

Subsidiary development and the evolution of supply management activities

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Paper to be presented at the 29th European International Business Academy Conference,
Track “Management and Organisation”, Copenhagen Business School, Denmark
(December 11-13, 2003)

October 2003

Abstract

It is apparent that multinational companies (MNCs) are pursuing extensive outsourcing in order to focus on their core business, thus leading to the development of supply networks in those locations where the MNC operates through its subsidiaries. The main aim of this paper is to provide a preliminary assessment of the degree of understanding of the relationship between subsidiary development and the evolution of supply management activities implemented by subsidiaries. This preliminary analysis develops three distinct arguments: firstly, the existing literature thus far has not openly and fully addressed such issue; secondly, this paper outlines a preliminary analytical framework aiming to integrate the MNC and the supply management perspectives; thirdly, future research should exploit the theoretical contributions recently developed in the field of organizational learning and knowledge management, and focus on longitudinal studies to address the complexity and variety of the phenomenon.

Keywords: multinational companies, subsidiary management, supply management, organizational practice, knowledge transfer

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1. Introduction

Firms are becoming increasingly global and are establishing international networks of operational units in research and development (R&D), production and marketing. It is apparent that the internal organization of multinational corporations (MNCs) has become increasingly complex and that subsidiaries over time have gained additional responsibilities for implementing and coordinating specific tasks at the local and global level. At the same time MNCs are also pursuing extensive outsourcing in order to focus on their core business, thus allocating resources to further strengthen their distinctive capabilities. This phenomenon has been leading to the development of supply networks in those locations where the MNC operates through its subsidiaries, both in developed and developing countries. The main aim of this paper is to provide a preliminary assessment of the degree of understanding of the relationship between subsidiary development and the evolution of supply management activities implemented by subsidiaries.

This preliminary analysis develops three distinct arguments, which are pointed out explicitly in the final section. Firstly, the existing literature thus far has not openly and fully addressed such issue, particularly with regard to the analysis of subsidiary-level determinants of supply management practices. Secondly, this paper outlines a preliminary analytical framework aiming to integrate the MNC perspective with the supply management perspective. Thirdly, this paper argues that future research on this issue should exploit the insightful theoretical contributions recently developed in the field of organizational learning and knowledge management, and focus on longitudinal studies to address the complexity and variety of the phenomenon.

This topic is deemed very important for two main reasons. Firstly, MNCs' competitiveness on a global scale depends also on how local networks of suppliers are managed and developed. Secondly, how subsidiaries manage local networks of suppliers has relevant policy implications, in the light of the effects on the local industrial development and the economic and social welfare (UNCTAD, 2001). Various studies show that the implementation of supply management policies based on highly selective criteria might have an impact on the local supply base, especially in developing countries (Humphrey and Salerno, 1998; Barnes and Kaplinsky, 1998).

This paper is structured into five main sections. The second and third sections provide an analysis of main contributions respectively on the emerging role of subsidiaries within MNC strategies and activities and on the evolution of supply management strategies and practices. The fourth section develops a review of current contributions on critical issues in subsidiary supply management activities. The fifth and final section summarizes the preliminary results and points out lines for further research.

2. The evolution of the role of subsidiaries

Many firms have developed an international dimension by setting up operational units worldwide. The international business literature places increasing emphasis on the growing relevance of single subsidiaries in shaping the performance and competitiveness of the whole MNC. Such literature has developed and examined in depth the most critical dimensions concerning the role of the subsidiary considered as the main unit of analysis, thus promoting the development of a specific research field (Birkinshaw, 1994; Paterson and Brock, 2002).

The issue of MNC strategy and structure has been characterized by high complexity in both conceptual and empirical terms. The Integration-Responsiveness theoretical framework has been developed to highlight the variety of MNC organizational choices (Prahalad and Doz, 1987). On the one hand, MNCs would promote integration of international activities to facilitate the achievement of economies of scale, higher synergies, organizational efficiency and ability to penetrate new markets. On the other hand, MNCs are required to be responsive to the local environment because of the intense pressure in terms of local market evolution and features, institutional framework and access to local resources, which thus might push the MNC to become more embedded in the local environment.

