

A Systematic Review of the Literature and Theoretical Analysis of Subsidiary Roles

Dimitris Manolopoulos

ABSTRACT. Over the past decades, the management of the multinational subsidiary has emerged as a distinctive field of investigation for international business researchers. As multinationals are confronted with the simultaneous need for global standardization and local adaptation, subsidiaries may differ in the scope of their operations, the extent of responsibilities they take, the importance of the markets they serve, their level of competence and their organizational characteristics. These developments manifest themselves very decisively in the emergence of a range of different mandates that subsidiaries can assume in the wider context of MNE strategy. The main purpose of this paper is to present a broad review of the approaches toward the differentiated roles played by these MNE dispersed sub-units. Our “role categorization” distinguishes among four key blocks of typologies, arguing that they elaborate on different perspectives that inform on subsidiaries’ strategic and organizational issues, leading consequently to distinctive contributions regarding the investigation and evaluation of MNE activities. The major objective of the

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review is to capture the main characteristics of the different approaches and to identify and discuss the scope of the concepts underlined behind them. Similarities and points of divergence among the typologies are furthermore discussed. The review provides a basis for further directions of future research

KEYWORDS. Autonomy, integration, knowledge, responsiveness, scope, subsidiary roles

Leveraging capabilities through foreign direct investment (FDI) is a fundamental challenge for multinational enterprises (MNEs). As multinationals seek to respond to the simultaneous effect of the increased globalization of industries and the need for responsiveness to distinctive host markets' needs (Collis, Young, & Goold, 2007; Jarillo & Martinez, 1990), they must attain the appropriate configuration between their internal resource deployment and the potential opportunities and risks in different countries. According to Ghoshal and Nohria (1997), this is mainly achieved by ensuring that each subsidiary adapts its strategy both to the environmental contingencies of its focal market and the resource configuration of the headquarters (HQs). Having placed subsidiaries at the center of examination, recent literature conceives these dispersed subunits as organizations with the potential to *formulate* strategies and *implement* autonomous decision making (David, 2005; Birkinshaw, Toulan, & Arnold, 2001). These developments have challenged initial perceptions on MNEs structures in two ways: First, new theoretical models emerged that questioned the strong hierarchical relation between HQs and subsidiaries, in which all decision making should ultimately be subjected to a single center and proposed a rather lateral network where multiple centers of excellence exist for different aspects of MNEs' businesses (Pearce, 2006; Hedlund, 1986). Second, parallel to this approach, the role of subsidiaries as passive recipients of HQs' mandates was also questioned. Rather than accepting predetermined roles, they were asked to actively engage in developing their operations that would increase the overall efficacy of the whole network (Birkinshaw & Hood, 1998; Birkinshaw, 1997).

The previous perceptions defined the field of subsidiary management research. To cite Paterson and Brock (2002), subsidiary management literature comprises four—usually overarching—research

streams, namely strategy—structure, HQs—subsidiary relationship, subsidiary roles, and subsidiary development. This research is focused on the third stream, providing us with a wider review of the approaches to subsidiary role categorization. Its purpose is to go beyond a “typical” presentation of the various approaches toward subsidiary roles and to discuss the *essence* behind the major conceptual contributions. More specifically, the main objectives of the paper are:

1. to establish the nature of relationship between MNEs’ strategy and subsidiary roles
2. to classify and sort the various strategic roles of subsidiaries,
3. to identify the key concepts behind the different typologies,
4. to provide insights regarding the similarities and the points of divergence of the various typologies, and
5. to identify areas for future research and to stimulate others to work on related issues.

The paper is organized in four sections that identify the major frameworks we use in our review on subsidiary roles. The fifth section elaborates a comparative analysis among the various typologies. Limitations of the study and directions for future research are acknowledged in the conclusion of the paper.

SCOPE TYPOLOGIES

The first approach to distinguish among the different roles of subsidiaries is attributed to the pioneering work of White and Poynter (1984), who found subsidiary asymmetry in strategic importance, product development tasks, or other value-added activities for Canadian-based subsidiaries. According to their typology, subsidiaries develop three distinctive dimensions when expanding into foreign markets. First, they explore new product areas and production procedures (product scope). Second, they expand in new geographical locations to market their products (market scope). Finally, they generate value-added activities (value-added scope). According to Benito, Groggaard, and Narula (2003), the scope of subsidiaries does not necessarily determine their strategic role; however, according to

Furu (2001), a correlation exists between the dimensions of subsidiaries' activities and the strategic mandates assigned to them.

The research of White and Poynter suggests that subsidiaries may have different roles within the MNE network and were classified as being: strategic independent, product specialist, rationalized manufacturer, miniature replica, and marketing satellite. Marketing satellite is usually the initial mode of entrance in the host economy, merely by importing goods manufactured elsewhere from the MNE network to the host country. Clearly, the market scope of these subsidiaries is rather limited, since they supply only the focal market. Moreover, even if some distinctive and sophisticated characteristics may be introduced to the product, a marketing satellite possesses low value-added scope, since it does not radically intervene in the characteristics of the product or the production processes. Miniature replica produces and markets some of the parent's product lines or related product lines in the focal country. The multinational parent may still import some low volume products itself, but generally the business "... is a small scale replica of the parent" (White & Poynter, 1984: 60). The degree of this replica may vary from the pure "adopter," i.e., subsidiaries that supply the host country with the products of the MNE with minimum changes, to the "innovator", i.e., subsidiaries that may differentiate their operational procedures and product outcomes yet are still in close relation with the initial products of the parent. All variants of miniature replicas are characterized by low market scope (host country only), but the innovator replica has evolving potential for both product and value-added scope. "Rationalized manufacturer" may represent the complexity and specialization of the contemporary MNE process, because these subsidiaries produce component parts or products to supply global or regional markets. Their outputs are usually distributed intra-group, either for further processing in other parts of the MNE or for sale through the network of marketing satellites in other countries (Papanastassiou & Pearce, 1999). They have a narrow value-added scope and a wider product and market scope. White and Poynter's "product specialist" develops, produces, and markets a limited product line for global markets. This subsidiary is self-sufficient in value-added scope by applied research and development (R&D) capabilities, marketing, and production; nevertheless, "it is characterized by the production of products within product areas related to the core business of the multinational parent" (Papanastassiou & Pearce, 1999: 22). In that sense, it

