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Global Sourcing And Procurement Strategy: A Model of Interrelated Decisions

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In the past few decades, the strong competition and globalisation manifest in world markets have led companies to develop international purchasing strategies involving dramatic price reductions, quality and delivery enhancements, improved cycle times, increased responsiveness to customers, and better financial conditions. In order to effectively support their globalisation process, companies have been forced to pursue internationalisation strategies for their purchase management.. The literature focusing on the influence of multinational companies' (MNC) corporate purchasing strategy on affiliates' global supply strategy (GSS) development reveals a strong link between two key dimensions: supply source (i.e., the level of supply globalisation as related to the MNC's worldwide operating needs) and purchasing location (i.e., the level of centralisation in relevant purchasing decisions.) This article, based on the study of a sample of seven Italian MNCs that have expanded their operations to the MERCOSUR (Southern Common Market) area, explores the purchasing strategy definition and development process, focusing on the relationship between its two key dimensions and identifying the definitional criteria used in each of them, as well as their impact on decision-making processes.

Introduction

The literature on globalisation reveals wide agreement concerning the relevance of international sourcing strategies as key competitive factors for companies seeking globalisation, considering such strategies to be a purchasing management approach focusing on supplies from vendors in the world market, rather than relying exclusively on domestic offerings (Petersen, Frayer, & Scannel, 2000; Stevens, 1995; Trent & Monczka, 1998). Thus, the notion of "international sourcing" mentioned by these authors describes the level of supply globalisation in companies' purchasing strategy, as related to supplier source (Giunipero & Pearcy, 2000; Levy, 1995; Trent & Monczka, 2003b).

All the same, the literature discusses the limitations in

international sourcing strategy application when companies lack an integrated and coordinated management of all transactions between subsidiaries and supply sources around the world. Depending on their globalisation levels, companies need to develop a "global purchasing" strategy based on the integration and coordination among materials, processes, designs, technologies, and suppliers across worldwide purchasing, engineering, and operating locations (Monczka & Trent, 1991; Stevens, 1995). Therefore, although both supply management strategies (international sourcing and global purchasing) entail foreign supply, they differ in the degree in which global resources (supplied materials, technologies, and know-how) are effectively coordinated and integrated to respond to global demands (Dobler & Burt, 1996; Johnson & Wood, 1996).



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In turn, according to the models developed by Monczka and Trent (1991 and 2003a) and by Rajagopal and Bernard (1993), it seems that, as companies move towards globalisation in response to greater competitive pressures, global supply strategies evolve through several phases or stages (from a domestic purchasing scenario to global sourcing, through an intermediate international purchasing stage) featuring different purchasing strategies. Although current literature views global supply strategy as evolving throughout companies' globalisation processes towards strong supply globalization and purchase centralisation coherence, several relevant factors or influence dimensions may imply a dynamic decision process involving various purchase and supply strategies.

In short, this research work intends to identify relevant, procurement-specific criteria and context variables affecting global supply strategy definition in terms of supply source (global or local) and purchasing location (central or local), analysing the behavioural patterns of these variables as well as their interactions with and influences on strategic alternatives as part of decision-making processes.

Literature Background

One of the key decisions concerning the strategy and organisation of companies operating across different countries is where and from whom to purchase the materials, goods, and services needed for their activity. The first issue involved in this decision is the level of internationalisation of the supply source, the main alternative being global or regional sourcing, in which suppliers provide products or services to subsidiaries located in a specific region or throughout the world, and local sourcing, in which suppliers provide products or services exclusively to a single subsidiary.

Major reasons driving companies to pursue international sourcing

strategies include (Fagan, 1991; Stevens, 1995) domestic unavailability of some materials, poor-quality materials available in domestic markets, higher local prices, low domestic technological standards, compensation, and counter-trading.

The evolution from local to global sourcing is described in the literature as a process entailing different levels of involvement in internationalisation, and different types of advantages perceived. Many authors, however, couple this process with an increasing level of centralisation of purchasing decisions within the company (Birkinshaw & Morrison; 1995, Gates & Egelhoff, 1986; Yang & Kang, 2005). Purchasing location strategies refer to this dimension and can vary from central purchases, involving key decisions made by headquarters, to local purchases, where key decisions are made by subsidiaries. Thus, in a centralised purchasing strategy, key decisions are made by headquarters (associated with suppliers' certification and selection, price negotiations and agreements, and long-term contract design and elaboration), while operative decisions and follow-up

actions in purchasing and sourcing management are handled locally. Conversely, in a decentralised purchasing strategy framework, key decisions are made by subsidiaries or other regional divisions.

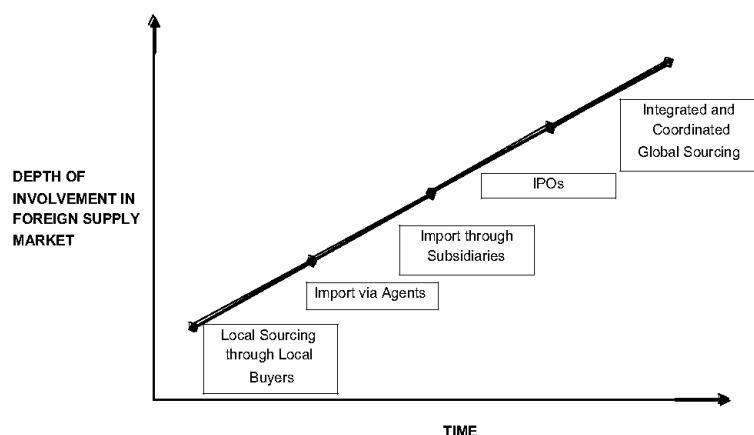
Although these two dimensions are separate in nature and refer to different strategic aspects, they are discussed in relation to each other in many models presented in the literature. Rajagopal and Bernard (1993) describe four stages that build purchasing management internationalisation processes, distinguished by the level of involvement in internationalisation and the types of perceived advantages entailed by global supply standardization. Each of these stages also involves a clearly defined strategy related to purchasing management centralisation, going from buyers at subsidiaries to worldwide business units. These four generic supply source scenarios may be described as follows (see Chart 1): domestic purchasing, when companies purchase in the domestic market and local sourcing decisions are often made on the basis of custom and regular practices; experimental involvement, when companies

