

KNOWLEDGE TRANSFER in MNEs PROMOTING OR PREVENTING STRATEGIC RENEWAL?

ABSTRACT

MNEs use different organizational strategies in order to promote strategic renewal. Some firms create lateral channels of communication in order to foster knowledge transfers and other completely avoid knowledge transfers as they isolate units from the influence of the firm. In order to assess the influence of knowledge transfers on strategic renewal we use a specific decision making model (The Throughput Model) to understand how knowledge transfers influence decision making in Subsidiaries. We then discuss whether knowledge transfer promote or prevent strategic renewal in Global, Multinational or Transnational firms. The main conclusion from our analysis is that strategic renewal can be promoted through knowledge transfers when these impact on decision makers' knowledge in ways that widens their experience and knowledge. We argue that this is most likely to take place in transnational firms and least in Global firms.

KEYWORDS: Strategic renewal, knowledge transfer, cognition, knowledge networks, Decision making.

INTRODUCTION

Some MNEs invest in establishing extensive lateral linkages among subsidiaries hoping that knowledge transfers will promote strategic renewal. Other MNE isolate subsidiaries designated with the task of promoting strategic renewal from the rest of the firm in the belief that knowledge transfers among organizational units prevent strategic renewal.

In the literature we can see a similar divide with respect to how scholars perceive of the merits of knowledge transfers as means of creating strategic renewal in firms. On the one hand, Hargadon and Sutton (1997), Weick (1979), Cohen and Levinthal (1990) and others argue that knowledge transfers enables organizational units to combine knowledge differently and to assimilate new knowledge that help foster novel ideas. Since knowledge has some of the properties of a public good,¹ there should be no limits to knowledge transfers except for those imposed by the cost of transferring knowledge across unit boundaries (Szulanski, 1999; Hansen, 2002). On the other hand, scholars like Walsh and Ungson (1991), Casey (1997), and Hargadon and Fanelli (2002) indicate that knowledge transfers may contribute to the maintenance of path dependency in firms because knowledge transfers may lead to a lock-in at shared interpretations among units of a firm's strategic position and strengthen common beliefs and patterns of knowledge use. However, when firms refrain from the re-use of their knowledge, they may underutilize these resources. Moreover, they may forego competitive advantages from increasing returns to knowledge acquisitions (Dierickx and Cool, 1989; Cohen and Levinthal, 1990).

In this paper we raise the following question: Under which conditions do knowledge transfer among subsidiaries in MNEs promotes or prevents strategic renewal, respectively? We draw on two main bodies of theories. First, we use theories on decision making and cognition in order to understand what promotes or prevents decision makers from making

¹ One characteristic of public goods is that there are zero marginal costs of further utilization. Knowledge has this characteristic because it is not worn down as it is used in more value-creating activities in organizations.

decisions that can lead to strategic renewal. Knowledge transfers influence decision makers' propensities to engage in strategic renewal due to the transfer of information, knowledge and expertise that can be used by decisions makers in the recipient subsidiary. Second, we use typology of Bartlett and Ghoshal (1992) as a starting point for discussing whether knowledge transfers among subsidiaries are more or less likely to promote or prevent strategic renewal. Thus, taken together the decision making literature and the typology provide us with a perspective that enable us to better understand under what conditions knowledge transfers either promote or prevent strategic renewal in MNEs.

Strategic renewal can be initiated at many *loci* within MNE. Authors such as Prahalad and Hamel (1990) and Stalk, Evans and Shulman (1992) emphasize the importance of top-management in the strategic renewal process. This places strategic renewal at the level of the head quarter. Others, such as Kimberley (1979), Quinn (1985) and Burgelman (1983) argue that renewal processes can be initiated at lower levels of the organization allowing for subsidiaries to initiate the process. Volberda, Baden-Fuller and van den Bosch (2001) has created a typology that captures different renewal journeys a multiunit firm such as an MNE may take depending on the locus at which managers are actively engaged in the renewal process. In this paper we focus on the bottom-up processes of strategic renewal initiated at the subsidiary level. We are interested in understanding under which circumstances lateral knowledge transfers among subsidiaries promotes or prevents strategic renewal. We only focus on decisions that can initiate strategic renewal. Thus, we do not discuss the process of organizational change that may be needed to implement a new strategy. We conclude by using the framework developed here to evaluate the role of knowledge transfers as catalysis for strategic renewal in different types of MNE. Finally, a discussion is provided for future research directions.

DEFINING KEY CONSTRUCTS

Strategic Renewal

Strategic renewal is a term that captures different processes of change within firms. Very broadly defined it can be conceived of as "...activities a firm undertakes to alter its path dependence" (Volberda, Baden-Fuller and van den Bosch, 2001 p. 160). From a decision perspective strategic renewal has been defined as a firm's ability to reinterpret its environment and incorporate its understandings into new products, processes, strategies, and structures (Crossan and Berdrow, 1999: 1990). Barr, Stimpert and Huff (1992) view the process as one that hinges not so much on noticing new conditions as on being able to link environmental change to corporate strategy. Floyd and Lane (2000) look upon the process as "an evolutionary process associated with promoting, accommodating, and utilizing new knowledge and innovative behavior in order to bring about change in organization's core competencies." Similarly to Crossan and Berdrow (2003), they put much emphasis on organizational learning as an antecedent to successfully implementing changes. Thus, a common theme in the definitions presented here is that the cognitive ability of the members of the firm is an important aspect of processes that lead to strategic renewal.