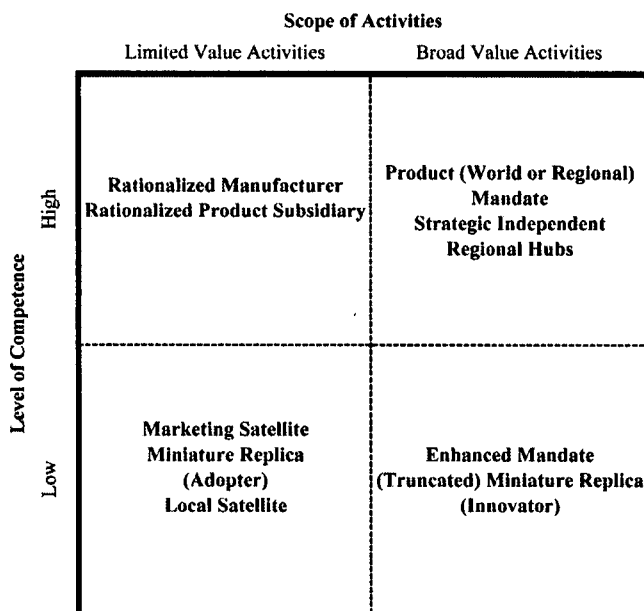
may have the potential to formulate and implement a quite autonomous strategy, but it is not seeking to challenge the essential technological or business scope of the group. The final subsidiary type defined by White and Poynter is the "strategic independent." This subsidiary has the potential for unrelated product and procedure differentiation to supply global markets. Likewise product specialist, strategic independent has a global market scope and an extensive value-added scope (Dörrenbächer & Gammelgaard, 2004). The main difference between these last two types of subsidiaries consists of the product scope, in which the latter has the complete discretion to design and implement new technologies, products, and procedures.

Delany (1998, 2000) completed White and Poynter's typology and ascribed more dynamic insight to the framework. He identified eight development stages of subsidiaries, from basic mandates to strategic independents, classified according to their strategic importance over time. He positioned the strategic independent and the product specialist in the "advanced" types of MNE subsidiaries and he included the miniature replica, the marketing satellite and the rationalized operator in the "basic" types of subsidiaries. His contribution consists of the identification of the "enhanced mandate", a subsidiary type "that does not have control of the entire value chain for a regional or global business but which has activities in a number of parts of the value chain" (Delany, 1998: 246). Also working (as had White and Poynter) from observations of subsidiaries in Canada, D' Cruz (1986) developed a complementary typology. The first step of subsidiaries' entrance in the host country is conducted through satellite or local service business. The essence of these subsidiary types is to improve the effectiveness of import procedures. "Satellite business" assembles the final product in the host country, where "local service business" expands this activity, by establishing a network of local sales or service facilities. The common characteristic of these two types of subsidiaries is that they are not involved in full-scale production. The latter is conducted within the branch plant subsidiary. Like miniature replicas, these subsidiaries have developed a strong individualized activity in the host country, but still they basically depend on imports from the home country and have a low market scope (host country only). The response to the upgrading need for a more decentralized activity emerges through the "globally rationalized business". This type of subsidiary is still very tightly related to the parent multinational

through a strong dependence in MNE supply programs. The significant contribution of D'Cruz typology is the inclusion of world product mandate (WPM) as the implementer of a full-scale export-oriented procedure, taking the overall responsibility for the design, manufacture, and worldwide market of a product. WPMs provide the strategic response of MNEs to secure a wide range of objectives in an increasingly competitive and globalized environment. According to the works of Manolopoulos (2006) and Feinberg (2000), WPM role ascribes the subsidiary with a wider value-added market and perhaps product scope, leading consequently to a higher degree of strategic independent decision making.

Building on the "scope" framework, a threefold classification was developed and tested by Pearce and Papanastassiou (1996). The first role a subsidiary can assume is to supply the host country with the well-established product range of the parent multinational. This "truncated miniature replica" (TMR), as it was defined, is a duplication of the parent firm characterized by a rather focused market scope (host country only), but a quite extended product scope, as it can provide the host country with a varied range of standardized products. "Rationalized product subsidiary" (RPS) is assigned a specialized position within the MNE network by manufacturing limited parts of the group's current range of final products, supplying component parts for assembly by other group subsidiaries, or implementing a particular stage in a vertically integrated production process. A more complete MNE response to the challenges of contemporary competitive environment is the formation of "product (world or regional) mandate" (PM). Such subsidiaries take full responsibility for the design, manufacturing, and marketing of particular products, are ascribed with an advanced strategic role, extended decision-making power, and are often engaged in performing value-added activities. Pearce and Tavares (2000) proposed a further subclassification of product mandates into "regional product mandates" (RPMs) and "subregional product mandates" (SRPMs), in which RPMs have a broader mandate toward a wider region, and SRPMs toward a sub-region. Finally, building on the "scope" paradigm and in particular on the market and value-added scope of subsidiaries, Hogenbirk and van Kranenburg (2006) have identified four subsidiary roles, namely local satellites, truncated replicas, export platforms, and regional hubs. The scope framework and its variants is illustrated in Figure 1.

FIGURE 1. The Scope Framework



In the late 1980s and 1990s, a number of studies provided empirical support to the different variants as classified by White and Poynter. According to the surveys of Taggart (1996a) and Hood and Young (1988), at that time, the majority of MNE operations in Scotland were in miniature replica format, though a tendency toward decentralization of value added activities was observed. Subsidiaries with more "autonomous" positioning within MNE networks were mainly derived from the United States (Young, Hood, & Dunlop, 1988). Interesting evidence on the strategic positioning of Japanese subsidiaries emerges in an empirical study conducted by Hood, Young, and Lal (1994). According to them, the support of the European market with well-established products was the most prevalent role. A tendency toward more evolved roles was observed, since a large percentage of survey respondents characterized their subsidiary as having "a more aggressive strategy, reflecting the parent's company drive for worldwide leadership in their product/technology. Relying on scope typologies, further investigation of subsidiaries' evolutionary process was confirmed

by Taggart (1996b). His study also indicated strong evidence of increased complexity in subsidiaries that required various levels of responsibility in the 1990s. Building upon the scope framework, Benito, Groggaard, and Narula (2003) identified the effect of environmental forces in determining subsidiary roles. More recent developments (e.g., Hogenbirk & Kranenburg, 2006; Manea & Pearce, 2004; Manolopoulos, 2003) have evaluated the "scope" framework in less advanced economies; highlighting the prevalence and importance of the efficiency-seeking type of investment.

KNOWLEDGE-RELATED TYPOLOGIES

A different perspective for the subsidiary-level contribution to the MNE evolution emerged through the work of Bartlett and Ghoshal (1989). This approach orients the determinants of subsidiary management research toward the impact of knowledge competencies in the global economy; denoting a more direct emphasis (compared with scope typologies) on creativity and subsidiary's access to resources. Bartlett and Ghoshal's contribution is based upon the understanding that each firm must devise a strategy along two key dimensions: the configuration of activities of a firm's value chain (i.e., where they are carried out) and the coordination of those activities (i.e., how independent the different subsidiaries really are). Accordingly, "knowledge-related" typologies propose that "the two key dimensions are the coordination or integration among the subsidiaries and the degree of "adaptation" to each national milieu where the firm operates" (Jarillo & Martinez, 1990: 502).