Chart 1
Four international sourcing scenarios

		Level of involvement in international of purchasing process	
		LOW	HIGH
Perceived advantages of global supply: Standardization of purchases and volume of overseas buying	LOW	DOMESTIC PURCHASING WITH LOCAL SOURCING STRATEGY	ACTIVE INVOLVEMENT WITH OFFENSIVE SOURCING STRATEGY
	HIGH	EXPERIMENTAL INVOLVEMENT WITH DEFENSIVE SOURCING STRATEGY	COMMITTED INVOLVEMENT WITH WORLDWIDE SOURCING STRATEGY

Note: Adapted from "Globalization of the Procurement Process," by S. Rajagopal and K. N. Bernard, 1993, Marketing Intelligence & Planning, 11(7)

Figure 1
Five purchasing internationalisation strategies



Note: Adapted from "Globalization of the Procurement Process," by S. Rajagopal and K. N. Bernard, 1993, *Marketing Intelligence & Planning*, 11(7).

realise the potential benefits of external sourcing but not as thoroughly as to embark on systematic search and involvement; active involvement, when companies consider alternative supply sources and search for sources and materials in other markets; and committed involvement, when companies develop global information networks on general supplies and are flexible in implementing procurement strategies. In turn, and according to Rajagopa and Bernard, (1993) international sourcing entry strategies feature five different market-entry alternatives for internationalising purchasing processes (see Figure 1).

Similarly, Trent and Monczka (1991 and 2003a) identified several stages or phases in internationalisation processes, in which companies evolve from domestic purchasing to a global procurement strategy, also supported by five purchasing strategies to accommodate their progress towards integrated, coordinated worldwide procurement activities. These strategies span from decentralised, local buying organizations to more centralised purchasing management units, such as IPOs and headquarters.

In turn, Trent and Monczka (2003a) describe international purchasing and global sourcing strategies as a

series of evolving levels in a continuum. For them, sourcing internationalisation is accomplished when companies move from exclusive domestic purchasing to globally coordinated and integrated materials, processes, designs, technologies, and suppliers. The levels involved are Level 1, focusing on only domestic sourcing and purchasing; Level 2, focusing on international purchasing only when needed; Level 3, focusing on international purchasing as part of a global sourcing strategy; Level 4, focusing on globally integrated and coordinated sourcing strategies at different locations; and Level 5, focusing on globally integrated and coordinated sourcing strategies at different divisions.

In addition, Monczka and Trent (1991) described the four phases of supply sourcing that companies undergo in their transition from domestic purchasing to global procurement: Phase 1 involves domestic purchasing only, Phase 2 involves need-based foreign sourcing, Phase 3 involves resorting to foreign suppliers as part of a global strategy, and Phase 4 hinges on integration of the global sourcing strategy.

These phases are coupled with a parallel evolution in purchasing strategies to fully integrate and

coordinate worldwide requirements into a consolidated global purchasing strategy. These strategies are Strategy 1, with domestic buyers for international purchasing designated by the business unit; Strategy 2, with subsidiaries or other corporate units providing international sourcing assistance; Strategy 3, with established international purchasing offices (IPOs); Strategy 4, when a specific business unit is responsible for the design, building, and sourcing process; and Strategy 5, with a worldwide, integrated, and coordinated global purchasing strategy.

According to the authors, firms employing Strategy 1, 2, or 3 are in Phase 1, 2 and 3 of the global procurement process. Firms employing Strategy 4 or 5 are operating in Phase 4 (see Chart 2).

However, when companies use their global expertise and accumulate their global requirements, performance enhancements go beyond direct international purchasing. Literature also reveals that in MNC globalisation processes, subsidiary autonomy and significance, as well as corporate policy and strategy centralisation, are all influential factors in global supply strategy (GSS) definition. MNCs featuring strongly centralised organisational structures or corporate policies tend to develop global supply strategies that focus on global sourcing and centralised purchasing strategies (Gates & Egelhoff, 1986; Yang & Kang, 2005).

Thus, the models drawn from the literature seem to indicate that the supply source globalisation required by the world competition faced by expanding companies is closely related to a purchasing strategy evolution based on centralisation (from largely autonomous subsidiaries to highly centralised corporate buying units). This is clearly seen in the fact that the greater resource coordination, alignment, and integration capabilities required by global sourcing processes (world suppliers) become more effective

when purchasing management and planning matches worldwide suppliers and global needs. Also, a more global vision may be achieved through regional or corporate purchasing units, which would yield additional savings from economies of scale and increased negotiating leverage resulting from larger volumes. In turn, when local supply conditions are competitive enough to warrant domestic purchasing strategies, companies choose to award greater autonomy to local buyers, exploiting the significant disadvantages proximity, knowledge, and adjustment to the local environment and supply.

