



University of Navarra

Working Paper

WP No 489

January, 2003

FIGHTING FOR POWER: THE STRATEGY
OF GLOBAL MNCS' SUBSIDIARIES

Carlos García Pont*
Fabrizio Noboa**

* Professor of Marketing, IESE

** Doctoral Candidate, IESE

IESE Business School - University of Navarra

Av. Pearson, 21 - 08034 Barcelona, Spain. Tel.: +34 93 253 42 00 Fax: +34 93 253 43 43

Camino del Cerro del Águila, 3 (Ctra. de Castilla, km. 5,180) - 28023 Madrid, Spain. Tel.: +34 91 357 08 09 Fax: +34 91 357 29 13

Copyright© 2003 , IESE Business School. Do not quote or reproduce without permission

FIGHTING FOR POWER: THE STRATEGY OF GLOBAL MNCS' SUBSIDIARIES

Abstract

The purpose of this paper is to examine the relational configurations for a subsidiary that belongs to a global industry such as auto components manufacture. As global integration pressures are high in this environment, there are pressures for centralization and some subsidiaries are losing resources and capabilities in benefit of headquarters or other subsidiaries. Consequently, they may fight within the MNC to maintain the control over certain resources and capabilities, mainly through strong relationships with local suppliers, providers, customers or other units of the MNC, that may reach global relevance. While previous studies have identified the significance of networks as a metaphor to understand MNC structure, we attempt to show how the analysis of the networks of contacts of a subsidiary is a useful tool to identify which role is the subsidiary playing in the overall multinational. It shows useful to apply networks as a tool that to proactively develop a formulated strategy on the side of the subsidiary.

Keywords: subsidiary, relationship network, resource configuration, multinational corporations, auto components

FIGHTING FOR POWER: THE STRATEGY OF GLOBAL MNCs' SUBSIDIARIES

Introduction

Multinational corporations (MNCs) have been present in academic debate for quite a long time. An important stream of literature on this topic discusses how global companies organize and manage worldwide operations. Global strategies emphasize how firms can develop competitive advantages by operating in interdependent national markets. Advantages may come from exploiting differences in national resource endowments, the flexibility of MNC networks, or economies of scale, scope and learning (Malnight, 1996). Organizationally, part of the debate has been about how MNCs can be managed by altering their resource configuration (where they locate key resources) and their organization (how they structure and manage worldwide operations) (Bartlett & Ghoshal, 1991, Nohria & Ghoshal, 1997, Porter, 1986, Prahalad & Doz, 1987).

Resource configuration decisions relate to what activities a firm chooses to perform internally and where it chooses to locate them. Some authors suggest that MNCs need to develop distributed and specialized resource configurations (Bartlett & Ghoshal, 1991), impacting worldwide flows of products, capital, people, and knowledge within the firm. A common theme in similar discussions has been how to locate resources to pursue sources of competitive advantage associated with global integration, local responsiveness and learning (Bartlett & Ghoshal, 1991, Nohria & Ghoshal, 1997). In other words, resource configuration in MNCs has been traditionally analyzed from an economic perspective, under the assumption that resource location decisions are based on rational self-interested considerations, such as profitability or protecting a competitive position. Following Granovetter's (1985) ideas, much of this analysis should include socialized conceptualizations that complement the important effects that surrounding social structures have on the economic behavior of organizations. Thus, it would be interesting to extend alternative frameworks that relate how resources are configured within a MNC with the interactions within and across the company's different local organization sets (Ghoshal & Bartlett, 1990).

The purpose of this paper is to examine such relational configurations for a subsidiary that manufactures auto components, this being a global market under Bartlett & Ghoshal's (1991) specifications. As global integration pressures are high in this environment, there are pressures for centralization and some subsidiaries are losing resources and capabilities to the benefit of headquarters or other subsidiaries (e.g. a subsidiary in Spain may lose its marketing resources and capabilities to the benefit of the Italian subsidiary of the same MNC). These subsidiaries may even end up as mere implementers (1) of a strategy

(1) Bartlett & Ghoshal (1991) classify subsidiaries into four generic roles: Implementer, Contributor, Black Hole, Strategic Leader. Definitions are extended in later sections.

designed by headquarters. Generally, implementers are subject to ever-expanding control by headquarters, so that their managers have little incentive to improve their managerial skills and abilities (Bartlett & Ghoshal, 1987). Consequently, they may fight within the MNC to retain control over certain resources and capabilities, mainly by building strong relationships with local suppliers, providers, customers or government agencies –relationships that may acquire global relevance. Alternatively, these subsidiaries may turn themselves into contributors by developing specific managerial skills at the subsidiary level. Thus, resource configurations in MNCs will be the consequence not only of economic decisions, but also of power and politics. It may be interesting, therefore, to observe the nature of the relationships of such a subsidiary in order to determine the precise role those relationships play when we are trying to analyze subsidiary strategy and MNCs' resource configurations.

Managing Multinational Corporations: From Hierarchies to Networks

Multinational corporations started to appear at the beginning of the 1960s (Chandler, 1962). As globalization and international trade increased, they proliferated and their role in the worldwide economy became more important (2). As Kogut (1985) wrote, the 1980s witnessed a proliferation of books and papers on the subject of MNCs, trying to provide answers to questions such as why they existed or what was the best way to organize such large firms. It is possible to identify two types of theories of the MNC. On one side are those that equate the MNC to a multi-plant firm with plants in different countries and justify their existence in terms of transactional advantages. According to this view, MNCs benefit from internalizing transactions that are performed ineffectively in the market. These explanations can be labeled as *negative* theories of the MNC, as they explain the existence of MNCs based on international market imperfections.

In contrast, certain scholars have voiced the need to build a *positive* theory of the MNC (Bartlett & Ghoshal, 1991, Nohria & Ghoshal, 1997). For them, MNCs exist due to their ability to generate value creation environments through effective coordination of far-flung units that facilitates the generation and diffusion of innovations throughout all the units of the firm. These explanations emphasize the geographical-disperse and global-disparate nature of a type of organization made up of headquarters and different national subsidiaries. In essence, these frameworks argue that taking advantage of market imperfections is a weak reason for the existence of MNCs: escalating geographic dispersion not only allows the firm to benefit by performing transactions more effectively internally than at arm's-length, but also can greatly improve coordination, distribution, and management costs (Hitt, Hoskisson, & Kim, 1997). Multinational corporations' managers thus have to strike a balance between the benefits of economies of scale and scope, the opportunity of management learning due to the different contexts they operate in, and the coordination costs incurred to effectively manage dispersed units.