Bartlett and Ghoshal argue that subsidiaries can be classified into four types along two dimensions. One decisive factor determining the role of subsidiary in the MNE network is the strategic importance of the host country's environment to the formation of a corporation's global strategy. Thus, the first dimension is referred as to "the competitiveness of the local environment." Although the size of the host country market is relevant, its degree of sophistication and the presence of advanced technology are the most distinctive characteristics in this typology (Papanastassiou & Pearce, 1999). The second determinant of the subsidiary's role is its organizational competence, because competent subsidiaries are a source of competitive advantage for the whole MNE network. A subsidiary that possesses

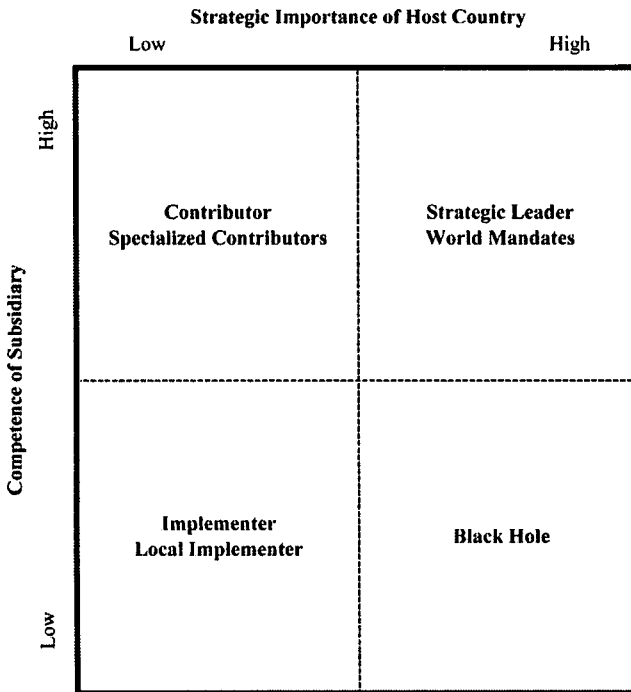
considerable competencies while operating in a strategic market is a "strategic leader." These MNE units tend to act as equal partners to HQs, rather than as mere extensions of MNE functions or simply receivers and implementers of their decisions and actions. They correspond to "national organizations with high internal competences ... and must be legitimate partners with the headquarters in developing and implementing broad strategic thrusts" (Bartlett & Ghoshal, 1989: 105). Strategic leaders may provide high value-added activities to the MNE group by generating sophisticated technological capabilities, which may not be employed to the focal country only, but may be expanded to a global scale as well. The second role assigned to subsidiaries is that of "black holes". These subsidiaries operate in a highly competitive host environment but experience a narrow degree of organizational competencies. The nomination of this type of subsidiary implies that a significant market for the MNE is undersupplied while the potential to make medium-term contributions to the group's knowledge development is also underestimated. These subsidiaries possess a focused market orientation, yet they lack the capabilities to explore the advantages of their environment. "Implementers" deliver value-added activities to the MNE group; however, their market potential and local competencies are rather limited. Subsidiaries assigned that role do not receive significant investments for the development of their own competencies, nor are they embedded to their local markets. On the contrary, they receive much of their competence capabilities from the parent multinational or from other parts of the network. According to Bartlett and Ghoshal (1997: 593), "without access to critical information, and having control to critical resources, these national organizations lack the potential to contribute to the company's strategic planning." Nevertheless, they play a major role in the efficiency of the MNE; having the opportunity to capture economies of scale and scope that are critical to the network's global strategies. Finally, in the Bartlett and Ghoshal typology, the last role a subsidiary is assumed to have is "contributor." This subsidiary has considerable expertise in specific functions or processes, but its activities are tightly coordinated with those of other subsidiaries (which indicates the high degree of its interdependence). Contributors operate in a strategically peripheral market, possessing significant competencies. They attract a large part of investment in competence building and these competencies are widely used within the corporation's procedures. Their importance

for the MNE strategic orientation is highlighted, since some contributors may be involved in projects aimed at global markets. Evidence provided by Furu (2001) indicates that subsidiaries in a more competitive environment, i.e., black holes and strategic leaders, are tied more closely to their local business communities than the other two types. In conclusion, according to Bartlett and Ghoshal typology, strategic leaders and contributors generate knowledge for the whole group because they operate in the context of high organizational competencies, while implementers apply the existing knowledge of the MNE network.

Birkinshaw and Morrison (1995), being more focused on subsidiaries' managerial authority discretion, induced Bartlett and Ghoshal definitions for "contributors" and "implementers". According to their analysis, the three fundamental subsidiary roles encompass "specialized contributors," "local implementers," and "world mandates". As a specialized contributor, a subsidiary is "highly dependent on the headquarters and highly interdependent with the other subsidiaries within the MNE" (Kim, Prescott, & Kim, 2005: 50), because it must implement strategies directed by the parent multinational. Its actions and outputs should be closely coordinated within the MNE network (Roth & O'Donnell, 1996). "Local implementers" constitute the MNE response to the individuality of host markets' characteristics being strategically independent and having the potential to develop specific competencies. Birkinshaw and Morrison characterized the value-added role of subsidiaries as one that is explored by "world mandates." The knowledge-related framework is presented in Figure 2.

Knowledge-related typologies imply that intragroup knowledge flows are a key element in the contemporary MNE and that the extent and nature of subsidiaries' involvement in such flows is one factor that determines their role. The latter is formalized by a typology presented by Gupta and Govindarajan (1991). According to their conceptual framework, a "global innovator" is the subsidiary that provides the whole MNE group with knowledge inputs without depending on the competencies, skills, and capabilities of the parent multinational. Next, the "integrated player" also provides knowledge to the MNE group, but receives considerable inputs from the rest of the group. In relation to Bartlett and Ghoshal typology, these two types of subsidiaries provide organizational capabilities to the MNE network through the diffusion of knowledge-generating

FIGURE 2. The Knowledge-Related Framework



attributes wherever they are available. A global innovator is a fully self-supporting development process provider, whereas the integrated player is involved in the exercise of knowledge-related individualism. The third subsidiary type is the “implementer.” This subsidiary mainly receives knowledge from the rest of the group. It thus matches the Bartlett and Ghoshal implementer by taking an externally specialized production position in a rationalized network supply program. Finally, the local innovator has both a low outflow and a low inflow of knowledge. Such a subsidiary may actually generate considerable knowledge as part of a local-to-local innovation approach (Bartlett & Ghoshal, 1990). Although the previous frameworks have many similarities in the analysis, the difference lies in the focus. Bartlett and Ghoshal examined the one-to-one relationship of the subsidiary with the parent multinational, whereas Gupta and Govindarajan examined the relationship of subsidiaries with the

other subunits of the MNE, being mainly focused on the management control procedures of the network.