However, certain limitations could derive from unforeseen situations in which, although relevant conditions do determine supply source (foreign or domestic), they fail to define purchasing location. Such would be the case of materials provided by external suppliers because of local supply shortages or unreliability but that are insignificant in total purchases, or purchases that are specific to some affiliates, or when local representatives are present, or even when critical local adjustments are required. In these scenarios, centralised management would not yield the typical benefits resulting from resource management synergies or

economies of scales. Similarly, materials provided by domestic suppliers due to adequate local supply conditions and having a significant impact on purchase volume or on final product quality could also be subject to centralised purchasing to reduce quality risks or price negotiation inefficiencies or to enhance alignment with companies' global objectives. Although current literature views global supply strategy as evolving throughout companies' globalisation processes towards strong supply globalization and purchase centralisation coherence, this research study explores the rational decision-making criteria for context factors in order to show that, depending on variable scenarios, a mix of different possibilities may be used in global supply strategies.

Research Aims

In line with the background discussed above, this article aims at exploring global supply strategy of multinational companies in order to understand the level of interdependence of the different decision areas involved. This research work is part of a broader research project undertaken jointly by faculty members from IAE Business and Management School (Argentina) and the Dipartimento

di Ingegneria Gestionale del Politecnico di Milano (Italy) to study the development and implementation of global supply chains in multinational companies pursuing worldwide expansion processes. This research is intended to build an organizational model that provides a better understanding of key variable interaction and behaviour. Accordingly, this research work will analyse global supply strategies (GSS) focusing on the relationship between two key dimensions:

- Sourcing strategies (i.e., the strategy chosen for selecting global supplier networks; supply source)
- Purchasing location strategies (i.e., the strategy pursued to distribute key purchasing responsibilities in global organisations; purchasing location)

In this research analysis, *supply source* for a given product or service is considered to take into account suppliers' globalisation level as related to the MNC's supply. In turn, *purchasing location* for a specific product or service refers to a dimension referring to the level of centralisation of key purchase management decisions. Based on the analysis of the strategic behaviour recorded in our sample, the research questions explored are the following:

Chart 2
Purchasing and sourcing strategies

PHASE 1		PHASE 2		PHASE 3		PHASE 4	
Domestic Purchasing Only		Foreign Buying Based on Need		Foreign Buying as Part of Procurement Strategy		Integration of Global Procurement Strategy	
Strategy 1		Strategy 1		Strategy 1		Strategy 4	
Domestic Buyers	Domestic Buyers	Domestic Buyers to International Purchasing		Sourcing Responsibility to a SBU Somewhere in the World			
		Strategy 2		Strategy 5			
		Business Unit uses Subsidiaries		Integration and Coordination of Worldwide Global Sourcing Strategy			
		Strategy 3					
		IPOs Established Throughout the World					

Level of involvement in international of purchasing process

Note. Adapted from "Global Sourcing: A Development Approach," by R. M. Monczka and R. J. Trent, 1991, *International Journal of Purchasing and Materials Management*, 27(2).

- RQ1. Which are the internal context variables (procurement-specific variables) used for the definition of supply source and purchasing location in MNC supply strategy development?
- RQ2. What external context variables (non-procurement-specific) determine global sourcing and purchasing strategies?
- RQ3. What is the link between the two decisions (supply source and purchasing location), and how do internal and external context variables influence both strategic dimensions?

Research Methodology

The empirical analysis has been performed using multiple case studies. The case study method was chosen because it constitutes a research strategy seeking to understand the present dynamics of specific environments, and it is the most appropriate means to address "how" and "why" questions regarding a set of facts (Eisenhardt, 1989; Yin, 1989). Qualitative research approaches through multiple case studies traditionally have been favoured when the main research objective is to improve understanding of a phenomenon, especially when this phenomenon is complex and deeply embedded in its context.

The study sample included seven Italian MNCs expanding to the MERCOSUR area, varying in size and industry. The geographic location considered for this research matches a single region chosen by companies for their expansion, in order to allow for a comparative analysis of different cases in the same environmental and market conditions. The companies selected for the research sample were manufacturing MNCs, with upstream supply chain development and global expansion plans—to enable an adequate analysis for research purposes—and with the same country of origin, which determines the existence of similar cultural patterns for their global organisations.

The MERCOSUR area was selected because it embodies the largest Latin American economy (54%) and the fourth largest economic region in the world, totaling a GDP of US\$ 1,100 billion in 1999 and registering sustained growth since 1990. MERCOSUR has become the second largest recipient of FDI (foreign direct investment) among emerging markets, with total foreign investment of US\$ 55 billion, accounting for a notable example of renewed worldwide interest in regional trade agreements (Eichengreen, 2004). In this context, Italian investments account for a high FDI share, which also responds to a strong cultural influence in the region because of significant immigration flows dating back to the 1940's and 1990's.

Specific data were collected through personal, in-depth interviews with members of the top management team in each firm, including key company officials in charge of international supply management areas as well as subsidiaries' general managers and supply and purchasing area managers. This method ensured interviewers' control, instant feedback, and clarification of specific issues. These interviews were carried out directly at both headquarters and subsidiary premises, over a period spanning from early 2002 to mid-2004.

The research methodology may be divided into two stages: an initial phase that involved an explanatory-descriptive analysis of current literature to identify relevant decisional dimensions in GSS development, and a second stage that focused on reaching a better understanding to find answers to research questions through empirical application in this research sample.