The differences between these two conceptions of the MNC extend to the field of structure and governance. When the success of the MNC depends on its ability to find transactional advantages, headquarters plays a prominent role in deciding whether or not to invest and how to coordinate and structure global operations (Porter, 1986). Subsidiaries are marginally analyzed and are seen as merely implementing strategic imperatives issued by headquarters. However, when the emphasis is placed on the coordination and structure of the

(2) By 1996 MNC operations accounted for more than 40% of world trade (UNCTED, 1997).

units that make up the MNC in order to improve the firm's value creation potential through the diffusion of innovations, the excessive importance given to headquarters is attenuated, as it is impossible for headquarters to respond effectively to the pressures of global integration and local responsiveness, these being decisions that are better analyzed at the subsidiary level (Prahalad & Doz, 1987). We may conclude, then, that managing MNCs is not a matter of governing a hierarchy but of managing a network of relationships.

The evolution of the literature on managing MNCs was anticipated by Hedlund (1986), who distinguished between hierarchical and heterarchical MNCs, the latter resembling what are called network-based conceptions of the MNC. For example, a hierarchical MNC bases its competitive advantage on one center, whether headquarters or country, whereas a network-based MNC relies on multiple centers, be they subsidiaries or headquarters. By the same token, under a network-based conception of the MNC, some of the activities performed at subsidiary level (e.g. R&D, product development, marketing, sales) may be as important as the role played by headquarters; in contrast, hierarchical conceptions of MNCs limit their analysis to how headquarters makes decisions. Finally, a hierarchical conception of the MNC is usually symmetric, that is to say, it analyzes subsidiaries uniformly, even though it is obvious that units operating in South America and Europe face completely different environments. (Bartlett & Ghoshal, 1987) named this strategy of managing subsidiaries uniformly the UN syndrome. In contrast, network-based conceptions of MNCs reflect the complexity of these organizations more accurately.

One final reflection is worth mentioning. The literature on MNCs implicitly assumes the existence of a continuum that defines a MNC based on the particular combination of pressures in the environment in which the MNC operates, as regards integration-centralization-globalization versus differentiation-local responsiveness-localization. The very first typologies put forward were based on one or two variables, specially industry structure (e.g. Caves, 1982, Porter, 1986) or percentage of foreign sales (Stopford & Wells, 1972), and implicitly assumed a more or less clear relation between strategy and structure. Most recent contributions highlight the contingent nature of this relationship, arguing that there is no "best way" to structure a MNC and that it all depends on the characteristics of the environment in which the dispersed units of the MNC operate. These contingencies are well summarized in the variables proposed by Prahalad & Doz (1987): global integration and local responsiveness.

Summarizing, most recent contributions on managing MNCs claim that the effectiveness of these firms cannot be reduced to a simple, univocal correlation between strategy and structure, due to their highly contingent nature. Additionally, analyzing the decisions taken at headquarters may leave out the important role played by subsidiaries. In this sense, it may pay to move the focus of attention to the subsidiaries if we are to better understand the behavior of MNCs.

Managing MCS' Subsidiaries: From Dyadic Relationships to Embeddedness

Even though the most extended definitions of a MNC are based on the number of countries in which a company operates, a more clarifying definition is the one given by Ghoshal and Bartlett. For them "a multinational corporation consists of a group of geographically dispersed and goal-disparate organizations that include its headquarters and the different national subsidiaries" (1990: 603). It is evident that subsidiaries play an important role in the performance of a MNC, be it in terms of their ability to operate

internationally or their capacity to develop managerial innovations that add value to global operations. However, it is surprising that subsidiaries have not been a focus of inquiry until recently. The first attempts to analyze these units were made in the '70s and '80s; themes such as centralization (Gates & Egelhoff, 1986), formal relationships (Otterbeck, 1981), and control mechanisms (3) were researched without conclusive statements. This apparent failure may be explained in part by an incomplete conception of the MNC, because at that time the MNC was conceived as a hierarchic organization, with headquarters monopolizing strategic decisions and subsidiaries simply implementing them. Concepts such as the *differentiated network*, developed and defended by Nohria & Ghoshal (1997), according to which subsidiaries are controlled by the required complexity of their environment and so are differentiated even within the same MNC, better define the role played by these units of the corporation.

The literature on the role of MNC subsidiaries was initiated by Canadian scholars and their research into centers of excellence (White & Poynter, 1984). They found subsidiary asymmetry in strategic importance, product development tasks or other operative functions for Canadian-based subsidiaries. Further research extended this stream of literature by applying MNC typologies for subsidiaries, typically suggesting four different roles based on two variables (see Table 1 for a summary). In general, we can distinguish three viewpoints as regards subsidiary role. The most common one is to consider the subsidiaries' role as being assigned by headquarters. Bartlett & Ghoshal (1987), for example, state that based upon resources and capabilities and the strategic importance of subsidiaries, headquarters assign different roles to different units. Other authors argue that it is a subsidiary's relative autonomy that allows it to determine its own strategy (Etemand & Dulude, 1986). Lastly, other authors argue that a subsidiary's environment is the determining factor and that headquarters have to define the organizational structure that best fits the level of complexity of the environment (Nohria & Ghoshal, 1997).

Be that as it may, this stream of literature stresses that subsidiaries cannot be treated uniformly without the risk of grossly underutilizing the company's worldwide assets and organizational capabilities (Bartlett & Ghoshal, 1987). Accepting that subsidiaries can perform different strategic roles, even within the same MNC, was a great step forward in our understanding of the management of MNCs. In particular, when this premise was accepted it became apparent that any role performed by subsidiaries cannot be separated from the particular endowment of each unit. In this sense, the more different environments a MNCs' units have to face, the more complex the company's resource configuration will be, and the more complicated it will be to organize.

(3) See Martínez, Jon & Carlos Jarillo (1989) for a comprehensive review.