Strategic renewal is a multi-faceted subject area,² requiring a framework that indicates how to address strategic renewal. We adopt the classification developed by Floyd and Lane (2000) that distinguishes between strategic renewal as competence deployment, modification or definition. Our focus is on competence modification or definition as these are the types of renewal that require decision makers to engage in cognitive processes that leads to a reinterpretation of the firm's present competitive situation and strategy³. Competence

² See, for example, Baden-Fuller and Volberda (1997), Floyd and Lane (2000), and Crossan and Berdrow (2003).

³ Competence modification and definition are those outcomes that require explorative activities (March, 1999).

modification occurs when managers question the organization's existing strategy and/or core competencies and encourage adaptive behavior.⁴ When competence definition takes place both the firm's strategy and its core competencies are questioned and organizational members are encouraged to experiment with new skills and explore new market opportunities.

Leonard-Barton (1992:113) defines core competencies as "the knowledge set that distinguishes and provides a competitive advantage." This knowledge set contains four dimensions: (1) knowledge and skills embodied in employees; (2) technical systems embedding knowledge in the firm; (3) managerial systems that influence knowledge creation; and (4) the value and norms associated with the various types of embodied and embedded knowledge and the process of knowledge creation. The four dimensions are interrelated. For example, in order to transfer technology across subsidiaries they may have to engage in closer contact. This in turn creates a need for changes in the managerial system that defines the formal procedures for knowledge sharing. Moreover, the recipient subsidiary may have to broaden its skill and knowledge base through the hiring of new employees. The subsidiary's ability to attract individuals with the proper skill and knowledge depends on its rewards and career opportunities, which in turn are influenced by the managerial system and the value and norm system that may therefore also have to be adapted.

As the example indicates, modification and definition of competencies are processes that often involve changes along all four dimensions in order to be effective. The individuals who initiate the strategic process may not be able to recognize the need for change in all of the elements of the core competency, nor may they have the ability and incentives to implement all changes necessary. However, in order to initiate strategic renewal, decision makers must be able to link their decisions to subsidiary and to corporate strategy. We

⁴ Competence modification is in many ways similar to what Baden-Fuller and Volberda (1997) call a reordering mechanism. It is a process that "... alters the role of some core competences and upgrades peripheral routines." Xerox is an example of a firm that went through a process of reordering when they redefined the business from one of photo-copiers to that of document processors, thereby upgrading some marketing skills from pure local routines to universal firm competencies.

assume that decision makers identify and select an alternative course of action that provides the subsidiary and headquarter with a high-level guidance as to how to modify or define new competencies (Gavatti, Levinthal and Rivkin, 2005).

With the above presented concept of core competencies in mind knowledge transfers among subsidiaries in MNEs may in different ways act as catalyst for strategic renewal. For example, in an MNE where headquarter is as a holding company for a portfolio of unrelated and fully integrated subsidiaries strategic renewal occurs at the subsidiary level. At the other end of the spectra, where the MNE have different subsidiaries with different roles, strategic renewal may require changes at subsidiary as well as headquarter level.

As we consider strategic as a modification or definition of core competencies we implicitly focus on the technological activities within subsidiaries. Within the international business literature there is a substantial research on subsidiaries technological activities (Ronstadt, 1978; Cantwell, 1989; Cantwell and Mudambi; 2005; Regner, 2002). This research has confirmed that there is an increase in the foreign part of technological capabilities in MNEs. Thus renewal of 1) knowledge and skills and 2) technological systems within the core-competencies of an MNE may to a greater extent stem from subsidiaries (Blomkvist, Kappen and Zander, 2010). One explanation for the internationalization of technological activities is subsidiaries' needs for new technological solutions in order to adapt products to local markets (Cantwell and Piscitello, 2000; Håkanson and Nobel, 1993). However, many MNE have also engaged in strategic acquisitions of firms with strong technological capabilities that can be considered as outside the core of the MNE capabilities (Zander, 1999). The role of subsidiaries varies from being one that creates new technologies to one that adopt or diffuse new technologies (Ghoshal and Bartlett, 1988, Bartlett and Ghoshal, 1989). Moreover, subsidiaries may to different degrees be granted discretion and resources that allow them to develop new technological skills and technical solutions

(Birkenshaw, 2000). Given the increased importance of technological capabilities in subsidiaries and the many different roles of subsidiaries in MNE's we ask the question of when lateral knowledge transfer among subsidiaries in the MNE prevents or promotes strategic renewal.

Knowledge Transfer

Knowledge transfer can be viewed as an event through which an individual or organization learns from the experience of another (Argote, 1999; Darr and Kurtzberg, 2000). One way to transfer knowledge is to encode experiences and knowledge in practices within the organization and much of the literature on knowledge transfers has focused on the transfer of best practices among organizational units (Szulanski, 1992, 2002; Argote, 1999). Transfer of practices among subsidiaries allows decision makers to be confronted with new practices in a way that upgrade the knowledge they use in decision making. We interpret practices very broadly as encompassing routines, explicit procedures on how to carry out actions, decision making heuristics (such as evaluation techniques and procedures), as well as theories that enable decision makers to understand relationships between empirical phenomena.

The knowledge transfers we have in mind are the kind where skills, techniques, management systems and norms are transferred among business units. This kind of knowledge transfers go beyond transfers of practices, as it also includes transmission of norms as well of information about phenomena and on where to find relevant knowledge.

The international business literature has numerous studies of the conditions that enable or hinder knowledge transfer (Björkman, Barner-Rasmussen and Li, 2004; Hazing and Noorderhaven, 2006; Foss and Petersen, 2002; Schlegelmilch and Chini, 2003). Our focus is different in that we are interested in the impact that successful knowledge transfers may have

on decision makers knowledge and perceptions and how that in turn may influence strategic renewal decisions.