Birkinshaw and Hood (2000) conducted an empirical examination of the knowledge-related framework in which attention centered on how the dynamic of industry clusters affects the exercise of autonomous strategies by subsidiaries. Birkinshaw, Hood, and Jonsson (1998) indicated the negative correlation between competition in the host country and the contributory role of subsidiaries. Bartlett and Ghoshal's typology was tested and confirmed by Harzing (2000) and Gupta and Govindarajan's by Randoy and Li (1998). Birkinshaw and Morrison (1995) tested the degree of subsidiaries' autonomy against the three roles they identified (local implementers, specialized contributors, and world mandates), whereas Kim, Prescott, and Kim (2005) placed the latter classification into an agency theory perspective by examining the extent of a corporation's governance structures differentiation so as to meet the three roles.

In recent years we observed a revitalization of empirical work that attempted to provide insights on how knowledge influenced the differentiated roles of subsidiaries. Manolopoulos, Papanastassiou, and Pearce (2005) tested the relationship between sources of acquired knowledge and/or knowledge that is generated internally or externally and related them to different strategically motivated subsidiaries. Their findings record the existence of a multifaceted network of knowledge and technology generation and transmission, which is differentiated among the different types of subsidiaries. Jaw, Wang, and Chen (2006) and Mahnke, Pedersen, and Verzin (2005) focused on the impact of knowledge tools on subsidiaries' performance, whereas Almeida and Phene (2004) examined the influence of knowledge inputs on innovation in subsidiaries. Finally, Mudambi and Navarra (2004) suggest that effective intra-MNE knowledge is a key determinant for advanced subsidiaries' competences.

INTEGRATION (I)-RESPONSIVENESS (R) FRAMEWORK

The roots of the integration-responsiveness (I-R) framework can be traced back to the pioneering work of Doz, Bartlett, and Prahalad (1981), Bartlett (1986), Doz (1986), and Prahalad and Doz (1987).

According to these studies it became clear that MNEs “generally try to create value by realizing synergies among their component parts” (Brock & Birkinshaw, 2004: 11) while also adapting their strategies and operations to the local environment. The previous conceptualization provided the basis for the development of the I-R framework that has been used extensively in the international business literature to identify the diverse and often conflicting pressures confronted by firms as they expand their activities worldwide. The framework is based on the assumption that subsidiaries cannot be treated uniformly without the risk of organizational capabilities underutilization (Bartlett & Ghoshal, 1989). At that time, a key theme in discussion of organizational and strategic priorities of MNEs was the context of MNE global integration network and the degree of responsiveness to the host-country environment. Prahalad and Doz (1987) view international strategy as managing the challenge between *global* integration and *national* responsiveness. Global integration concerns the coordination of activities across countries, in an attempt to build operations networks and to take maximum advantage of similarities across locations. In contrast, local responsiveness concerns the attempt to respond to specific needs within a variety of host countries (Luo, 2001). Foreign subunits should be differentiated enough to successfully confront cultures, markets, and business practices that contrast markedly with those of the home country, but this flexibility must be accommodated within a structure that provides maximum contribution to corporate performance (Jarillo & Martinez, 1990; Prahalad & Doz, 1987). According to Rosenzweig and Singh (1991: 340), “subsidiaries of MNEs face dual pressures: they are pulled to achieve isomorphism with the local environment and they also face an imperative for consistency within the organization”.

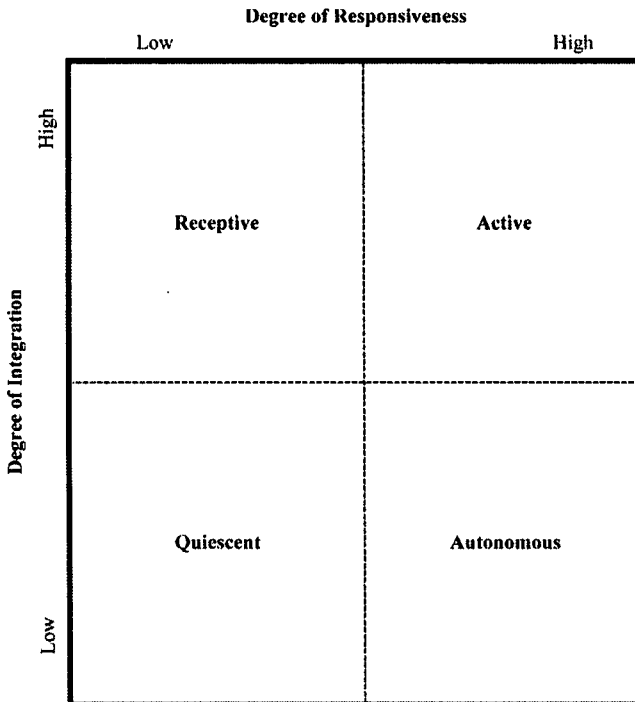
Integration and responsiveness refer to the whole MNE and can be seen as some “organizational level strategic or structural design parameters” (Brock & Birkinshaw, 2004: 10). Accordingly, these concepts represent changes in the structure of MNEs from the emergence of new organizational systems to the allocation of value-added activities in different parts of the globe. More specifically, global integration is primarily determined by the need for internationalization from the perspective of the corporate HQs, whereas local responsiveness is mainly influenced by situational contingencies at the subsidiary level (Ghoshal & Nohria, 1989). Following that paradigm, Prahalad and Doz (1987) classified corporations as locally responsive businesses,

multifocal businesses, and global businesses. Although this contribution is focused on the corporate parent, the classification has a normative impact on the structure of subsidiaries, along with the characteristics of the parent company. If a corporation operates in a global market, the subsidiary will be characterized as highly integrated and will appear to be low on the responsiveness axis. If the corporation operates in a locally responsive market, the subsidiary will be more autonomous and reactive to changes in the local environment.

Jarillo and Martinez (1990) have developed a subsidiary-specific framework, in which each subsidiary operates along two dimensions. The first is the degree of localization or responsiveness and includes the performance extent of activities such as R&D, purchasing, manufacturing, and marketing in the host country. The degree of responsiveness comprises a proxy for subsidiaries' embeddedness in the local environment. Literature (Rugman & D'Cruz, 2000; Kuemmerle, 1999; Cantwell, 1995), has established the positive correlation between the extent of embeddedness and the strategic orientation of subsidiaries, since there are many cases of subsidiaries performing specific value added activities which are fundamentally embedded in the local environment and become active participants within the MNE strategic orientation. The second dimension refers to the "degree of integration" and ranges from "very autonomous" to "highly integrated" with the HQs. On the basis of these two dimensions, Jarillo and Martinez have identified three types of subsidiaries, i.e. receptive, active and autonomous. While accepting that any subsidiary may occupy any of the four quadrants of their model, they did not describe the "low integration-low responsiveness" variant. Taggart (1998) added the fourth type of subsidiary to this classification, namely the quiescent subsidiary. He suggested that while one could expect the identification of subsidiaries in the low I-low R profile by Jarillo and Martinez, that was not possible due to the nonprobabilistic nature of their sample and the constructs used to measure responsiveness and integration. The framework is presented in Figure 3.

