

Knowledge Power and the MNC: A comparison of Burt and Coleman

Abstract:

By focusing on knowledge as a key strategic resource, we investigate the relationship between power and knowledge within the MNC. We link power to the control of critical knowledge, going beyond the often implicit assumption that all the knowledge a subsidiary possesses equals power. At the same time, we show that, a subsidiary may achieve power either by owning a critical stock of knowledge or through its network centrality. We claim that although related a subsidiary's stock of critical knowledge and its network centrality have independent effects on a subsidiary's power base within the MNC. We illustrate that to assess the effect of structural holes (Burt, 1992) and closure (Coleman, 1990) on subsidiary power, one has to control for the contingent effects of network structure. As Burt and Coleman offer conflicting predictions on the relationship between network centrality and power, we show that a subsidiary's knowledge networking strategy (i.e. whether it invests in open vs. closed networks) and its consequent effect on power depends on the network dependencies the focal subsidiary faces with the rest of the MNC.

1. Introduction

The study of subsidiary power is rapidly becoming an important concern in the study of the differentiated MNC. Although important differences persist among scholars in what, exactly, subsidiary power, comprises (cf. Brass & Burkhart 1993, p.441), a broad consensus is emerging that the decentralization of knowledge has led to a power shift between headquarters and subsidiaries in recent years (Mudambi & Navarra, 2004). The promise knowledge holds for explaining various facets of subsidiary power makes the study of knowledge and power especially exciting in the field of the differentiated MNC. As knowledge is difficult to copy, complex, and typically beyond the grasp of rivals, knowledge is neither as easily alienable from the focal subsidiary as physical or financial capital nor as mobile as human capital. As such, to the extent that the focal subsidiary can influence its development and can appropriate its value, knowledge may well prove to be the subsidiary's most enduring source of power within the MNC.

However, beyond the broad consensus that taken together, power and knowledge constitute the two major challenges of MNCs today, with the notable exception of Mudambi and Navarra (2004) and Andersson, Forsgren and Holm (2007), considerably less attention has been paid to the impact of knowledge on a subsidiary's power in terms of autonomy and strategic influence within the MNC. Although recent research (cf. Andersson & Forsgren, 1996; Birkinshaw & Hood, 1998; Mudambi & Navarra, 2004; Forsgren, Holm & Johanson, 2005; Mudambi & Pedersen, 2006) suggests that the dispersal of knowledge has turned the MNC from a hierarchical monolith into a political network, the question of why some subsidiaries become more powerful than others has not yet been adequately addressed in the literature of the MNC.

Paying particular attention to subsidiaries that either control or have access to critical knowledge, we conceptually draw a link between knowledge and power within the study of the differentiated MNC. Two issues in particular are central to this debate. Firstly, analyzing a subsidiary's knowledge base as a critical power resource, we build on the idea that a subsidiary will be powerful to the extent that it controls or has access to critical knowledge on which other units are dependent on. Defining knowledge as a critical resource, a subsidiary may either be powerful to the extent that it owns a critical stock of knowledge (knowledge owner) or has access to critical knowledge flows through its network centrality (knowledge trader).

Secondly, while the relationship between a subsidiary's stock of critical knowledge and its power may be straight forward, there is debate surrounding the type of network structure that leads to power. Recent research has shown that while actors embedded in closed networks benefit from exchange speed, reliability and a high quality of knowledge transferred, the benefits of open networks and weak ties lie in the power of the broker and the diversity and non-redundancy of knowledge accessed (Moran, 2005; Lee, 2007). In this paper, we seek to advance this debate in several important ways by focusing on the contingency effects of networks and power. Our overriding focus is on the factors that may drive the focal subsidiary to move from an open to a closed network and its consequent effect on power. Based on social network theory (Burt, 1992; 1997; Coleman, 1988; 1990) the key idea is that the structural pattern of a subsidiary's knowledge network structure is unique and has the potential to boost a subsidiary's power within the MNC.

Our paper makes several contributions. First, by investigating knowledge as a possible source of power, we link power to the control of critical knowledge, going beyond the often implicit assumption that all the knowledge a subsidiary possesses equals power. At the same time, we show that, a subsidiary may achieve power either by owning a critical stock of knowledge or through its network centrality. We show that although related a subsidiary's stock

of critical knowledge and its network centrality have independent effects on a subsidiary's power base within the MNC. Finally, we illustrate that to assess the effect of structural holes (Burt, 1992) and closure (Coleman, 1990) on subsidiary power, one has to control for the contingent effects of network structure. As Burt and Coleman offer conflicting predictions on the relationship between network structure and power, we show that a subsidiary's knowledge networking strategy (i.e. whether it invests in open vs. closed networks) and its consequent effect on power depend on the network dependencies the focal subsidiary faces with the rest of the MNC.