In the following section we use the Throughput Model (TM) (Rodgers, 1984, 1991) to identify some common characteristics with respect to the type of decision making path and the type of cognitive capabilities which characterize decisions and decision makers most likely to promote strategic renewal⁵.

ANALYZING STRATEGIC RENEWAL DECISIONS

The Throughput Model

The TM is a representation of what types of decision making processes that can lead to strategic renewal of the firm⁶. In the TM decisions are depicted as the outcome of interactions of different stages (information, perception, judgment, and decision choice) that decision makers go through, see Figure 1.

Insert Figure 1 here

Perception, information, judgment, and decision choice are present to various degrees in problem solving (March 1994; Rodgers, 1997). In the following we present the different stages that decision makers go through in order to clarify how knowledge transfers may influence decision makers' propensity to make decisions that can bring about strategic renewal. In sum, we use the TM to advise us on:

⁵ In the field of entrepreneurship different models of decision making and learning have been developed to explain what is particular about entrepreneurial activities (see e.g. Corbett, 2005). The TM is related to many of these models in that creativity (which by many scholars is seen as an important characteristic of entrepreneurial activities) is captured in the perception concept in the TM model.

⁶ The TM has been validated in several empirical analyses (see Rodgers, 1991, 1999).

- 1) What is required with respect to the cognitive capabilities of decision makers in order to increase the likelihood of successful decisions that trigger strategic renewal
- 2) How knowledge transfers influence the cognitive capabilities of decision makers at different stages of decision making

The Impact of Knowledge Transfers on Decision Makers' Cognitive Capabilities at Different Stages of Decision Making

Knowledge transfers can influence decisions making in the receiving subsidiaries through its impact on decision makers' information, perception and judgment processes

Information: includes the set of information available to decision makers for problem solving purposes such as reports or verbal communication. Decision situations that call for strategic renewal in firms are often characterized by incomplete and unreliable information and the environment may also be changing relatively rapidly (D'Aveni, 1994)⁷. If information is unreliable managers often make use of analogies⁸ (Gavetti, Levinthal, and Rivkin, 2005). Managers ability use analogies and to detect similarities and difference between actual situations and prior experiences depends on the knowledge they have available to them in the perceptual stage.

Perception: In this stage decision makers encode information, define the problem, and identify the criteria or guidelines for making a choice. This process is critical in decisions leading to strategic renewal, because these require that decision makers reinterpret the decision situation. Decision makers' frames or mental models are important because they help decision makers' deal with changes in the environment (Bar, Stimpert and Huff, 1992) and

⁷ For example, technological discontinuities in the form of major changes in product architecture and core technologies call for strategic renewal of the dominant firm in an industry. Periods of technological discontinuities are characterized by high degrees of uncertainty with respect to what are the proper core technologies and architectures (Anderson and Tushman, 1990).

⁸ Ward (2004) points out that the use of analogies belong among the creative processes entrepreneurs use in developing novel ideas.

learn from knowledge transfers from other subsidiaries Decision makers update their perceptual processes as they derive knowledge from new experiences assimilated through the frames that they possess.

Decision makers' declarative knowledge is a key in understanding how they use frames to define a problem. Declarative knowledge stems from experience, training, and formal leaning. Declarative knowledge can be categorized as world knowledge, general domain and subspecialty knowledge⁹. Knowledge transfers can to different degrees encompass these different types of declarative knowledge and this influences the extent to which they are likely to promote or prevent strategic renewal.

Individuals use world knowledge in order to identify the decision situation and knowledge transfers that bring decision makers more insights on their industry, the competitive situation (price versus product) and general type of technologies and management practices, improve a decision makers' world knowledge. General domain knowledge is a more detailed kind of knowledge such as, for example, knowledge of what different technologies can accomplish in a given setting. World and general domain knowledge are important in strategic renewal decisions because these kinds of knowledge increase decision makers' ability to make general analogies¹⁰. Knowledge transfer that encompass world and general domain knowledge also promote strategic renewal, by allowing decision makers' mental models (or frames) to evolve in ways that allow them to re-interpret decision situations However, knowledge transfers may also prevent strategic renewal. The latter occurs when knowledge transfers makes experiences more similar across subsidiaries and deepen "...the resemblance and mutual coherence between the knowledge residing in the social and physical artifacts and of that domain and the latent knowledge held by its

⁹ Several studies (Vesper 1980; Shane, 2000; Gilad, Kaish and Ronen 1988) have revealed that prior knowledge is an important element in understanding how entrepreneurs recognize new business opportunities. These studies also indicate that it matter to entrepreneurship what type of knowledge decision makers possess.

¹⁰ Ward (2004) points out that the use of analogies belongs among the creative processes entrepreneurs use in developing novel ideas.

inhabitants” (Hargadon and Fanelli, 2002: p. 298). In particular, knowledge transfers that provide decision makers with more subspecialty knowledge within a limited field.

Subspecialty knowledge is also valuable to decision outcomes. High levels of subspecialty knowledge distinguish an expert in a field from a novice. In general, with increasing levels of subspecialty knowledge, experts become more able to take more information into account¹¹ within a limited given context and to make more thorough use of principles or procedures in problem solving within that context. However, specialists are also likely to be locked-in to the perception of the decision problem for which they can use the principles and procedures they have already acquired (see also Hargadon and Fanelli, 2002). When this perception represents a poor analogy to the situation at hand it can lead to unsatisfactory results. However, if decision makers have sufficient relevant and reliable information they may use their high level of expertise to come up with novel integrating solutions leading to the modification of core competencies (Postrel, 2002)

Knowledge transfers can have a direct impact on perception as described above. However, it may also have a more indirect impact by introducing decision makers to new ways of structuring the decision tasks. That is, the way the decision task is presented to the decision maker influence how decision makers bring frames into action in decision making (Huber, 1980). For example when knowledge transfers provide decision makers with decision tasks that, force them to focus on the big problem or prohibits them from defining problems in terms of solutions they promote strategic renewal (see also Ward, 2004).

