

SUBSIDIARY-SPECIFIC ADVANTAGES IN MULTINATIONAL ENTERPRISES

ALAN M. RUGMAN^{1*} and ALAIN VERBEKE²

¹Templeton College, University of Oxford, Oxford, U.K., and Kelley School of Business, Indiana University, Bloomington, Indiana, U.S.A.

²Solvay Business School, University of Brussels (V.U.B.), Brussels, Belgium, and Templeton College, University of Oxford, Oxford, U.K.

This paper discusses the internal patterns of competence building in the multinational enterprise (MNE), with a focus on the creation of capabilities in its foreign subsidiaries. We present a new framework to synthesize 10 types of MNE–subsidiary linkages leading to capability development. We find that several of the 10 capability development processes are associated with subsidiary-specific advantages. We discuss the process of subsidiary-specific advantage development within the organizational structure of the MNE when it is a differentiated network of dispersed operations. Copyright © 2001 John Wiley & Sons, Ltd.

INTRODUCTION

An emerging stream of literature in strategic management over the last 10 years is that dealing with the strategies of subsidiary managers within the multinational enterprise (MNE). Within the general area of international management strategy and the specific subtopics of parent–subsidiary relationships, world product mandating and intrafirm dispersed and differentiated network relationships a number of interesting frameworks have emerged. A new feature of these analytical approaches is the treatment of the manager of the subsidiary as the relevant unit of analysis (Birkinshaw, 1996, 1997; Birkinshaw and Hood, 1998b). The process by which subsidiary managers make strategic decisions and undertake ‘subsidiary initiatives’ within intrafirm organizational networks presents new challenges to our thinking in strategic management. There are multiple patterns of subsidiary initiatives and their

complexity calls out for the type of synthesizing framework developed here.

Today there are many cases of MNE subsidiaries in host countries performing specific value-creating activities, which are fundamentally ‘embedded’ in these host countries’ knowledge development systems. Evidence to support this appears in Cantwell (1989, 1992, 1995), Dunning (1994, 1995), Florida (1997), Shan and Song (1997), Kuemmerle (1999), and Rugman and D’Cruz (2000), amongst others. However, this embeddedness often appears to arise for particular value chain activities (or product lines) only, rather than for the entire range of activities performed by the subsidiary. This calls into question the sometimes prevailing perspective in international strategic management research that each subsidiary in an MNE’s internal network can somehow be assigned an unambiguous and well-defined ‘role’ according to a clear and coherent role classification system.

In this paper, the functioning of subsidiaries within the MNE network is analyzed through an alternative lens. The focus is on the development and diffusion of firm-specific advantages (FSAs) within the MNE network. More specifically, an organizing framework is developed to analyze the

Key words: subsidiary-specific advantage; subsidiary capability; location-bound FSA; nonlocation-bound FSA
*Correspondence to: Alan M. Rugman, Templeton College, University of Oxford, Oxford OX1 5NY, U.K.

Copyright © 2001 John Wiley & Sons, Ltd.

Received 23 March 1999

Final revision received 25 January 2000

various 'generic' types of FSA development and diffusion processes. We demonstrate that a single subsidiary can be associated with several of these processes. Here, subsidiary initiatives are critical because they may strongly contribute to effective resource deployments within the MNE network, an issue discussed in this paper's first section. The second section focuses on the generic resource deployment processes which have been documented in the recent academic literature on MNE growth. We synthesize the 10 possible patterns of MNE–subsidiary capability development processes that have been identified in the literature.

The third section explores three of these processes in more depth, namely those that rely entirely on subsidiaries as a source of FSAs. It is shown that these FSAs can sometimes be more usefully designated as subsidiary-specific advantages. The framework developed reconfirms the perspective of the MNE as a differentiated network of dispersed operations, with a configuration of competencies and capabilities that cannot be controlled fully through hierarchical decisions about foreign direct investment (FDI) taken by corporate headquarters. We explore how subsidiary-specific advantages are linked to the more conventional FSAs of the overall MNE. Finally, the implications suggest the need to adapt current prevailing views on MNE development patterns.

THE ROLE OF FOREIGN SUBSIDIARIES IN THE MNE: AN INTERNALIZATION PERSPECTIVE

The MNE is defined as a firm with value-added activities in at least two countries. It is able to achieve a satisfactory economic performance only if it can build on some type of FSA that, at the simplest level, is nonlocation-bound, i.e., easily transferable across borders as an intermediate product. A nonlocation-bound FSA can take two main forms. First, it may reflect a functional, production-related proprietary asset, typically technological, manufacturing or marketing know-how. Second, it may refer to an organizational capability to efficiently coordinate and control the MNE's asset base (Rugman, 1981; Dunning and Rugman, 1985; Dunning, 1988). The FSA concept thus covers a very broad set of unique company strengths (competencies and capa-

bilities) which have been analyzed and classified in much more detail by scholars espousing a resource-based view (RBV) of the firm. Foss (1997) presents an overview of the RBV, albeit from a domestic perspective only. The unique perspective brought by researchers studying the MNE is, of course, their focus on the international, intrafirm FSA creation and diffusion issue.

The importance of FSA transfer to explain MNE success has been widely researched for four decades, beginning with the seminal works of Dunning (1958), Hymer (1960, published 1976) and Vernon (1966). One of the most detailed descriptions of the significance of internal FSA transfer in MNEs can be found in Rugman (1981). This work, as well as much of the earlier mainstream transaction cost-based literature of the MNE, for example McManus (1972), Buckley and Casson (1976), Magee (1977), Caves (1982), and Hennart (1982), focused on the need to avoid FSA (and rent) dissipation, when penetrating foreign markets.

More specifically, this literature emphasized the need to internalize external markets in cases where contracts between the MNE and third parties in foreign markets (e.g., potential licensees of MNE know-how, suppliers of inputs, distributors of outputs, foreign agents) would be inefficient in the sense that they would reduce the MNE's performance (profits, market share, etc.) as compared to the situation whereby subsidiaries would be established to exploit the MNE's FSAs. Hence, the internalization perspective was useful in explaining the transformation of domestic firms into MNEs within the institutional context of the 1960s and 1970s, when most organizational structures of MNEs were hierarchical and centralized. The conventional internalization view on MNE functioning provided an insightful, but stylized, explanation of many FDI flows, especially those related to horizontal integration, although Dunning (1993), synthesizing most of the relevant literature, also demonstrated its relevance for several other types of MNE expansion.

