augment their strategic influence in the organization, i.e. increase inter-unit power.

**H4b:** Headquarters attention has a positive effect on the subsidiary’s inter-unit power.
Our hypotheses regarding the initiative process are summarized in Figure 2. In the next section we will confront this model with our empirical data.

***** Insert Figure 2 here ****

METHODOLOGY

Sample and Data Collection

Foreign-owned subsidiaries in three countries – Australia, Canada and the United Kingdom – served as a sample frame for this study. These three countries show high similarity in terms of culture, language and economic development and they seldom occupy central positions in the MNC network or have recently lost important positions in favor of emerging markets. Many studies on subsidiary roles and strategies have been set in the UK and in Canada (Science Council of Canada, 1980; Taggart, 1997; Birkinshaw, 1997; Birkinshaw and Hood, 1998), rendering this context especially interesting for our study.

We used the Directory of Corporate Affiliations in the UK and in Canada to draw a random sample of subsidiaries in each country. In Australia, the membership listing of International Management, a leading industry association, was used to create the sample. In total, 1400 CEOs of foreign-owned subsidiaries were approached using a standardized survey with minimal local adaptations. The questionnaire was carefully developed incorporating feedback from three academics, which identified questions that were vague, ambiguous or the source of possible bias. Subsequently, we eliminated or modified some of the initial survey items, and added others to the
revised instrument. In a second step, we attempted to minimize consistency artifacts by keeping the questionnaire relatively short (4 pages), varying the scale formats, and scattering questions pertaining to the same constructs throughout the questionnaire. In order to minimize the risk of social desirability bias we asked informants to answer survey questions in an indirect way from the current perspective of a group of managers rather than from their own. The confidentiality of informants was maintained by using serial numbers on the mail survey to keep track of respondents and non-respondents (Harzing, 2000).

Two follow up rounds and the promise to provide results (Dillman, 2000) aimed to ensure a high response. Across the three countries, a response rate of 20 percent was achieved. Additional data on company characteristics and strategic variables as well as the industry context in the respective markets was collected using the companies’ annual reports, The Directory of Foreign Affiliations, Compustat Global Vantage and OECD-databases. As it was impossible to obtain reliable data for all subsidiaries, we had to eliminate 26 cases, leading to a final sample size of 257.

The sample composition showed significant variance including 87 subsidiaries in Australia, 85 in Canada and 85 in the UK. The subsidiaries represented 224 different corporate parents, with sales ranging from $12 million to $92 billion, with the average parent sales being $2.8 billion (s.d. = 7.2 billion). The most common parent company nationality by far was the United States (86), followed by France (30), Germany (28), and Japan (23). To estimate the likelihood of a non-response bias, we examined whether respondents and non-respondents differed significantly in terms of parent nationality, size and turnover, but no significant difference was found. Moreover, we performed a time trend extrapolation test (Armstrong and Overton, 1977) as an additional
check of non-response bias. Again, this analysis indicated no significant statistical difference, providing additional confidence in the representativeness of our sample.

**Construct Analysis**

The hypothesized model shown in Figure 2 was empirically tested using structural equation modeling with LISREL 8.51. The validity of LISREL-models is estimated by taking into account the nomological validity, i.e., the validity of the entire model with the causal relations specified (see, e.g. Anderson and Gerbing, 1988; Bollen, 1989; Jöreskog and Sörbom, 1993; Bollen and Long, 1993). Prior to carrying this estimation out, it is important to assess the independency and homogeneity of the constructs, i.e., their discriminant - and convergent validity. That is, the researcher must examine the consistency of the constructs included in the model, and determine whether the constructs are unconnected to each other. First, we will describe the operationalization of the constructs included, and then we will evaluate the different forms of validity.