Finally, knowledge transfers can introduce perceptual biases that influence decision choices. Much evidence suggests that an individual’s reasoning process connecting perception and information relies on various cognitive shortcuts causing biases (Tversky and

¹¹ Many studies such as Chomsky (1957), Cowan, Chen and Rouder (2004), and Miller (1956) stated that information chunk size is larger for experts than for novices. Although both novices and experts are constrained by same limitations of short term memory, experts have larger information “chunks” and this superior memory may reflect that expertise is an index of rapid pattern recognition related to experience.

Kahneman, 1974). For example, belief-biases in which the decision makers' perceptual frame is based on a prior belief may result in ignoring relevant and reliable information (Kleindorfer et al, 1993). As knowledge is transferred to a subsidiary, decision makers may take over some of the belief-biases that characterize members of the sending subsidiary. As an example, consider knowledge transfers that direct decision makers in the recipient subsidiary to mainly be aware of key customers' view when introducing new products. Such decision makers may neglect other information that could assist them in creating novel interpretations of the competitive situation¹² The double ended arrow in figure 1 connecting perception and information is the key in pinpointing congruent weaknesses between the two, which may stem from biases and heuristics.

Insert Figure 2 here

Judgment: In this stage alternative courses of action are analyzed and weighted. When decision makers exercise judgment they use procedural knowledge to perform tasks in the analysis of a problem (Rodgers and Housel, 1992).

Judgment can be viewed as a multi-faceted process that is influenced by information acquisition, as well as by perceptual framing. The perception stage may influence the judgment stage by exerting an influence on what alternatives are constructed for evaluation as well as the criteria used for evaluation of the alternatives. Finally, biases in the judgment stage may appear in the form of, for example, unrealistic estimates of the risk associated with different alternatives. Such biases are reduced as decision makers gain more expertise within

¹² See Christensen and Rosenbloom (1995) for examples of decision making in firms where these patterns were dominant.

a field.¹³ Thus, knowledge transfers that have contributed to raising decision makers' level of subspecialty knowledge results in more realistic risk assessments associated with novel actions within the field.

Decision choice, this stage represents a culmination of information processing and knowledge acquisition. Further, decision choice encompasses the selection of the best alternative solution or course of action.

The above description of decision making indicates that knowledge transfers influence strategic renewal decisions in several ways. Previous knowledge transfers contribute to decision makers' declarative and procedural knowledge. In turn this knowledge shapes their perceptions of a decision situation and the way they carry out the judgment phase. Moreover, prior knowledge transfers also influence what organizational procedures are available to the unit at a given time and therefore what strategic actions decision makers in the unit perceive of as more easy to implement.

Whether prior knowledge transfers promote or prevent strategic renewal depends on how they have added to decision makers' world-, general domain- and subspecialty knowledge respectively. Decision makers are more likely to engage in explorative activities when they have a relatively wide range of world and general domain knowledge as well as a certain level of expertise within at least some of the fields. Thus, for knowledge transfers to promote strategic renewal they must transmit knowledge that complements the kind of knowledge already possessed by a decision makers. For example, when knowledge transfers increase decision makers' range of general domain knowledge they improve their ability to create and evaluate analogies. Moreover, they help decision makers avoid perceptual lock-into one type of knowledge because they are less likely to "... place stake in the reinforcement of any one knowledge domain" (Hargadon and Fanelli, 2002: 298). There are

¹³ Simon and Chase (1973) argued that future experts slowly developed knowledge patterns pertaining to situations by storing memories of their previous actions in similar situations. Therefore, performance is assumed to improve as a result of continued experience (Ericsson, Patel and Kintsch, 2000).

indicators that knowledge transfers are most likely to create lock into perceptions when narrow specialized and highly expert level decision makers receive more of the same kind of knowledge. However, knowledge transfers that increase decision makers' level of expertise from a low to a higher level may result in better decision as the riskiness of decisions are more precisely estimated.

KNOWLEDGE TRANSFERS WITHIN MULTI NATIONAL ENTERPRISES

Knowledge transfers have been a central element in the analysis of MNEs since Hymer (1960 published in 1976) explained the existence of an MNE as caused by high cost of transferring firm specific advantages across markets relative to within firms. In one of the most important economic analysis of MNEs Buckley and Casson (1976) present the MNE as an “international intelligence system for the acquisition and collection of basic knowledge relevant to R&D, and for the exploitation of the commercially applicable knowledge generated by R&D” (p.35). Thus, in order for an MNE to benefit from its core competencies in foreign markets, it would have to transferee to relevant subsidiaries, all of or a subset of the elements that make up the core competency.

Buckley and Casson (1976) perceived of the MNE as a centrally administered control system in which knowledge were transferred unilaterally from headquarter to basically similar plants in foreign markets. The modern internalization theory recognizes that not all knowledge stem from firm headquarter. In fact, already Buckley and Casson argued that some knowledge creating activities in MNEs, such as initial or final R&D stages, should be localized to tap into local innovation clusters or to adapt product to local tastes. The decentralization of knowledge production, specialization among subsidiaries (Bartlett and Ghoshal, 1989), as well as the desire of MNE's to benefit from local knowledge (Rugman, 1996) create an MNE in which knowledge is also transferred from subsidiary to headquarter

and among subsidiaries. Ghoshal and Bartlett (1990) argue that many MNEs are best perceived of as an “..inter organizational network that is embedded in an external network consisting of all other organizations such as customers, suppliers, regulators, and so on” (p.603). Within such a network, the headquarter and subsidiaries may need to engage in different kinds of knowledge transfers as depending on subsidiary specialization and localization.