However, in terms of new patterns of parent–subsidiary relationships and network relationships, conventional internalization theory suffers from five main weaknesses. First, it was usually assumed that FSAs in the form of intangible, production-related assets could be transferred relatively easily across borders within the firm

without too much attention to adaptation or codification problems. A notable exception is Teece (1976, 1977). Second, in spite of the recognition of the importance of time associated with international know-how diffusion processes, the approach lacked a dynamic component in terms of learning within the organizational structure. In this context, the emphasis was on predicting outcomes that would prevail in an equilibrium situation, with relatively little attention to the actual process of FSA generation. Third, managerial entrepreneurship, in terms of local subsidiary-level initiatives that could contribute to new FSA development and exploitation, was largely neglected. Fourth, the MNE's internal functioning was described in a very stylized way, without much recognition of the impact of the credibility, experience, and reputation of individuals and groups within the organization. Fifth, given the elements above, perhaps too much emphasis was put on both the importance of cost optimization and the danger of FSA dissipation, rather than capability creation.

In this context, the dominating FDI pattern was one whereby key nonlocation-bound FSAs needed to be transferred from the home country center to host country subsidiaries, and where subsidiary roles were determined by the parent company. In contrast, the past decade has witnessed increased attention to several other FSA development and diffusion patterns associated with FDI, as described in the next section.

In parallel with the further development of the internalization framework and its integration into what has now become the dominating, mainstream international business approach, namely the eclectic paradigm (Dunning, 1981, 1988, 1993), much insightful academic work was done on the MNE's internal functioning during the 1970s and 1980s. Most of this work was driven mainly by empirical observations of the evolution of subsidiary roles. This research sometimes led to useful classifications of such roles, without, however, an attempt to develop an integrated conceptual basis for the analysis of knowledge creation and diffusion processes in MNEs, e.g., Bartlett (1986), Franko (1978), Hedlund (1981, 1986), Hood and Young (1983), Hulbert and Brandt (1980), Jarillo and Martinez (1990), Rugman and Bennett (1982), Rugman and Douglas (1986), Stopford and Wells (1972), White and Poynter (1984), and others. Some of this work,

such as White and Poynter (1984), was particularly interesting because of its departure from the three (often implicit) assumptions on which most of the prior mainstream MNE research had been built (Birkinshaw, 1997):

- first, the evaluation of subsidiary roles and capabilities from a mere corporate 'portfolio analysis' perspective;
- second, the 'simple allocation' of roles and capabilities to subsidiaries by corporate headquarters;
- third, the enactment of coordination and control by corporate headquarters through the design of an appropriate 'structural context.'

The 1990s were then characterized by a further elaboration of sophisticated subsidiary role classifications with a strong focus on subsidiary management. The papers in Birkinshaw and Hood (1998a) and Taggart (1998) are representative examples of this work. In the next section, we build upon this work, without assuming, however, that each subsidiary performs a single, well-defined role within the MNE. Instead, we attempt to identify patterns of competence building in MNEs, whereby a single subsidiary may be associated with several of these patterns simultaneously.

FSA DEVELOPMENT AND DIFFUSION PATTERNS

In Figure 1, 10 patterns of FSA development and diffusion in the MNE are presented within a new synthetic framework. Each of these patterns has been amply documented in the academic literature, both conceptually and empirically. Two determinants are important for our framework. These two determinants constitute the core of both the eclectic paradigm (Dunning, 1993) and the modern internalization theory of the MNE (Rugman and Verbeke, 1992). They are the MNE's FSAs and the country specific advantages (CSAs) upon which it relies to obtain a competitive advantage in the international market place. It is these two parameters which are the most critical to describe and explain the international expansion patterns of any MNE.

In this paper, we are interested especially in the CSAs 'endogenized' by the MNE to build

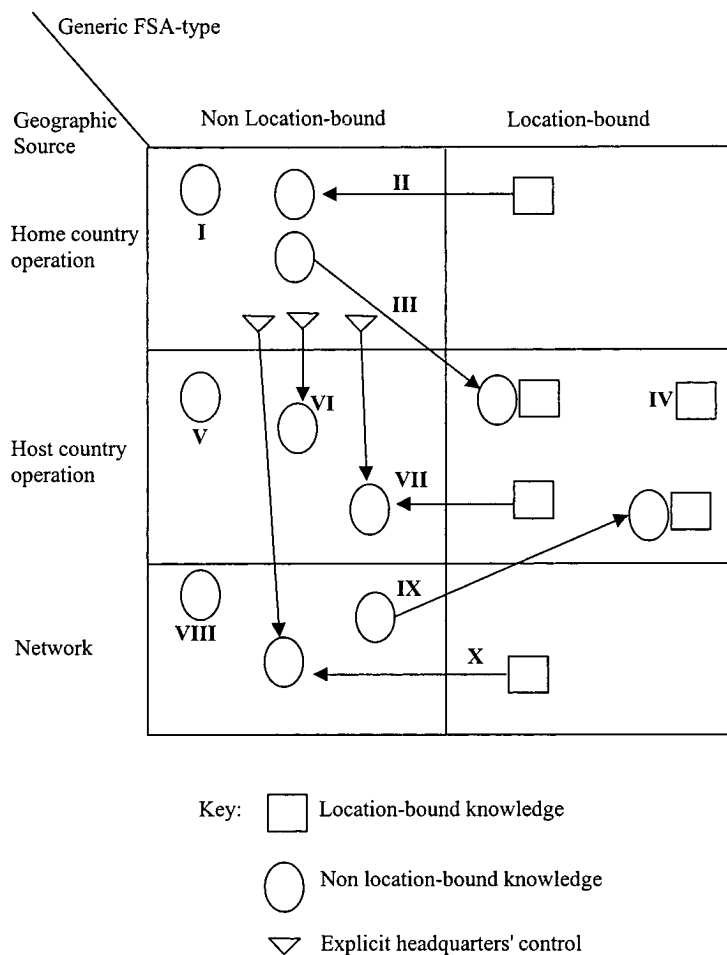


Figure 1. Ten patterns of FSA development in MNEs

new FSAs or augment existing ones. Here, national boundaries are critical, because individual countries may be characterized by path dependencies in their knowledge development trajectories. These path dependencies are themselves idiosyncratic and shaped by institutional and systemic elements which are hard to replicate elsewhere, such as government technology policies, business government interactions in the innovation field, the functioning of business networks, the role of the nonbusiness infrastructure including universities and research centers, etc. (Dosi, Pavitt and Soete, 1990; Nelson, 1993). Hence, the diffusion of this knowledge base across borders may be limited because of the low absorptive capacity of potential recipients located abroad. Only firms with affiliates located within the national borders (and often even within narrowly defined geographic regions in a country) then

have direct and full access to the accumulated specialized resource pools and positive externalities of the national knowledge development system. Only these firms will benefit from the country-specific, technological, and organizational capabilities and their linkages with both local and global profit opportunities (Campbell and Verbeke, 2000). In other words, advanced national knowledge development systems may act as a 'pull' on MNEs to locally perform particular FSA-creating activities, especially in areas where these host countries have a revealed comparative advantage. Consequently, an FSA may be developed internally from three possible geographic locations, each associated with particular CSAs: a home country operation, a host country operation, or an internal network whereby operations in various countries are involved. This is represented on the vertical axis of Figure 1.