Table 1. Typologies of subsidiaries: Summary

Reference	Variables	Typologies
White & Poynter (1984)	Product scope Market scope	Miniature replica (adopter) Miniature replica (innovator) Product specialist Strategic independent
Jarillo & Martínez (1990)	Integration Localization Active subsidiary	Receptive subsidiary Autonomous subsidiary
Bartlett & Ghoshal (1991)	Level of local resources and capabilities Strategic importance of local environment	Black Hole Implementer Strategic Leader Contributor
Gupta & Govindarajan (1991)	Knowledge outflows Knowledge inflows	Local innovator Implementers Global innovator Integrated player
Birkinshaw & Morrison (1995)	Autonomy Integration of activities	Local implementers Specialized contributor World mandate
Taggart (1997)	Coordination Configuration	Quiescent subsidiaries Receptive subsidiary Autonomous subsidiary Active subsidiary

Source: Adapted from Paterson & Brock (2002).

As regards MNCs' resource configuration, the literature has suggested that MNCs have to develop distributed and specialized resource configurations (Bartlett & Ghoshal, 1991). A common theme in similar discussions has been the need to locate resources to pursue sources of competitive advantage associated with global integration, local responsiveness and learning (Bartlett & Ghoshal, 1991, Nohria & Ghoshal, 1997). In other words, resource configuration in MNCs has traditionally been analyzed from an economic perspective, on the assumption that resource location decisions are based on rational self-interested considerations such as profitability or protecting a competitive position. Following Granovetter's (1985) ideas, Ghoshal & Bartlett (1990) suggest that economic analysis typically ignores the important effects that surrounding social structures have on organizations' economic behavior. For these authors, certain MNC attributes, such as resource configuration and the nature of inter-unit exchange relations that lead to such a configuration, can be explained by the selected attributes of the external network within which the organization is embedded and on which it depends for its survival. In other words, the level of network embeddedness of a subsidiary plays a more important role as regards resource configuration than the dyadic relationships between the unit and headquarters.

Summarizing, to better understand how subsidiaries contribute to the MNC and how they intervene in the configuration of the company's resources and capabilities, it may be helpful to analyze their external relationships. In this sense, the level of embeddedness of a particular subsidiary may affect decisions based on economic grounds taken at headquarters, altering the places where resources are concentrated in order to achieve economies of scale. This may be particularly critical for subsidiaries that are mere implementers of headquarters mandates, or contributors, which may be common in global industries (Bartlett & Ghoshal, 1987).

A Subsidiary Perspective

While there have been numerous studies dealing with the network configuration of the MNC, none to our knowledge has been done at the subsidiary level. We shall focus on one particular kind of subsidiary, the implementer (Bartlett & Ghoshal, 1991). This subsidiary is characterized by its presence in a non-important market, but also by a significant endowment of resources. Even though Bartlett & Ghoshal (1991) categorize MNCs as global, multinational, transnational and international, they do not make a clear link between the type of MNC and the specific role subsidiaries can play. This paper attempts to fill this gap in the literature.

Global industries are characterized by the presence of global customers and global competitors. At the same time, they are thought to have significant economies of scale in the development of their value chain activities. However, it is already clear that scale economies may work differently when we get down to the specifics of each value chain activity (Porter, 1986). While R&D may be global by nature, the minimum efficient scale of a manufacturing plant does not necessarily need to be global. However, it may be important that these two activities, R&D and manufacturing, be closely linked through personal contacts that will help the R&D teams to develop new products that are ready for manufacturing. Similarly, relations among different activities, all of them with different minimum efficient scales, may complicate the network of relationships among the different activities within the value chain.

Furthermore, global companies are never designed from scratch, but are the consequence of different historical developments that shape the overall configuration of their international value chain. Thus, some subsidiaries are there because they were acquired in the globalization process, others might be there because trade restrictions forced their green-field development at a certain point in time. Rationalizing value chain activities, though possible, it is not always easy. On the one hand, institutional settings may make it difficult to terminate certain activities, e.g. the labor cost of a plant closure in Germany or Spain is significant and may preclude it. On the other hand, certain subsidiaries may have grown specific assets that make up for the apparent inefficiency of having activities dispersed among different geographical locations.

We conclude that even when we speak of global industries we are not dealing with our “academic” definition of a global configuration (with most activities concentrated in one region while sales and marketing take a global approach), but with a number of different subsidiaries trying to play the global game and being coordinated both through the global headquarters and through their individual efforts to maintain their status within the global network. We are faced, therefore, with a global company that, according to our understanding, should have its activities concentrated in a particular region or subsidiary, while in fact those activities are globally dispersed through the different subsidiaries. The subsidiaries face the opposite problem: they carry out different activities that all belong to a global value chain and so need to coordinate with all the other activities distributed globally throughout the MNC. In network terms, a subsidiary will have a lot of contacts with other subsidiaries, as well as with headquarters. Thus, we can conclude:

Proposition 1: The egonetwork of a subsidiary whose MNC is global will be dense. In other words, the subsidiary will present a high architectural openness, not only in relation to headquarters but also in relation to other units of the MNC such as line companies, suppliers and customers.

Subsidiary Types and Subsidiary Network

Global MNCs focus their attention on creating products for a world market and manufacture them on a global scale in a few highly efficient central plants, typically delegating responsibilities for downstream activities to the national units while the center controls upstream elements. Although Bartlett & Ghoshal (1991) are not specific about this, national units that belong to a global MNC may perform two generic roles: subsidiaries may be mere “implementers” of headquarters mandates, or they may be “contributors” to a global strategy (see also Birkinshaw & Morrison, 1995).

