

The adoption of Global Sourcing by a Brazilian Company

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ABSTRACT: Companies are going abroad looking for advantages from alternative sources of supply. Primarily associated with the lack of local supplier or lower acquisitions costs, these reactive reasons have driven business to a more proactive perspective by the adoption of a Global Sourcing (GS). Companies from emerging countries are developing their own GS, just like multinational from developed countries. These “late movers” have a strategic motivation, and goals, to internationalize their activities. This paper reviews and integrates literature from Operations Management, Strategic Management and International Business areas to develop a framework that poses 13 theoretical propositions. Then, the paper presents a case study carry out in a Brazilian electro- electronics company that develops and manufactures its products overseas and distributes them in Brazil and other South American markets. This company replicates the strategy developed in its home country and spread value chain activities through global suppliers, especially those located in Asia. Findings reveal that the company has the capability to analyze its value chain to focus on the activities that add more value: those are product development and distribution in South America. Each proposition of the framework was illustrated by the empirical evidence from the case study. The findings provide insights to guide further research on the adoption of GS by companies from emerging countries. Some propositions of the theoretical framework were not found due to the size and strategy of the analyzed company and new propositions were developed based on the empirical findings for further research.

Key words: Supply Chain. Global Sourcing. Electro- electronics industry.

1. INTRODUCTION

The search for alternative sources of supply in foreign markets is considered an opportunity for competitive advantage seeking to companies. Primarily associated with the lack of local suppliers (of products, services and technology), or lower acquisitions costs, these reactive reasons have driven business to a more proactive perspective (Monczka and Trent, 1991; Bozarth, Handfield and Das, 1998; Harris, 2006; Servais, 2007; Dutton, 2008). The adoption of strategic approach to sourcing globally became a currently practice in order to achieve more competitiveness with their supply base. Instead of just purchasing abroad, Global Sourcing (GS) means a strategic orientation for the search and monitoring of global suppliers and an efficient management by integrating and coordinating activities related to the functional areas as well as units of local purchases.

The inclusion of GS in a company's strategy can be considered as a recent phenomenon in some countries. Even with companies that are used to making international purchases, the consolidation of this activity into their strategic plan with long-term commitment is increasing. This situation leads to some questions that the companies will face during the adoption of GS. Theories can be developed from the experience of companies in other countries, and also based on companies' performing in different business environments. The economies of countries such as Brazil, Russia, India and China are growing fast in a moment when they have more access to technology and communication facilities. The establishment of complex governmental agreements can both facilitate and impose barriers to international trade. Companies from emerging countries are presenting a fast internationalization process, characterized by bold and aggressive methods in the early stages of the process (Sirkin et al, 2008). At the same time, the competitive advantages of emerging companies are usually related to price competition, which is more difficult to sustain than technological capacity or branding (Gammeltof, Barnard and Madhock, 2010). Considering this argument, it is possible to highlight that we may have a background that support the assumption that the GS adopted by emerging companies may differ from the strategy adopted by companies from developed countries.

The surge of MNCs from emerging countries is reshaping the structure of international business (Gammeltof, Barnard and Madhock, 2010); these types of companies accounted for approximately

one-quarter of all MNC parent companies globally (Tolentino, 2010). This paper represents an effort to expand the knowledge based on the experience of a company from an emerging country. This will provide new questions to further research in this area of knowledge.

Brazilian companies have grown in the last years in terms of volume of international operations. This rapid growth has been surprising researchers, politicians, and even managers. This is leading to the investigation of Brazilian companies strategies in an effort to capture the characteristics of these new MNCs (Fleury, Fleury and Reis, 2010). Fleury, Fleury and Reis (2010) find the employed management models of these companies, which are based on a combination of organizational skills and management practices, to be noteworthy in the internationalization of Brazilian MNCs. Examining Brazilian MNCs, these authors found that whereas the internationalization of traditional MNCs took place through seeking new markets and access to resources, emerging MNCs from Brazil are engaging a mix of activities that also includes searching for strategic assets and enhancing efficiency. The motivations and goals of these "late movers" in terms of internationalization are, therefore, more strategic.