In addition, the generic FSA type is critical, with a distinction being made between nonlocation-bound and location-bound FSAs, as shown on the horizontal axis of Figure 1. The former are defined as FSAs that can be exploited globally, and lead to benefits of scale, scope, or exploitation of national differences. In the context of FDI, the nonlocation-bound FSAs typically lead to scope economies and can be transferred abroad at low marginal costs and used effectively in foreign operations without substantial adaptation. In contrast, location-bound FSAs can be defined as FSAs that benefit a company only in a particular location (or set of locations), and lead to benefits of national responsiveness. In the context of FDI, these location-bound FSAs cannot easily be transferred as an intermediate good and require significant adaptation in order to be used in other locations. This distinction between nonlocation-bound FSAs and location-bound FSAs as a resource-based interpretation of Bartlett and Ghoshal's (1989) work was developed by Rugman and Verbeke (1992, 1993, 1998a, 1998b).

The 10 alternative methods of competence building are briefly described below.

Pattern I: A nonlocation-bound FSA is created in the home base and is subsequently diffused across borders to the subsidiaries as an intermediate product or marketed internationally, embodied in final products. This is the conventional pattern, as described in the economics literature and most international business textbooks (e.g., Dunning, 1993). It is consistent with Vernon's (1966) product life cycle approach to FDI. It also reflects the dominating patterns of FSA development found in so-called 'international' and 'global' firms, according to the Bartlett and Ghoshal (1989) classification of MNE managerial mentalities.

Pattern II: A location-bound FSA is developed in the home base and is subsequently transformed into a nonlocation-bound FSA in the home country, again to allow diffusion to foreign operations and markets. This approach builds upon the assumption that competencies and capabilities are usually developed first in a home-based cluster for the domestic market and only later on become the source of competitive advantage abroad because of high productivity achieved in the domestic diamond (a

national or subnational system at the level of an industry sector; consisting of four interacting elements: factors conditions; demand conditions; related and supporting industries; strategy, structure and rivalry) as compared to foreign diamonds (Porter, 1990).

Pattern III: A nonlocation-bound FSA is developed in the home base, but its diffusion to foreign subsidiaries is accompanied by the creation of location-bound FSAs in the various host country operations. The FSA transferred could be viewed as a bundle of value-creating elements, whereby the substitution of a few elements or the addition of new elements may increase the FSA's rent generating potential.¹ The necessity to adopt this pattern in many industries ('global thinking, local acting') has led to a large academic literature on the requirement for ethnocentric firms to become more nationally responsive (e.g., Bartlett, 1986).

Pattern IV: Location-bound FSAs are developed in each host country operation and their exploitation is confined to the specific host country concerned. This pattern describes the dominant logic in a typical 'polycentric' MNE (Perlmutter, 1969) or the 'multinational' mindset (Bartlett and Ghoshal, 1989) whereby each subsidiary develops its own competencies and capabilities, usually confined to the host country in which they are created. Important managerial problems may arise when forces of globalization impose the requirement to supplement these location-bound FSAs with central coordination and control systems, i.e., nonlocation-bound FSAs in the organizational area, which may be rejected by the subsidiary managers (Prahalad and Doz, 1981).

Pattern V: Nonlocation-bound FSAs are generated autonomously in host country operations and then either diffused to the other MNE affiliates or directly embodied in internationally

¹ In principle, the location-bound elements could also be added in the home country operations, but if the home country operations were able to perform this addition for each host country, this would, in fact, reflect a nonlocation-bound FSA in technological or marketing flexibility.

marketed products. This pattern reflects a subsidiary autonomously (without explicit *ex ante* parent approval) engaging in 'global market initiatives' that should typically lead to global-scale efficiencies and higher local value added. Birkinshaw (1997) found that this pattern is facilitated by 'high autonomy, a high level of proven resources and a low level of parent–subsidiary communication.' He also suggested that, ultimately, global market initiatives might lead to 'the transfer of proprietary technology and other capabilities within the corporate network.' Within the 'transnational solution' context of Bartlett and Ghoshal (1989), this type of subsidiary would fit, from a corporate perspective, with the behavior expected from the 'strategic leaders' inside the company.

Pattern VI: Nonlocation-bound FSAs are generated in host country operations but closely linked to home base decisions or guidelines (e.g., subsidiary charter, granting of new subsidiary role as a result of parent driven restructuring, or an internal market opportunity) and subsequently diffused internationally to other MNE affiliates or directly embodied in internationally marketed products. This pattern is reflected in Birkinshaw's (1997) 'internal market initiatives' (context of rationalization of MNE activities) and 'hybrid initiatives' (context of site selection for new activities). With the latter, the subsidiary seeks to attract a global, internal investment which has received corporate support. In either case, substantial reflection must occur at the parent company level before explicitly approving the location of the relevant value-creating activity in the subsidiary. Hence, in spite of relatively high proven resources at the subsidiary level, autonomy is low and substantial parent–subsidiary communication prevails.

Pattern VII: Location-bound FSAs are created in foreign subsidiary operations and transformed by the subsidiary itself into nonlocation-bound FSAs. The subsequent international diffusion or exploitation of these FSAs usually requires home base approval. This pattern has been called 'local market initiative driven' by Birkinshaw (1997) as it is first

inspired by local, host country needs and subsequently exploited globally by the entire MNE. The intended, worldwide internal learning process typically requires parent company approval and support. It is important to observe, however, that the initial, entrepreneurial process at the subsidiary level is associated with high autonomy and low parent–subsidiary communication. One of the main differences with Pattern VI is the absence of a charter or explicit corporate fiat to engage subsidiary resources in these initiatives.

Pattern VIII: Nonlocation-bound FSAs are created jointly by several MNE subsidiaries located in various countries and then typically exploited throughout the network. One example, increasingly found in global service firms, is the formation of 'virtual centers of excellence,' aimed to leverage the firm's leading-edge competencies which may be geographically dispersed but can relatively easily be codified and shared among various subunits in the MNE (Moore and Birkinshaw, 1998).

Pattern IX: Nonlocation-bound FSAs are again jointly created by the efforts of a network of MNE subsidiaries, but their exploitation is associated with some location-bound additions to maximize their earning potential in specific countries. This pattern is typical for firms adopting regional (e.g., triad-based) strategies. They may want to create and diffuse 'regional best practices,' resulting from a network process similar to Pattern VIII, but some adaptation may still be required in each country. Here, the different units operating in a region may then be instrumental in creating the required, complementary location-bound FSAs, at a sub-regional level. One example of such a pattern was described by Malnight (1996) in a detailed analysis of Citibank's evolution from a decentralized to a network-based MNE, especially after 1991.