"Receptive" subsidiaries are by far the oldest and possess a high level of export propensity, indicating a proclivity to supply a wider/regional market area but a low level of decision-making autonomy. They operate in the low-R, high-I position and they have the lowest complexity of technology-generated procedures, which typically

FIGURE 3. The Integration-Responsiveness (I-R) Framework



confines them to adaptation of manufacturing technology. Receptive subsidiaries work within an environment where important skills and resources tend to be concentrated at the corporate level (HQs) and, in general, they are not characterized by a focused local market strategy. “Active” subsidiaries support, partly, Bartlett and Ghoshal’s (1989) theory about “transnational” global strategy. According to I-R framework, these subsidiaries experience relatively high decision-making autonomy, although they operate in close relation with other subsidiaries’ procedures. Because of their intense network responsiveness, the contribution of active subsidiaries not only consists of product adaptation, but also includes innovative activities beyond the local market needs. Therefore, they have the potential to develop new products not only for the host countries within which they operate, but also for wider geographical areas. This ascribes to them a more extended market scope, which can

be combined by an upgrading value-added scope derived from their well-developed and sophisticated R&D capabilities. "Autonomous" subsidiaries operate in the high-R, low-I quadrant of the model. They were primarily set up in order to serve the local marketplace, and they enjoy a high decision-making autonomy. They have a narrow market scope (host country mainly), but because they have fairly well developed R&D facilities they may generate value added activities that serve other parts of the MNE network. "Autonomous" subsidiaries enjoy the lowest level of management coordination within the MNE network and the highest level of purchasing activities relatively to all other types. "Quiescent" subsidiaries, typically, have fewer value chain activities than the other types, and significantly fewer linkages with their internal network than receptive ones. They have a low degree of integration and a low degree of responsiveness. Such subsidiaries do not have plants of global scale and do not differentiate their product or operations nationally. The lack of integration constrains the transfer of technology, knowledge and product, while the lack of responsiveness does not allow the subsidiary to adjust its activities to local needs, create new knowledge or innovate. It is expected that this type of subsidiary experiences less autonomy and has a limited impact on the economy of the host country.

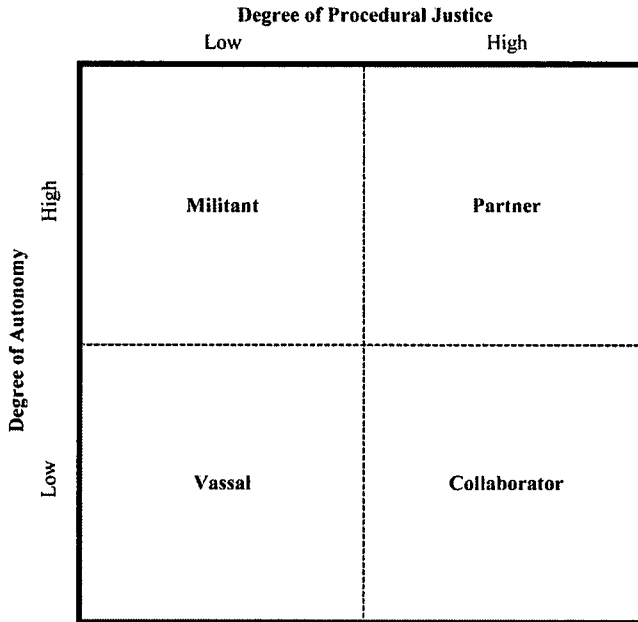
Taggart (1998) applied Jarillo and Martinez typology to an analysis of 171 subsidiaries in the United Kingdom in the expectation of finding cases of what he termed "quiescent subsidiaries" in the low-R, low-I quadrant. The most prevalent case in Taggart's study; however, emerged as the high-I, high-R active (51 firms). This provided evidence that subsidiaries seek to combine the benefits of both responsiveness and integration. By contrast with actives, the number of autonomous subsidiaries decline over time and the high-I, low-R receptive subsidiary was the least prevalent form, although its numbers achieved a modest increase through time. Although the I-R framework has been developed and applied for nearly two decades, there have been few attempts at its empirical validation. Empirical work provided by Luo (2001), Taggart (1997b), Johnson (1995), and Roth and Morrison (1990), verified that the variables of integration and responsiveness employed by this framework could determine the roles and strategies of subsidiaries within the network. Nevertheless, emphasis of empirical evidence is placed on MNE integration rather than responsiveness dimension of subsidiaries'

operations. Recent research on the integrative aspects of MNE operations includes studies focused on human resource practices (Ghoshal & Gratton, 2002), global account management (Birkinshaw, Toulan & Arnold 2001) and knowledge sharing (Malnight, 2001). Responsiveness needs to be furthermore explored, since, although the concepts of integration and responsiveness may be related (usually inversely), their underlined determinants are not necessarily homogenous (Doz and Prahalad, 1991). In 2000, Deninney, Mingley, and Venaik expanded the I-R framework to incorporate managerial characteristics to the model and explain the logic of international strategies in MNEs (Integration-Responsiveness-Completeness model).

AUTONOMY (A) AND PROCEDURAL JUSTICE (PJ) TYPOLOGIES

In 1997, Taggart stressed the important role of foreign subunits as agents of a parent multinational, giving specific emphasis to the effective communication between HQs and subsidiaries, the degree of HQ's knowledge of host countries environment, the strategic importance ascribed to each subsidiary, and the degree of intragroup subunit autonomy. Using these constructs, Taggart (1997a) suggested that subsidiary strategy is likely to be based on access to procedural justice and the subsidiary's autonomy. The procedural justice concept was introduced in international management thinking through the work of Kim and Mauborgne (1991, 1993). They defined it as the context in which the dynamics of the multinational's subsidiary strategy process are judged to be fair regarding decentralized decision making, embeddedness, and autonomy. For Taggart, the issue of autonomy was approached through the degree of HQs' control as initially established by Picard (1980), and explored more analytically by Garnier (1982). Björkman (2003) defined autonomy as the extent to which decision making occurs in the subsidiary without the interference of the HQs, whereas Young and Tavares (2004) related subsidiaries' autonomy to the number of value-added activities that subsidiaries perform. In Taggart's typology (see Figure 4), "partner" subsidiaries operate with high autonomy (high-A) and within a group environment of