The new competitiveness pattern that emerge from new challenges bring forth the need to investigate how the previously knowledge developed about GS can explain the adoption of this strategy in emerging countries. As Brazil is one of the emerging countries whose companies have establish new patterns of internationalization this paper seeks to investigate: *"How the adoption of a global sourcing strategy is being conducted by Brazilian companies?"*

Trent and Monczka (2003) highlight the need for future research on robust GS processes because they found diversity in terms of the development and implementation of this strategy in the companies they investigated. Samli, Browning and Busbia (1998) reveal the need for studies that investigate the adoption of GS, including business involvement in this process and the incorporation of this activity into corporate strategic planning. By investigating emerging issues in supply, Sheth and Sharma (1997) determined that GS activities should be explored further because of the opportunity to obtain a competitive advantage through this strategy. At the same time, the authors highlight that cultural and legal differences among countries are critical factors that are directly relate to GS.

The literature review is divided in five sub-sections: antecedents to GS, opportunities to GS, process of GS, difficulties and challenges, and GS results. In the sequence, the method of the study is described followed by the case description and analysis. The last section contains the final considerations of the study.

2. ANTECEDENTS OF GS

Companies purchase abroad in order to reduce costs and to access other advantages from the supplier country or the supplier company. Considering the Transaction Costs Economics Theory, the essence to purchase is the complex cost analysis and the evolution of the research related to sourcing are showing that even cost is the essence, other benefits are being achieving through this activity.

Investigating the advantages from GS, Alguire, Frear and Metcalf (1994) identified that companies can obtain comparative and competitive advantages through this strategy. It is the possibility of advantages that lead companies to source globally. It is the possibility to increase the advantages that will lead them to adopt GS. This evidence leads us to the investigation of the strategic orientation of the companies to adopt GS.

Strategic orientation

The motivations to GS can be related with the company's products or input's features. For example when a product required a specific raw material that cannot be made by the company. Another situation can be relate with the supplier, like when one can obtain a product just in a specific country, or can get it with a less total cost. These motivations can be divided in two types of advantages. The comparative advantage's motivations are those that leads the company to capture local cost advantages though the utilization of foreign suppliers. The competitive advantages are related to the company's ability to offset competitive disadvantages other than costs (comparative advantages), like access new technologies, delivery improvement, flexibility to change the input's features, product reliability improvement, quality improvement, quality control improvement, establishment of alternative supply sources, increase in the number of available supplier, supplier reliability improvement, access advantages from supply's market, access advantages from supply's core competence, anticipate material needs to new products in development, anticipate materials needs in

case of demand changes, better negotiations conditions, introduce of competition on the supplier base, reduction of product development cycle, customer service improvement, establishment of presence in global market, get the opportunity to sale to a specific market or country, meet supply constraints imposed by government, offer global support to local products, react to competitor's practices, and support to the company own international operations (Monczka and Trent, 1991; Bozarth, Handfield and Das, 1998. Dornier et al., 2000; Cho and Kang, 2001; Christopher, 2002; Jin, 2004; Agndal, 2006; Harris, 2006; Knudsen and Servais, 2007; and Dutton, 2008).

P1: The adoption of GS is motivated by competitive advantages.

Organization Structure

The structuring of a company's resources, process and supplier management are some of the aspects that must be included in the GS management process. The analysis of the structure will enable us to know if the company is purchasing globally with a strategy view and the process enables us to know how the company is doing the sourcing (Lima, 2004). In GS studies, one must consider that an activity can be developed either by a single company that operates in the global marketplace or by a set of companies belonging to a corporation with units in a single country or different locations. When the object of study is the second group of companies, some dimensions are add to the management of this activity. Much of the discussion about GS is around centralization versus decentralization of international purchasing (Arnold, 1989, Monczka and Trent, 1991; Trent and Monczka, 1998, 2003, 2003a; Arnold, 1999; Trautmann, Bals and Hartmann, 2009). According to Porter (1986a), an internationalization strategy presents two key-dimensions. The first is the localization of each company's value chain activity worldwide (configuration). The second refers to the way these activities will be coordinated (coordination). Considering global companies, the success in adopting GS implies the delegation of a sufficient degree of autonomy of its subsidiaries. Although the corporation must follow a homogeneous orientation, this flexibility will allow greater speed of action in the market. The consequence is the need for better coordination between units of the same corporation (Arnold, 1989). Extending this discussion about the degree of centralization needed in managing GS, Matthyssens and Faes (apud Arnold, 1999) present arguments for and against the autonomy of

the units. Gelderman and Semeijn (2006) affirm that the necessity to coordinate these activities emerges when considering that a company will perform purchasing activities on a local and global basis. The aspects of formalization became important to the management of GS when dealing with companies with different subsidiaries and different purchase units (Hartmann, Trautmann and Jahn, 2008).