Pattern X: Location-bound FSAs are created by a network of MNE operations, usually to serve a single, large national market, but are subsequently transformed into nonlocation-

bound FSAs to exploit their regional or global earning potential, typically under the guidance of the home base. This pattern would include the development of 'focused centers of excellence', formed by individuals or subunits located in various countries but emphasizing knowledge creation for a specific project, typically located in one country. At a 'critical juncture' the parent company then recognizes the center of excellence and provides resources for the knowledge dissemination to the global network and thus for the transformation of the location-bound FSA into a nonlocation-bound one (Moore and Birkinshaw, 1998).

These 10 patterns of subsidiary competence building do not necessarily constitute an exhaustive set of FSA creation and diffusion processes. Other, and perhaps more complex, combinations may possibly occur in practice. However, these 10 well-documented patterns confirm the need for a framework to handle the multidimensional and complex nature of FSA development and diffusion processes, especially if several patterns occur simultaneously within a single subsidiary, and change over time.

The next section will elaborate on the creation of FSAs in host country operations and the specific problems associated with their diffusion within the MNE network. We will focus on Patterns V, VI, and VII as described by Birkinshaw (1997) to the extent that they are associated with individual subsidiaries creating and retaining a number of idiosyncratic resources and capabilities which are *not* diffused throughout the MNE; i.e., they are sticky and cannot be simply absorbed by other MNE operations. This perspective on the MNE subsidiary is consistent with the empirical observation that an increasing number of MNEs function with (a) powerful affiliates that build upon both the national knowledge development system and the global profit opportunities provided by the country in which they operate, and (b) 'regional' organizational units (e.g., one in Europe, one in North America, and one in Asia), which are largely autonomous (Rugman, 2000). These regional units perform value-creating activities that span the borders of several nations and they undertake the global exploitation of the knowledge base under their control. In contrast, the network approach (Patterns VIII, IX and X), when successful, is usually associated with easier

diffusion of know-how throughout the entire MNE.

SUBSIDIARY-SPECIFIC ADVANTAGES

Ultimately, firms differ in their ability to accumulate competencies and capabilities which are rare, valuable, nonsubstitutable and difficult to imitate (Rumelt, 1984; Wernerfelt, 1984; Dierickx and Cool, 1989; Barney, 1991; Connor, 1991). When valuable competencies and capabilities exist, one of the expected roles of top management is to make sure that this knowledge can be diffused throughout the company, so that economies of scope are gained across markets and products (Hamel and Prahalad, 1994). In other words, given that the firm is the unit of analysis, the focus is largely on the creation of internal, *firm-level* competencies and capabilities (Teece, Pisano, and Shuen 1997). However, a substantial literature now exists which demonstrates the role of idiosyncratic interfirm linkages, which may lead to systemic 'relational rents' and competitive advantages. Rugman and D'Cruz (2000) offer a synthesis and a description of one major type of interorganizational rent-generating process, namely the flagship-based multinational network. At the opposite side of the spectrum, an equally large and diverse literature observes an uneven internal distribution of knowledge among MNE affiliates (Birkinshaw, 1996, 1997; Birkinshaw and Hood, 1998a, 1998b; Birkinshaw, Hood, and Jonsson, 1998).

Birkinshaw and Hood (1998b) have attempted to model the 'generic processes' of subsidiary evolution. The three competence and capability development and diffusion patterns revolving around subsidiaries (as identified in this paper) are fully consistent with their work, although we confine ourselves here to capability enhancement and do not contemplate capability depletion issues.² The authors identify three interacting drivers of subsidiary evolution and thereby capability creation: head office assignment, subsidiary

² Birkinshaw and Hood (1998b) are obviously correct to point out that the accumulation of competencies and capabilities in subsidiaries may not always be desirable from the MNE perspective. However, in this paper, it is nonlocation-bound FSA creation and diffusion that are of interest, irrespective of initial goal alignment between the MNE headquarters and the subsidiaries.

choice, and local environment determinism. However, in their analysis, no distinction is made between nonlocation-bound FSA development (as discussed in the previous section), whereby knowledge can ultimately be diffused throughout the company and the creation of subsidiary-specific advantages.³ In the latter case, the competencies and capabilities developed can lead to value creation across borders, e.g., through world product mandates, but the knowledge base itself is characterized by mobility barriers (i.e., isolating mechanisms) that make full absorption difficult throughout the MNE. In other words, the subsidiary-specific advantage, when embodied in products or services, leads to international rent creation but, in the form of an intermediate product, such a subsidiary-specific advantage is not fully transferable internally.

This characteristic of subsidiary-specific advantages implies that the MNE's knowledge base consists of more than just nonlocation-bound FSAs (easily diffused internally and with the benefits of global exploitation, typically through scope economies) and location-bound FSAs (difficult to diffuse internally and with the benefits of national responsiveness). Subsidiary-specific advantages do not reflect a subsidiary's competences and capabilities to be nationally responsive (the conventional location-bound FSAs associated with Pattern IV, which have been widely documented in the international business literature). Instead, subsidiary-specific advantages reflect the competencies and capabilities that can be exploited globally (Patterns V, VI, and VII) without, however, the bundle of knowledge itself being easily diffused internally.

Given the joint impact of the three drivers mentioned above, the subsidiary-specific advantage development process is contingent upon four determinants:

1. The relevant subsidiary competencies and capabilities must incorporate knowledge that is tacit (difficult to codify) and fundamentally context specific (locally embedded and path dependent on the subsidiary's earlier techno-

logical and organizational trajectories). They typically build upon the host country's national knowledge development system. They must also be dispersed across several individuals within the subsidiary (embedded in teams). Thus, they are difficult to diffuse internally, due to mobility barriers (Nonaka and Takeuchi, 1995; Nelson and Winter, 1982; Weick and Roberts, 1993).

2. Sustainable subsidiary-specific advantages must reflect the existence of a capability gap with the other MNE affiliates. In this context, Birkinshaw *et al.* (1998) have coined the term 'specialized resources,' defined as superior to those elsewhere in the MNE. Here, the contestability of this 'gap' and the associated potential competition from other MNE affiliates may fulfill a role similar to competition by external parties at the firm level. It is instrumental to subsidiary-specific advantage regeneration efforts by subsidiary management.
3. Subsidiary-specific advantages can only be sustained in the long run, and will only be supported by the parent company subject to the perceived absence of negative externalities on other MNE operations.⁴ One of these externalities is obviously the danger of subsidiary, imprisoned resources, the benefit of which would be withheld from the other affiliates.
4. Synergies must exist between the rent creation potential of MNE-level nonlocation-bound FSAs and the subsidiary-specific advantages at the affiliate level; i.e., there must be 'interest interdependence.'