The remainder of the paper is structured as follows. First, we review the theoretical background of the MNC as a differentiated network, address the importance of knowledge as a key resource in the MNC and define the concept of power. Subsequently, we develop our research propositions for why a subsidiary's stock of critical knowledge and its network centrality are the basis for its intra-MNC power. In the succeeding section, we further elaborate on a subsidiary's knowledge networking strategy and examine the conditions under which a subsidiary may profit more from investing in closure rather than in structural holes, and vice versa, in order to maximize its intra-MNC power. The paper closes with a discussion of the limitations of the proposed model and suggestions for future research.

2. The MNC, Knowledge and Power

2.1. The MNC as a Knowledge Network

In international business research it has become generally accepted in recent years that knowledge ranks first in the hierarchy of strategically relevant resources (Grant 1996). As a result, adherents of the differentiated network perspective (cf. Hedlund, 1986; Bartlett &

Ghoshal, 1989; Nohria & Ghoshal, 1997) claim that of all resources a firm possesses its knowledge base might be of greatest value with respect to its competitive advantage. In the context of the MNC, this observation has been subject to numerous confirmatory tests and is now widely accepted as the "received theory" on why MNCs exist (Hymer, 1976; Bartlett & Ghoshal, 1989; Foss & Pedersen, 2002). As a result, the modern MNC is nowadays commonly defined as a body or network of knowledge that exists, because of its ability to transfer knowledge more effectively in an intra-firm context than purely domestic firms or markets are capable of. However, the notion that MNCs exist because of their superior ability (*vis-à-vis* markets) to engage in internal knowledge transfers does not in anyway imply that knowledge is equally distributed throughout the MNC's network. Indeed, empirical research has shown that subsidiaries differ to a great extent with regard to their role as a provider and receiver of knowledge implying that there is no equal distribution of roles in this "system of dependencies and interdependencies".

Although research on the MNC as a differentiated network acknowledges that subsidiaries differ in terms of knowledge possessed, and, hence, strategic importance, top management's ability to influence and control knowledge flows across units is hardly questioned at all (cf. Hedlund, 1986; Bartlett & Ghoshal, 1989; Nohria & Ghoshal, 1997). The argument is that if goal congruence between organizational units dominates, the transfer of knowledge is less important in a control context - since the more views an organizational unit holds in common with the rest of the organization the more inclined will it be to cooperate with other units (i.e. transfer its knowledge). Creating this necessary level of "shared-values" is, however, not only very costly, but also lacks strong empirical validation (Gupta & Govindarajan, 1991; Ambos & Reitsperger, 2004). In addition, scholars, like Birkinshaw and Hood (1998, p. 782) have challenged this "top-down" perspective by arguing that in most corporations there is an "internal competition for

charter", which implies that subsidiary evolution, is a process which is partly influenced by the subsidiary itself. In line with Birkinshaw and Hood's findings, recent empirical research on the differentiated network conceptualizes the MNC as a political (differentiated) network consisting of organizational units with differing interests fighting over resources or the best way to get things done (cf. Andersson & Forsgren, 1996; Andersson, Forsgren & Holm 2007; Holm & Pedersen, 2000; Mudambi & Navarra, 2004; Forsgren, Holm & Johanson, 2005; Mudambi & Pedersen, 2006). Mudambi and Navarra (2004) claim that two trends in particular have triggered the political turnaround of the MNC: the decentralization of knowledge and increasing subsidiary power.

2.2. Knowledge as a Strategic Resource

As previously demonstrated, authors such as Hedlund (1994), Bartlett & Ghoshal, (1989), Hedlund & Rolander (1990), Gupta & Govindarajan (1991) or Nohria & Ghoshal (1997) unanimously state that the first and foremost purpose of the MNC network is the transfer of knowledge between geographically dispersed units. However, although one may rightly point out that knowledge management is nothing new in the theory of the MNC since Hymer's (1976; 1976) early work, surprisingly it wasn't until the early 1990s that academic research started talking about knowledge and its importance for MNCs (Foss & Pedersen ,2002).

Up to now, the concept of knowledge has proven to be a powerful tool in explaining the nature and sustainability of competitive advantage of MNCs (Lippman & Rumelt, 1982; Simonin, 1999). Accordingly, MNCs can be described as "repositories of knowledge" (Connor 1991; Conner & Prahalad, 1996) that may be embedded in collective assumptions (Levitt & March, 1988), routines (Nelson & Winter, 1982), standard operating procedures (Cyert & March, 1963) and dominant logics (Bettis & Prahalad, 1995). What ranks knowledge first in the

hierarchy of strategically relevant resources is the fact that – all things being equal – knowledge is difficult to copy, causally ambiguous (Lippman & Rumelt, 1982), complex and tacit (Barney 1991), and typically beyond the grasp of rivals (Holan & Phillips, 2003). Hence, possessing and efficiently exploiting valuable knowledge are considered to be the keys to sustainable competitive advantage.