FIGURE 4. The Autonomy and Procedural Justice (A-PJ) Framework



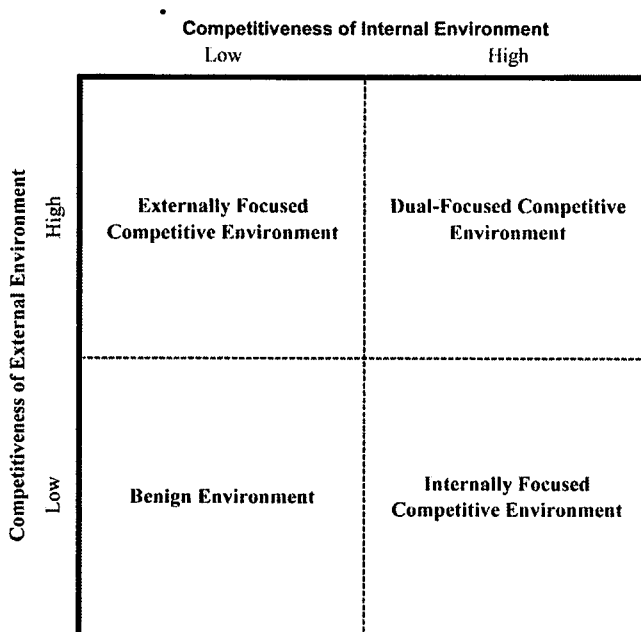
high procedural justice (high-PJ). Therefore, these subsidiaries are treated as active partners of the parent multinational in the evolution of MNE operations. They have the potential to make creative development and implementation decisions in a secure corporate environment for revealing these scopes and ambitions to group-level decision makers. "Collaborator" describes the subsidiary operating in the low-A, high-PJ quadrant. A collaborator has little real bargaining power with HQs but retains its place in the network through flexibility, cooperation, and deliverable acceptable performance as part of a tightly inter-linked group of subsidiaries (Taggart, 1997c). Collaborators possess the highest market scope among all other types of subsidiaries, but fairly narrow product scope and considerably restricted value-added scope, often limited to adaptation of existing technology (Papanastassiou & Pearce, 1999). Technological dependence seems a key characteristic of the collaborator subsidiary with its generally high levels of coordination, particularly in intra-network transfer of technological and production knowledge, as a

result of R&D activities mainly located in HQs and centralized technology development. "Militant" reflects the highest level of subsidiary responsiveness, characterized by considerable localized individuality. It operates in the high-A, low-PJ quadrant of Taggart's analytical framework. This subsidiary embodies high value-added scope, the highest product scope, but a relatively limited market scope. Militant subsidiaries can improve the efficiency of the MNE group and generate technological sophisticated procedures adapted to the host-country-specific requirements. Improved corporate PJ environment allows militant subsidiaries to turn themselves into partners, thus contributing to the overall evolution of the MNE network. Finally, "vassal" subsidiaries operate in the low-A, low-PJ quadrant. This is the most dysfunctional subsidiary type, characterized by narrow value-added scope, very low product scope and very restricted market scope. Vassal subsidiaries are characterized by high centralized management. Therefore, according to Taggart, these subsidiaries provide no positive or stable input into an MNE's global strategy. Moreover, the low PJ condition is likely to preclude any subsidiary-initiated move toward a more credible contribution. To reverse this situation, subsidiaries need major changes at HQs in leadership, strategy, and operational proficiency (Taggart, 1997b). Tseng, Fong, and Su (2004) used a sample of 67 subsidiaries operating in Taiwan to indicate that high PJ has a positive association with subsidiary initiative.

Berkinshaw, Hood, and Young (2005) have recently explored the concept of autonomy within A-PJ framework. According to these authors, autonomy is mainly defined by the degree of the subsidiary's development which, in turn, is determined by both the external and internal operational environment. Therefore, autonomy is expected to be both a cause and a result of the subsidiary's potential and benefit to the whole MNE network. Birkinshaw, Hood, and Young (2005) combine different levels of competitiveness in the internal and external arena and offer distinctions across the four main interactions (see Figure 5). In this regard, subsidiaries operating in the "dual-focus" competitive environment are characterized by the highest autonomy, whereas subsidiaries located in the "benign" and "internally focused" competitive environment are characterized by limited production potential and, therefore, by restricted autonomy.

The key characteristics of subsidiary role typologies, together with the empirical research in that field are presented in Table 1.

FIGURE 5. Autonomy as a Result of Internal and External Environment Competitiveness



A COMPARATIVE ANALYSIS OF THE DIFFERENT TYPOLOGIES

From the analysis carried out, we find notable endorsement for our emphasis of heterogeneity as a driving imperative in the global strategies of MNEs. This heterogeneity may be represented in the emergence of different roles that subsidiaries can play, with distinct implications in how their operations activate and interact with the intra-MNE and the host country environment. The four major blocks of conceptual frameworks identified by this review vary as much as the derived implications, mainly due to the different criteria and concepts used by the authors to build their respective typologies. Early work (White & Poynter, 1984; D'Cruz, 1986) focused on the extent of decentralized activities and related subsidiary roles with the intensity of globalization pressures (Paterson & Brock, 2002). For those theorists, the variable used is the subsidiary's scope,

identified by three dimensions: product range, markets supplied, and extent of value-added scope. For the scope framework, "product mandates" represent the strategically advanced subsidiary role that possesses considerable resources and autonomy. Later work describes subsidiary roles in a two-by-two matrix. Authors such as Bartlett and Ghoshal used company criteria related to subsidiaries' competence. They argue that as MNEs seek to achieve global competitiveness, they are forced to manage activities dispersed over several continents and cultures simultaneously, making inter-unit integration essential. According to Hurdley and Hood (2001: 90), Bartlett and Ghoshal "concentrated on the differential strategic importance of national markets in terms of the MNE's overall objectives and related this to the level of competence of the local subsidiary in each case." Although White and Poynter have noticed that subsidiaries may be confronted with different challenges and require different administrative practices, "knowledge-related" typologies took this further, considering the extent of subsidiaries' managerial authority discretion as a decisive factor in varied strategic roles. Gupta and Govindarajan's criterion for classifying the different roles of subsidiaries was the incoming and outgoing knowledge flow. For knowledge-related typologies, "strategic leaders" comprise the most complete response to the increased surge for product and international geographic diversification, because they are mandated to create or augment their capabilities to secure the long-term survival of the whole network. I-R framework concentrates on both supply and demand of MNEs. Brock and Birkinshaw (2004) argue that on the supply side MNEs are sourcing more products and services on a global base, whereas on the demand side they are seeking effective ways to coordinate their activities and deliver increased value to their customers. Accordingly, local responsiveness emphasizes host-country location advantages that can contribute to the development of subsidiaries. Responsiveness requires embeddedness to local environment, whereas integration refers to the establishment of competitive advantage through worldwide sales and scope economies. Taggart's (1997a) main concern was subsidiary's autonomy and the network's organizational architecture. He argued that from the perspective of subsidiary management the ideal situation, at least in a context of strong subsidiary-specific advantages, is the partner subsidiary, because it is both highly autonomous and has high procedural justice.