P2: The centralization of GS activities is related with the potential synergy between units, and their supply needs, that will results in better sourcing conditions.

Looking at the company configuration to implement GS, it is possible to affirm that there are some requirements to implement it. To Arnold (1989), the first is the company's size. At the same time that big companies seem to have more resources available, the small usually are more predisposed to flexibility. According to Trent and Monczka (2003), companies that engage in GS are larger and more likely to have competitors that are multi-regional or global than comparing to companies that make international purchases. Knudsen and Servais (2007) say that the internationalization of purchase activities require resources and time to be developed. Observing the international environment for small and medium enterprises, the authors argue that the size limits their internationalization expansion but the experience in international purchases can facilitate this process. A second aspect is the inferior position given to the purchase area in organization. It can limit the ability to take advantage of opportunities due to internal neglect. This aspect is supports by Arnold (1989) and Quintens, Pauwels and Matthyssens (2006), to whom the top management supports is a facilitator to GS. This will not necessarily lead to (more) global purchasing, but ease its implementation. Besides that, the internal articulation between areas requires balance between the areas to which the collaborative process can be accomplish. The identification if GS reflects a strategic approach to procurement in the company implies in the research of the corporate levels that are involved with the purchase decision process within the company's structure. GS requires that these decisions be taken by top-managers and in the case of corporations, the corporate direction and not isolated units. This level of decision-making seems to be crucial in order to give the necessary importance to purchase function within the organization while aligning strategic planning and the planning of the purchase function.

P3: The adoption of GS implies that the availability of

resources for establishing and managing the activity is relative to the organization's size and, the importance attributed to GS, including the top management support and the industry features.

A last aspect related to company's structure is the presence of the purchaser at the supplier country. The internationalization of supply with the presence of the purchaser company in supplier's country can happen in different ways that represent a continuum of involvement (Harris, 2006). The first approach is the use of trading companies to broker the negotiations and activities between purchaser(s) and supplier(s). Considering that they are subcontractors, it does not imply investments of the purchasing company. Moreover, as intermediaries, they usually conduct all or part of the operational activities. The second way is the use of local representatives of the purchasing company in supplier markets. One form of representation entails the opening of International Purchase Offices – IPO. The establishment of a business unit abroad and assign the same responsibility on the development of a product, regional or global, is another strategy observed by Harris (2006). This way the company can capture the best opportunities available in a particular place, related technology and production.

P4: The presence of the purchase company in the supply country motivates the adoption of GS.

3. OPPORTUNITIES

To obtain higher gains from GS, it is prior to get involved in the identification of opportunities with global suppliers. The identification of the real potential of a supplier requires a joint analysis of purchases with other functional areas such as product development (Quintens, Pauwels and Matthyssens, 2006). The logistics also become important to analyze the operational feasibility of the acquisition process. The relationship with these and other areas is evident, therefore, as a dimension to be investigate in GS. With this research, one must analyze the mechanisms of integration used; how this integration occurs and how activities are coordinated among functional areas of business to ensure transparency and speed in these interactions.

To be able to identify opportunities in the global world, companies must dedicate resources to the sourcing area with the focus on the analysis of internal and external opportunities. GS requires the monitoring of actual and potential suppliers' envi-

ronments, including the investigation of macro and micro-economic variables in order to identify the sourcing opportunity. Part of this work is related with the establishment of the alignment of internal functions and activities, and the investigation of joint sourcing opportunities inside the company's structure. The proximity of purchase area with others inside the company results in the identification of potential supply demands, facilitating the pro-active approach of sourcing area to search potential supplier markets and companies.

P5: The supply opportunity analysis' process includes the investigation of the supplier company, the inputs, and the supply and sourcing environments, as well as customer requirements improving the adopting of GS.

4. PROCESS OF GS

The GS process must be view as possible more complex process to the purchasing area to promote the entrance of inputs in the materials sourcing flow. It must be consider that this area is not responsible just for the supply of materials, as services are also related. The investigation of a sourcing process involves the study of (1) the selection and development suppliers and (2) the analysis of the participation of the purchase areas in the supply materials flow (Lima, 2004).