While many scholars in international business have focused on factors that make knowledge transfers more or less difficult within the MNE there has been virtually no attention to negative side effects of extensive knowledge transfers. However, recent work in knowledge networks (e.g. Egelhoff 1993; Gupta and Govindarajan 2000; Hansen 2002) indicate that for purposes of understanding exploitation and exploration (such as strategic renewal) it is important to distinguish between different kind of interaction patterns. (Granowetter, 1973; Hansen, 1999). Strong interaction is characterized by frequent direct interaction while weak interaction is characterized by distant and/or infrequent interaction.

The distinction is important because channel relationships with weak interaction are more likely to carry non-redundant information (Granowetter, 1973; Hansen, 1999) which includes novel practices as well information on where to acquire relevant knowledge. Non-redundant information also contains information that can disconfirm or confirm a decision maker’s interpretation of a decision situation. That is, weak ties is more likely to increase the scope of decision makers’ world and general domain knowledge thus enhancing the chance that they reinterpret the decision situation and come up with different course of actions.

So far we have discussed some very general characteristics of knowledge transfers that make these more likely to either promote or prevent strategic renewal. In the following we seek to understand if knowledge transfers in certain types of MNEs are more likely to promote or prevent strategic renewal. The international business literature exhibit several

typologies over MNEs (Harzing, 2000). Terms such as Polycentric, Geocentric, Ethnocentric, International, Global and Transnational are used to describe different types of MNEs. Common to all these typologies is that certain characteristics are shown to cluster along different dimensions. Different typologies thus reveal different general characteristics of MNE. The kind of typology that would be most relevant for our purpose should differentiate MNEs with respect to where core competencies reside, the role of subsidiaries in exploiting and exploring core competencies, the knowledge transfer channels among subsidiaries and the role of headquarter with respect to controlling subsidiary activities and knowledge transfers. The Bartlett and Ghoshal typology of MNE.s encompass most of these requirements. Moreover, their typology is widely referenced in the field of international business allowing our analysis to be compared with other works on knowledge transfers in MNEs.

With the use of the Bartlett and Ghoshal typology we discuss whether knowledge transfers in one of the ideal type MNE are more likely to have characteristics that are likely to promote or prevent strategic renewal of the subsidiary to which the knowledge is transferred or of the wider corporation. More specifically we discuss if knowledge transfers within each of the ideal types of MNE are likely to transmit knowledge that is complementary to the declarative and procedural knowledge in the recipient subsidiary. We also discuss if ties among subsidiaries are likely to strong or weak as this influence the extent to which knowledge transfers continues to add new knowledge to the subsidiary. Finally, we discuss the extent to which knowledge transfers to any single subsidiary is sufficient to bring about strategic renewal in the form of competence modification and definition.

The Bartlett and Ghoshal Typology

The Bartlett and Ghoshal typology categorizes MNEs into three ideal types (Global, Multidomestic and Transnational) by the type of strategy they follow with respect to reaping economies of scope or scale and responding to local market inputs and needs¹⁴.

The global firm follows a strategy in which “..it build cost advantages through realization of economies of scale” The core competencies of such a firm are centered on skills and techniques that emphasize effectiveness in the use of input, fast throughput and tight coordination of interdependencies in production activities and shielding core activities from outside disturbances (Thompson, 1967). The management system promotes and rewards coordination and production skills and the effective exploitation of knowledge. As knowledge is highly proprietary in such firms there is little unintended knowledge spillover among subsidiaries.

The organizational structure is centralized and skills and technology emanate from learning by doing and experimentation located at the headquarter. The managerial system and the knowledge control system is also managed and controlled at the headquarter level. The strong centralization of the elements of core competencies implies that decisions in the subsidiaries will not lead to strategic renewal in the entire company.

The main role of subsidiaries is to implement parent company strategies and act as pipelines for products and strategies (Bartlett and Ghoshal, 1989, 1992). In the Global firms manufacturing is centralized in few locations as to reap economies of scale and subsidiaries are either replicates of the headquarter or they perform only complementary activities such as sales.

¹⁴ We do not discuss the International firms as this is not as clearly defined.

In Global firms knowledge transfers primarily run from headquarters to subsidiaries. Knowledge transfers among subsidiary (if they take place at all) are likely to be of the kind where well defined and delineated best practices are transferred to be implemented in a similar type setting. Transfers of such highly specific practices that are close to the activities already carried out within the recipient subsidiary can prevent strategic renewal as decision choices become more biased toward what can easily be accomplished or what have been done in the past¹⁵.

The strategic rational of the **Multidomestic firm** is to exploit its firm specific advantages in branding sales and marketing or product development in international markets while adapting its products or marketing to differences in customers preferences. The core competencies in this type of firm are in product development and sales/marketing and quality control. The skill and techniques element stem from experience in understanding customer needs and in applying technologies to meet those needs. The managerial system is likely to emphasize creativity over effectiveness and is more likely to recognize and reward exploration than in the Global firm. As some aspects of the knowledge is not easily protected or have a limited economic life span, the Multidomestic firm's norms of knowledge sharing may be more prevailing than in the Global firm.