Subsequent contributions highlight that MNCs should pursue strategic exploitation of both integration and responsiveness at the HQ and subsidiary level. Bartlett and Ghoshal (1989) pointed out the emergence of the transnational firm model, which is configured as a network of autonomous units able to interact with the HQ, to exchange knowledge and resources across the transnational network and to pursue specific roles within the organisation. Therefore MNCs have been defined as “inter-organizational networks” (Ghoshal and Bartlett, 1990), where each subsidiary plays a role within the structure of the company and also HQ-subsidiary links might show different features (Ghoshal and Nohria, 1989). Such conceptual advances are in line with a more heterarchical perception of the multinational company, as opposed to the hierarchical vision (Birkinshaw, 1994).

The Integration-Responsiveness framework has been further developed in both theoretical and empirical research at the subsidiary level (Jarrillo and Martinez, 1990; Taggart, 1997). Such analyses point out different roles played by subsidiaries within the MNC network, ranging from the “autonomous subsidiary” highly embedded and active in the local environment to the “quiescent subsidiary” whose quality of linkages – both

technological and organizational - with HQ and the local environment is very low. Some scholars investigated conditions helping the development of subsidiaries in charge of global mandates, that is the management of the whole range of activities concerning a single product or service on a global scale (Roth and Morrison, 1992), or representing Centres of Excellence for specific knowledge areas (Moore and Birkinshaw, 1998). In order to further enhance this research stream concerning the role of subsidiary some authors have also attempted to examine subsidiary role change over time, that is its development process, pointing out as main drivers the parent-company, the subsidiary itself and the host environment (Birkinshaw and Hood, 1997).

Another important research area concerns the content of the emerging division of labor within MNCs' units. Various scholars examined how different value chain activities, functions and processes are managed and coordinated within the firm globalization process. The allocation of tasks is the result of specific competences developed at the subsidiary level or of the characteristics of the local environment, such as market evolution and available technological resources (Porter, 1986; Malnight, 1995). Some authors developed specific studies on the HQ-subsidiary relationship with regard to marketing (Solberg, 2000), R&D (Papanastassiou and Pearce, 1998; Zanfei, 2000), human resource management (Taylor and Beechler, 1993).

Given the growing autonomy of some subsidiaries in making strategic choices within their market area concerning products, technologies and organization, a main stream of research has placed emphasis on the tools available to the HQ to coordinate and control subsidiaries activities (Martinez and Jarrillo, 1989). Higher degree of freedom of local units could promote higher levels of contextualization in the local environment, while higher control by the HQ could limit such process and support the integration dynamics. While

previous studies have focused more on formal rules and practices, such as centralization of decision-making, planning and reporting, recent works highlight the role of “soft coordination mechanisms” such as transfer of managers, establishment of teams, development of common knowledge, codes and culture (Martinez and Jarrillo, 1989; Gupta and Govindarajan, 2000).

Within the debate concerning coordination within MNCs a major area of research has placed emphasis on the dichotomy between standardization and adaptation of organizational practices as possible strategic tools to promote coordination and integration, as emphasized by Boisot and Child (1999: 237) in their research on MNCs’ organizational strategy in China: “Western firms operating in China (....) face a choice between maintaining their norms of complexity reduction or adopting a strategy of complexity absorption which is more consistent with the Chinese culture”. The issue of the transfer of business and productive models across countries and local contexts has been highly debated in the literature. Scholars highlighting the emergence and worldwide diffusion of the lean philosophy argue that lean manufacturing techniques could have universal application (Womack *et al.*, 1990). Such view seem to reflect the “global firm” model developed by Bartlett and Ghoshal (1989), where decision-making powers are exclusive responsibility of HQ and each subsidiary has the objective to fulfill HQ orders. These contributions have been highly criticized by scholars who emphasize the impact of the local context on replication of business and organizational models (Boyer, 1998). Within this approach organizational “hybridization” is seen as “the general case and the diffusion of an invariant model the exception” (Boyer, 1998: 32).