*Subsidiary Entrepreneurship.* The operationalization of this construct was adapted from Birkinshaw et al. (1998). The scale included three items and referred to various aspects of subsidiary initiatives. The first considered successful bids for corporate investments in the subsidiary’s country, the second was related to the acquisitions in the subsidiary’s country led by the subsidiary management and the third was regarding new corporate investments in R&D or manufacturing. Managers had to assess ‘To what extent have the following activities occurred in your subsidiary over the past 5 years’ on a 7-point scale (from 1 = Never to 7 = Plentifully).
Table 1 shows that the mean values of the three indicators employed in the construct are 3.35, 2.47 and 2.81 and the respective standard deviations were 1.91, 1.86 and 1.78.

**Headquarters’ Monitoring.** To capture the headquarters’ monitoring of the subsidiary we asked the subsidiary CEO to indicate how often headquarters reviewed the subsidiary’s Budgeting process, Resource allocation and Capital equipment purchases on a 7-point scale ranging from 1= daily, 4= monthly to 7= less than once a year. The scale was reversed. The mean values and standard deviations, within parenthesis, of the three indicators used for this construct were 2.39 (0.81), 2.21 (1.10) and 2.55 (1.15).

**Headquarters’ Attention.** We used a 3-item scale asking respondents to indicate how much attention their subsidiary received compared to (a) key Asian markets, such as China, (b) key regional markets and (c) comparably sized other markets around the world (Bouquet and Birkinshaw, 2008). The phrasing of the question was as follows; ‘Relative to other subsidiaries, how successful is your subsidiary in gaining attention from head-office’ and the scale reached from 1= Much lower, 4= about the same, through to 7= Much higher. The mean values for the three indicators chosen to represent the construct Headquarters’ Attention were 4.15, 3.78 and 3.68. The standard deviations were 1.38, 1.74 and 1.57 respectively.

**Subsidiary Autonomy.** Autonomy was defined as the extent to which the subsidiary has operational and strategic decision-making authority vis-à-vis headquarters. We assessed a subsidiary’s level of autonomy using a three-item scale adopted from (Roth and Morrison, 1992).
The respondents answered the question, “How much autonomy does the subsidiary have in terms of making the following decisions”, on a 5-point scale where 1 = ‘The subsidiary’s opinion is not asked; decision is explained to subsidiary by corporate headquarters’; 3 = ‘Proposal by corporate headquarters, and the subsidiary’s opinion carries a lot of weight’ through to 5 = ‘Decision made by the subsidiary without much consultation with headquarters’. The questions referred to new market entries, investments in major plant or equipment to expand manufacturing capacity, and increase (beyond budget) of expenditures for research and development. Indicators employed for this construct had mean values between 3.24 and 3.63 on a five point scale and the standard deviations were from 0.96 to 1.22, see Table 1.

**Inter-unit Power.** Subsidiary power was measured using a scale adapted from O’Donnell (2000) as used by Bouquet and Birkinshaw (2008). We asked respondents about influences of the focal subsidiary as well as other subsidiaries’ influences and created a measure by dividing other subsidiaries’ dependence on the focal subsidiary through the average of its input dependence. Specifically, we asked respondents to indicate, on seven-point scale ranging from 1 (‘to a very little extent’) to 7 (‘to a great extent’) whether: (a) the activities of this subsidiary influence the outcomes of other subsidiaries; (b) work in this subsidiary is connected to the work of other subsidiaries; (c) the activities of other subsidiaries influence the outcomes of this subsidiary; and (d) this subsidiary depends on the effective functioning of other subsidiaries to keep performing its own tasks effectively. The resulting measure was calculated as follows:

\[
\text{Item } a
\]

\[
\text{Inter-Unit Power} = \frac{\text{value of Item } a}{\text{average of other subsidiaries' dependence}}
\]
Consequently the construct Inter-unit power is a single item construct with the mean value of 0.94 and a standard deviation of 0.45 indicating that on average the studied subsidiaries are about the same or slightly lower than their peer subsidiaries in terms of power between them.

Table 1 includes the descriptive statistics for all measures described above.