The organizational structure is characterized by decentralized and loosely coupled organizational structure (Bartlett and Ghoshal, 1989, 1992). Some aspects of the skill and technology dimension of core competences may be decentrally located in subsidiaries but the

¹⁵ It is a central idea in the behavioral (e.g. Cyert and March, 1963) and evolutionary theory of the firm (e.g. Nelson and Winter, 1982) that practices or routines constitute a starting point for search for new solutions. Thus, transfer of routines may constitute a new starting point for search. However, this starting point cannot be very far from what the firm already know how to do because novel routines are not easily transfers and they will only be partly replicated in new environments (Nelson and Winter, 1982). From a decision making perspective incremental change arise due cognitive constraints shaping the way decision makers frame the decision situations and evaluate alternatives. These constraints may arise due to limited experience with e.g. routines or practices. Moreover, time pressure and lack of reliable information may cause decision makers to use decision pathways that are more likely to result in decision choice that lead to incremental changes.

managerial system and to some extent the knowledge control system are managed and controlled at the headquarter level.

Multidomestic firms have subsidiaries that integrate most of the value chain activities of the mother company although they do not perform all of the activities of the mother company. The main role of subsidiaries is to adapt products and marketing to local markets. Local production and local R&D are not essential but it may be beneficial to the MNE because it more easy for subsidiaries to perform the required adaptation.

In Multidomestic firms knowledge transfers run from headquarters to subsidiaries although this transfer will not be as extensive as in the Global Firm. Knowledge transfers among subsidiary are not very likely to take place as most of the competencies in the subsidiaries are location-bound and have limited geographical deployment (Rugman and Verbeke, 1992). However, some location-bound firm specific advantages developed in foreign subsidiaries can become “best practices” and be transformed into non-location bound advantages. In that case we should expect flow of knowledge from subsidiaries to headquarter and to other subsidiaries.

The transfer of locally developed best practices introduces new practices in the subsidiaries to which they are transferred. Moreover, such transfer provides the recipient subsidiary with complementary subspecialty knowledge. As the subsidiaries of the Multinational firm typically enjoys a relative large degree of autonomy they are likely to develop strong ties to the local environment that provide decision makes with world and domain specific knowledge that differ among subsidiaries (Goshal and Bartlett, 1990) . If this knowledge is transferred as a bi-product of the best practice transfer it also promotes strategic renewal in the subsidiary. Since ties are weak among subsidiaries knowledge transfer of the kind described her may continuously promote strategic renewal at the subsidiary level.

Subsidiaries often embody an entire value change they can modify and define core competencies at the subsidiary level. Since knowledge transfers between subsidiary and headquarter level is scarce these changes are not likely to impact the entire MNE.

The **Transnational firm** embodies both the Global and the Multidomestic firms' strategies. It seeks economies of scope and scale as well as responsiveness to the demand of local customers. The core competencies in this type of MNE are a mix of those found in the Global and in the Multidomestic firm. In addition to the technical competences the Transnational firm must also have strong competencies in coordination of the large divers and to varying degrees loosely coupled system of subsidiaries.

Subsidiaries of Transnationals have different roles as centers of excellence or strategic leaders, contributors or mere implementers. Strategic leaders are typically located in countries or clusters that are critical to the MNE's competitiveness. They enjoy high degrees of autonomy and are strongly locally embedded in networks that allow them to develop skills and techniques that are new to the MNE and of a non-location bound type. Strategic leaders are expected to transfer knowledge to headquarter as well as to relevant subsidiaries. This kind of knowledge transfer promotes strategic renewal as it represents new subspecialty knowledge. Moreover, as the strategic leader is embedded in local R&D networks it may also contribute to strategic renewal through the transfers of world and domain specific knowledge. The contributors derive their role from internal knowledge development. If the subsidiary is located in a market where responsiveness is essential its knowledge development will be location-bound and its contribution to knowledge transfers resemble that of subsidiaries in the Multinational firm. If instead the contributor is located in a market where scale and scope economies are important its contribution is more likely to be that of non-location bound subspecialty knowledge. This kind of knowledge transfer is less likely to promote strategic renewal but it may positively impact the decision quality in the receiving subsidiary by

improving its level of expertise. Finally, implementers are firms that are expected to receive knowledge and exploit it in local markets. These subsidiaries resemble those of the Global firm and their role in knowledge transfer is equally limited.

Knowledge transfers in the Transnational firm seem to have the largest potential to promote strategic renewal. Moreover, the integrated but interdependent network, that characterizes the Transnational firm, allows subsidiaries to change roles and to be locally embedded which increase the probability that knowledge transfers bring new knowledge to subsidiaries¹⁶. Moreover, the coordination of the Transnational allows for loose ties among subsidiaries such that knowledge transfers on a continuous base can promote strategic renewal. The extent to which knowledge transfers will bring about competence modification of definition depends on the autonomy of the recipient subsidiary and on the role of that firm.

However, the autonomy in the Transnational firms should not be over emphasized. First there are limits to how much subsidiary initiative can be accepted in the Transnational firm if it is to reap economies of scale or scope and maintain an advantage as an integrated firm (Rugman and Verbeke, 1992). Transnational may therefore use coordination mechanism such as normative integration (Ghoshal and Bartlett, 1988) that appear to allow variety while it in fact may reduce variety in the way problems are framed and structured within different subsidiaries. In turn this reduces the value of knowledge transfers as a means of promoting strategic renewal.