Another perspective has emerged from various empirical studies highlighting the need to focus on the transfer process and therefore on the effects of firm-specific factors. Mishina (1998) and Jurgens (1998) highlight the effect of the HQ attitude concerning the transplant

process, given that it is necessary to investigate “to what extent they have developed a ‘hybrid’ by intention or necessity”, and its level of commitment (Jurgens, 1998: 320). Mishina explains that Toyota HQ has “mobilized the whole company” (1998: 104) during the launch of the Toyota Motors Manufacturing plant in the US, while Jurgens highlights the role of commitment by the top management in shaping the effectiveness of transplant activities comparing VW’s Mosel plant and Opel’s Eisenach plant in the former East Germany. Availability of organizational resources could be combined with “transfer capacity”. One of the major tools developed by Volkswagen has been to elaborate “knowledge transfer” strategies while setting up the management team in charge of running operations: VW attempted to introduce in the new plant in Spain managers with “Japan transplant experience” (Jurgens, 1998).

Therefore these authors explicitly link the issue of higher/lower standardization and adaptation of organizational practices to the ability of the MNC to develop and implement appropriate knowledge transfer strategies. The issue of knowledge transfer within MNCs has attracted growing attention in recent years, with a main focus on knowledge management variables such as absorptive capacity and degree of “routinization” of practices (Kilduff, 1992, Gupta and Govindarajan, 2000). More recent studies attempt to develop more coherent and exhaustive theoretical approaches concerning the transfer process of organizational practices – notably “strategic organizational practices” - across boundaries among a parent-company and its subsidiaries (Kostova, 1999). The relevant sets of variables pointed out in this work concern the social, organizational and relational contexts.

Other studies have focused on the interaction between subsidiaries and the external environment, notably on establishing and developing external networks of firms and institutions. Various authors emphasize the active role of the transnational firm in developing

increasingly tight and intense linkages with external actors to have access to local resources and capabilities, therefore viewing the growing expansion of MNC as a process of absorption of the local context through partnerships with suppliers, joint-ventures (JVs) and strategic alliances (Castellani and Zanfei, 1998; Zanfei, 2000). Therefore local subsidiaries might be perceived as relevant vectors in promoting cooperative agreements between the MNC as a whole and external firms (Castellani and Zanfei, 1997). The development of local networks might produce positive effects also for local firms: recent studies highlight that local linkages implemented by MNCs' subsidiaries might represent relevant sources of knowledge spillovers and international reputation (Patibandla and Petersen, 2002; Giarratana *et al.*, 2003).

An increasingly relevant area of research is the analysis of the interaction between subsidiaries and local institutions. While during the '70s such relations were shaped by strong conflict over objectives and expectations, especially in some developing countries, recent studies highlight the growing cooperation between MNCs and political institutions, given the increasing convergence in terms of production organization, export levels and employment patterns (Markusen and Venables, 1999; Hood and Young, 1994).

3. The evolution of supply management strategies and practices

Over the last two decades firms have shifted from a Fordist model of production, whose main features were a high level of vertical integration and a subordinate role of suppliers, to a new model of production based on growing level of vertical disintegration and outsourcing and on an increasing role of suppliers as providers of inputs and knowledge.

Various studies highlight the increasing adoption of outsourcing strategies in order to focus on what is deemed as the core business (Gadde, Hakansson, 1994). All those activities – both in the area of production and administration - which do not relate to the firm distinctive competences are subject to evaluation for external sourcing. Such phenomenon is further caused by the growing recognition that firms are not able to control and develop all the necessary competences within their boundaries, in the light of the rapid pace and uncertainty of technological change processes (Chesbrough and Teece, 1996).