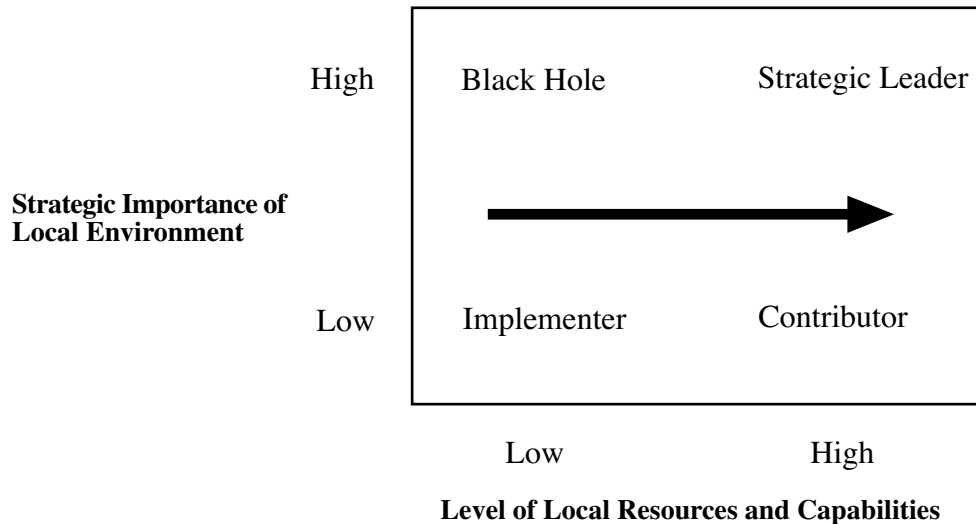
Implementers make it possible for a MNC to achieve economies of scale and scope that are critical for most global strategies. However, they do not have access to critical information and do not control scarce resources. They are “deliverers of the company’s value added” in Bartlett and Ghoshal words (1991: 100). Their strategic importance lies in the level of efficiency they achieve, their capacity to maintain the company’s commercial viability, and their ability to generate resources that support strategic and innovative processes worldwide. *Contributors* are different. They try to capture the benefits of certain local facilities or capabilities and apply them to the broader worldwide operations. They are able to build excess resources in a non-critical environment, forcing headquarters to redirect these resources to global tasks.

Although the typologies are not clear-cut, the subsidiary that is the subject of our analysis may be classified as an “implementer”. This is not to underestimate the strategic importance of the unit, but it allows us to catalog its strategic alternatives. If a MNC treats its subsidiaries as implementers, it runs the risk of grossly underutilizing the subsidiaries’ physical assets and organizational capabilities, and demotivating their managers. As the globalization strategy is implemented, subsidiary managers may fight to keep control of strategic resources in order to retain global importance. If they want to succeed, they may also try to generate innovative resources that would have an impact on worldwide processes; in other words, they may try to become “outstanding implementers” or “contributors”. Therefore, the attempts of a subsidiary that belongs to a global MNC to gain strategic relevance may be synthesized in a movement along the Implementer-Contributor continuum (see Figure 1).

To develop in this strategic direction, the subsidiary has to decide which are the critical business activities that are most likely to contribute to the overall global business. The subsidiary managers will then devote more efforts to these activities, thus increasing their exposure to international activities. A subsidiary will devote its efforts to contributing to key business activities in the overall global business. While moving along the implementer-contributor line, a subsidiary will strengthen its relationships with the key activities of the overall global business. Thus, we can conclude:

Proposition 2: A subsidiary moving from an implementer to a contributor position will have a dense network of outflow relationships with those activities that are key for the global business performance.

Figure 1. Strategic Tendency for Implementers/Contributors



Source: The line is interpreted from Bartlett & Ghoshal's (1991) categorizations.

The subsidiary will increase the performance of these business activities at the local level, so that the overall business can draw from them. Thus, we can conclude that:

Proposition 3: A subsidiary moving from implementer to contributor will have a dense network of inflow relationships with key subsidiary activities.

Methodology

As we said in the introduction to this study, our aim is to illustrate these propositions with a single case study. WEA Brake Systems Spain is a manufacturer of auto components. One of the authors has had a relationship with this firm for eight years; the internal workings of the firm and its relationships with other operating companies were therefore deeply understood. However, in order not to bias the study, we began by deciding what were the key activities in the firm and comparing our list with the opinion of the firm's top management.

Next we needed to relate these activities to the networks. To do this, the first task was to determine the boundaries of the network to be studied. We identified the most important people in the firm on the basis of the key business activities. The researchers developed one list, and the HR head developed another. These two lists were discussed and consolidated. Before sending a network questionnaire to the people we had selected, we talked to each of the plant managers and four of the subsidiary's top managers to see whether anyone who should have been on the list had been left out. The resulting list of 55 people included 32 managers from WEA Spain (58.2% of the sample) and 23 managers from WEA's plants (6 from the first plant, 6 from the second, 3 from the third and 8 from the fourth).

The Company

WEA is a diversified group with global market and technology leadership in its main line of business. It is active in more than 30 countries in Europe, the Americas and Asia Pacific. The business currently has two major divisions: automotive (4,490 million euros sales in 2001 and 295 million euros operating profit in the same year), and aerospace (2,357 million euros and 188 million euros). The automotive division is further segmented into four strategic business units, one of which, the automotive brake systems unit, is the object of this study.

WEA's Brake Systems Division (WBS) is a world leader in the design and manufacture of driveline system products, with 41% by volume of the world market for brake systems. WBS is WEA's largest business, with sales in 2001 of 2.8 billion euros. It is a world leader in the design and manufacture of brake system products. Most of the leading vehicle manufacturers worldwide (Original Equipment Manufacturers or OEMs) produce vehicles containing components made by or under license from WBS. Over 80% of WBS's sales are attributable to brake systems. In research centers in Germany, US and Japan, WBS is developing new brake systems designed to reduce weight, minimize noise, vibration and harshness and improve safety. WBS focuses its global engineering resources on pioneering technological advances to retain its world leadership position in brake systems and to position itself for OEM outsourcing opportunities.

Auto components has been recognized as one of the few truly global industries. The number of customers is limited to OEMs, of which there is a limited number worldwide. Three main regions of origin can be discussed: the US with Ford, General Motors and Chrysler; Europe with a variety of manufacturers (Volkswagen, Fiat, Renault, PSA Group, D-Benz, Volvo Saab, BMW); and East Asia (Toyota, Nissan, Honda, Daihatsu, Mitsubishi, Isuzu, Daewoo, Kia and others). The consolidation that has been going on in the automobile industry has triggered a certain consolidation in the auto components industry (Berger, 2002). The challenges in the auto components industry are to become more flat and agile, leveraging global affiliates for responses, while focusing on overall value chain cost-cutting activities.