The third and fourth elements are strongly related to the concept of 'recognition' by parent company management. Birkinshaw *et al.* (1998) argue that 'recognition refers to the widespread understanding and acceptance of the subsidiary's specialized resources in other parts of the MNE.' This implies that the potential for 'reciprocal leveraging' must exist for subsidiary-specific advantages to be nurtured and sustained in the MNE. MNE-level FSAs on the one hand and subsidiary-specific advantages on the other hand must reflect specialized

³ This term is also used by Moore and Heeler (1998) but in a different context, as an extension of Dunning's eclectic paradigm consisting of FSAs (ownership), country-specific advantages (location), and internalization advantages, the so-called OLI framework.

⁴ This point is not really studied by Birkinshaw and Hood (1998b) as their analysis 'deliberately excludes cases of self-serving or empire-building behavior, in which the subsidiary develops capabilities that are not aligned with the strategic priorities of the MNE.'

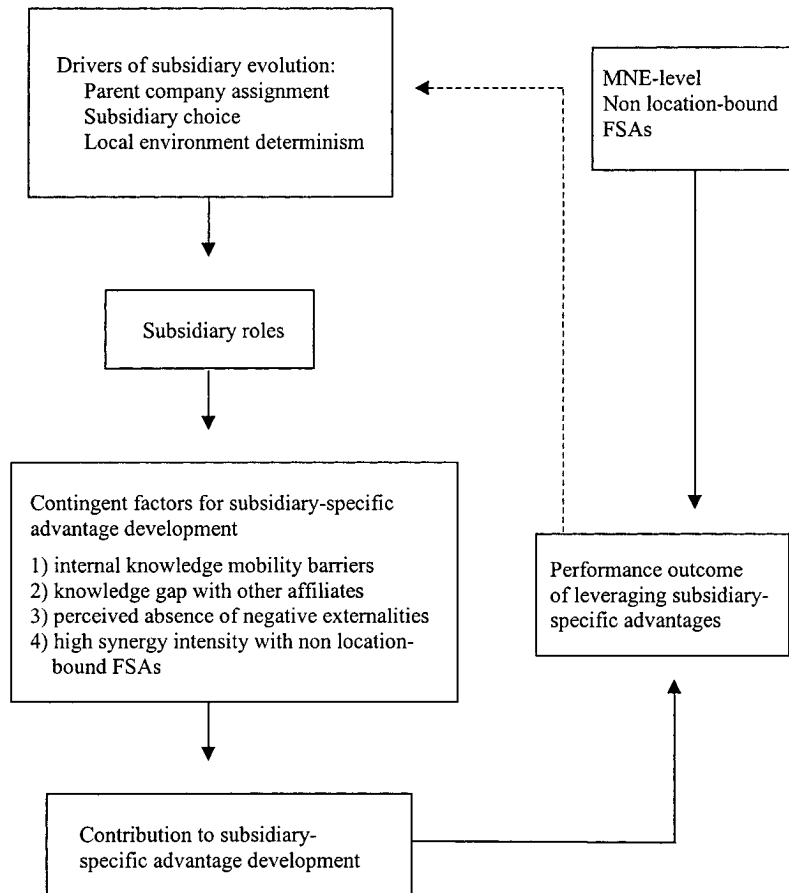


Figure 2. The development of subsidiary-specific advantages

competencies and capabilities, the bundling of which leads to greater performance potential than if they were exploited separately. In other words, bundling increases the distinctiveness, perceived value, nonsubstitutability, and nonimitability of the firm- and subsidiary-level competencies and capabilities. The higher the ‘synergy intensity’ the more likely it is that the creation of new subsidiary-specific advantages will be stimulated.

The four distinctive characteristics of subsidiary-specific advantages are depicted in Figure 2. Pockets of competencies and capabilities within the subsidiary will only become, and be allowed to remain, subsidiary-specific advantages, as compared to conventional MNE-wide nonlocation-bound FSAs, if the four conditions described above are met simultaneously.

The above suggests that Birkinshaw and Hood’s (1998b) description of subsidiary evolution patterns (as a function of parent company

assigned charter changes and capability changes in the subsidiary) fundamentally reflects, respectively, the parent company’s and the subsidiary’s management appreciation of the four contingent factors described in Figure 2. The ‘parent-driven investment,’ ‘subsidiary-driven charter extension,’ and ‘subsidiary-driven charter reinforcement’ processes largely describe behavioral patterns that result from conducting the fourfold test. Conflict may obviously arise between both views if the subsidiary management focuses exclusively on the first two determinants and parent company management on the last two.⁵

⁵ Our fourfold test obviously does not imply that the contextual factors identified by Birkinshaw and Hood (1998b) are unimportant. The critical drivers of subsidiary evolution are: parent company factors (competitive internal resource allocation, decentralization of decision making, ethnocentrism of parent management), subsidiary factors (track record of subsidiary, credibility of subsidiary management, entrepreneurial

In this context, Taggart (1997) has developed an insightful framework linking autonomy and procedural justice⁶ to evaluate subsidiary strategy. He has argued that, from the perspective of subsidiary management, the ideal situation, at least in a context of strong subsidiary-specific advantages, is obviously one of both high autonomy and high procedural justice. This situation is, according to the author, difficult to achieve as it requires the continued investment of scarce resources in 'social lubrication' and 'a wide array of well developed leadership and management skills being deployed at headquarters and affiliate levels.' Furthermore, the danger exists that specific good subsidiary-headquarters relationships may be resented by other subsidiaries, hence reducing the potential of internal network formation. It is interesting to observe that Taggart does not discuss the issue of mobility barriers associated with subsidiary-specific advantages, although these may complicate headquarters-sub-sidiary relationships. He thinks, on the contrary, that headquarters' induced changes will be easy to manage and that corporate headquarters may simply draw upon the affiliate as a 'source of well-trained and highly motivated executives for deployment in other parts of the network.' In contrast, our analysis suggests that the presence of subsidiary-specific advantages may complicate achieving procedural justice, as perceived by both the corporate headquarters and the subsidiary managers.

orientation of subsidiary employees), and host country factors (strategic importance of country, host government support, relative cost of factor inputs, dynamism of local business environment). This is recognized in Figure 2, but from a normative, resource-based, conceptualization perspective these drivers are only secondary when compared to the four prime determinants of subsidiary-specific advantage development.

⁶ The procedural justice concept was introduced in international management thinking by Kim and Mauborgne (1991). They defined it as the extent to which the dynamics of the multinational's strategy-making process for its subsidiary units are judged to be fair. In practice, the concept appears to be a bundle of five distinct elements: (1) the extent of two-way communication in the MNE's strategy-making process; (2) the extent to which subsidiary units can legitimately challenge the head office's strategic view; (3) the extent to which the head office appears knowledgeable of the subsidiaries' local situation; (4) the extent to which subsidiaries are given an account of the MNE's final decisions; and (5) the extent to which the head office makes consistent decisions across subsidiary units.

IMPLICATIONS

The distinction between a conventional nonlocation-bound FSA developed in a subsidiary and a subsidiary-specific advantage is a subtle but important one for five reasons.