TABLE 1. Previous Research

Typology	Constructs	Key Characteristics	Contributors
Scope	Product Scope, Market Scope, Value Added Scope	In the evolutionary process subsidiaries explore new product areas and production procedures (product scope), are engaged in activities in dispersed geographical areas (market scope) and generate value added activities (value added scope)	White and Poynter, 1984 Delany, 2000 D' Cruz, 1986 Pearce, 1994 Hogenbirk and van Kraneburg, 2006
Knowledge Related	Firm Competencies (Knowledge Inflows and Outflows) and Markets' Strategic Importance	Global strategy objectives can be implemented if managers take under consideration inputs deriving from host countries	Bartlett and Ghoshal, 1986 Gupta and Govindarajan, 1991 Birkinshaw and Morrison, 1995
Integration - Responsiveness Framework	Integration and Responsiveness/ Localization	The strategic influences of integration and localization are of critical importance	Jarillo and Martinez, 1990 Taggart, 1998

on Subsidiary Roles

Key Conception	Roles of Subsidiaries	Key Empirical Evidence Provided
Subsidiary's strategic role can actively be developed in the whole MNE network, though this can not be seen as a short-term process	Marketing Sattelite Miniature Replica Rationalized Manufacturer Product Specialist Strategic Independent	Birkinshaw and Hood, 2000 Taggart, 1996b; 1997a Hood, Young and Lal, 1994 Young, Hood and Dunlop, 1988
	Marketing Sattelite Miniature Replica Rationalized Manufacturer Enhanced Mandate Product Specialist Strategic Independent Sattelite Business Local Service Business Branch Plant Subsidiary Globally Rationalized Business World Product Mandate Truncated Miniature Replica Rationalized Product Subsidiary World/Regional Product Mandate Local Satellites Truncated Replicas Export Platforms Regional (or World Mandate) Hubs	Delany, 2000 (the theory emerged through the examination of cases and not through econometric analysis) Feinberg, 2000 Manea and Pearce, 2004 Benito, Groggaard and Narula, 2003 (directly Miniature Replica and indirectly World Mandates) Manolopoulos, 2003 Pearce, 1999 Pearce and Papanastassiou, 1994 Hogenbirk and van Kraneburg, 2006
Managers can evaluate the whole contribution of each subsidiary to the MNE group, although it fails to explain the role of managers in upgrading the importance of their subsidiaries	Strategic Leader Implementer Contributor Black Hole Global Innovator Integrated Player Implementer Local Innovator Specialized Contributor Local Implementer World Mandate Receptive Active Autonomous Quiescent (Taggart, 1998)	Birkinshaw, Hood and Jonsson, 1998; Randoy and Li, 1998; Jarillo and Martinez, 1990; Furu, 2001; Harzing, 2000; Pont and Naboa, 2003 Birkinshaw and Morrison, 1995
With the contribution of Taggart that identified the low-I, low-R situation, managers may evaluate current strategy and future action in consolidating the affiliate's position in the MNE		Taggart, 1998 Edwards, Ahmand and Moss, 2002; Malignit, 2001 (Knowledge Sharing); Ghoshal and Gratton, 2002 (HR); Birkinshaw, Toulan and Arnold, 2001 (Global Account Management); Roth and Morrison, 1990; Johnson, 1995; Luo, 2001

TABLE 1. Continued.

Typology	Constructs	Key Characteristics	Contributors
A-PJ Framework	Autonomy and Procedural Justice	The autonomy of decision making often links with social aspects of management and in particular with that of procedural justice, i.e., how fairly subsidiaries are treated from the HQs	Taggart, 1997a

Table 2 brings all frameworks together to compare their similarities. As previously indicated, distinguishing criteria and concepts among subsidiary roles varies; however, a number of similarities stand out (Birkinshaw, Hood, & Young 2005). According to Paterson and Brock (2002), almost all typologies take into account the importance of the autonomy versus integration (coordination) aspects of subsidiaries' roles. As indicated before, prior research on the management of subsidiaries has related autonomy with decentralization. However, recent theorists suggest that these constructs do not have the same attributes. Centralization is connected with decision-making diffusion, the extent to which decision making is concentrated in a single issue or diffused throughout the organization (Paterson & Brock, 2002), whereas autonomy measures the extent of decision-making authority (Brock, 2003). Accordingly, in the broad context of subsidiary management, autonomy is defined as the *freedom* or *independence* of a subsidiary that enables it to make decisions on its behalf (Young & Tavares, 2004). Garnier (1982), Martinez and Jarillo (1991), and Harzing (1999) indicated that local market-oriented subsidiaries tend to have greater autonomy, establishing a positive correlation between local responsiveness in delegating decision-making authority. In the same argument, Bartlett and Ghoshal (1989) noted that in the multidomestic MNE, adaptation to local market needs required a degree of flexibility, which implies more autonomy. Reversing the argument, Taggart and Hood (1999) suggested that globally integrated subsidiaries tend to have low autonomy. Vachani (1999) found a positive correlation between

Key Conception	Roles of Subsidiaries	Key Empirical Evidence Provided
It provides a framework that takes into consideration behaviouralistic approaches and offers the subsidiary an opportunity to evaluate management perceptions and categorize them in a practical way	Partner Militant Collaborator Vassal	Hedlund, 1981; Garnier, 1982; Kashani, 1990; Roth and Morrison, 1993; Taggart, 1997a (the framework emerged through the examination of cases and not through econometric analysis); Taggart, 2001; Tseng, Fong and Su, 2004

MNEs with high related geographic diversification and the extent of autonomy they grant to their subsidiaries.

Conceptual work and empirical evidence correlates the extent of autonomy with subsidiary initiative (Birkinshaw, Hood, & Young 2005; Burgelman, 1983). According to Birkinshaw, Hood, and Jonsson (1998), the subsidiary initiative represents an entrepreneurial process in which a subsidiary exploits and explores distinctive resources to respond to local or wider opportunities. Accordingly, Tseng, Fong, and Su (2004: 94) argue that the subsidiary initiative "provides a clear indication of the distinct contribution made to the MNE by the subsidiary," is initialized by the subsidiary itself and, "is manifested in product modifications, new product development, innovations of the manufacturing process, acquiring MNE investment projects and innovations of marketing and organizational processes."