WBS has manufacturing facilities in all significant car manufacturing countries worldwide, with the exception of Russia. Its worldwide operations are run through regional centers in Germany, UK, US and Singapore. WBS operates 46 manufacturing facilities in 20 countries worldwide, with over 20,000 employees. Approximately 44% of sales in 2001 were originated in Continental Europe, 32% in the Americas and 8% in the UK. The most important manufacturing facilities in terms of sales are located in the subsidiary company in Spain, which operates under the name of "WBS Sistemas de Frenos España" (WBS Spain). WBS Spain has four manufacturing facilities: two of them manufacture brake systems, one produces tooling for precision forming, and the other manufactures inputs for brake systems.

WBS Spain is the MNC's most profitable subsidiary (300 million euros sales in 2001, 11% of WBS sales; 1,800 employees). Initially, the subsidiary was able to perform all the activities of the value chain on its own, with local customers and providers. However, as the process of globalization and the opening of borders promoted by common European market policies was implemented, its design centers, product development facilities, and their customers and providers were "globalized", which meant that certain resources were concentrated geographically in order to obtain economies of scale. The situation as of 2001 shows an increasingly global MNC with a successful subsidiary in Spain losing control over more and more resources, while keeping control over production facilities and processes.

WBS Spain distinguishes two processes in the manufacture of its products. The first is mass production. WBS Spain is responsible for delivering to its customers' production facilities, on time and with the highest possible quality, the required brake systems for whatever vehicle is in production, regardless of geographic location. The second process is the launching of new products. This encompasses all the activities that start when an OEM asks for a particular brake system and finish when the automaker starts mass production. Accordingly, WBS Spain is organized around these two processes. To tackle mass production, it has a traditional function-oriented structure centered on the production facilities. For the second process, it has project-oriented teams that coordinate the entire process, hiring people from the traditional structure when required. As the global strategy is implemented, not only resources but also people and customers are geographically concentrated, imposing certain limitations on the unit in the way it controls its two main processes. WBS Spain's strategy has been explicitly formulated as being to become a "contributor" to WBS, improving its business processes so that it becomes indispensable to overall WBS operations.

Results

Table 2 describes the overall egonetwork of WBS Spain at subsidiary level. The 55 respondents to our questionnaire had a total of 734 outside contacts, an average of 13 external contacts per respondent. To evaluate the total size of the respondents' egonetworks, we need to bear in mind that this egonetwork covers only contacts outside the respondents' own firm and so probably does not include their closest contacts.

Table 2. WBS Spain's egonetwork

		WBS	Line Companies	Customers	Suppliers	TOTAL
WBS Spain	#	202	188	191	153	734
(plants included)	%	27,5%	25,6%	26,0%	20,8%	100,0%

From the point of view of WBS Spain as a whole, we will proceed hierarchically to explain its egonetwork. First, we can see that these 734 contacts are distributed more or less equally across the four major categories: WBS (27%), line companies (26%), customers (26%) and suppliers (21%). Thus, 47% of these key people's relationships are with outside actors, namely customers and suppliers, and 53% are with people inside the company. Of the inside relationships 50% are with divisional headquarters and 50% with other operating companies. We would argue, then, that these subsidiaries' relational effort will be distributed equally among these four types of actors. It is interesting that the importance of the relations with other line companies supports our first proposition, where we indicated WBS Spain's "openness" to other line companies.

Table 3. WBS Spain's network with line companies

		WBS	Germany	Japan	USA	Italy	UK	France
WBS Spain	#	209	37	6	35	11	10	82
	%	53,6%	9,5%	1,5%	9,0%	2,8%	2,6%	21,0%

Going one level down, we should try to identify the most important actors among the line companies. The most important countries in terms of size are Germany, France and the US. The three of them are of a similar size in terms of revenues and people. The most important country in terms of relationships with WBS Spain is France. This is consistent with the fact that France is the country with which there is most operational integration. Both line companies share the task of serving French customers, producing different parts of the same product. Accordingly, the need for coordination between the two companies is significant. A similar explanation can be given for the level of contacts with the US company. WBS Spain serves components to the US and European plants of one of the big three auto manufacturers. However, in line with the political rivalry among line companies, the US subsidiary has tried to keep WBS Spain as far away from the manufacturer as it can. However, the Spanish unit's excellent performance has already aroused the US customer's curiosity, so that there are now direct relations between them.

Germany is important for a different reason. Even though there is no significant operational relationship between WBS Spain and the German subsidiary, Germany is the home of WBS's automotive headquarters. This means that the relationship between the German operating companies and the division headquarters is closer than would be expected between a line company and its headquarters, and the line between their roles is sometimes blurred. Accordingly, WBS Spain, has made a conscious effort to improve its relations with the German operations through increasing contacts in division level projects. Moreover, because of the Spanish unit's good performance, all the task-forces set up in the context of divisional improvement programs include a Spaniard, resulting in a significant increase in the density of the relations between the two subsidiaries.

In general, we find support for our first proposition concerning the overall density of contacts among line companies in global industries. As we commented in the theoretical part of the paper, the subsidiary map is not the result of an overall blueprint, but of successive acquisitions among local firms following the opening of European internal borders.

Becoming a Contributor

WBS Spain has made a significant effort in this direction. Four business processes were identified as key to WBS's business:

1. Developing new products. This is basically done through R&D, mainly at headquarters, and is aimed at solving the customers' need to improve the overall quality of the cars they produce.
2. Winning orders from OEMs. This process is handled mainly through the commercial (marketing and sales) department, which gets access to key individuals in the customer's organization and finds out about the new cars to be produced and what is needed. They help WBS Spain to achieve the "shortlist" status that allows it to get the "request for quotation" needed to put in a bid. Collaboration with the technical department is then carried on so that a sensible offer is presented and the order is won.
3. Launching new applications. Once the order has been won, a process of concurrent engineering begins (carried out to a greater or lesser extent in the different line companies) that puts the product into mass production after SOP (Start of

production). Very rarely are completely new developments required to fulfill an order; more often what is required are new applications of standard products. Timing is always an issue here, and different customers respond differently to market or internal issues. The new applications launch process can last anywhere from a few months to two or three years, and SOP dates may be changed throughout the project.

4. Mass production. Once the product runs over SOP, mass production is started and the project is completely in the hands of the different manufacturing plants. At this stage less interplant collaboration is needed, as continuous improvement is now carried out mainly (though not exclusively) at plant level, seeking the productivity gains that are written into the contract signed with the OEM in the form of price reductions.