Supplier's Management

GS assigns responsibility to the company regarding the search for potential suppliers and the development of relationships with them. This search includes everything from identifying potential market suppliers to the selection of specific supplier for a component (Trunick, 2006). To Trent and Monczka (1998), the tendency to concentrate the company's purchases generates an expansion of the need for supplier development. Traditional supplier management models highlight the involvement of suppliers in the business, however, they do not make the distinction between local and global (Grieco, 1995, Cebi and Bayraktar, 2003, Kamath and Liker, 1994, Simchi-Levi, Kaminsky and Simchi-Levi, 2003). Looking at the GS approach, the involvement of suppliers into new product development is an unexplored aspect. Looking at the GS approach, the involvement of suppliers into new product development is an unexplored aspect. Considering that GS leads to a close relation between purchasers and suppliers, and with the areas inside the company, and that the motivations include the source for new technologies

and access to supply capabilities, it is reasonable to question how is the engagement with global suppliers with respect to new product development.

P6: The adoption of GS is related with the involvement of suppliers into new product development as the units of the company and units areas are more related, but on the other hand work with global suppliers is more difficult comparing with local suppliers.

Investigating the relationship of Finnish companies with Chinese supplier, Salmi (2006) found that these relationships are built gradually. Time and commitment of the companies are important factors for the establishment of a relationship. According to Knudsen and Servais (2007), companies involved in international transactions have greater concern about the suppliers' monitoring to avoid the increase of total costs and the decrease of product's quality. Sometimes, the relationship can be better developed in contracts with innovate suppliers, which are more favorable to flexibility (Dornier et al, 2000). Investigating the relationship of four suppliers with a purchaser company, Ghauri, Tarnovskaya and Elg (2008) identified the importance attached to developing interpersonal relationships with transparency. They also highlighted that technological and financial support are ways to develop the relationship; that people turnover leads to loss of efficiency in the process. According to Bozarth, Handfield and Das (1998), despite the recognition of the importance of pro-active international suppliers, there are few efforts that identify the management of international suppliers through a strategic view.

P7: The choice to use foreign suppliers based on the purchaser country will be related with support, customer service, and cultural aspects related to the supplier management process.

Purchase process

The relationship between different areas inside each company and different units of the company requires a standardization of materials, maybe through codification, in order to facilitate the communication flows. It is prior that the importance of each material also be consider in GS and to do so, the use of materials or purchasing portfolios represents an opportunity to a better management process. Different studies have revealed the benefits of its use and different variables were presented in the portfolios such as Gelderman and Semeijn (2006), Smith (1999) and Trautmann, Balls and Hartmann (2009).

P8: The GS activity is oriented to inputs consider strategic for the company, and the other inputs should be included in the context of this strategy.

There is a need for qualified personnel working with GS activities. Trent and Monczka (2003a) identify that those professionals with knowledge and skills are the most important success factor for GS. These professionals must be able to make presentations and communicate effectively, to think holistically through a company or region, and to work in an environment of cultural diversity. Mulani (2008) recognizes that the focus on people contributes to success in GS. This focus can be perceived through the training programs, educational opportunities, the offer of attractive benefits packages, and the forecasting of international work opportunities, mainly focusing on the maintenance of people on the team.

P9: The GS approach requires qualified personnel and continuously training of them in order to identify better opportunities and conduct efficient sourcing process.

The availability of communication tools is another factor to be considered in a company's structure. The success of GS depends on a high level of transparency that leads to the pro-active cooperation between the members of the supply chain, the identification of what is happening and the management of situations that are inconsistent with the initial planning (Wilding and Braithwaite, 2007). Wilding and Braithwaite (2007) highlight that a company needs capabilities related to communication and information flow in order to implement GS. Information, considered as the ability to request information and data, and as the ability to identify common requests, is one of the factors for the international supply activity; this is perceived at companies that adopt GS as they rely on a wider array of communications tools (Trent and Monczka, 2003).

P10: The existence of communication tools and platforms are important to global supply management, including actual and potential suppliers, and actual and potential demands.