CONCLUSION

The general conclusion from the analysis presented in this paper is that knowledge transfers can promote as well as prevent strategic renewal. The critical issue is to identify the

¹⁶ Previous research has indicated that differences in perception are most likely to arise in units that are weakly tied to the organization (Weick, 1976). These units are less constrained by the interdependencies that characterize the core capabilities of the firm.

conditions under which knowledge transfers promote or prevent strategic renewal. In the paper we have discussed conditions at the level of the decision process, at the level of linkages among firms and at the level of the multinational firm.

At the level of the decision process we concluded that those knowledge transfers that bring new declarative knowledge in the form of world, domain and to some extent subspecialty knowledge to decision makers have the potential to promote strategic renewal. Knowledge transfers that deepen the expert level of subspecialty knowledge of the decision maker on the other hand are likely to create perceptual lock-in and to prevent strategic renewal. At the level of linkages among firms we drew on the conclusion that emerges from studies of knowledge networks. This literature indicates that weak ties in knowledge networks are more likely to produce non-redundant knowledge in knowledge transfers. When such non-redundant knowledge complements the world or subspecialty knowledge in the recipient subsidiary it promotes strategic renewal. At the level of Multinational firms we argued that multinational that resemble the ideal type of Transnational firms are the ones in which knowledge transfers are the most likely to promote strategic renewal. In multinational that resemble the ideal type of Global firms knowledge transfers are likely to prevent strategic renewal. We based these conclusions on a discussion of the likelihood with which knowledge transfers each of the ideal type MNEs in the Bartlett and Ghoshal typology would meet the criteria we had identified for knowledge transfers that promote or prevent strategic renewal.

As mentioned in the introduction, firms follow different organizational procedures in order to promote strategic renewal. At the one extreme they rely heavily on lateral knowledge transfers while on the other extreme they isolate business units designated with the task of creating strategic renewal. The analysis cautions against a blind belief in knowledge transfers as a means of promoting strategic renewal. For example, if firms invest in creating strong ties

among units they may find that this lead to conformity in perceptions rather than to strategic renewal. Moreover, the conformity will be strengthened when decision makers come to rely on perception of decision situations that allows them to use the expertise they have gained from the transfers.

Our analysis indicates that if knowledge transfers are properly managed they certainly can promote strategic renewal. However, managers may be facing a difficult trade- off between using knowledge transfers to increase effectiveness (exploitation) or use them to promote strategic renewal (exploration). The trade-off arise as knowledge transfers that provide decision makers with new types of general domain knowledge are more likely to result in strategic renewal compared to those that improve decision makers level of expertise in a subspecialty field. Thus, those knowledge transfers that are most likely to promote strategic renewal are also those where transfers are sticky, making the effort harder. Moreover, the channel relationships most likely are weak indicating that decision makers in the recipient unit may not fully rely on the information transmitted to them or they may not receive the most valuable types of information.

In our analysis we have focused on how knowledge transfers impact on decision making processes in the recipient unit. A more complete understanding of the conditions under which knowledge transfers promote or prevent strategic renewal require that decision making is studied as an outcome of interaction among decision makers in the recipient unit and with the sending unit. Moreover, political processes, power structure, internal communication structure, and gate-keeping functions ¹⁷the recipient unit can influence whether knowledge transfers promote or prevent strategic renewal. Finally, we have mainly focused on how knowledge influences decision makers' cognitive capabilities. However, decision makers' cognition is also influenced by their goals and the role they ascribe to

¹⁷ The longer the distance between the sender and the decision maker the greater are the likelihood that information is distorted. Therefore, central gatekeeper and long intra unit information linkages decrease the likelihood that knowledge transfers result in strategic renewal.

themselves (Hargadon and Fanelli, 2002) as well as by the reward system (Shepherd and DeTienne, 2005).