Changes in firm boundaries have lead to a further evolution of supply management approaches. Various authors highlight the gradual shift by firms located in developed countries from the “adversarial” or “traditional” approach - heritage of the Fordist model of production - to the “partnership-based” approach, as promoted by the Japanese companies (Sako, 1992; Hines, 1994). The “traditional approach”, defined as Arm’s Length Contractual Relations (ACR), prescribes a high level of vertical integration and low degree of interaction and involvement of suppliers, in order to reduce transaction costs and market uncertainty (Sako, 1992). According to the ACR model, buyer and supplier are engaged in short-term relations and the buyer would promote price competition among multiple suppliers, especially for products highly standardized, whose production does not imply development of specific assets. According to the “partnership-based” approach, instead, the buyer firm would promote Obligational Contractual Relations (OCR) with its suppliers through outsourcing of high value added organizational and technological activities. The cooperation between buyer and supplier would be implemented along various operational dimensions, such as quality control, delivery, product development, maintaining a long-term horizon to encourage the development of specific assets within the relationship (Sako, 1992). In cases where the buyer firm maintains the stronger position in terms of power and knowledge, then suppliers are

often involved in more structured supplier development programs aimed at upgrading suppliers' technological and organizational capabilities (Krause and Ellram, 1997). Such close cooperation is often characterized by the high effort of the buyer in terms of know-how assistance towards suppliers and by a remarkable learning process which involves both parties (Lincoln *et al.*, 1998). Recent empirical studies show that knowledge transfer from buyer companies has a positive impact on suppliers performance (Kotabe *et al.*, 2003). Supplier networks are therefore increasingly perceived as relevant sources of competitive advantage for customer firms (Sheth and Sharma, 1997).

The combined process of vertical disintegration and close partnership with suppliers has been described as “network sourcing” (Hines, 1994). Various studies highlight that the shift from higher emphasis on the internal organization of functions and processes to external management of linkages with firms and institutions has lead to an increasing complexity in the management of the latter, pushing customer firms to develop “relational capabilities” (Lorenzoni and Lipparini, 1999). Some authors emphasize that firms might be willing to develop a “strategic supplier segmentation”, based on a partnership approach with a restricted number of suppliers of critical components and an adversarial approach toward suppliers of standard components (Dyer *et al.*, 1998). More importantly, the development of “network sourcing OCR” practices is accompanied by a number of changes with respect to technology and product management. Suppliers are increasingly required to undertake codesign activities and are often involved in organizational platforms in charge of developing or renewing product families (Clark and Fujimoto, 1991; Liker *et al.*, 1996), which could be configured according to a modular approach (Zagnoli and Pagano, 2001). The strengthening of relations with a limited group of suppliers leads to a sharp reduction of the number of suppliers and to the development of a multi-tier supply structure, with first-tier firms playing the role of

system-integrators and coordinating second-tier suppliers (Lamming, 1993; Pfaffman and Stephan, 2001). Even though most of the literature highlights such shift toward more cooperative buyer-supplier relations, some scholars emphasize that in business practice such change is to be perceived as a gradual process, where traditional and new supply practices coexist (Mudambi and Helper, 1998).

The increasing involvement of suppliers in product development and operations management has lead various authors to develop new theoretical approaches to highlight the new drivers of the value creation process. Thus the ability of a product to satisfy customer needs depends on the organization and management of the whole supply chain from original suppliers to end-users, that is “supply chain management” (Cooper *et al.*, 1997). Harland (*et al.*, 1999) push for a more holistic theoretical effort defining the concept of “supply strategy” in order to combine both the strategic and the operational dimension.