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

**Model Testing**

To assess the convergent and discriminant validity a measurement model was created (Jöreskog and Sörbom, 1993). In Table 2, the convergent validity is judged by: the $R^2$-values measuring the strength of the linear relationships, the $t$-values, a significance test of each relationship between indicators and constructs in the model, and the factor loading for each indicator. The constructs in this model all have good convergent validity, i.e., they are homogeneous constructs. As can be seen in Table 2, the linearity of the relations between constructs and indicators is strong in all cases. From Table 2 we can also conclude that the $t$-values for all indicators are highly significant (lowest $t$-value 7.90) and that their factor loadings are strong (all are above 0.54).

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

Our set of latent constructs has good discriminant validity as key statistical estimates show only minor signs of uni-dimensionality. In two cases we controlled for the moderate error co-variance
that appeared between two indicator pairs, namely, ‘Increasing (beyond budget) expenditures for R&D’ (included in the construct ‘Subsidiary Autonomy’) and ‘Budgeting process’ (included in the construct ‘Headquarters’ Monitoring’) and ‘The amount of attention paid to us relative to comparably-sized markets in other parts of the world’ (included in the construct ‘Headquarters’ Attention’) and ‘Inter-unit power’. The error indicates that the indicators could belong to the same construct. However, as the error was moderate [0.11 (3.05) and -0.19 (-3.03)] in comparison to the convergent validity of the respective indicators (see Table 2), the indicators remained in the model.

The second step in the analytical process was to form the structural model by specifying the causal relations in accordance with the hypotheses. We tested single causal relations with $t$-values and factor loadings between the constructs in the model. We assessed the entire model using Chi-squares ($\chi^2$) (*normal theory weighted least squares*), degrees of freedom, and a probability estimate ($p$-value) that is a test of the non-significant distance between the data and the model, i.e., the nomological validity (Jöreskog and Sörbom, 1993).

**RESULTS**

A LISREL-analysis advances by performing repeated iterations to obtain a coherent representation of the empirical data. The purpose of LISREL analysis is to establish a model consisting of specified causal relations. When a specific relation cannot be verified, it is omitted from the subsequent estimation of the model (Bollen, 1989; Jöreskog and Sörbom, 1993). Thus, in our test, we generated a structural model that contained significant relationships corresponding to the stipulated hypotheses.
The first step of our analysis was to conduct a simultaneous test of all hypothesized relationships. The overall model was significant ($\chi^2_{(df57)} = 72.01, p = 0.087$), and the results revealed that five of the six relations were significant. The insignificant relation was Hypotheses 2, which was the one between ‘Subsidiary Entrepreneurship’ and ‘Inter-unit Power’ (factor loading = -0.04, $t$-value = -0.53). We omitted the relation and ran the model with Hypotheses 1, 3a, 3b, 4a and 4b in the next stage of the analysis. The resulting model was significant ($\chi^2_{(df58)} = 72.42, p = 0.096$) and all five of the remaining relations between the constructs were significant, as shown in Figure 2. The the RMSEA measure (Root Mean Square Error of Approximation) is <0.03, indicating a good fit (Browne and Cudeck, 1989).

Figure 3 reveals that five of the six relations were significant, and had the expected sign.