A significant strand of empirical research has pointed out the growing dispersal of knowledge creation within the MNC network (Cantwell, 1989; Hakanson, 1990; 1995; Kuemmerle, 1999). This literature documents that the MNC's knowledge intangibles are increasingly localized at the subsidiary level and are part of what Rugman and Verbeke (2001) call "subsidiary-specific advantages". Mudambi and Navarra (2004) claim that subsidiaries that control a significant share of knowledge control the MNC's "crown jewels", in the sense that a knowledge monopoly constitutes a crucial complementary asset (Hart, 1995). They link their argument to that of Scharfstein and Stein (2000) who argue that subsidiaries that control a significant amount of the MNC's knowledge assets can use it to exercise bargaining power within the MNC.

2.3. The Concept of Power

If we assume that the localization of knowledge has led to a power shift in the MNC, in the sense that those who control critical knowledge have the power to influence the actions of others, a more precise definition of subsidiary power becomes important. However, the problems with defining power are well known (March, 1966). In a review on intra-organizational power, Brass and Burkhart (1993, p.441) stress that: "The study of power in organizations has been both plagued and blessed by the multitude of theories and approaches that have been offered". Indeed, so much has been written about power in organizations based on so little empirical research that

it is surprising that even a common definition can be found (Brass, 2003). Yet, despite the multitude of approaches ranging from Weber's (1922; 1968) analysis of bureaucratic domination to Burt's (1992; 1997) structural hole theory, it seems to be commonly accepted that power is the ability to get people do something that they would otherwise not do (Dahl, 1957; Mintzberg 1983; Salanick & Pfeffer, 1977). Power is viewed as a capacity of social actors to overcome resistance on the part of other social actors in order to achieve desired objectives or results (Dahl, 1957). In the context of this paper we define subsidiary power by a subsidiary's degree of autonomy and its level of strategic influence within the MNC. While former studies have treated subsidiary power mainly as an autonomy-control issue (Prahalad & Doz, 1981; Bartlett & Ghoshal, 1990) in the past, we argue that autonomy comprises only one side of the power coin (cf. Andersson & Pahlberg, 1997; Forsgren, Holm & Johanson 2005; Andersson, Forsgren & Holm, 2007). The flip side and perhaps the more interesting side of subsidiary power is the subsidiary's potential to actively influence the strategic behaviour of the MNC as a whole. Andersson, Forsgren and Holm (2007) stress that in the differentiated MNC subsidiary power is strongly associated with the subsidiary's ability to win political fights, regardless of the motivation and resistance from others within the MNC. Thus, our key argument is that a subsidiary's intra-organizational power rests on two pillars: its degree of autonomy and its level of strategic influence within the MNC.

3. How Knowledge Leads to Power

Astley and Sachdeva (1984, p. 105) analyze power as a joint product of three sources: the official level of formal authority vested in a hierarchical position (formal authority); the capacity to control the supply of valuable resources on which other units are dependent on (resource

control); and network centrality in a firm's network of workflow linkages (network centrality). Focusing on knowledge as the key strategic resource (Grant, 1996) we argue that a subsidiary achieves power either by owning a critical stock of knowledge (knowledge owners) or through its network centrality (knowledge traders).

3.1. Knowledge Owners: Stock of Critical Knowledge

While network ties generally act as conduits of and access to critical knowledge, there has been a tendency among network scholars to treat a subsidiary's stock of critical knowledge as a function of its network position. However, we argue that an exclusive attention to a subsidiary's network position as an antecedent of or a proxy for a subsidiary's stock of critical knowledge obscures the role of many intrinsic subsidiary characteristics. While a subsidiary's stock of critical knowledge and its network position are related they both exert independent effects on a subsidiary's power within the MNC.

The notion that power stems from resource control goes back to Emerson's (1962; 1972) power-dependence theory. Emerson suggests that power, defined in relational terms, is a function of the dependence of one actor on another. In a two-party exchange relationship, the power of party A over party B is a function of the dependence of B on A. Building on Emerson's power-dependence framework, resource dependency theory (Salanick & Pfeffer, 1977; Pfeffer & Salanick, 1978) argues that power derives from the control of critical resources. Control implies that other actors are dependent upon the powerful actor for the resource in question, because they have no or only a few alternative sources for acquiring it (Brass, 2003). Thus, to acquire power powerful actors increase others' dependence on them, while decreasing their dependence on others. Fig. 1 one depicts the central tenets of resource-dependency theory.