Collected data were analysed through qualitative methods, using cross-case comparisons and explanation-building techniques. On the basis of Eisenhardt's work (1989), a unique methodology was developed to structure this type of analysis. Thus, research question exploration was assisted by

selecting pairs of firms and listing similarities and differences between each pair and by categorizing firms according to variables of interest. These lists and comparisons unearthed tentative answers. After the development of these tentative answers, each case was revised to see if the data confirmed them, and, if they did, the cases were used to improve understanding of the underlying dynamics. After much iteration between data and these answers, existing literature was used to sharpen the insights yielded by the inductive process. These configurations then were compared to determine the specific characteristics of strategic activities. Because there was a circular relationship between the theoretical and the empirical analysis, the results of the analysis provided further information for framework refinement.

Research Sample

The following section describes major specific developments in each case (see Chart 3).

Case 1

This family-owned business company operates in 90 countries, with a total of 15 production plants. The company manufactures and markets supermarket refrigerating equipment and accessories, adjusting to local markets' requirements with standard products and customized equipment. Its constant expansion turned it into a medium-size conglomerate that pursued internationalisation as its global strategy. The group's international expansion plan provides a rather decentralised framework, although certain corporate controls are applied according to the nature, term, and risk of some decisions.

Case 2

The company is an Italian family-owned business managed, since its origins, by its owners. It manufactures and markets chocolate products and candies, leading the Italian market and holding the second position in the overall European market. The

Chart 3
Case studies

Company	Industry	World Operation	Employees	Annual Sales (US\$)
Case 1	Supermarket Equipment	15 Manufac. Plants in 12 Countries	----	450 M
Case 2	Food	17 Manufac. Plants in 37 Countries	16.000	5.500 M
Case 3	Decorated Plywood Panels	5 Manufac. Plants	1300 (Group)	900 M (Group)
Case 4	Wires and Wiring Solutions	54 Manufac. Plants in 22 Countries	14.000	3.700 M
Case 5	Tires	21 Manufac. Plants in 10 Countries	20.000	3.400 M
Case 6	Automotive	60 Countries	44.500	50.000 M
Case 7	Industrial Procurement Solutions	30 Countries (Group)	42.000 (Group)	6.000 M (Group)

group owns 28 operating units, 31 marketing locations, and 17 manufacturing plants. A privately owned company, it relies on a highly professional management team that is fully involved in international decisions.

Case 3

This Italian family-owned company ranks among top European manufacturers in the wood panel and furniture industries. It also manufactures other products for the furniture production and decoration industries, such as plywood boards, resins, and wallpaper. It owns three manufacturing plants in Italy for panels and furniture, a plant in the MERCOSUR area for panels, and, a plant in Belgium exclusively for resins. Its expansion strategy has been based on the search for international marketplaces offering top natural resources and potential consumer segments. Subsidiaries' technical and professional consultations with Italy constitute an ongoing activity in the company.

Case 4

This MNC focuses on the production and marketing of cable, accessories, and systems for electricity generation, transportation, and distribution, and it holds leading market positions throughout the world. The company has 54 manufacturing plants in 22 countries. As a multinational corporation, it has diversified its activities into other businesses, such as tire manufacturing and marketing,

large-scale real estate developments, and an interest in telecommunications. The company's sustained international growth has been supported by explicit operation policies as well as by fluent headquarters-subsidiaries communications. Centralised decisions are based on several criteria, such as cases involving relevant raw materials or supply products with negotiation leverage and restricted world offer.

Case 5

This MNC manufactures and markets tires for all kinds of vehicles, ranking sixth among top world producers in its industry. The organization originated in Italy as a family business managed by its founder. It owns 21 manufacturing plants in 10 countries. Although its policy focuses on global products, some products are regionally designed to adjust to the specific requirements of individual, highly profitable markets. The company offers several technological solutions for each market segment. Although the basic technology for tire manufacturing and design is managed by headquarters, the company tends to grant leeway to its local subsidiaries for universal operative processes involving raw materials that do not compromise final product safety.

Case 6

This automotive MNC operates through wholly owned production plants—located in Italy, Poland, and MERCOSUR—and joint venture or licence agreements for other

plants—located in Europe and Asia. The group's growth strategy intends to develop competitiveness through regional specialisation, in order to satisfy global demand through either production plants, licensing agreements, or joint ventures. Thus, the company assesses not only local political and economic conditions but also cultural variables affecting supply strategy and individual partnerships. It tries to reduce costs by standardising processes through the production of a single final product for the whole world. Under this generic strategy, the definition of the types of vehicles to be manufactured by each plant responds to individual market demands and needs and to cultural and geographic variables.

Case 7

This MNC specialises in industrial plant infrastructure and architectural design, engineering, and construction. Its expertise focuses on five business areas: the steel industry, infrastructure projects, industrial process and plant exploitation, the power industry, and utilities. This group includes more than 100 companies operating in over 30 countries around the world. This organisation is based on specialised product-region units. Its global purchasing strategy is strongly centralised through a corporate business unit, except for some categories of goods or services traditionally acquired at the local level.