Various studies point out that the adoption of outsourcing strategies and lean-based practices have also relevant implications for the management and organization of purchasing activities (Gadde, Hakansson, 1994). Firstly, purchasing units have to increase their level of skills in the area of supply management, given that supplier selection processes have become crucial for the implementation of the “extended enterprise”. This means that competence areas such as cost analysis, quality management, just-in-time (JIT) delivery have to be adequately introduced and absorbed in order to negotiate an agreement with suppliers and to be able to monitor their performance. Secondly, purchasing managers are required to join inter-functional and inter-firm teams, especially in product development projects. This means that such managers are required to develop communication and relational skills in order to interact with personnel belonging to Engineering, Marketing and Production areas within the

firm they belong and within supplier firms as well (Humphreys *et al.*, 2000; Zagnoli and Pagano, 2001).

4. Subsidiary supply management as a research issue

In the last two decades researchers addressing the organization of MNC have highlighted the relevance of effective supply management for companies having reached the multinational scale (Arnold, 1999). MNCs establish their operations worldwide and in each location strategic choices and activities are implemented in order to set up an effective and efficient supply network. Thus far business and management scholars have developed three main research paths, which are closely linked one to another. The first area of enquiry concerns the HQ-subsidary relations within the decision-making process concerning supply management. The second research area regards the transfer of supply management practices across operational units located in different countries. The third line of research focuses on the development of the local supply network and thus on the involvement of locally-based suppliers in subsidiaries' activities.

4.1 HQ-Subsidiary relations and supply management

Some authors have started to address the issue of the degree of centralization in supply management decision-making. Most of these studies have been developed by scholars engaged mainly in the field of supply management. The main issue under examination is the analysis of the phenomenon of global sourcing, which has been deemed as one of the main challenges for international firms (Sheth and Sharma, 1997). Global sourcing could be defined as the combination of domestic and international sourcing through coordination and

integration mechanisms concerning suppliers, technologies, purchasing practices. The development of global sourcing strategies and practices has been conceived as an evolutionary process towards the implementation of international sourcing as a strategic tool managed by top management to achieve higher global performance (Bozarth *et al.*, 1998).

Some authors argue that international sourcing should be increasingly centralized at the HQ in order to gain various advantages. Such approach could facilitate the achievement of economies in the exchange of knowledge and information and input purchasing (Faes *et al.*, 2000). Higher degree of control at the HQ level could also have a positive effect in the management of relations with global suppliers, which are supposed to implement follow sourcing expansion strategies in order to serve the customer worldwide. Other studies highlight the advantages to promote purchasing synergies among business units, whereas purchasing synergy is defined as “the value that is added when two or more business units (or purchasing departments) join their forces (*e.g.* combined buying) and/or share resources, information and/or knowledge in the area of purchasing” (Rozemeijer, 2000: 7).

Other authors, instead, highlight the advantages of decentralization of decision-making powers at the subsidiary level. Such approach could provide benefits in terms of local problem-solving, management of relations with local suppliers and of cultural differences (Gadde and Hakansson, 1994).

Some scholars attempt to point out those conditions which might push for the adoption of centralization/decentralization of supply management, notably the degree of internationalization and centralization of both strategy and procurement (Arnold, 1999). Product strategy might represent a relevant factor in implementing centralized management of supply networks, especially in case of plants/units engaged in producing the same product or components of a specific product (Faes *et al.*, 2000).

Research on global sourcing seem to have achieved interesting results in terms of relevant internal and external variables, strategic dimension and evolutionary processes. However, the role of the subsidiary is still not fully recognized and included in the conceptual analysis, and therefore also the issue of centralization/decentralization of decision-making lacks the insights of HQ-subsidiary evolving dynamics.

4.2 The international (and internal) transfer of supply management practices

An emerging area of research concerns the analysis of the transfer of supply management practices within MNCs. Such phenomenon concerns MNCs located in both developed and developing countries, and it is mainly due to the growing integration of production of final products and components world-wide: production facilities based in a developing country might emerge over time as a global centre for production of final products and components which are then exported in global markets. Existing studies on this topic has not developed specific conceptual frameworks describing and explaining such process. Only a few empirical studies have been undertaken, and these studies highlight three driving forces: the need for integration in supply management, the impact of the local context and the role of firm-level factors in the management of such process.