5. DIFFICULTIES AND RISKS

Through the literature review, one can identify that the risks from GS to the purchase company include the possibility of a decrease in the company's agility and flexibility, the increase of distance, cost and the number of intermediaries in the supply chain, the maintenance of the analysis' focus in specific source

operation instead of the complete process what reduce the ability to analyze the situation, the possibility of an increase in the total costs, the failure of logistics support, difficulties to deal with cultural differences, regulations and country uncertainty (Levy, 1995, Bozarth, Handfield and Das, 1998, Cho and Kang, 2001, Zeng and Rosseti, 2003, Christopher, Peck and Towill, 2006, Butter and Linse, 2008, Steinle and Schiele, 2008).

P11: GS includes the management of risks, considering cultural and governmental diversities and its special characteristics.

Barriers can be seen as factors that make it more difficult or even impossible to pursue or intensify GS. Pauwels and Matthyssens (2006) present a set of barriers divided in five categories: product, company/management, network industry /competition and environment. Another approach to understand the barriers to GS was developed by Alguire, Frear and Metcalf (1994), dividing them into internal and external.

P12: The analysis of external barriers is important during the process of purchase opportunity analysis to avoid risks and ensure benefits.

6. GS RESULTS

Comparing with companies that make international purchases, companies adopting GS can better understand that there are many business opportunities beyond what is being purchased. These companies realize better performance and costs reduction. To them, performance improvement and cost reduction opportunities are more widely available from their sourcing efforts. They can make changes in the supply items more quickly, lead, and coordinate strategic reviews more regularly in order to promote consistency by creating a common language and approach of searching for suppliers at the organizational level (Trent and Monczka, 2003). They are also able to perceive their strategy implementation progress to be further along, face more rapid changes to product and process technology, and rate key aspects of their sourcing process as more similar across geographic locations and buying units (Trent and Monczka, 2003). As Mulani (2008) emphasizes, supplier involvement is a possibility to absorb knowledge, leverage capabilities, maximize contracts, and continually reduce total costs.

P13: The adoption of GS leads to competitive advantage comparing with companies that purchase internationally.

Through a literature review, a set of propositions is developed for each 5 dimensions from the theoretical framework. They present a set of interconnected activities that, together, represents the adoption of GS by companies, and it will be investigate in a case study. Even though this research is focusing on an emerging company from Brazil that is not a MNC, the framework was developed in a broader context in

order to comprehend the whole process in more complex environment of MNCs. In an effort to simplify the analysis of the framework, five dimensions were identified in the theoretical framework: (1) antecedents of GS, including strategic orientation and organizational structure, (2) opportunities, (3) process of GS, including supplier's management and purchase process, (4) difficulties and risks, and (5) results.

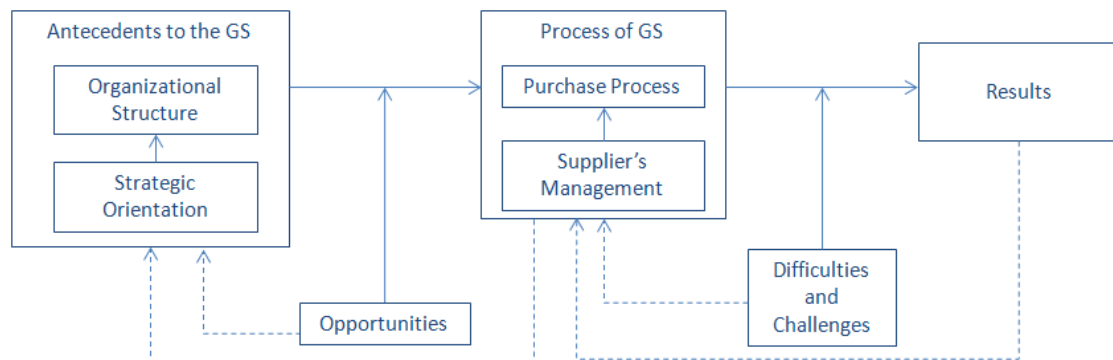


Figure 1 – Theoretical Framework

7. METHOD

In order to achieve the objective of this paper, a case research methodology was used as the research is related with the investigation of a phenomenon in a different context and on the exploration and better understanding of an emerging and contemporary phenomenon (Barrat, Choi and Li, 2011). The theoretical framework was used to conduct the exploratory case study and new perspectives were identified as a result of this analysis.