While we found a positive and significant relationship between subsidiary initiatives and autonomy (supporting our Hypothesis 1, factor loading = 0.27, $t$-value = 3.39), there was no direct significant relationship between subsidiary initiatives and inter-unit power leading us to reject Hypothesis 2 (factor loading = -0.04, $t$-value = -0.53). Our data indicates significant effects for headquarters’ responses to initiatives, which are reflected in our Hypotheses 3a/b and 4a/b. Particularly interesting is the indirect effect of subsidiary initiatives on inter-unit power through headquarters attention that was supported in the model (Hypotheses 4a, factor loading = 0.20, $t$-value = 2.37 and 4b, factor loading = 0.37, $t$-value = 3.75). Although subsidiary initiatives do not directly lead to an increase in inter-unit power, headquarters grant attention to entrepreneurial subsidiaries, which then enables subsidiaries to increase their power in the organization. Looking
at the flip side of the coin, *subsidiary initiatives* also leads to *headquarters monitoring* (supporting our Hypothesis 3a, factor loading = 0.18, *t*-value = 2.35). As a further consequence, *headquarters monitoring* leads to a decrease of subsidiary autonomy (supporting our Hypothesis 3b, factor loading = -0.17, *t*-value = -2.07). Taken together the results pertaining to Hypotheses 1, 3a and 3b, the data reveals a moderating effect of headquarters monitoring on the relationship of subsidiary entrepreneurship and autonomy.

As the subsidiaries included in our sample belong to different MNCs in three countries, impending problems regarding the generalization could arise due to a potential country bias affecting our results. To assess this risk we controlled for the subsidiary host country by conducting a jack-knife procedure on the model that we had obtained (see, for instance, Chatfield, 1988; Andersson et al., 2002). For this purpose, we excluded one country from the original sample to obtain a sub-sample. We then re-ran the model to determine if there were any significant changes in the original factor loadings between the relations. This procedure was repeated for each sub-sample (i.e., it was conducted three times), with each and every country in the sample being omitted from the sample in turn. None of these tests resulted in any significant changes in the factor loadings of the model; all the factor loadings received were well within the five percent significance level of the original factor loading obtained for the full model.

Another potential complicating factor is that the results could be driven by large subsidiaries. This factor was investigated by ranking the subsidiaries by size, then testing the model by, first, omitting 20 percent of the largest subsidiaries from the original sample and, afterwards, omitting 20 percent of the smallest subsidiaries, (*n* = 206 in both tests). The two groups were then tested as described above. In addition, we divided the sample in half, into ‘large’ (*n* = 128) and ‘small’ (*n* = 21).
subsidies and ran the same type of test. Neither of the tests resulted in any significant changes in the factor scores, indicating that subsidiary size does not affect the results of the model. Taken together, the tests conducted above revealed the model to be a robust one, where the factor scores between the constructs do not change significantly with the exclusion or inclusion of country and size.

**DISCUSSION**

This paper aimed to shed light on the consequences of subsidiary entrepreneurship. The phenomenon of subsidiary entrepreneurship has received increasing attention over the last years, which has been reflected in revised conceptualizations of the MNC (Bartlett and Ghoshal, 1989; Nohria and Ghoshal, 1994; Doz et al., 2001) and as well as in research on subsidiary strategy (Asakawa, 2001; Birkinshaw and Hood, 1998, Birkinshaw et al., 1998; Rugman and Verbeke, 2001; Mudambi and Cantwell, 2005). But, to the best of our knowledge, this study is the first to take a strong theoretical angle on the phenomenon by using resource-dependence theory as well as propose a rigorous empirical test based on a large sample of MNC subsidiaries.

Our study was concerned with the consequences of subsidiary entrepreneurship at several levels. First, we analyzed the immediate effects of initiatives for the subsidiary. While initiatives seem to have a direct positive effect on the level of the subsidiary’s autonomy, no effect on inter-unit power was found. Second, we included headquarters’ reaction to initiatives and found that subsidiary initiatives triggered both, headquarters’ monitoring and attention. Third, we examined the effect of monitoring and attention on the subsidiary’s inter-unit power and its autonomy respectively.
The probably most interesting finding is that inter-unit power could only be achieved if subsidiaries were granted headquarters attention – no direct relationship between initiatives and inter-unit power could be established. This finding points to the critical role of headquarters in the initiative process. As Birkinshaw and Ridderstrale (1999, p.151) put it: “If an initiative is to lead eventually to a new business activity for the corporation it seems logical that it needs to gain resource allocation, market approval and organizational legitimacy.” It also is line with a stream of literature that highlights the importance of cognitive facets in MNC relationships (Dutton and Ashford, 1993; Ocasio, 1997; Ling et al., 2005). A similar view has recently been advocated by Mudambi and Pedersen (2007) in the context of resource-dependency theory: They claim that bargaining power in the MNC is mostly based on assets or resources over which property rights are hard to define or enforce and parent ownership rights do not always translate into defensible property rights (see Foss and Foss, 2005). Thus, actors in the MNC also use cognitive factors, such as attention (Bouquet and Birkinshaw, 2008) to manage headquarters-subsidiary relationships.