Various empirical studies show that firms pursue an increasing standardization of supply management practices implemented by MNCs units worldwide, in order to have full control over quality management, logistics and codesign with local suppliers (Humphrey and Salerno, 1998; Balcer and Enrietti, 1998; Mishima, 1998). Under a theoretical perspective, such studies could be linked to conceptual frameworks highlighting the pursue of an integration and “standardization” approach in MNC management and organisation. Other empirical studies instead point out that the implementation of supply management practices

in different countries is shaped by contextual factors such as the degree of adaptation of local suppliers to “lean manufacturing” (Cusumano and Takeishi, 1991). Such results seem in line with those scholars arguing that replication of organizational and productive models is shaped by the local context (Boyer, 1998).

Other scholars point out the role of firm-level variables in shaping the transfer process. Florida and Kenney (2000) argue that the success of the transfer process of supply management practices by Japanese companies in the United States is due to their level of organizational capabilities. Other studies show preliminary results concerning the adaptation process implemented by the local expatriate management in order to introduce MNCs supply management practices within the local unit (Pagano, 2003). Such results seem in line with conceptual contributions in the field of knowledge management within MNCs (Gupta and Govindarajan, 2000; Tsang, 1999).

It could be argued that most of the empirical studies have not openly linked the issue of standardization/adaptation of supply management practices to the issue of transfer of such practices. These could be conceived as “organizational practices and routines” and therefore as elements of the body of organizational knowledge detained by a firm, as argued by Kilduff (1992) and Kostova (1999). This means that transferring supply management practices could be better addressed by taking into account theoretical studies on organizational learning and knowledge management, with a main emphasis on those contributions on “best practices” transfer. Such theoretical frameworks might help in addressing the specific conditions shaping the distinct dimensions of the transfer process: content (what is transferred and what is not) and process (the timing and the actors involved). Such approach is deemed necessary in the light of the nature of the subsidiary, whose management is generally composed by both expatriate and local managers, and the latter might be involved in purchasing activities

deploying its specific competences and business culture. Some recent contributions have approached such issue developing preliminary empirical research and pursuing a comparative approach mapping both home-country and host-country supply management practices within the MNC, and then assessing the transfer process (Pagano, 2003).

4.3 The development of the local supply network in host countries

Various scholars have undertaken studies concerning the setting up and development of the local supply network by MNCs' subsidiaries. Local subsidiaries perceive such upgrading process as a competitive tool in order to exploit local resources and capabilities. The availability of skilled human resources and highly capable firms could represent a relevant factor in determining the degree of local outsourcing and the development of technical and commercial agreements with local actors (Boyer, 1998; Castellani and Zanfei, 1998). Another important factor pushing subsidiaries to involve local suppliers is the extensive use of JIT delivery which could make unfeasible resorting to long-term relations with suppliers located abroad (Nellore *et al.*, 2001). A few studies, however, put emphasis on the strong impact of local regulations and institutional frameworks imposing the involvement of local firms in production activities carried out by subsidiaries, such as rules on local content. Such regulations have the goal of helping the local industry to launch the restructuring process and to have access to international markets (Bozarth *et al.*, 1998; Pagano, 2003).

Some scholars emphasize the opportunity and challenges for local firms – especially for those located in developing countries – for being involved in MNCs subsidiaries local networks. On the one hand, these firms have the chance to undertake a serious restructuring and upgrading process and to increase their reputation in local and global markets (Patibandla and Petersen, 2002). Some empirical studies highlight the benefits for local firms in terms of

knowledge transfer from local subsidiaries (Crone and Roper, 2001). On the other hand, the high performance standards combined with the competition by multinational suppliers might push local firms out from the local supply network. Recent empirical studies show that local firms – in both developed and developing countries - are involved by local subsidiaries in supplying low-value added or “niche” inputs or are left outside the network; subsidiaries prefer local global suppliers or international sourcing involving existing suppliers and/or other subsidiaries located abroad (Humphrey and Salerno, 1998; Barnes and Kaplinsky, 1998; Rutherford, 2000).