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Building on resource-dependency theory (cf. Salanick & Pfeffer, 1977; Pfeffer & Salanick, 1978) we argue that the value of a subsidiary's knowledge stock in terms of power is determined by three interrelated factors (Medcof, 2001):

1. **Knowledge Importance:** The more important the knowledge base controlled by a MNC subsidiary the more other units will depend upon the contributing subsidiary, and, hence, the greater will be the subsidiary's power.
2. **Alternatives:** The fewer alternative knowledge sources there are for knowledge controlled by a subsidiary, the more subsidiaries will be dependent upon the contributing subsidiary, for the respective knowledge, and the greater will be the power of the contributing subsidiary.
3. **Discretion:** The greater the degree of discretion that the contributing subsidiary has in the deployment of knowledge, the greater will be others' dependence on it, and the greater will be its power.

The basic premise is that power stems from others' dependence. Maximum dependency, and therefore maximum power, occurs when a subsidiary has absolute discretion over knowledge that is of high importance to other units within the MNC and to which no alternatives exist. In other words, a subsidiary that controls a critical stock of knowledge has a basis for achieving intra-MNC power. The main point here is that the control of knowledge is not enough as a basis for

power, and consequently not all subsidiaries which have access to knowledge will be powerful. Dependence is the key. Accordingly, we hypothesize:

H1: *A subsidiary's stock of critical knowledge is positively related to its intra-MNC power.*

2.2. Knowledge Traders: Network Centrality

We mentioned earlier that network scholars have shown that at least part of a subsidiary's knowledge advantage and, consequently, power is a function of its network centrality. Correspondingly, research in social network theory has often been applied from a resource-dependency perspective. Analyzing the centrality of an actor's network position, social network scholars argue that actors in central network positions have greater access to, and potential control over critical resources than peripheral ones. Astley and Sachdeva (1984, p. 106) state that from a purely structural perspective, central network positions are powerful by virtue of their location "over and above an actor's ability to generate dependencies through resource exchange".

Within an MNC context, there is general agreement that a centrally located subsidiary can achieve power through its *access centrality* - the number of actors a focal subsidiary is connected to (and the source of knowledge it has access to through its contacts); and its *demand centrality* – the extent to which a subsidiary acts as a broker for critical knowledge within the MNC network. The value of a superior network position with regard to organizational power has been extensively documented on the individual level (cf. Brass, 1984; 1985; Brass & Burkhardt, 1993; Burkhardt & Brass, 1990; Fombrun, 1983; Krackhardt 1990; Tushman & Romanelli, 1983; Burt, 1993; 1997) and in the network literature (cf. Gulati, Nohria & Zaheer, 2000; Portes, 1998; Zaheer & Bell, 2005). Thus, we formally hypothesize:

H2: *A subsidiary's network centrality is positively related to its intra-MNC power.*

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4. Knowledge Networking Strategies

4.1. Burt vs. Coleman

However, while it seems to be generally accepted that subsidiaries that possess a well developed "knowledge network" (Hansen, 2002) have an advantage over other units (Nahapiet & Ghoshal, 1998; Tsai & Ghoshal 1998; Moran & Ghoshal, 1998; Hansen, 1999; 2002), there is still a fundamental disagreement about the network structure responsible for such network benefits (Gargiulo & Benassi, 2000). Fig. 3 depicts the contradicting perspectives.

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On one side of the debate is Burt's (1992) structural hole theory that stresses that actors should invest in open networks rich of structural holes, since network benefits stem from non-redundant ties, or, more precisely, from the absence of ties among ones social contacts. Burt's key argument is that actors that are linked to different groups have early access to more and diverse knowledge, compared to those that are positioned within only one cohesive group (Burt, 1992). Burt builds his arguments on Granovetter's (1982) seminal insights that weak ties are more likely than strong ties to act as bridges to novel and more timely knowledge. In Granovetter's words the value of weak ties stems not from their lack of tie strength per se but from their greater propensity to bridge otherwise disconnected others. Because knowledge is partially developed

through interaction actors that bridge structural holes will be better able to develop new understandings, especially regarding emerging trends and opportunities. Moreover, recent research has shown that occupying the position at the crossroads of social relations increases the efficiency of information diffusion and the quantity of unique information received per unit time. Finally, being a tertius, the third player among disconnected others, enables an actor to increase others' dependence by controlling the dissemination and use of knowledge within the network (Moran, 2005).