The first process, new product development is carried out mainly at headquarters. The main engineering facility, located in Germany, has more than 200 engineers devoted to new product development. Thus, it was difficult for WEA Spain to get involved in it. However, a specific goal of achieving contributor status was agreed internally. In the years preceding this study, a significant amount of work was done in this direction and contributor status was achieved by conducting two research programs within the division. This naturally led to political problems within the subsidiary and across the division. With contributor status came power issues. While the division wanted to have hierarchical power over all R&D activities, WEA Spain, not unjustifiably, had the feeling that local R&D activities were the result of its own efforts and that it should therefore reap some of the benefits. The loyalties of the local leader of the R&D effort were divided between two bosses, which caused some difficulties.

The second process, winning orders from OEMs, was centrally coordinated by the marketing and sales department. Each subsidiary had its own commercial director, but the subsidiary-level directors were centrally coordinated. When it came to getting fast quotes, however, the marketing and sales department staff relied on their peers in the subsidiaries, mainly from the engineering department, whose skill was key to winning the orders. Thus, the local marketing and sales manager acquired new customers for the division and it was easier for them to carry out those projects in their own manufacturing facilities than otherwise. With time, the local marketing and sales managers disappeared and these relationships changed.

The third process, launching new applications, is paramount to the auto industry. Concurrent engineering and time-to-market have traditionally been a touchstone of the industry. The auto industry has been identified as one of the learning centers for other industries in this respect. The fourth business process, mass production, is the most local. Given that improvement activities are mostly local, less collaboration is needed with other operating companies, and more internal relations are needed.

Accordingly, if WBS Spain was to move to contributor status and have a significant impact on the business, it had to develop relationships with product applications engineering, the commercial department, and the business units, including commercial and engineering units, where such existed.

Table 4. Becoming a Contributor**WEA Brake Systems (WSB)**

	AI	BUS	CAL	COM	COMP	CTR	DG	ENS	FAB	FIN	GES	HR	I+D	IFA	INF	IPA	MAN	CBU	LOG	
WBS Spain	2	5	4	20	23	6	9	3	7	1	2	4	8	9	4	30	0	0	0	137
Plant 1	0	0	0	0	0	1	0	0	3	0	0	2	0	1	0	0	0	0	0	7
Plant 2	0	0	0	1	2	1	0	0	3	0	0	0	0	3	1	0	0	0	0	11
Plant 3	0	0	0	0	1	2	1	0	0	0	0	0	0	1	0	0	0	0	0	5
Plant 4	0	0	0	0	1	3	0	0	10	0	0	0	0	1	0	10	1	0	0	26
	2	5	4	21	27	13	10	3	23	1	2	6	8	15	5	40	1	0	0	186
	1%	3%	2%	11%	15%	7%	5%	2%	12%	1%	1%	3%	4%	8%	3%	22%	1%	0%	0%	

LINE COMPANIES (OTHER UNITS OF THE MNC)

	AI	BUS	CAL	COM	COMP	CTR	DG	ENS	FABR	FIN	GES	HR	I+D	IFA	INF	IPA	MANU	CBU	LOG	
WBS Spain	0	33	15	24	12	0	1	3	0	0	0	0	13	13	2	23	2	2	0	143
Plant 1	0	1	4	0	0	0	0	0	3	0	0	0	0	2	0	2	0	0	0	12
Plant 2	0	0	5	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	7
Plant 3	0	0	0	0	10	0	1	0	0	0	0	0	0	0	0	0	0	0	1	12
Plant 4	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	1	6
	0	34	25	24	22	0	2	3	3	0	0	0	15	18	2	25	3	2	2	180
	0%	19%	14%	13%	12%	0%	1%	2%	2%	0%	0%	0%	8%	10%	1%	14%	2%	1%	1%	

Table 4 shows the relationships of the different divisional departments and consolidated plants with the different units of WBS Spain (4). It can be observed that most of WBS Spain's relations with divisional headquarters were with the Engineering department (22%), and that within WBS Spain those relations were concentrated in the central Product Applications department. Accordingly, 14% of the contacts with other operating companies were with their Product Application Engineering departments, highlighting the alignment of the contacts with the strategy pursued.

Significant contacts were also developed with the Commercial department at both divisional and operating company level. Even though the number of people working in the Commercial department compared with the Product Applications Engineering department is on the order of 1 to 5, the number of contacts with these departments at the divisional level shows a ratio of 1:2 (21/40), and of 1:1 (25/21) at the line company level. Thus, we can adduce support for our second proposition arguing that the greatest density of relationships would be found in activities that were critical to the overall business processes.

Table 5 is an elaboration of Table 4. It shows one those cells where the number of contacts is higher than the average of the cells in which there are contacts. In starting the network analysis procedure, we should have standardized it with the number of people in each department. However, in the case of WBS Spain, the number of people is also a strategic tool. The increasing investment in the Engineering, R&D and Commercial departments is something that was done without the complete agreement of the division and with the aim of working towards the contributor role that they wanted to develop.

Thus, the number of contacts in absolute terms is the result of strategic maneuvering on the part of WBS Spain. Looking at these two tables, one can argue that the subsidiary contacts were concentrated in the subsidiary headquarters. This is no arbitrary result. On the one hand, centralization was occurring at the divisional level, so it would be difficult to have

(4) See Appendix 1 for abbreviations.

these activities distributed in the different plants. On the other hand, given the subtle political maneuvering that was going on among subsidiaries, directors at WBS Spain wanted to have the key activities under control, so that they could also maneuver in their own favor.

Table 5. Becoming a Contributor: Significant Relationships

WEA AUTOMOTIVE DIVISION (WAD)

	A	BUS	CAL	COM	COMP	CTR	DG	ENS	FABR	FIN	GES	HR	I+D	IFA	INF	IPA	MANU	CBU	LOG	
WEA Spain	0	0	0	1	1	1	1	0	1	0	0	0	1	1	0	1				8
Plant 1						0			0			0		0						0
Plant 2				0	0	0			0					0	0					0
Plant 3					0	0	0							0						0
Plant 4					0	0			1					0		1	0			2
	0	0	0	1	1	1	1	0	2	0	0	0	1	1	0	2	0	0	0	10

LINE COMPANIES (OTHER UNITS OF THE MNC)

	A	BUS	CAL	COM	COMP	CTR	DG	ENS	FABR	FIN	GES	HR	I+D	IFA	INF	IPA	MANU	CBU	LOG	
WEA Spain		1	1	1	1		0	0					1	1	0	1	0	0		7
Plant 1		0	0						0					0		0				0
Plant 2			0										0							0
Plant 3					1		0												0	1
Plant 4			0											0			0		0	0
	0	1	1	1	2	0	0	0	0	0	0	0	1	1	0	1	0	0	0	8

Becoming a Contributor: Who is looking?