The other finding worth highlighting is the moderating effect of headquarters’ monitoring on subsidiary autonomy. It presents the dilemma subsidiaries face when they undertake strategic initiatives, as they jeopardize the gained autonomy by evoking headquarters’ monitoring. Our results show a moderating – not a mediating – effect (Baron and Kenny, 1986), which means that the direct effect of initiatives on autonomy is only reduced but not completely substituted by headquarters’ monitoring. However, at this point we can only speculate on the net effect for the subsidiary: whether it pays off for a subsidiary to undertake initiatives in order to increase its autonomy, or will the burden of monitoring outweigh the gains.
LIMITATIONS AND CONCLUSION

This study does not come without limitations. First, although we draw on a large scale database of subsidiaries, the data is restricted to three countries: Australia, Canada and the United Kingdom. Surveys of emerging economies, such as India, China or the Central and Eastern European region may show different effects. While this is a clear limitation to the generalizability of our results, we would argue that fairly developed economies with a track record of entrepreneurial subsidiaries (Taggart, 1997; Birkinshaw, 1997; Birkinshaw and Hood, 1998) served as a useful sampling frame for a first investigation of this topic. Second, our research investigated headquarters-subsidiary relationships by drawing on the perspective of subsidiary managers. While a dyadic perspective, i.e. data from headquarters and subsidiaries, would be desirable, it is notoriously difficult to obtain such data using a survey method. A third limitation is the potential of common method bias, as the data was primarily drawn from a questionnaire including perceptual measures (Podsakoff and Organ, 1986). In the design of the survey as well as in the analysis great care was taken to limit and reveal potential common method variance. The confirmatory factor analyses presented earlier suggest that our results are unlikely to be a product of common method bias.

A few concluding remarks remain. The primary contribution of this paper was to introduce a resource-dependence perspective in order to provide a theoretical framing to headquarters-subsidiary relationships in general and to subsidiary entrepreneurship in particular. This theoretical lens enabled us to conceptualize the interdependencies of headquarters and subsidiaries in the initiative process and provide a new perspective to the field. In addition, we add to the literature on headquarters’ value adding role in this process – a perspective that has often been neglected in the subsidiary-focused stream of research.
REFERENCES


Figure 1: The Initiative Process

![Diagram of the Initiative Process]