Chart 4
Sample companies' global supply strategies

Case 1	<ul style="list-style-type: none"> Combined, local supply strategy Key criteria in supply source included offer availability at required costs, local adjustment, and labour intensity Essentially local purchasing strategy; central involvement only for some global supplies Relevant criteria in purchasing strategy included negotiation leverage with global suppliers
Case 2	<ul style="list-style-type: none"> Supply strategy becoming increasingly local; trend towards local sourcing on account of greater flexibility and tax benefits Key criteria in supply origin included availability and price Trend towards centralisation for key global supplies, supplier certification, and price negotiations Key criteria for purchasing strategy included price conditions due to economies of scale and quality requirements for critical products
Case 3	<ul style="list-style-type: none"> Combined local supply strategy: most materials were supplied locally and subject to strict quality standards Relevant supply source strategy criteria included availability and cost Essentially local purchasing strategy, for both local and global supplies; central involvement to provide benchmarking
Case 4	<ul style="list-style-type: none"> Essentially local supply strategy, usually with regionally based MNCs or local suppliers Relevant criteria for supply origin strategy included availability and cost Combined local purchasing strategy with headquarters' involvement for some global supplies through corporate lead buyers Relevant criteria in purchasing strategy included supply origin and economically relevant materials
Case 5	<ul style="list-style-type: none"> Supply strategy combined with global approach Relevant criteria for supply origin included availability and cost Basically local purchasing strategy, with central involvement for critical raw material Relevant criteria in purchasing strategy included global supplies with potential economies of scale or leverage; these were handled centrally, as were economically relevant materials**[I'm not sure I interpreted this correctly.]
Case 6	<ul style="list-style-type: none"> Balanced, combined supply origin strategy tending towards global-regional supply, in line with product and co-design strategy Relevant criteria for supply origin included offer availability (for quality standards and know-how required) and price Basically local purchasing strategy with central intervention for procedure definition, through productive poles in some global supplies, supplier certification, and price negotiations
Case 7	<ul style="list-style-type: none"> Combined and balanced global supply strategy Key supply origin strategy criteria were supply and demand mapping consistency, pricing, and customisation levels Strong centralised purchasing strategy through an independent business unit, with local intervention for follow-up and control of supply service, through local agent Relevant criteria in purchasing strategy were based on scale economies and volume

Research Development and Findings

The following section presents the sourcing and purchasing strategies of the companies in the research sample (see Chart 4).

Case 1

The company's strategy tended towards local supply to seize pricing advantages and to exploit local availability, unless quality or competitive issues arose. Thus, certain critical products were procured centrally on account of quality or availability concerns. The criteria used to determine

supply source were the following: (a) offer availability, (b) price or freight costs, and (c) specificity or labour-intensity. Regarding purchasing location policies, the company afforded affiliates remarkable autonomy, although, in some cases, prices and terms were negotiated from headquarters. The criteria used to determine purchasing location included (a) leverage (price and terms), (b) supply source (usually central if supply was global, and vice versa), and (c) material relevance. The company has chosen this global supply strategy to exploit price benefits and local availability,

provided that local quality levels meet company standards.

Case 2

Supply sourcing tended to be local, except for commodities unavailable in the domestic market or for global purchases involving large volumes, for which better prices could be obtained through central negotiations. Summing up, the company's criteria to determine supply included (a) availability and (b) price and logistic costs (usually associated with purchase size for centrally negotiated global supplies). Accordingly, company policy promoted subsidiaries' autonomy, except when global supplies afforded better price conditions through central negotiations. The criteria used to determine purchasing location were (a) better price conditions due to scale economies in negotiations and (b) quality requirements for critical materials or components. This global supply strategy was chosen by the company because it involves a compromise between flexibility to adjust to the local environment and the risk of losing overall control and alignment.

Case 3

The company's corporate supply policy was local, depending on domestic availability and convenience, while critical products were supplied externally. Regarding purchasing strategy, although subsidiaries were granted ample leeway, headquarters monitored purchasing management operations. Usually, subsidiaries informed headquarters about prices quoted by suppliers for evaluation and possible global, more accessible alternatives. For regular raw materials, purchases were centralised to exploit economies of scale. Nonetheless, product selection, production, and launching schedules were decided at the country level. This global supply strategy was instrumental to seeking global supply chain management balance, because it afforded a compromise between flexibility and risks associated with loss of control and alignment.

Case 4

The corporate policy was based on local supply, except in cases of supply shortages and inconvenient prices that forced the company to resort to regional supply. The criteria used to determine supply source included (a) offer availability and (b) overall cost convenience (price and logistic costs). The company's global purchasing strategy focused on local autonomy, although in many cases a regional approach was implemented through regional lead buyers. In turn, the company granted subsidiaries great freedom for local purchases, under central control for purchasing procedures, global suppliers' certification, and price benchmarking. The criteria used to determine purchasing location were (a) supply source (usually central if supply was global, and vice versa) and (b) economically relevant materials. The company's global supply strategy involved a combination of local and global supplies, considering the high impact that raw material prices and availability had on final product value.

Case 5

The company based its corporate supply source policy on multinational companies, except in special cases in which it resorted to regional or local suppliers. It offered subsidiaries ample autonomy for local negotiations, except in the case of specific products purchased by headquarters, which then applied transference prices. The criteria used to determine supply source included (a) offer availability and (b) local cost convenience. Regarding purchase strategy, the company granted autonomy to affiliates, enabling supply decisions to focus on the most competitive alternatives for subsidiaries. The criteria used to determine purchasing location were (a) supply source (global supplies entailing scale economies or leverage were handled centrally) and (b) economically relevant materials. The company implemented this global supply strategy because materials were standard and highly relevant to final product quality.

Case 6

Corporate policies regarding supply source definition were combined, tending towards greater global-regional supply due to the existence of proprietary production units. As a result, the company was forced to develop global standardisation in order to ensure greater exchangeability and efficiency through adequate coordination provided by the Central Purchasing Office, responsible for monitoring and coordinating part exchanges among affiliates by recommending the most convenient sources and destinations. In general, relevant criteria followed to determine supply source included (a) offer availability and (b) price and logistic costs. As a result, purchases were subject to strict central control, executed by the Central Purchasing Office, responsible for global purchasing information management. The company applied this global supply strategy seeking greater global-regional supply, in fitting with the company's global product and co-design strategy.