Our third proposition has to do with where the outflows are; in other words, which departments in the subsidiary are looking to establish relationships with other units in the multinational. The following table shows the number of contacts between the different departments of WBS Spain consolidated among the different plants and the departments at the divisional headquarters and line companies.

Looking at these two tables, one can see the significant number of relationships among the different departments. Consistent with previous explanations, the Product Applications Engineering department (IPA) has the highest number of contacts in both tables, at a significant distance from the Commercial (COM), Purchasing (COMP) and R&D (I+D departments).

Looking at the number of relations with divisional headquarters, we can see that there are 15 cells that have, on average, a higher number of contacts. These are concentrated in the IPA, IFA (Process Engineering) and Commercial departments. IPA and Commercial are consistent with previous explanations of the key business processes. The Process Engineering department is highlighted due to the several knowledge-sharing task forces in the division that were oriented towards sharing best practices across line companies and where Spanish operations had a good performance track record, although they found it difficult to sell their ideas to other operating companies. It sometimes occurred, however, that

other operating companies would go to see WBS equipment suppliers in the hope of obtaining similar results in operational efficiency, although naturally they did not want to acknowledge that it was thanks to the Spanish operations that they had first learned about the efficiency of this particular type of equipment. WEA Spain's response was to collaborate with its suppliers to improve the equipment without telling its peers, which otherwise would have got them into trouble.

Table 6. Becoming a Contributor: Who is looking?

	A	BUS	CAL	COM	COMP	CTR	DG	ENS	FABR	FIN	GES	HR	I+D	IFA	INF	IPA	MANU	MANT	LOG	CBU		
CTR	0	0	0	0	0	13	3	0	2	1	0	0	0	0	0	0	0	0	0	0	19	10%
CAL	0	0	2	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	5	3%
COM	0	5	0	15	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	22	12%
COMP	0	0	1	0	17	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	21	11%
DG	0	0	0	0	2	0	3	0	3	0	0	0	0	1	0	3	0	0	0	0	12	6%
ENS	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	1%
FABR	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	2	1%
HR	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	1%
IFA	0	0	0	0	2	0	0	0	10	0	0	0	1	5	1	8	1	0	0	0	28	15%
IPA	1	0	1	5	6	0	0	1	1	0	0	0	5	4	0	17	0	0	0	0	41	22%
INF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	2%
I+D	1	0	0	0	0	0	0	0	1	0	0	0	2	3	0	10	0	0	0	0	17	9%
RISK	0	0	0	0	0	0	2	0	2	0	2	4	0	0	0	0	0	0	0	0	10	5%
	2	5	4	21	27	13	10	3	21	1	2	6	9	15	5	40	1	0	0	0	185	100%

LINE COMPANIES (OTHER UNITS OF THE MNC)

	A	BUS	CAL	COM	COMP	CTR	DG	ENS	FABR	FIN	GES	HR	I+D	IFA	INF	IPA	MANU	MANT	LOG	CBU		
CTR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CAL	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	11	6%
COM	0	0	1	18	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	11%
COMP	0	0	7	2	9	0	1	0	0	0	0	0	0	1	0	2	0	0	0	0	22	12%
DG	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	5	3%
ENS	0	0	0	0	0	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	4	2%
FABR	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	3	2%
HR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
IFA	0	1	1	0	0	0	0	0	3	0	0	0	1	4	0	2	0	0	0	0	12	6%
IPA	0	33	5	2	10	0	0	0	0	0	0	0	2	12	0	8	0	0	0	2	74	40%
INF	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	1%
I+D	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	13	0	2	0	0	25	14%
RISK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
	0	34	25	23	22	0	2	3	3	0	0	0	14	18	2	25	0	3	3	2	179	97%

Interestingly enough, when we look at the relations between WBS Spain and other line companies, we can see that IPA keeps its privileged relational status while Commercial loses it. This is because joint projects needed IPA collaboration, whereas other commercial directors from line companies were playing a less developed role at divisional level. It is worth pointing out the regained role of R&D (I+D) due to its close collaboration with the IPA department at WEA. This supports our third proposition that the main relations would come from the departments that were most important for our business processes.

Table 7. Becoming a Contributor: Who is looking? Significant relations

WEA Automotive Division (WAD)

	A	BUS	CAL	COM	COMP	CTR	DG	ENS	FABR	FIN	GES	HR	I+D	IFA	INF	IPA	MANU	MANT	LOG	CBU	
CTR						1	0		0	0											1
CAL			0	0					0							0					0
COM		1		1			0							0							2
COMP			0		1		0						0	0							1
DG					0		0		0					0		0					0
ENS								0													0
FABR									0							0					0
HR											0										0
IFA					0				1				0	1	0	1	0				3
IPA	0		0	1	1			0	0				1	1		1					5
INF															1						1
I+D	0								0				0	0		1					1
RISK							0		0		0	1									1
	0	1	0	2	2	1	0	0	1	0	0	1	1	2	1	3	0	0	0	0	15
		0,29																			

LINE COMPANIES (OTHER UNITS OF THE MNC)

	A	BUS	CAL	COM	COMP	CTR	DG	ENS	FABR	FIN	GES	HR	I+D	IFA	INF	IPA	MANU	MANT	LOG	CBU	
CTR																					0
CAL			1															0			1
COM			0	1	0																1
COMP			1	0	1		0							0		0					2
DG			0	0	0		0												0		0
ENS								0					0								0
FABR														0					0		0
HR																					0
IFA		0	0						0				0	0		0					0
IPA		1	1	0	1								0	1		1				0	5
INF															0						0
I+D													1			1		0			2
RISK																					0
	0	1	3	1	2	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	11

Discussion and limitations

Our purpose here has been to illustrate, through in-depth knowledge of a particular MNC subsidiary, that a subsidiary's network of relations is a good indicator of the subsidiary's strategy, and that it is also a tool for furthering the subsidiary's strategy. While Bartlett and Ghoshal (1990) identified the significance of networks as a metaphor for understanding MNC structure, we have shown how analysis of a subsidiary's networks of contacts is a useful tool for identifying the precise role a subsidiary is playing in the multinational as a whole. Nohria and Ghoshal (1997) analyzed the innovation network of an entire multinational and showed how these networks reflect the different roles that subsidiaries play in the overall structure. They did not, however, use the network as a tool that can be used proactively to develop a formulated strategy on the side of the subsidiary.