Another major issue addressed in the literature is the evolution of relations between MNCs and multinational – or “global”- suppliers. Some studies highlight the increasing involvement of home-country suppliers in local operations, thus implementing a “follow sourcing” strategy especially with suppliers engaged in partnership frameworks (Martin *et al.*, 1995). Some authors perceive such development as a basic element of global sourcing strategies (Pfaffman and Stephan, 2001), while other scholars point out that buyer-supplier linkages *per se* might represent “intangible assets” to be exploited at the international level, as internalization theory would argue (Martin *et al.*, 1995). Such phenomenon is due to the buyer firm search of economies of scale in production and design. Other relevant factor facilitating the re-creation of buyer-supplier links is the long-standing business relationship, which is a relevant source of trust between the multinational customer and its home-suppliers (Martin *et al.*, 1995).

It could be argued that research on the role of subsidiaries in setting up local supply networks is still limited and many issues are not explored yet. There is lack of a more comprehensive analysis of the strategic dimension of subsidiary sourcing, that is the choice among the alternatives of internal (within the MNC) sourcing, foreign sourcing (from an

external supplier located abroad) and domestic sourcing. Such decisions play a major role because organization of production activities abroad, particularly in emerging markets, might be highly complex and thus local management might be forced to choose between a high degree of vertical integration in the local plant – difficult to be implemented if the MNC is engaged in pursuing a lean production strategy – and resort to high cost imports from other subsidiaries (which could be perceived as a form of “vertical integration” at the MNC level) and foreign suppliers.

Another research area to be further developed is the interaction between subsidiaries and its suppliers, both local and multinational ones. With regard to the former, still limited is the analysis on the upgrading process and notably on the development of trust between the subsidiary and local suppliers, especially in developing countries where business practices and culture are different when compared to those in industrialized countries. Any supplier development program leading to the establishment of partnership between the subsidiary and local suppliers is likely to devote extensive time and resources to develop such trust, as studies on buyer-supplier relations in emerging and transition economies highlight (Humphrey and Schmitz, 1998).

With regard to the role of multinational suppliers, existing studies focus more on the interaction between the MNC – through the HQ – and the multinational supplier – through its HQ – in setting up operations in foreign location. Still limited is the analysis of the interaction between the MNC subsidiary and the multinational supplier subsidiary, especially in the areas of operations start-up, access to local resources and/or partners firms, participation to global/local product development projects where the subsidiary is involved.

5. Preliminary assessment on research concerning subsidiary supply management

This preliminary analysis of main contributions by business and management scholars on the issue of subsidiary supply management strategies highlights that existing research on such topic has achieved interesting and stimulating results. However, if compared with the level of research undertaken in the distinct fields of subsidiary management and supply management, such contributions seem limited both in terms of theoretical and empirical research. Therefore it could be argued that further theoretical and empirical research on subsidiary supply management strategies and practices is needed in the light of the high complexity of such topic, following Paterson and Brock's (2002; 158) argument that "there is still a tremendous scope for work within the functional areas of multinational subsidiaries". Supply management is deemed as a stimulating research theme given its inter-functional and process-based nature, involving areas such purchasing, quality, logistics and product development.

Under a theoretical point of view, it seems that the literature on MNCs and the one on supply management have not been fully integrated to address the dynamics of supply management at the subsidiary level. On the one hand, scholars focusing on the analysis of MNCs have not fully explored all the implications of supply management for a firm with operations worldwide. Authors working on subsidiary management thus far have started to develop in-depth research efforts to analyze how different functions and processes are dealt with at the subsidiary level; however, research on supply management is still limited and should be expanded, given its critical relevance for MNC competitiveness as a whole and the increasing complexity of its dynamics in terms of functions and processes involved.