According to Yin (2001), a case study is a strategy that allows the research to investigate the phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly defined. The case study developed here can be classified as a deductive study as it had the purpose to test existing theory in line with other studies in the general business disciplines, like management. Barrat, Choi and Li (2011) identified that the use of a deductive purpose to develop a case study is being used by researchers in a small scale comparing with inductive purposes. In a deductive case-based study, the researchers are looking for patterns in the emerging data to compare with the theoretical derived propositions (Barrat, Choi and Li, 2011). Johnston et al. (1999) highlight that there are three main requirements for use deductive

qualitative research methodology: (1) the case study must begin with an existing theory for the development of research propositions; (2) a systematic and logical research design should be followed; and (3) researchers should implement evaluation criteria to independently assess potential biases and to ensure the methodological rigor.

The first approach of the researcher to the industry sector occurred on August 2011 in a meeting with representatives of the industry and the state of Rio Grande do Sul government, when the industry association presented their interest in developing improvements in the global sourcing process of their associate companies. A second meeting occurred in September 2011, to discuss the research objectives to the local Director of the association and two advisors. Ideas on their global sourcing project were also presented and a potential company was selected to be the first investigated case. Data collection included a direct observation and in-site interview with the owner of the company who is also the responsible for the global sourcing process on October 2011. This interview was conduct by a set of questions developed based on the theoretical framework dimensions. The interview lasted three hours and the audio was record. The data were submit to a content analysis with the support of NVivo.

The codification process was conducted at NVivo based on the propositions. It was identified a set of important aspects that must be analyzed according to each propositions and in the transcription of the interview. Even though the questions were separated according to the propositions, during the interviews, the information reported to each question could be related with others propositions and this codification process was important to assure the best use of the information. The transcription was read and analyzed three times in order to assure that the codification process was capturing all the information. After that the codification report with the text separated by nodes were analyzed and some adjustments were made in order to assure the consistence of the information generate by the data. The use of NVivo was important for the research in order to organize the information and assure the correct use of them in the research process. The data base that was developed with the software can be considered a way to reduce the fragility of the case-based study related with the fact that the data are analyzed in an intuitive way in a qualitative study. The preliminary results were present to one of the industry association advisor in order to assure that the investigated company represent the industry sector as an exemplary case. This conversation lasted one hour. It was important as a way to validate the results.

8. DESCRIPTION OF THE CASE

Company A is a Brazilian owned business of the electro-electronic sector with 3 decades of existence. The company's sales in 2010 were in between R\$ 20 – 50 Millions (10-25 Millions U\$D). The production is centralized in one processing plant in Brazil, even though some products are purchased finished from Asia. Related with the sourcing process, the participation of international suppliers is increasing in the last five years, from 2% in 2007 to 20% in 2010. The internationalization of Company A is also reflected by its exports increase that is mainly to South American countries.

The foundation of the Company A was related with an innovative product developed by their owners. The search for innovation was not just related with product, but also with business model. The Company is focus on its core competence. Its products are more expensive than Asian similar ones. To be competitive, the company focuses on customized products, even those sold under the customer's brand. It has decentralized the manufacturing process with

the engagement of a group of suppliers located closer to the company's site. This relationship with suppliers is replicated currently with global suppliers. The Company A used to manufacture its products in suppliers units, and is involved in carry out the quality control, packing, expedition and shipping at home. Inside Brazil, the company is changing this strategy because of logistics cost, but the relationship with suppliers is still an important aspect of company's strategy. The Company realized that it is more than a manufacturing company and has been focusing on a distribution process that must be used with complementary products. These products are sourced in international markets and represent 20% of the company's sales.

The approach to international suppliers became more than 10 years ago with a first business mission promoted by the industry association (ABINEE – Brazilian association of electro- electronics industry). Since then, the company managers keep travelling to Asia every year to visit business fairs and suppliers' units. Potential suppliers are also identified in international fairs that are organize in Brazil when international suppliers came to exhibit or to visit.

The adoption of a strategic view of sourcing was an outcome of the Company's growth. As it moves from being a small local company to a middle size company, the managers realized that the benefits offered to small companies were reduced. At the same time, the established competitors started to treat the Company as an equal and the consequence could be the failure or to be sold to other bigger companies. As the owners were entrepreneurs and committed to the company's success, they decided to maintain the growth rate and to look up for new opportunities. The main assets were a consolidated brand reputation and distribution channels that could be explored to become even bigger. The difficult was the necessity to invest in the development of new products, including R&D and infrastructure to manufacture. The use of international suppliers could reduce the time to introduce new products into the market. The company could not sell the same products those others competitors could find abroad. With this strategy, Company A started to import products and use reverse engineering at the company's site in order to develop improvements. From this process, the Company identified parts that could be changed for items they have already certified global suppliers. Company A started requesting their direct suppliers to use a component from a sup-

plier identified and certified by the Company A. Part of these components were developed specifically to the company. This strategy started to be implemented in 2009 and the biggest challenge was related with cultural aspect. Most of the suppliers are from Asia and they had difficult to comply with the mix of quality and cost that the Company requires.