Drawing on these findings, we argue that subsidiaries may benefit a lot in terms of power and knowledge received from bridging structural holes independent of their existing stock of knowledge. Subsidiaries that are centrally located within the MNC's knowledge network are well positioned to access critical knowledge flows and increase others' dependence on them to maximize their power. Consequently, we posit that superior network positions, defined as access to structural holes, are positively associated with a subsidiary's intra-MNC power. Formally, we hypothesize:

H3: *Subsidiaries enhance their intra-MNC power by bridging structural holes.*

Conversely, Coleman's notion of social capital as closure contends that actors benefit more from creating and maintaining a closed network of dense ties (Coleman, 1988; 1990). He posits that actors located in dense networks are able to rely on norms and sanctions against opportunism and therefore freely share knowledge amongst each other. Having and observing group norms reduces much of the uncertainty of surrounding exchange. The resulting social cohesion increases the observability of actions and tends to make actors both refrain from opportunism themselves and be aware that others will be similarly restrained to act

opportunistically. Thus, participating in a closed network not only reduces the exchange risk and increases the likelihood that actors so positioned will obtain cooperation and resources of others (Moran, 2005). In addition, prior research has shown that closure is likely to increase the transfer of resources, in general, and the transfer of tacit and more complex knowledge in particular, since close contacts are generally more willing to explain, detail, or listen to novel or complex ideas (Granovetter, 1982; Uzzi, 1996; Hansen, 1999). Finally, while actors bridging structural holes draw their power from their brokering position within the network, actors participating in closed networks achieve power by building coalitions and mobilizing others on their behalf (Adler & Kwon, 2002). Thus, we have several reasons to propose an alternative hypothesis:

H4: *Subsidiaries enhance their intra-MNC power by participating in closed networks.*

4.2. Contingencies Exerted by Network Structure

While somewhat obvious to network scholars, one important but understudied aspect of network research is the consideration of contingent benefits of network structure. While Burt and other researchers have drawn attention to the contingent value of structural holes and closure, these studies have merely focused on the individual level (Burt, 1997; Podolny & Baron, 1997; Moran, 2005). At the level of the firm, fewer structural contingencies have been considered (Walker, Kogut & Shan, 1997; Zaheer & Bell, 2005). We complement this stream by arguing that a subsidiary's network structure has to be studied in conjunction with its intra-MNC network dependencies in order to properly understand the impact of open and closed networks on subsidiary power within the MNC.

In the following discussion, we will examine the strategic choices of centrally embedded MNC units (rather than all units). These are units that have discretion over the way they organize their network relations within the MNC. We argue that a subsidiary will choose the strategy that maximizes others dependence on it while at the same time minimizes its dependence on others in order to enhance its own intra-MNC power.

4.2.1. A Question of Dependence

Applying the perspective of a subsidiary as a rent-seeking buyer and seller of knowledge a more fine grained distinction between open and closed networks can be drawn. Focusing on the focal subsidiary as a buyer of knowledge it seems reasonable to assume that a subsidiary will pay a higher price for knowledge in an open than in a closed network if its exchange partners are non-redundant, since each seller of knowledge can charge a monopoly price. The theoretical rationality can be found in resource-dependency and social network theory stating that the more a subsidiary's contacts are redundant the more likely they are to offer the subsidiary the same knowledge at a given point of time, thus, increasing the subsidiary's bargaining power within its network through decreasing its dependence. Accordingly, a redundancy in a subsidiary's network or a closed network works in favor of the subsidiary as a buyer of knowledge, since it decreases the focal subsidiary's dependence on other units by increasing its alternatives.

However, while being in a closed network increases the focal subsidiary's ability to "capture more value" or to obtain knowledge from other subsidiaries while "giving them less in return" as a buyer of knowledge, an open network enables a subsidiary that sells knowledge to charge other subsidiaries more for transmitting the knowledge it possesses, since the broker has a monopoly position within the network of knowledge flows. By controlling all the knowledge that flows through the network a subsidiary that bridges structural holes increases its power by

increasing others' dependence on it through the knowledge monopoly it has. In addition, a subsidiary that bridges structural holes can sell its knowledge several times in the network, since its partners are not connected. Fig. 3 depicts the shifting power-dependence relations within open and closed networks.

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In the following we discuss the contingency factors that may influence the choice of a subsidiary's networking strategy from a power-dependence perspective.

4.2.2. Stock of Critical Knowledge

We stated earlier that a rent-seeking subsidiary will opt for a strategy that keeps its dependence relations with other units in balance. In an open network the broker increases others' dependence, but he doesn't decrease his dependence on others. Further, the combination of diverse knowledge sources from other units allows the broker subsidiary to profit from exploration (March, 1991) by bridging structural holes. However, whereas the broker achieves power through increasing others' dependence, his dependence on others for critical knowledge remains high too. Thus, we argue that subsidiaries that possess a critical stock of knowledge will benefit more from closing their network than from staying in an open network. The theoretical rationality can be found in resource-dependence theory. A subsidiary that controls a critical stock of knowledge in a closed network decreases its dependence on others as a buyer of knowledge, while maintaining others' dependence through the knowledge stock it controls. Vice versa, a subsidiary that doesn't own a critical stock of knowledge would from a power-dependence perspective never close its network, since its power stems from its broker role within the

network. In addition, a subsidiary that has developed a critical stock can benefit from exploitation (March, 1991) in a closed network, since as demonstrated earlier past research has shown that the quality of knowledge transferred in terms of tacitness tends to be higher in closed networks, since close contacts are generally more willing to explain, detail, or listen to novel or complex ideas (Granovetter, 1982; Uzzi, 1996; Hansen, 1999). Accordingly, we hypothesize:

H5: *Subsidiaries that own a critical stock of knowledge will close their network in order to enhance their intra-MNC power.*

4.2.3. Combinative Capability

Kogut and Zander (1992) claim that the basic idea behind the concept of combinative capabilities is that it is the integration of knowledge rather than the knowledge itself that forms the basis of a firm's potential to innovate. Especially, in the knowledge based view of the firm a unit's combinative capability is often defined as part of its absorptive capacity. Cohen and Levinthal (1990) have offered the most widely cited definition of absorptive capacity, viewing it as the firm's ability to value, assimilate, and apply new knowledge. Looking at the centrally embedded subsidiary as a receiver of knowledge, its combinative capability is likely to affect its ability to integrate incoming knowledge. However, while the capability to combine existing knowledge is crucial for a subsidiary operating in a closed network, it is not a precondition for a broker. A broker subsidiary achieves power by transferring the knowledge of A to B, but in order to do that he has not to combine A's knowledge with the knowledge of C before sending it to B in order to maintain his broker role. In a closed network where all subsidiaries are equally connected, a subsidiary's combinative capability may, however, play an essential role in defining a subsidiary's power. Thus, if we again assume that a rent-seeking subsidiary wants to maximize others'

dependence while minimizing its own dependence it seems reasonable to assume that a subsidiary will close its network only if it can rely on a strong combinative capability that substitutes its power stemming from brokerage. Like a subsidiary that owns a stock of critical knowledge, a subsidiary that disposes of a strong combinative capability will close its network to benefit in terms of increasing others dependence while decreasing its own dependence on others. Thus, we hypothesize:

H6: *Subsidiaries that dispose of a high combinative capability will close their network in order to maximize their intra-MNC power.*

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5. Discussion

In this article we examine the link between a subsidiary's knowledge base and its power advantage within the differentiated MNC. We distinguish between knowledge owners and knowledge traders by arguing that subsidiaries may achieve power either by owning a stock of critical knowledge or by occupying a central position within the MNC's network of knowledge flows. We claim that by drawing together power through knowledge ownership and access, a fuller and richer explanation of the phenomena of knowledge and power within the differentiated MNC can be gained. In particular, we go beyond the often implicit assumption that the ownership of knowledge automatically generates power, by examining the characteristics of knowledge that

define it as a source of power. Accordingly, we claim that knowledge owners can achieve power by owning a critical stock of knowledge that is high in demand and to which only a few alternatives exist (Emerson, 1962; 1972; Pfeffer & Salanick, 1979).

Moreover, we look more closely at network centrality as a critical source of power within the MNC. First, we illustrate that centrally located subsidiaries achieve power by having greater access to, and potential control over critical knowledge than peripheral ones. Secondly, building on the contingency view of social network research (cf. Burt, 1997; Podolny & Baron, 1997; Uzzi, 1997; Walker, Kogut, & Shan, 1997; Hansen, 1999), we argue that while diversity and reach through brokerage are clearly important, under certain conditions a centrally embedded subsidiary will benefit more from closing its network. Analyzing the focal subsidiary as a buyer and seller of knowledge, we claim that a subsidiary's decision to close its network depends on the network dependencies it faces with the rest of the MNC. The theoretical reasoning for our argumentation lies in resource-dependency theory which states that actors attempt to maximize their expected outcomes through the exchange of resources over time (Emerson, 1962; Salanick & Pfeffer, 1977; Pfeffer & Salanick, 1978). We argue that the focal subsidiary will only close its network, if it can substitute its power stemming through brokerage. By referring to the central tenets of resource-dependency theory, we show that a subsidiary that owns a critical stock of knowledge or disposes of a high combinative capability can profit more from closing its network, as it simultaneously decreases its own dependence and increases others' dependence through the knowledge it controls and generates.

In addition, we think that the concept of subsidiary power demands a more rigorous analysis. By defining a subsidiary's power in terms of its degree of autonomy and strategic influence within the MNC, we combine the traditional view of power with a more network-based view. We claim that subsidiary power is not only about the focal subsidiary's ability to resist

control, but also about the struggle among different units to influence the organization's overall strategic development (Andersson & Forsgren, 1996; Birkinshaw & Hood, 1998; Mudambi & Navarra, 2004; Forsgren et al.; 2005; Mudambi & Pedersen, 2006). Recent research has shown that the headquarters, itself, has to compete with subsidiaries for strategic influence within the MNC (Andersson, Forsgren & Holm 2007).