Case 7

The company pursued a strongly centralised purchasing strategy through an independent business unit. This strategy enabled it to achieve purchase efficiency, to secure supply availability, and to ensure required quality levels. The first criterion used to determine supply source focused on materials' demand and supply structure. A product was considered global when all plants required it, and it was provided internationally. In the case of global supplies, the company pursued a global supply strategy, trying to select suppliers that were able to supply worldwide plants. Thus, strategic materials and general operation materials were purchased through the Central Office, whereas irrelevant (not critical and reduced in volume) materials were procured locally, if available. The company's strongly centralised global supply strategy intended to ensure better prices through scale economies and volume, while it afforded greater supply chain control.

Discussion

Relevant internal context variables

Our analysis revealed that when companies need to define their global sourcing and purchasing strategies, they resort to direct and different criteria for each strategy (see Exhibit 1).^{*}These criteria influence MNCs' decision-making processes significantly. Our research revealed that the following variables associated with purchasing characteristics bear a relevant influence on supply sourcing strategies:

- Local and global supply availability.
- Economic convenience, considering prices, taxes, and logistic costs. It strictly focuses on total product costs as compared to other alternatives having the same required compliance levels.
- Specialisation level, as regards adjustments to suit subsidiaries' needs and requirements.

In turn, the common variables that determined purchasing location strategies were found to be the following:

- Product relevance, as regards its impact on final product quality and/or purchase value.
- Negotiation leverage, both to secure economic benefits drawn from economies of scale and to seek global agreements, having an impact on prices and general purchase conditions.

Although these direct criteria have been found to affect the definition of these strategies in many cases, our research analysis also indicated that external context variables complementarily influence these strategies.

External context variables

An external context variable identified as having a strong influence is the role and relevance of individual subsidiaries within each MNC organisation, as well as local management expertise and capabilities. More relevant subsidiaries having sounder

management are subject to decentralisation-oriented policies. The environmental conditions (critical or beneficial) and company management performance (either globally or at subsidiaries) also were found to influence both decision dimensions. Usually in critical or low-performance situations, companies tend towards greater centralisation and to stress economic convenience in supply origin definitions.

In addition, the study has shown that MNCs' global strategies (particularly centralisation and organisational structure) are also significant factors in the definition of both supply sourcing and purchasing location. Indeed, highly centralised companies (seeking to ensure greater worldwide alignment and competitiveness) preferred global sourcing and purchasing strategies with highly centralised purchasing management (e.g., Case 7).

Finally, research analysis indicates that companies' evolution in their globalisation processes also relevantly determines the type of global supply strategy pursued.

Regarding supply sourcing, sample companies have pursued different strategies according to their individual profiles. The research sample revealed that companies in earlier globalisation stages (such as Case 1, Case 2, and Case 3) have evolved towards an international supply substitution strategy by developing local suppliers, whereas more fully globalised companies (such as Case 4, Case 5, Case 6, and Case 7) have gradually balanced or focused their supply strategies towards the development of global solutions. A possible explanation for this could be that more internationalised companies seek global solutions that enable them to ensure greater GSS alignment and coordination.

Concerning purchase management and key decision making, except for Case 7, which pursues a highly centralised corporate strategy, companies prefer an approach that highlights local autonomy, although headquarters provide their support through central pricing negotiations or benchmark

Exhibit 1
Case studies' global sourcing and purchasing strategies

Case 1
Purchase Centralisation Level

Supply Source	Central	Local
Global	None of significance	Some specific components, without local availability (Example: Electro-mechanic products in general, imported through distributors)
Local	None of significance	Local economic convenience without central negotiation advantage Raw and indirect materials in general, with local economic convenience (from domestic or MNC supplier), outsourced activities, and general services

Case 2
Purchase Centralisation Level

Supply Source	Central	Local
Global	Relevant raw materials, with purchasing scale economy and local unavailability	Some irrelevant materials, locally unavailable (Example: Special plastic packaging imported by subsidiaries)
Local	None of significance	Local economic convenience, important for delivery time or service-intensive (Example: basic raw materials, some products of plastic materials, and services)

Case 3
Purchase Centralisation Level

Supply Source	Central	Local
Global	None of significance	Some materials with specific design, imported from Italy (supply by headquarters or Italian supplier) (Example: materials with standard design and production in Italy, decorating paper for finishing panels, and some indirect materials such as for maintenance and spare parts)
Local	None of significance	Raw and indirect materials in general, with local economic convenience and no central negotiation advantage, outsourced activities, and general services.

Case 4
Purchase Centralisation Level

Supply Source	Central	Local
Global	Some relevant raw materials, with negotiation leverage and restricted world offer	None of significance
Local	None of significance	Raw and indirect materials in general, with local or regional economic convenience (from domestic or MNC supplier), and general services.

Case 5 Purchase Centralisation Level		
Supply Source	Central	Local
Global	Relevant, standard materials, with purchasing scale economy and restricted world offer (Example: strategic raw materials in general)	Relatively less important, with global economic convenience (including local unavailability) and local representative of global supplier (Example: some raw materials and some specific indirect materials)
Local	None of significance	Local economic convenience without central negotiation advantage (Example: other raw materials, indirect materials, specific spare parts, maintenance, and services)

Case 6 Purchase Centralisation Level		
Supply Source	Central	Local
Global	Relevant and standard components, imported from global supplier, with the intervention of other affiliates; productive poles for supplier selection and price definition	Relevant and standard components, directly imported from global suppliers' locally based affiliates, or from regional affiliates' productive poles
Local	None of significance	Relatively less relevant materials and components (supplied by locally based MNC or MNC with local representatives, or by domestic suppliers), indirect materials, other maintenance materials, and general services