This study is clearly limited in scope. We have only studied the network of one subsidiary of which we had intimate knowledge. We have not taken into account the overall networks of other subsidiaries with which WBS Spain collaborated or competed for a strategic role in the divisional network. It would have been really interesting to be able to analyze competing networks and study the relative maneuvering of competing subsidiaries. However, the complexity of the data involved would make this a major endeavor.

Even though this study has basically addressed the subsidiary's external exposure, it would be equally important to study the consequences of this strategy from the viewpoint of the subsidiary's internal organization. While we have devoted all our efforts to looking at the subsidiary's external network, it would have been interesting to analyze how these networks are reflected in day-to-day relations within the subsidiary.

Furthermore, these networks of relations do not occur in a stable world. While WBS Spain was pursuing this strategy, significant changes were being planned at the organizational level within the division. It would also be interesting to see how these networks have survived or succumbed to the centralization that was being considered at the divisional level. □

Appendix 1

FIGHTING FOR POWER:
THE STRATEGY OF GLOBAL MNCS' SUBSIDIARIES

Glossary of Abbreviations

AI: US Operating Company

BUS: Business Unit

CAL: Quality

COM: Commercial

COMP: Purchasing

CTR: Control

DG: General Management

ENS: Product Testing

FAB: Operations

FIN: Finance

GES: Risk Management

HR: Human Resources.

I+D: Research and Development (R&D).

IFA: Process Engineering

INF: Information Systems

IPA: Product Applications Engineering.

MAN: Manufacturing at the division level

CBU: Business Unit

LOG: Logistics

References

- Bartlett, Christopher and Sumantra Ghoshal (1991), *Managing Across Borders: The Transnational Solution*, Boston, Massachusetts: Harvard Business School Press.
- Bartlett, Christopher and Sumantra Ghoshal (1987), "Tap your subsidiaries for global reach", *Harvard Business Review*, 64(6): 87-94.
- Berger, Roland (2002), *Automobile Sector Report*.
- Birkinshaw, Julian and A. Morrison (1995), "Configurations of strategy and structure in subsidiaries of multinational corporations", *Journal of International Business Studies*, 26(4): 729-54.
- Caves, Richard (1982), *Multinational enterprise and economic analysis*, New York: Cambridge University Press.
- Chandler, A. (1962), *Strategy and Structure: Chapters in the History of the Industrial Enterprise*, Cambridge, MA: MIT Press.
- Etemand, H. and L.s. Dulude, editors (1986), *Managing the Multinational subsidiary: Response to environmental changes and to host nation R&D policies*, London: Croom Helm.
- Gates, S. and W.G. Egelhoff (1986), "Centralization in Headquarters-Subsidiary relationships", *Journal of International Business Studies*, 17(2): 71-92.
- Ghoshal, Sumantra and Christopher Bartlett (1990), "The multinational corporation as an interorganizational network", *Academy of Management Review*, 15(4): 603-25.
- Granovetter, M. (1985), "Economic action and social structure. The problem of embeddedness", *American Journal of Sociology*, 91: 481-510.
- Gupta, A. K. and V. Govindarajan, (1991) "Knowledge flows and the structure of control within multinational corporations", *Academy of Management Journal*, 16(4): 768-92.
- Hedlund, Gunnar (1986), "The Hypermodern MNC: A Heterarchy?", *Human Resource Management*, 25(1): 9-35.
- Hitt, Michael A., Robert E. Hoskisson and Hicheon Kim (1997), "International diversification: Effects on innovation and firm performance in product-diversified firms", *Academy of Management Journal*, 40(4): 767-96.
- Jarillo, Carlos and Jon Martínez (1990), "Different roles for subsidiaries: The case of multinational corporations in Spain", *Strategic Management Journal*, 11(7): 501-12.
- Kogut, Bruce (1985), "Designing global strategies: Comparative and competitive value added chains", *Sloan Management Review*.
- Malnight, Thomas (1996), "The transition from decentralized to network-based MNC structures: An evolutionary perspective", *Journal of International Business Studies*, 27(1): 43-65.

- Martínez, Jon and Carlos Jarillo (1989), "The evolution of research on coordination mechanisms in multinational corporations", *Journal of International Business Studies*, 20(3): 489-514.
- Nohria, Nitin and Sumantra Ghoshal (1997), *The Differentiated Network: Organizing Multinational Corporations for Value Creation*, San Francisco, CA: Jossey-Bass Publishers.
- Otterbeck, Lars, editor (1981), *The management of Headquarters-Subsidiary relationships in Multinational Corporations*, Hampshire: Gower Publishing Company Limited.
- Paterson, S.L. and D.M. Brock (2002), "The development of subsidiary-management research: review and theoretical analysis", *International Business Review*, 11(2): 139-63.
- Porter, Michael (1986), *Competition in global industries*, Boston: HBS Press.
- Prahalad, C.K. and Yves L. Doz (1987), *The Multinational Mission: Balancing local demands and global vision*, New York: The Free Press.
- Stopford, JM and LT Jr. Wells (1972), *Managing the Multinational Enterprise*, New York: Basic Books.
- Taggart, J.H. (1997), "An evaluation of the integration-responsiveness framework: MNC manufacturing subsidiaries in the UK", *Management International Review*, 37(4): 295-318.
- UNCTED (1997), *World Investment Report*, New York: United Nations Publications.
- White, R.E. and T.A. Poynter. 1984. Strategies for foreign-owned subsidiaries in Canada, *Business Quarterly*, 48(4): 59-69.