This article can serve as a basis for subsequent research and theory development. It provides a good foundation for empirical testing of the two presented models. Most of the constructs employed here are established (or slight variations of established constructs) with validated measurement instruments. In addition, some development work on measuring a subsidiary's stock of critical knowledge and combinative capability will be needed.

Finally, the model presented here has some limitations. Despite its complexity, it presents a relatively simplified picture of the very complex phenomena of knowledge and power in the MNC. There is a whole array of additional research questions that could be addressed in future theoretical developments to get a better understanding of the phenomena within the differentiated MNC.

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FIGURE 1
THE RESOURCE-DEPENDENCY FRAMEWORK

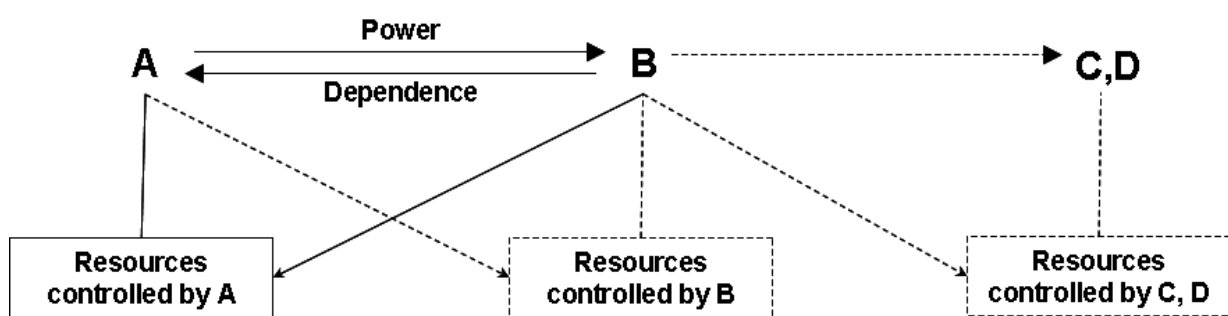


FIGURE 2
THE HYPOTHESIZED MODEL 1

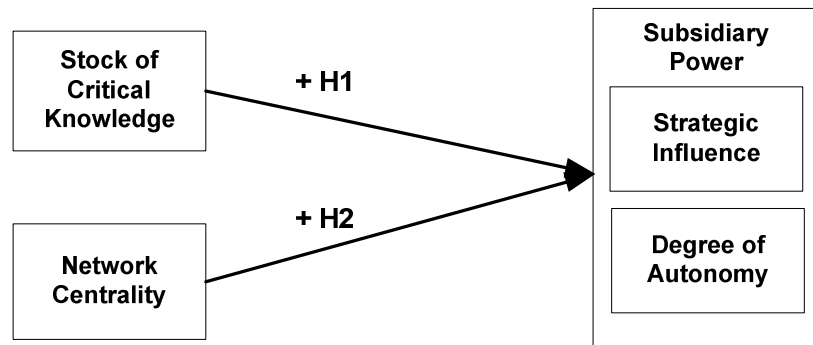
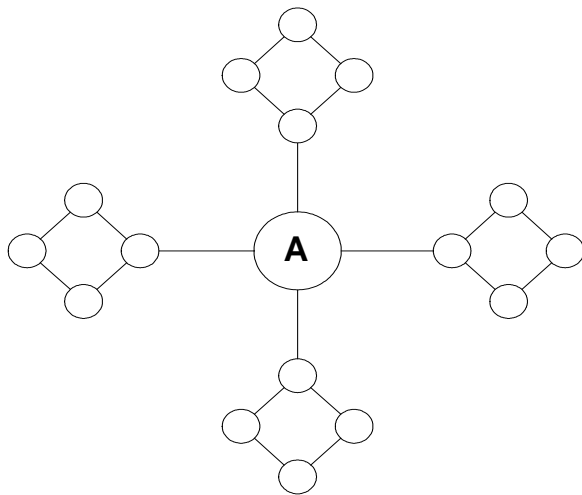
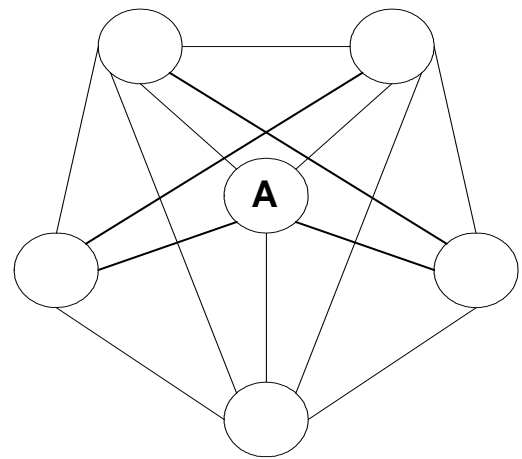