Birkinshaw, Hood, and Young (2005) related the value-added and market scope of subsidiaries with subsidiary initiative. Birkinshaw and Hood (1998) asserted that subsidiary initiative is influenced by three drivers: (1) the relationship between the HQs and the subsidiary (extent of procedural justice); (2) the subsidiary's characteristics (subsidiaries' extent of value scope and technological competences); and (3) the network characteristics (extent of integration and local responsiveness). These authors argued that the three drivers interact to determine the role of a subsidiary in a cyclical process of action and reaction, which may lead to subsidiary development (Paterson & Brock, 2002). Building upon the seminal work of Prahalad and Doz (1981), White and Poynter (1984), and Bartlett and Ghoshal

TABLE 2. Key Concepts behind Subsidiary Typologies

Typology	Initial Classification	Roles of Subsidiaries	Centralization of Value Added Activities	Integration of the Network	Responsiveness to Specific Market	Responsiveness to Wider Regions	Autonomy of Decision Making
Scope	White and Poynter (1984)	Marketing Satellite	High	Low	Low	Low	Low
		Miniature Replica	High	High	Adequate	Low	Low
		Rationalized Manufacturer	High	High	Low	High	Low
		Product Specialist	Medium	High	Low	High	Adequate
		Strategic Independent	Low	Low	High	High	High
		Strategic Leader	Low	High	High	High	High
Knowledge Related	Bartlett and Ghoshal (1986)	Implementer	High	Medium	Low	Adequate	Low
		Black Hole	High	Low	Low - Adequate	Low	Low
		Contributor	Medium	High	Low	Adequate	Adequate
		Receptive	High	High	Low	High	Low
Integration-Responsiveness Framework	Jarillo and Martinez (1990)	Active Autonomous	Medium	High	High	Adequate - High	High
		Quiescent Partner	Low	Low	High	Low	High
		Partner	High	Low	Low	Low	Low
			Low	Low	High	High	High
Autonomy-Procedural Justice Framework	Taggart (1997a)	Militant Collaborator	Medium	High	High	Low	High
		Vassal	High	High	Low	High	Low
			Low	High	Low	Low	Low

(1989) the literature on subsidiary development has greatly expanded over the past 20 years. In the 1980s, a number of studies carried out in Scotland (Young, Hood, & Dunlop 1988; Hood & Young, 1988) have greatly contributed to our understanding of the strategic evolution of MNE subsidiaries in the United Kingdom. Jarillo and Martinez (1990) examined the evolution of 50 foreign-owned operations in Spain from 1983 to 1991 (forecasted), whereas Papanastassiou and Pearce (1994), using data from the U. S. Department of Commerce, examined the influence of countries' characteristics in U. S. foreign operations. More recent contributions to subsidiary development can be attributed to the work of Paterson and Brock (2002), Birkinshaw and Fey (2000), Delany (1998) and Maignight (1995).

A third point that all frameworks have addressed, directly or indirectly, is that the global dispersion of knowledge and technological capabilities has moved MNEs to assign lead responsibilities to specific subsidiaries to take advantage of this phenomenon (Ambos & Reitsperger, 2004). Technological knowledge provides a key source of competitiveness in any business setting. In international business, specific organizational knowledge had already been a construct in the field for more than two decades, first complementing (Buckley & Casson, 1976; Hennart, 1982), and later challenging (Kogut & Zander, 1993) the dominant economic theories of that field. According to Foss and Pedersen (2004: 342), "it has become almost axiomatic that knowledge and learning are the root of understanding how competitive advantage is gained and sustained." Moving core competencies to the periphery of MNEs' operations enables some subsidiaries to have enhanced strategic roles while still possessing critical production resources. Literature suggests that we can nominate such subsidiaries as Centers of Excellence (CoE). Although more difficult than it may seem to define CoE (Ambos & Reitsperger, 2004; Paterson & Brock 2002), they are usually portrayed as an attempt to capitalize on unique resources for the MNE (Bartlett & Ghoshal 1989). CoE create, augment, (Ambos & Reitsperger, 2004), and diffuse (Moore & Birkinshaw, 1998) the acquired capabilities throughout the network, in addition to possessing a high degree of local embeddedness (Andersson & Forsgren, 2000). Thus, CoE could represent the incessant search by MNEs for sustainable competitive advantages as they seek to globalize operations and at the same time have a national sensitivity. Literature suggests

(Brockhoff, 1998; Hood & Young, 1982) that as part of their strategic mandate, CoE are usually focused on a specific area of expertise.

CONCLUSIONS

Based on the seminal work of Papanastassiou and Pearce (1999), this paper elaborated a systematic review of the literature on the role of subsidiaries. It provides an understanding of key themes in the investigation and evaluation of MNE dispersed activities. In this regard, it is worth making a number of concluding comments that address key insights gained by this review and limitations and suggestions for further research.

Researchers have created numerous tools to classify and sort the various mandates that subsidiaries may take within the MNE's operations. This "subsidiary role classification" stream of research represents a shift of the literature toward the conception of MNEs as strategically networked differentiated hierarchies (Hedlund, 1986, 1993), transnationals (Bartlett & Ghoshal, 1989), or even metanationals (Doz, Santos, & Williamson 2001) with subsidiaries being assigned different missions and roles. Although literature suggests that much work remains to be done in exploring relationships among the following constructs, the review carried out here indicates that subsidiary roles are determined by MNEs' pursuit of global integration and efficiency, local sensitivity and differentiation, and worldwide innovation and differentiation (Kim, Prescott, & Kim 2005). In fulfilling these challenges, all previously analyzed frameworks challenged the perception that foreign subsidiaries are merely distant tools of HQs management, but rather than accepting predetermined roles they were asked to actively engage in developing their operations and explore procedures that would increase the overall efficacy of the entire MNE (Birkinshaw & Hood, 1998; Birkinshaw, 1997).

A key issue for further consideration is that subsidiary roles presented in this review emerge as a result of MNE-specific determinants. Benito, Groggaard, and Narula (2003: 451) argue that in order to classify the various roles, literature has been focused on issues internal to MNE, "without connecting this to the external environment other than through firm, network or industry specific factors." However, subsidiary roles may be determined by location

advantages (Mariotti & Piscitello, 2001) as well as political economy issues (Hillman & Wan, 2005). Hopefully, future research will examine this topic in more detail. A second point that requires further investigation concerns subsidiaries' autonomy. As Young and Tavares (2004) argue, there is still the goal of trying to distinguish subsidiary roles/strategies according to the significance of the autonomy variable. In this regard, much work needs to be done to identify the nature and extent of autonomy. The implication of the different roles of subsidiaries in the policy making of host countries is another theme that has received less attention; a notable exception is the work of Pearce and Tavares, (2000). Finally, some issues that require further exploration are the process of evolution of subsidiary roles and the contribution and strategic positioning of CoE in the MNEs.

Two limitations should be acknowledged. First, the vast majority of evidence provided in support of the different typologies was focused primarily on manufacturing subsidiaries. It is not clear whether the different theoretical conceptualizations are empirically confirmed in other settings. The expectation is that they have been confirmed, but this remains to be investigated. Second, the four key analytical blocks presented in this review assume that subsidiaries' strategy is collaborative with other MNE subunits and the HQs. However, Birkinshaw, Hood, and Young (2005: 246) argue that this is not always the case, because "the relationships between subsidiaries and their sister plants in other countries... but ultimately *they are in competition* for new investment or even (in some cases) for survival." The perception of intense competition among different units of the same MNE network should also be considered by future researchers to obtain a more detailed description of the field.

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