**TABLE 1**

Descriptive statistics for the items used

<table>
<thead>
<tr>
<th>Constructs and Items</th>
<th>Descriptive statistics</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Minimum</th>
<th>Maximum</th>
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<tr>
<td>Subsidiary Entrepreneurship</td>
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<td>3.35</td>
<td>1.91</td>
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<td>SE2</td>
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<td>SE3</td>
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<td>1.00</td>
<td>7.00</td>
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<td>HA2</td>
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<td>1.74</td>
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<td>7.00</td>
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<td>HA3</td>
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<td>7.00</td>
</tr>
<tr>
<td>Headquarters’ Monitoring</td>
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<td>0.81</td>
<td>1.00</td>
<td>6.00</td>
</tr>
<tr>
<td></td>
<td>HE2</td>
<td>2.21</td>
<td>1.10</td>
<td>1.00</td>
<td>7.00</td>
</tr>
<tr>
<td></td>
<td>HE3</td>
<td>2.55</td>
<td>1.15</td>
<td>1.00</td>
<td>7.00</td>
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<td>Autonomy</td>
<td>SA1</td>
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<td>0.96</td>
<td>1.00</td>
<td>5.00</td>
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<td></td>
<td>SA2</td>
<td>3.44</td>
<td>1.01</td>
<td>1.00</td>
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<tr>
<td></td>
<td>SA3</td>
<td>3.24</td>
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<td>Inter-unit Power</td>
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<td>0.94</td>
<td>0.45</td>
<td>0.17</td>
<td>3.00</td>
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<td>Constructs and Indicators</td>
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<td>Loading</td>
<td>t-value</td>
<td>$R^2$-value</td>
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<td>--------</td>
<td>----------</td>
<td>---------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td><strong>Subsidiary Entrepreneurship</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>To what extent have the following activities occurred in your subsidiary over the past 5 years?</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[SE1] New products developed in the country and then sold internationally</td>
<td>0.91</td>
<td>14.46</td>
<td>0.83</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[SE2] Acquisitions of country companies led by subsidiary management</td>
<td>0.58</td>
<td>9.09</td>
<td>0.33</td>
<td></td>
<td></td>
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<tr>
<td>[SE3] New corporate investments (e.g. in R&amp;D or manufacturing) attracted by country management</td>
<td>0.71</td>
<td>11.20</td>
<td>0.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Headquarters’ Attention</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Relative to other subsidiaries, how successful is the country subsidiary in gaining attention from head-office?</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[HA1] The amount of attention paid to us relative to comparably-sized markets in other parts of the world is</td>
<td>0.62</td>
<td>7.97</td>
<td>0.38</td>
<td></td>
<td></td>
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<tr>
<td>[HA2] The amount of attention paid to us relative to key European markets is</td>
<td>0.57</td>
<td>7.90</td>
<td>0.32</td>
<td></td>
<td></td>
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<tr>
<td>[HA3] The amount of attention paid to us relative to us relative to key Asian markets is</td>
<td>0.66</td>
<td>8.81</td>
<td>0.43</td>
<td></td>
<td></td>
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<tr>
<td><strong>Headquarters’ Monitoring</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Is information in each of the following subsidiary areas routinely reviewed by corporate headquarters?</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>[HM1] Budgeting process</td>
<td>0.61</td>
<td>9.10</td>
<td>0.38</td>
<td></td>
<td></td>
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<tr>
<td>[HM2] Resource allocation</td>
<td>0.86</td>
<td>11.94</td>
<td>0.73</td>
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<td></td>
</tr>
<tr>
<td>[HM3] Capital equipment purchases</td>
<td>0.58</td>
<td>8.65</td>
<td>0.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subsidiary Autonomy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>How much autonomy does the subsidiary have in terms of making the following decisions?</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[SA1] Entering new markets</td>
<td>0.54</td>
<td>8.56</td>
<td>0.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[SA2] Investing in major plant or equipment to expand manufacturing capacity</td>
<td>0.72</td>
<td>11.46</td>
<td>0.52</td>
<td></td>
<td></td>
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<tr>
<td>[SA3] Increasing (beyond budget) expenditures for R&amp;D</td>
<td>0.93</td>
<td>14.72</td>
<td>0.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Inter-unit Power</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[IuP] Relative influence of the subsidiary on peers</td>
<td>1.00</td>
<td>- - -</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 2: The Hypothesized Model

Subsidiary Entrepreneurship

Headquarters’ Attention

H2 (+)

Inter-unit Power

H4b (+)

Headquarters’ Monitoring

H3b (-)

Autonomy

H3a (+)

H1 (+)

H4a (+)
Figure 3: The final Model

Model chi-square is 72.42 with 58 degrees of freedom at a probability of 0.096. The figures given are the factor loadings of causal relations with t-values written in parentheses. RMSEA < 0.03, NFI = 0.91, NNFI = 0.97, CFI = 0.98, GFI = 0.9