FIGURE 3
BURT VS. COLEMAN



Open Network
Dispersed Ties
/
High Diversity & Quantity
of Knowledge Transferred

Structural-Hole Theory
(Burt 1992)



Closed Network
Cohesive Ties
/
High Quality & Speed of
Knowledge Transferred

Social Capital Theory
(Coleman, 1988)

FIGURE 4
FINDING THE RIGHT STRATEGY

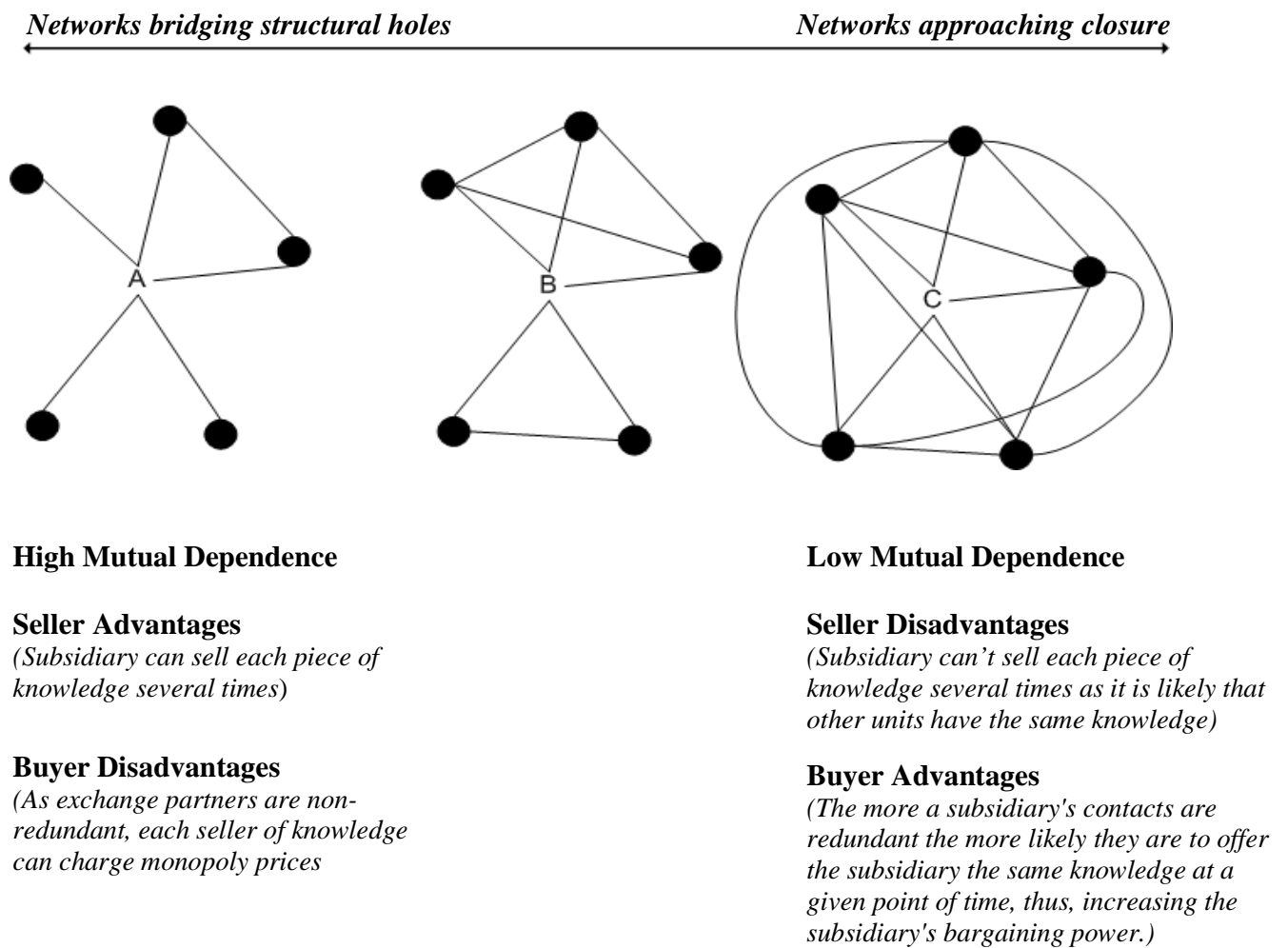


FIGURE 5
THE HYPOTHESIZED MODEL 2