Case 7 Purchase Centralisation Level		
Supply Source	Central	Local
Global	Relevant, standard materials, with purchasing scale economy and no critical logistic costs (Example: strategic materials in general)	None of significance
Local	Relevant, with purchasing scale economy, relevant logistic costs and delivery time, and local availability (Example: other raw materials, direct laminating materials, spare parts and maintenance materials)	Relatively less relevant, or plant-specific, with service or delivery time significance, and local availability (Example: indirect materials, other maintenance materials, general service, and materials that are service intensive)

information. Although this behaviour does not seem to match the trend towards centralisation in less globalised companies (such as Case 1, Case 2, and Case 3), it may respond to a need for greater flexibility in supplies and increased effectiveness in monitoring. Thus, the analysis of economic value distributions in global supply

purchases in terms of sample supply source and purchasing locations (Figure 2) shows that more globalised MNCs (such as Case 4, Case 5, and, particularly, Case 6 and Case 7), with global production and marketing expansion through highly centralised corporate strategies based on more than five decades of

experience in international business, handle their global requirements through centralised purchasing management, accomplishing greater efficiency and competitiveness through global purchasing strategies. On the other hand, MNCs with more limited international experience (such as Case 1, Case 2, and Case 3) and a solid family-business culture, characterised by owner management and corporate strategies that favour local autonomy, exhibit essentially local needs, preferably satisfied through local purchasing management, achieving more effective and agile relationships with suppliers.

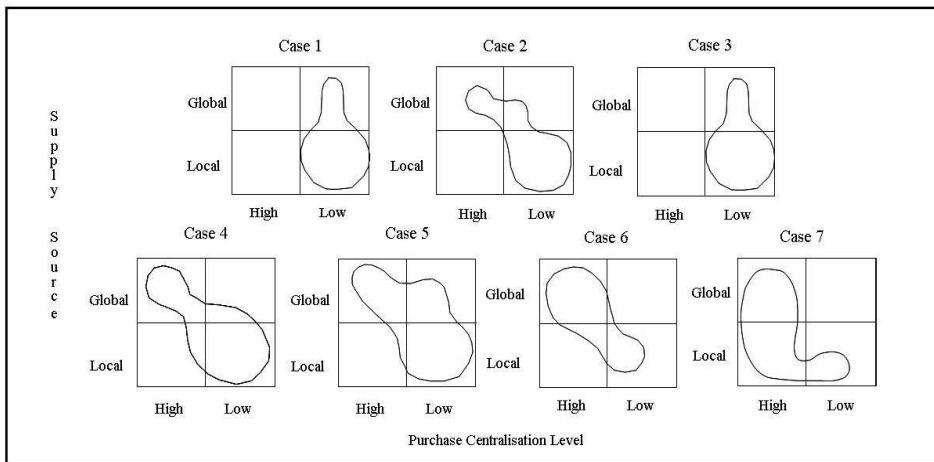
Thus, the definition of these two global sourcing and purchasing strategy dimensions does not result from a methodical decision-making process based on direct criteria, but instead involves decision practices supported by direct and external context criteria. Its implementation dynamics include constant revisions and readjustments to respond to particular context and environmental conditions.

Global sourcing and purchasing strategies definition process

The present study reveals that, depending on purchase market features and global strategies, there is a mix of potential alternatives for purchasing global strategies that responds to a behavioural pattern related to above-mentioned criteria. The following situations are identified:

Centralised purchase through global supply. The most common cases are (a) commodity requirements shared by plants, registering a highly concentrated world offer, with significant economic advantages provided by economies of scale drawn from purchase volumes, which drove companies to implement a global supply strategy with centralised price and purchasing negotiations; and (b) materials required by affiliates and relevant to final product quality registering local shortages at

Figure 2
Purchase economic value mapping in sample global sourcing and purchasing strategies



Note. This figure depicts a strategic map for the distribution of purchase value relative weight for products acquired on a global basis by each company, according to the type of supplier (global or local) and to key purchase decision hubs (central or local). Thus, a larger proportion of a shape in a quadrant accounts for a greater concentration of purchase economic value in that quadrant.

expected quality levels, which drove companies to resort to consolidated global supply and centralised purchase management handled by headquarters.

Local purchase with local supply. In this scenario, the most frequent cases include (a) standard, locally available materials (domestic production or locally based representatives for nonglobal MNCs) with required quality and competitive pricing and registering relevant freight cost incidence, allowing companies to prefer locally managed domestic supply; (b) customised or highly adjusted materials involving close buyer-supplier interaction; and (c) labour-intensive materials and general services, which require local supply and follow-up.

Centralised purchase with local supply. This is the least common case, and it involves standard materials relevant to final product quality and purchase value. These materials registered local (or regional) availability at required quality and price levels. Their significant freight component drives companies to prefer local supply, with corporate intervention for supplier selection and price negotiations to ensure quality standard compliance and to exploit volume leverage.

Local purchase with global supply. This scenario includes (a) rather irrelevant materials (mostly commodities) required by all subsidiaries, with highly concentrated global suppliers having local affiliates or representatives, thus allowing for local supply through a direct relationship with domestic representatives, handled by local buyers with centrally negotiated benchmark prices; and (b) components involving high quality and complexity requirements, though irrelevant as to purchase volumes, which have required global suppliers but do not justify centralised intervention, thus allowing for greater flexibility and swiftness through local direct imports.

Thus, our study has found that both strategies (supply source and purchasing location) are defined according to specific behaviour patterns, as shown in Table 1.