First, an MNE parent company and one of its subsidiaries cannot just decide upon a simple, optimal structural context that would determine all their interactions. This is because a single subsidiary may be involved in several value-creating activities, each of which is associated with a particular bundle of four potential competencies: location-bound FSAs; nonlocation-bound FSAs transferred from the parent (or the MNE network); nonlocation-bound FSAs created by the subsidiary itself and diffused throughout the MNE; and, finally, subsidiary-specific advantages. In other words, subsidiary-specific advantages may themselves be differentiated across various value-creating activities. This implies that the recent empirical studies on global knowledge creation in MNEs (Nobel and Birkinshaw, 1998; Pearce, 1997; Taggart, 1998), which have observed substantial differentiation in subsidiary roles and have attempted to identify generic subsidiary roles in this area, need to be complemented with detailed empirical analysis of FSA and subsidiary-specific advantage bundles in subsidiaries. These bundles may largely influence which coordination processes in the MNE are most conducive to rent creation.

Second, subsidiary-specific advantages result at least partly from interactions with external networks specific to the subsidiary. The question that arises is whether the parent company should stimulate isomorphic flexibility by subsidiaries (Rugman and Verbeke, 1995). On the one hand this will facilitate the subsidiary-specific advantage development process, but on the other it will increase the local embeddedness of the competencies and capabilities created. An alternative is the institutionalization approach. While the subsidiary may act as the key agent in nonlocation-bound knowledge creation, attempts are made to reduce the local embeddedness of the knowledge creation process. This is done by focusing on organization routines that increase the MNE's overall absorptive capacity to properly assimilate the knowledge created at the subsidiary level. The problem with 'institutionalization' is that a knowledge creation process aimed at reducing

local embeddedness may actually reduce the subsidiary's capability to assimilate and exploit externally available information (Cohen and Levinthal, 1989; Campbell and Verbeke, 2000).

Third, the creation of subsidiary-specific advantages leads to new challenges regarding the evaluation and rewarding of subsidiary managers. Should the existence of intracompany mobility barriers to knowledge transfers be sanctioned, given the problems created, as compared to the situation whereby subsidiary managers would have attempted to increase the internal knowledge diffusion potential? Or should subsidiary managers be rewarded for creating a 'specialized' knowledge base which is unique, thereby making the MNE less vulnerable if competitive pressure would erode its key nonlocation-bound FSAs that are diffused throughout the company? Paradoxically, bounded rationality problems in the area of subsidiary performance evaluation by the parent company, and the multinational network as a whole, may become so important when the scope and volume of subsidiary-specific advantages in an MNE increase, that the firm may revert to the use of 'second best,' simple, market-based incentives (i.e., financial controls, and nonmonetary rewards such as access to additional corporate technology or human resources) (Hennart, 1993). Here, it is the external market which is ultimately viewed as the best appraiser of the value-creating capacity of subsidiary-specific advantages and the synergies realized by combining them with FSAs.

This constitutes a sobering thought in an era when influential academic work (Nohria and Ghoshal, 1997) suggests the need to establish an MNE-wide global corporate culture, based primarily on socialization mechanisms such as interpersonal communication, lateral networking, the creation of shared values, etc. The perhaps unpleasant reality of multinational business is that in a complex, differentiated network, trust results primarily from consistent and coherent, and therefore predictable, managerial decision making, on the basis of facts and data which can easily be codified and understood by all in the organization. Here, performance visibility of individual subsidiaries is critical. The extensive use of socialization mechanisms may be essential to increase employee commitment to the organization, but an MNE characterized by strong subsidiary-specific advantages may need to be managed by a few simple, price-based coordination and control tools

which ultimately should measure the customer's willingness to pay for the MNE's products and services. In a comparative institutional analysis, the relative costs and benefits of increased socialization must therefore be carefully weighted against the costs and benefits of alternative coordination and control systems.

Fourth, if the relative importance of subsidiary-specific advantages in an MNE increases, as compared to nonlocation-bound FSAs and location-bound FSAs, a situation which appears especially relevant in an era of mega-takeovers (e.g., the takeover of the Belgian Tractebel energy group by the Suez-Lyonnaise des Eaux utility group) and megamergers (e.g., the formation of the Daimler-Chrysler group), it may become increasingly difficult to take charters away from particular 'subsidiaries' in the MNE. It could be argued that this situation has already been widely documented in the past, e.g., in the seminal Prahalad and Doz (1981) work, but the difference is that here subsidiaries are involved which serve the global market and possess competencies and capabilities which cannot be altered just by changing the subsidiary managers' 'cognitive,' 'strategic,' 'administrative,' and 'power' orientations through a well-designed change process.

Fifth, and this is related to the two previous implications, a substantial body of knowledge now exists; which identifies the so-called 'regional solution' rather than the 'transnational solution' as an organizational form that many MNEs are, or will be, adopting in the near future. The regional solution implies that, within the MNE, both bounded rationality constraints and value creation objectives require dispersing competencies and capabilities among internal, region-based networks, typically in each leg of the triad (E.U., NAFTA countries, Asia). If this perspective is correct—one author has even coined the phrase 'end of globalization' (Rugman, 2000), to illustrate the tendency toward region-based networks—it implies that a much greater attention will need to be devoted to the relative impact of subsidiary-specific advantages associated with high interregional mobility barriers.

CONCLUSION

In this paper we have demonstrated that the analysis of the functioning of internal MNE net-

works greatly benefits from the systematic investigation of FSA development and diffusion processes. Our new conceptual framework suggests that single subsidiaries may be associated with several 'generic' FSA development and diffusion processes in their value-creating activities. This implies that attempts to classify subsidiaries according to their specific 'role' in the MNE has become less relevant.

We have developed an organizing framework to assess patterns of competence building in MNEs. Three types of knowledge bundles are critical: nonlocation-bound FSAs; location-bound FSAs; and subsidiary specific advantages. In this framework, nonlocation-bound FSAs have two key characteristics: (i) they can be exploited globally, and (ii) they are relatively easy to diffuse internally. In contrast, location-bound FSAs have the opposite characteristics: (iii) they lead to the benefits of national responsiveness, and (iv) they are difficult to diffuse internally. The concept of subsidiary-specific advantages developed here leads to a new mixture of characteristics, namely (i) and (iv). In other words, subsidiary-specific advantages combine the benefits of global exploitation of know-how with difficulty in its internal diffusion. This subsidiary-specific advantage case has not been discussed previously in the rapidly growing literature on the management of multinational subsidiaries.

If, in a single subsidiary, several patterns of competence building can be identified, this implies a multidimensional nature of the subsidiary function in the MNE. The organizing framework developed in this paper has identified 10 types of knowledge development and diffusion processes and discussed these patterns of competence building within the dispersed network of the MNE. We have argued that the patterns involving subsidiary-specific advantages may become of increasing importance in the future.