On the other hand, scholars examining supply management by multinational companies in specific locations have not fully integrated in their research in both conceptual and empirical terms the subsidiary perspective, and thus the researcher has not taken into account the role of the MNC internal network and the dynamic relationship between HQ and subsidiaries. More effort has been devoted to the examination of sourcing strategies at the HQ level, as the theoretical achievements in studying global sourcing show.

Insert Figure 1 here

Therefore this paper outlines a preliminary analytical framework (Figure 1) to examine subsidiary supply management by adopting the “internal/external network” scheme implemented in other studies (Zanfei, 2000). This approach highlights two distinct and complementary dimensions: firstly, the recognition of the buyer firm performing the role of the subsidiary within the MNC network, which might represent a relevant variable - in terms of decision-making processes and organizational resources - impacting on supply management strategies and practices; secondly, the complexity of managing external networks of firms, which could be more fully explored by adopting supply management theories and concepts, thus providing insights on areas such as quality management, logistics, purchasing and product development.

Moreover, it could be argued that recent developments in the fields of organizational learning and knowledge management might provide useful conceptual insights to analyze the management of “supply management knowledge” within the MNC units worldwide. A recent contribution by Forsgren (2002) on further integration of internationalization process theories with organizational learning concepts might provide useful insights on the strategic setting of

the international firm and its evolution processes, while works by Szulanski (1996), Kostova (1999), Winter and Szulanski (2001) on transfer and replication of organizational practices might provide stimulating insights concerning the development, transfer and implementation of supply management knowledge at the subsidiary level.

Under a methodological perspective, the complexity and the dynamic nature of subsidiary supply management should be addressed by adopting a longitudinal approach, in agreement with Melin's (1992; 113) argument that "research on MNC should be more concerned with processes over time and should regard structures as rather temporary manifestations of such processes". Such approach has been already adopted in various studies concerning both supply management (Pagano, 2003; Kotabe *et al.*, 2003) and MNCs (Malnight, 1995; Birkinshaw and Hood, 1997).

With regard to specific research areas not covered in this paper which deserve further attention, a relevant issue to be explored is the relationship between subsidiary role within the MNC – *e.g.* world product leader, center of excellence, implementer - and its supply management approach both in terms of sourcing strategy (local and/or multinational suppliers, follow sourcing) and buyer-supplier relations.

Another important issue which has not been fully explored thus far in the literature is the relationship between entry mode in terms of ownership structure and supply management. Many studies have analyzed supply management strategies and practices of local subsidiaries without taking into account the issue of proprietary configuration. If the MNC establishes its operations by creating a JV with a local partner, then the issue of control and management of suppliers could become highly complex. Within this scenario the opposite pressures by the parent company and the local environment might produce different outcomes when compared to wholly-owned foreign subsidiaries. The local partner might be willing to control the

purchasing function especially in case of contribution to the JV of existing and operating plants and units, and thus promoting the involvement of its suppliers, unless foreign partner suppliers' involvement is perceived as beneficial (Martin *et al.*, 1995). Any effort to standardize supply management practices in JVs could be supported or opposed by the JV partner, which can shape the level of absorptive capacity (*e.g.* providing skilled personnel or accepting intensive training for its personnel) and the control structure of the JV (*e.g.* by maintaining or not direct supervision of purchasing and logistics). Therefore in such scenario supply management strategies and practices might represent the outcome of negotiations and compromises among JV managers and managers belonging to the partner firms in charge of monitoring the JV activities.

A related issue is the impact of MNC acquisition of a local firm on its supply management policies. Acquisition has become the main entry mode for firms expanding in foreign markets in the light of the need to achieve operating efficiency and market control in a short time. While much of the debate has addressed the impact on the level of employment and on technological and organizational capabilities of the acquired firm, little is known on the effects on supply management policies and notably on the composition of the supply network.

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Figure 1. Subsidiary supply management: preliminary analytical framework