It is clear that global sourcing-central purchasing and local sourcing-local purchasing situations are commonly exploited for purchasing strategies. Companies purchasing relevant supplies required by subsidiaries tend to prefer global supply alternatives featuring corporate purchasing intervention when they find a global supply base offering better

quality and cost conditions, due to obvious negotiating leverage advantages resulting from large purchase volumes. In turn, when companies purchase noncritical supplies, locally available at competitive prices and quality levels, they usually resort to locally managed domestic supply to ensure greater responsiveness and flexibility through closer buyer-supplier relationships.

However, on occasion, local sourcing-central purchasing and global sourcing-local purchasing alternatives are preferred. Such is the case of strategic supplies featuring local availability at competitive price and quality levels. Then, companies benefit from local supply on account of physical proximity. Nevertheless, central intervention in purchase management is justified when savings are obtained through negotiating leverage. Also, if companies have a strongly centralised global strategy, key material supply management is included in that global strategy, while purchasing management is also centralised to reduce control risks. MNCs also prefer a global sourcing-local purchasing approach for supplies required by all affiliates, thus obtaining cost and quality competitive advantages from global suppliers. Usually the materials involved in this approach

Table 1
Global Sourcing and Purchasing Strategy Definition

Global Purchasing and Supply Strategy Definition			
		Purchase Centralisation Level	
		Central	Local
Supply Source	Global	Both standard and relevant materials (due to high operative significance or purchase relative value) with purchasing scale economies and with no critical logistic costs or high delivery lead times	Relatively less important materials, with global economic convenience and low service significance, or with local representative of global supplier
	Local	Relevant materials with negotiation power incidence and better local economic conditions, long delivery lead times, and/or customised or service-intensive materials	Relatively less relevant materials, featuring local economic convenience, or plant-specific materials, or those with high logistic costs or service significance (delivery time)

are irrelevant, both in terms of purchase amount and impact on final product quality, and offer no significant advantages through economies of scale. Additionally, in many cases, there is a local representation from international suppliers.

Hence, our research work reveals that although globalisation processes induce MNCs to pursue global supply strategies focusing on global sourcing and centralised key decisions in purchasing management, this definition could involve a mix of strategic alternatives (for supply sourcing and purchasing location) that respond to dynamic decision-making processes based on the behaviour of related procurement-specific key factors and the impact of external context variables. Indeed, this research study could help MNC corporate and subsidiary managers to gain a better understanding and greater effectiveness in global supply strategy definition as regards alignment, efficiency, supply management quality, and global purchases.

Conclusions and Contributions

Although studies focusing on MNCs' corporate purchasing strategy influence on affiliates' global supply chain development

reveal a strong link between two key dimensions (supply source strategy and purchasing location strategy), this research shows that through an internationalization sourcing trend that induced greater purchase management globalization and centralisation, these dimensions involve decision-making processes featuring distinctive criteria and influences. In turn, this research work suggests that there are internal context variables (procurement-specific variables) that account for primary drivers in the definition of these strategies. These variables include world availability, economic convenience, and specialisation level as regards supply source strategy definition; product relevance and negotiation leverage in terms of purchasing location strategy; and global management centralisation level.

On one hand, our research analysis has also indicated that external context variables complementarily influence global sourcing and purchasing strategy. Such is the case of the role and relevance of individual subsidiaries within each MNC organisation, environmental conditions (critical or beneficial), management performance (either corporately or at subsidiaries), and companies' evolution in their globalization processes. Additionally, our research has found that although both

dimensions (supply source and purchasing location) are interrelated, relevant decision criteria differ, and there is a mix of potential purchasing global strategy alternatives that respond to a specific behavioural pattern associated with these criteria. In the case of strategic or business-related supplies, companies tend to pursue a global supply strategy, whereas local supplies are preferred for all other materials, as long as external vendors do not offer substantial advantages. Also, companies are likely to rely on local definition, regardless of supply source, as long as no relevant grounds are found for headquarters' involvement.

Thus, although global supply strategy definition (regarding both supply sourcing and purchasing location) at MNCs is part of their evolution towards globalisation, it requires a specific analysis for each type of product and market, calling for dynamic and selective revision to ensure the best global supply chain management performance. The major contribution offered by this research work is a deeper understanding of the interaction between supply source and purchasing location strategies in decision-making processes, analyzing relevant variables' behaviour and impact on strategic dimensions in a multicase sample. Indeed, this research study will assist managers to (a) understand the relevant decisional dimensions involved in GSS development, (b) analyse the relevant variables for adequate GSS decisions, (c) differentiate their choices according to the type of material purchased and purchasing market characteristics, and (d) select the most convenient options.

It should be noted, however, that this research suffers from certain limitations that should be addressed explicitly. First, it does not provide the necessary grounds to deduce to what extent the above-mentioned criteria are more relevant than the consistent logic between supply globalisation and purchasing management centralisation. Also, it does not shed light on the

significance or frequency of favourable conditions in cross-strategy scenarios, such as global sourcing-local purchasing and vice versa. In turn, this research does not quantify the impact of performance benefits in global purchasing management as compared to other strategies (for instance, a more aligned approach for supply globalisation and purchasing centralisation).

Finally, although the sample featured a wide range of industries and company sizes, the conclusions presented are subject to the restrictions inherent to the nature of this sample, notably including the fact that it was reduced and confined to a single MNC cultural profile (Italian companies), while the study focused on their strategy in a geographical area having similar cultural characteristics. Consequently, in order to expand and deepen these conclusions, further research will be necessary to validate these findings in a more complete sample, through more quantitative methods affording a chance to test variable correlation.

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