Managers and researchers need to recognize the existence of subsidiary-specific advantages. This will lead to a focus on internal knowledge mobility barriers, which may appear to be at odds with the large recent literature on improving internal know-how absorption and diffusion processes (Galunic and Rodan, 1998). However, if one starts from the assumption that internal mobility barriers will continue to exist and that, from a normative perspective, this may even increase a firm's performance, then more research attention

should be devoted to the functioning of regional networks within MNEs. The increasing importance of subsidiary-specific advantages may also reflect an urgent need to recognize the limits of globalization, even from the perspective of the MNEs themselves.

In order to test empirically the framework developed in this paper, two streams of research might be developed. On the one hand, case studies of MNE subsidiaries could be conducted which would attempt to 'deconstruct,' for each value chain function performed by subsidiaries, the knowledge bundles used and/or created. The focus should be on the geographic source and transferability of these knowledge bundles.

On the other hand, more large-scale statistical studies could be conducted on the limits of knowledge transfers within the MNE, for example, by assessing the 'nondiffusion' of recognized best practices, again per value chain function for specific product lines. This type of value chain-driven research within a single governance structure has already been successfully conducted in the context of interorganizational knowledge transfers, by Nordberg and Verbeke (1999). Here the emphasis should be on three types of affiliates:

- the subsidiaries which act as a home base for the creation of new R&D knowledge, in order to build at least partly on their host country knowledge development systems, including the nonbusiness infrastructure (e.g., local human resource pools of scientists and engineers, university laboratories, specialized public research centers) and are responsible for its global exploitation;
- the affiliates that perform the role of regional headquarters, typically at the level of the American continent, Europe and Asia;
- the affiliates that result from global mergers and acquisitions, and have lost their former corporate headquarters but remain fully responsible for the global exploitation of a number of product lines under their control, including R&D, manufacturing, and distribution.

REFERENCES

- Barney J. 1991. Firm resources and sustained competitive advantage. *Journal of Management* 17: 99–120.

- Bartlett CA. 1986. Building and managing the transnational: the new organizational challenge. In *Competition in Global Industries*, Porter ME (ed.). Harvard Business School Press: Boston, MA; 367–404.
- Bartlett CA, Ghoshal S. 1989. *Managing Across Borders: The Transnational Solution*. Harvard Business School Press: Boston, MA.
- Birkinshaw JM. 1996. How multinational subsidiary mandates are gained and lost. *Journal of International Business Studies* 27(3): 467–496.
- Birkinshaw JM. 1997. Entrepreneurship in multinational corporations: the characteristics of subsidiary initiatives. *Strategic Management Journal* 18(3): 207–229.
- Birkinshaw JM, Hood N (eds.). 1998a. *Multinational Corporate Evolution and Subsidiary Development*. Macmillan: London.
- Birkinshaw JM, Hood N. 1998b. Multinational subsidiary evolution: capability and charter change in foreign-owned subsidiary companies. *Academy of Management Review* 23(4): 773–795.
- Birkinshaw JM, Hood N, Jonsson S. 1998. Building firm-specific advantages in multinational corporations: the role of subsidiary initiative. *Strategic Management Journal* 19(3): 221–241.
- Buckley PJ, Casson M. 1976. *The Future of the Multinational Enterprise*. Macmillan: London.
- Campbell A, Verbeke A. 2000. The multinational management of multiple external networks. In *Globalization and the Small Open Economy*, Van Den Bulke D, Verbeke A (eds.). Edward Elgar: Cheltenham; forthcoming.
- Cantwell J. 1989. *Technological Innovation and Multinational Corporations*. Basil Blackwell: Oxford.
- Cantwell J. 1992. The theory of technological competence and its application to international production. In *Foreign Investment, Technology and Economic Growth*, McFeteridge DG (ed.). University of Calgary Press: Calgary; 33–67.
- Cantwell J. 1995. The globalization of technology: what remains of the product cycle model? *Cambridge Journal of Economics* 19: 1–27.
- Caves RE. 1982. *Multinational Enterprise and Economic Analysis*. Cambridge University Press: Cambridge, UK.
- Cohen W, Levinthal D. 1989. Innovation and learning: the two faces of R&D. *Economic Journal* (September): 569–596.
- Connor KR. 1991. A historical comparison of resource-based theory and five schools of thought within industrial economics. *Journal of Management* 17: 121–154.
- Dierickx I, Cool K. 1989. Asset stock accumulation and sustainability of competitive advantage. *Management Science* 35(December): 1504–1511.
- Dosi G, Pavitt K, Soete L. 1990. *The Economics of Technical Change and International Trade*. New York University Press: New York.
- Dunning JH. 1958. *American Investment in British Manufacturing Industry*. Allen & Unwin: London.
- Dunning JH. 1981. *International Production and the Multinational Enterprise*. Allen & Unwin: London.
- Dunning JH. 1988. *Explaining International Production*. Unwin Hyman: London.
- Dunning JH. 1993. *Multinational Enterprises and the Global Economy*. Addison-Wesley: New York.
- Dunning JH. 1994. Multinational enterprises and the globalization of innovative capacity. *Research Policy* 23: 67–88.
- Dunning JH. 1995. Reappraising the electric paradigm in an age of alliance capitalism. *Journal of International Business Studies* 26(3): 461–492.
- Dunning JH, Rugman AM. 1985. The influence of Hymer's dissertation on the theory of foreign direct investment. *American Economic Review* 75: 228–232.
- Florida R. 1997. The globalization of R&D: results of a survey of foreign-affiliated R&D laboratories in the U.S.A. *Research Policy* 26(1): 85–103.
- Foss NJ. 1997. *Resources, Firms and Strategies: A Reader in the Resource-based Perspective*. Oxford University Press: Oxford.
- Franko LG. 1978. Organizational structures and multinational strategies of continental European enterprises. In *European Research in International Business*, Ghertman M, Leontiades J (eds.). North-Holland: Amsterdam; 111–140.
- Galunic DC, Rodan S. 1998. Resource recombinations in the firm: knowledge structure and the potential for Schumpeterian innovation. *Strategic Management Journal* 19(12): 1193–1201.
- Hamel G, Prahalad CK. 1994. *Competing for the Future*. Harvard Business School Press: Boston, MA.
- Hedlund G. 1981. Autonomy of subsidiaries and formalization of headquarters–subsidiary relationships in Swedish MNEs. In *The Management of Headquarters–Subsidiary Relationships in Multinational Corporations*, Otterbeck L (ed.). Gower: Aldershot; 25–78.
- Hedlund G. 1986. The hypermodern MNE: a heterarchy? *Human Resource Management* 25: 9–36.
- Hennart J-F. 1982. *A Theory of Multinational Enterprise*. University of Michigan Press: Ann Arbor, MI.
- Hennart J-F. 1993. Explaining the 'swollen middle': why most transactions are a mix of market and hierarchy. *Organization Science* 4(4): 529–547.
- Hood N, Young S. 1983. *Multinational Investment Strategy in the British Isles*. HMSO: London.
- Hulbert JM, Brandt WK. 1980. *Managing the Multinational Subsidiary*. Holt Rinehart & Winston: New York.
- Hymer SH. 1976. *The International Operations of National Firms: A Study of Direct Foreign Investment*. MIT Press: Cambridge, MA. (originally PhD dissertation, MIT, 1960)
- Jarillo JC, Martinez JI. 1990. Different roles for subsidiaries: the case of multinational corporations in Spain. *Strategic Management Journal* 11(7): 501–512.
- Kim WC, Mauborgne RA. 1991. Implementing global strategies: the role of procedural justice. *Strategic Management Journal*, Summer Special Issue 12: 125–143.
- Kuemmerle W. 1999. The drivers of foreign direct investment into research and development: an empirical investigation. *Journal of International*