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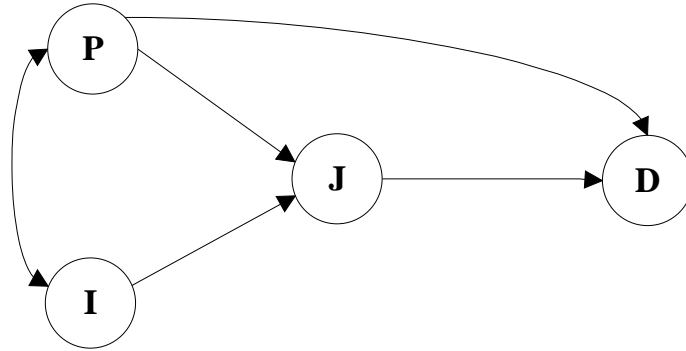
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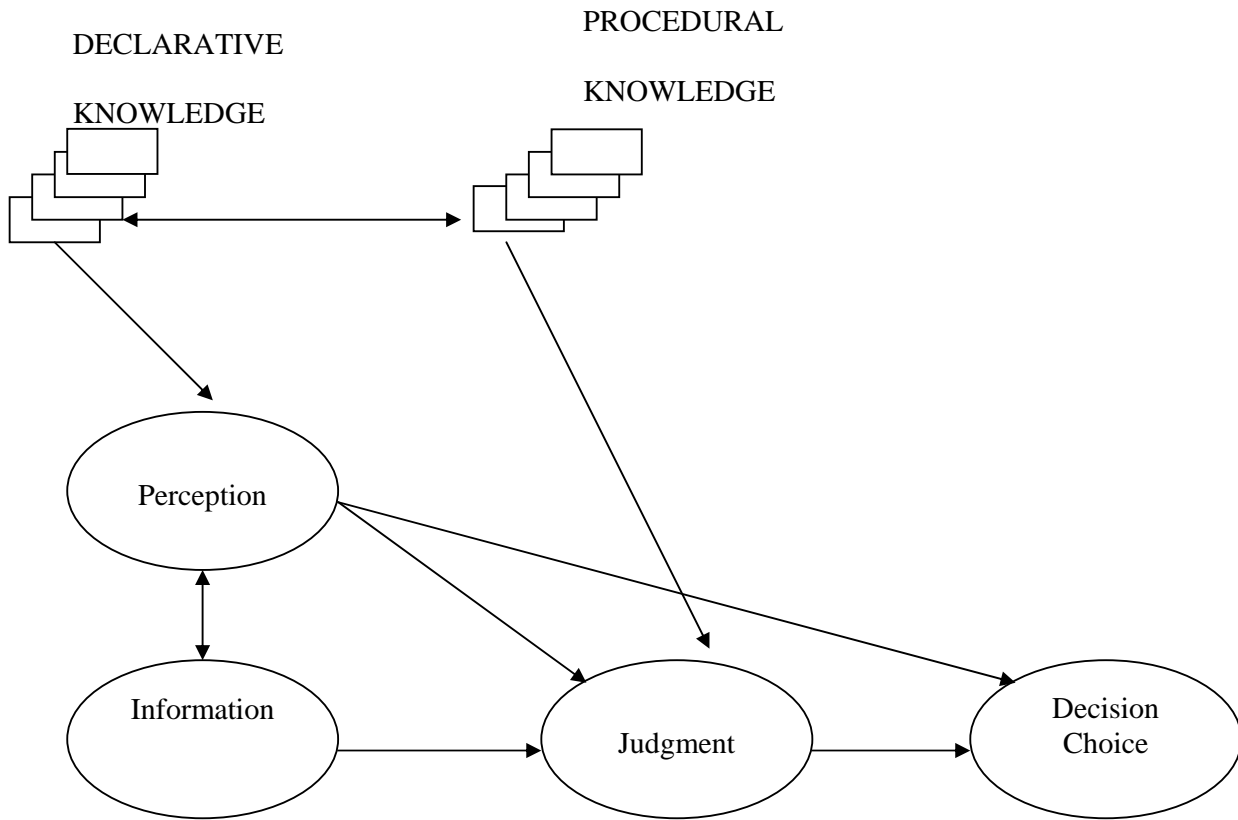
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FIGURE 1: *THE THROUGHPUT MODEL*

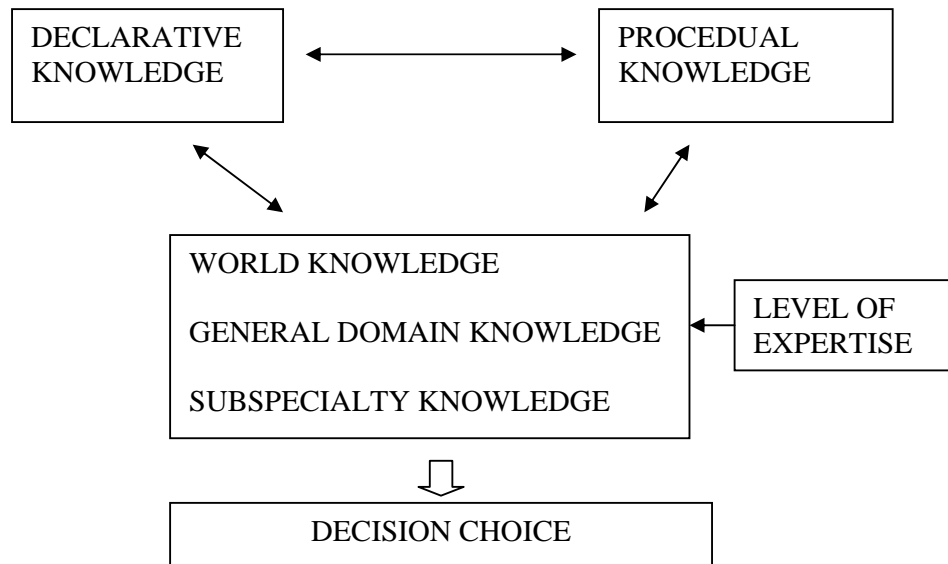


P = perception, I = information, J = judgment, and D = decision choice .

FIGURE 2: *KNOWLEDGE TRANSFER AND STRATEGIC RENEWAL PROCESSES*



**FIGURE 3 RELATIONSHIPS BETWEEN DIFFERENT TYPES OF KNOWLEDGE
AND EXPERTISE USED IN DECISION MAKEKING**



**TABLE 1: HOW CHANNEL CHARACTERISTICS PROMOTE OR PREVENT
STRATEGIC RENEWAL**

Type of interaction among decision makers

Type of ties between units	Direct interaction	Indirect interaction
Strong ties	<p>Promotes: When these channels are used for transfers of subspecialty knowledge (which often contains tacit components and complex knowledge).</p> <p>Prevents: When these channels are used for transfers of 1) redundant information; 2) socialization into sending units perception or 2) when transferred subspecialty knowledge strengthen beliefs in the well known technologies possessed by the units.</p>	Non existent
Weak ties	<p>Promotes: When channels are used for transmission of reliable information. These channels are useful even when information, alternatives and uncertainties are vague. They may help furthers units trans-specialist understanding of organizational interdependencies.</p> <p>Prevents: With this type of channels there are less likely to be sufficient overlapping knowledge for recipient unit indicating that the recipient unit is more likely to neglect important information.</p>	<p>Promotes: When this type of channels provide information on opportunities for knowledge transfers from other units or when they provide codified feedback for evaluation of alternative course of action.</p> <p>Prevents: When information transmitted through these channels neglected because decision makers perceive of it as distorted or because they lack sufficient overlapping subspecialty knowledge.</p>