- Business Studies* 30(1): 1–24.
- Magee SP. 1977. Information and the multinational corporation: an appropriability theory of foreign direct investment. In *The New International Economic Order*, Bhagwati JN (ed.). MIT Press: Cambridge, MA; 317–340.
- Malnight TW. 1996. The transition from decentralized to network-based MNC structures: an evolutionary perspective. *Journal of International Business Studies* 27(1): 43–65.
- McManus JC. 1972. The theory of the international firm. In *The Multinational Firm and the Nation State*. Paquet G (ed.). Collier-Macmillan: Toronto; 66–93.
- Moore K, Birkinshaw J. 1998. Managing knowledge in global service firms: centers of excellence. *Academy of Management Executive* 12(4): 81–92.
- Moore K, Heeler R. 1998. A globalization strategy for subsidiaries: subsidiary specific advantages. *Journal of Transnational Management Development* 3(2): 1–14.
- Nelson RR (ed.). 1993. *National Innovation Systems*. Oxford University Press: Oxford.
- Nelson RR, Winter SG. 1982. *An Evolutionary Theory of Economic Change*. Harvard University Press: Cambridge, MA.
- Nobel R, Birkinshaw J. 1998. Innovation in multinational corporations: control and communication patterns in international R&D operations. *Strategic Management Journal* 19(5): 479–496.
- Nohria N, Ghoshal S. 1997. *The Differentiated Networks: Organizing Multinational Corporations for Value Creation*. Jossey-Bass: San Francisco, CA.
- Nonaka I, Takeuchi H. 1995. *The Knowledge-creating Company*. Oxford University Press: New York and Oxford.
- Nordberg M, Verbeke A. 1999. *The Strategic Management of High Technology Contracts: The Case of CERW*. Pergamon-Elsevier Science: New York.
- Pearce R. 1997. *Global Competition and Technology*. Macmillan: London.
- Perlmutter HV. 1969. The tortuous evolution of the multinational corporation. *Columbia Journal of World Business* 4(1): 9–18.
- Porter ME. 1990. *The Competitive Advantage of Nations*. Free Press: New York.
- Prahalad CK, Doz YL. 1981. An approach to strategic control in MNEs. *Sloan Management Review* 22(4): 5–14.
- Rugman AM. 1981. *Inside the Multinationals: The Economics of Internal Markets*. Columbia University Press: New York.
- Rugman AM. 2000. *The End of Globalization*. Random House Business Books: London.
- Rugman AM, Bennett J. 1982. Technology transfer and world product mandating in Canada. *Columbia Journal of World Business* 17(4): 58–62.
- Rugman AM, D'Cruz JR. 2000. *Multinationals as Flagship Firms: A New Theory of Regional Business Networks*. Oxford University Press: Oxford.
- Rugman AM, Douglas S. 1986. The strategic management of multinationals and world product mandating. In *Managing the Multinational Subsidiary*, Etemad H, Seguin-Dulude L (eds.). Croon Helm: London; 99–101.
- Rugman AM, Verbeke A. 1992. A note on the transnational solution and the transaction cost theory of multinational strategic management. *Journal of International Business Studies* 23(4): 761–772.
- Rugman AM, Verbeke A. 1993. Generic strategies in global competition. In *Research in Global Strategic Management, Volume 4: Global Competition: Beyond the Three Generics*, Rugman AM, Verbeke A (eds.). JAI Press: Greenwich, CT; 3–16.
- Rugman AM, Verbeke A. 1995. Transnational networks and global competition: an organizing framework. In *Research in Global Strategic Management: Volume 5: Beyond the Diamond*, Rugman AM, Van Den Broeck J, Verbeke A (eds.). JAI Press: Greenwich, CT; 3–24.
- Rugman AM, Verbeke A. 1998a. Corporate strategy and environmental regulations: an organizing framework. *Strategic Management Journal* 19(4): 363–376.
- Rugman AM, Verbeke A. 1998b. Multinational enterprises and public policy. *Journal of International Business Studies* 29(1): 115–136.
- Rumelt RP. 1984. Towards a strategic theory of the firm. In *Competitive Strategic Management*, Lamb RB (ed.). Prentice-Hall: Englewood Cliffs, NJ; 556–570.
- Shan W, Song J. 1997. Foreign direct investment and the sourcing of technological advantage: evidence from the biotechnology industry. *Journal of International Business Studies* 28(2): 267–284.
- Stopford JM, Wells LT Jr. 1972. *Managing the Multinational Enterprise*. Basic Books: New York.
- Taggart JH. 1997. Autonomy and procedural justice: a framework for evaluating subsidiary strategy. *Journal of International Business Studies* 28(1): 51–76.
- Taggart JH. 1998. Strategic shifts in MNC subsidiaries. *Strategic Management Journal* 19(7): 663–681.
- Teece DJ. 1976. *Vertical Integration and Vertical Divestiture in the U.S. Oil Industry*. Institute for Energy Studies. Stanford University: Stanford, CA.
- Teece DJ. 1977. Technology transfer by multinational firms: the resource cost of transferring technological knowhow. *Economic Journal* 87(June): 242–267.
- Teece DJ, Pisano G, Shuen A. 1997. Dynamic capabilities and strategic management. *Strategic Management Journal* 18(7): 509–533.
- Vernon R. 1966. International investment and international trade in the product cycle. *Quarterly Journal of Economics* 80: 190–207.
- Weick KE, Roberts KH. 1993. Collective minds in organizations: heedful interrelating and flight deck. *Administrative Science Quarterly* 32: 357–381.
- Wernerfelt B. 1984. A resource-based view of the firm. *Strategic Management Journal* 5(2): 171–180.
- White RE, Poynter TA. 1984. Strategies for foreign-owned subsidiaries in Canada. *Business Quarterly Summer*: 59–69.