The inclusion of new products from Chinese suppliers into the company's product portfolio can represent a risk for the company, as these may not be well accepted by the Company's customers. In order to reduce the risks of customers' rejection to these products, it developed a second brand, which is used to introduce products into the market. As these products are accepted, they start selling under the Company's main brand.

A new step on this strategy is being implemented while the data were being collected for this research. In 2011, the Company receives the first batch of a product 100% developed by the Company, including design, molding and injection tooling and produced by an Asian supplier. The company considered that this is a result of the adoption of inter-firm cooperation, not just competition. The company created entry barriers selling quality products and developing distribution channels that allowed it to adopt risk strategies. The transfer of knowledge (technical and marketing information), as in this case, is considered as a very risky operation. To avoid these risks, the company establishes agreements with the suppliers in order to assure that if they sell the products to the Company's competitors, they will sell for a bigger price. The other strategy is to fragment the value added part of the product to be manufacture in an different supplier, as when a supplier that introduce the software in an component in one country and ship them complete to be assembled in another supplier.

Case Analysis

The adoption of GS by Company A is being motivated by competitive advantages, supporting Proposition 1. According to the interviewee, "we will pull the demand (...) we became a national reference and the international market is also looking at us" and to keep competitive they need to use new technologies that can be achieved in the global supply market: "worldwide electronics – every 6 months we have a new microcontroller".

To Company A, the adoption of GS is a result of the resources available for the process. There is an effort

of the top-management to support this activity as the negotiation is primarily conducted by the owners, what supports Proposition 3. This is possible as the Company is medium sized and consider that the supply strategy is central for its development/growth. The interviewee highlights that when it was a small company, it could purchase from a distributor located in Brazil, but as it grow it has to be competitive searching abroad for the original suppliers. This happens because the company's industry is global – "the evolution of the electronic area is huge – what leads us to the necessity of be aware of new technologies and suppliers".

This affirmative is also related with the supply opportunity analysis process (Proposition 5). Aspects related with supply and sourcing environment are monitored by visits to supply countries and the participation in international fairs. This process focuses on the identification of "products tendency", even though the company does not have a structured or formal interface for this effort and customer requirements.

The supplier management process already absorbed the global dimension of the supplier market and the involvement of suppliers into new products development is happening at Company A, what makes it to be especially aware with the cross-functional importance of the supplier, like the engineering department (Proposition 6). The biggest difference from local to global suppliers is the scale – the need of scale leads to source globally and the scale leads the company to be able to source from international suppliers. The use of international suppliers can be a replication of the local supplier practices based on the increase of the total quantity purchased in a search for large suppliers and the reduction of the intermediary companies.

The use of global suppliers often follow a strategy to keep 50% of the total to be purchased locally, but it is also related with the capacity of the suppliers to supply Company A's demand characteristics, such as customized products (Proposition 7). This situation is also related with the characteristics of the inputs that the Company source abroad. The company developed a model of product portfolio, but according to it, all components and products that are source globally became strategic (Proposition 8).

The necessity of qualified personnel with continuously training is a very important aspect to the adoption of GS (Proposition 9). The professionals must

have knowledge of “different languages”, “technical” and “negotiation skills”. Knowing languages is 100% supported by the company and undergraduate and graduate courses can be 50% paid by the Company.

Related with Proposition 10, the existence of communication tools and platforms is considered important to Company A but it is highlighted that Internet is still the most important tool to search new suppliers: “Give me three days and I’ll find the supplier of my competitor”. These tools for information management can also be used inside the company. According to the interviewee, “when you are developing a product there is the specification, the detailed scope and the experience with the things that did not work”, what is maintained in a data based directly related with the engineering area.

The risk management (Proposition 11) can be separated when it consider products that have local suppliers and those that do not have it. According to the interviewee, if there are local suppliers, the risks are the same for all competitors as “the internal competition stays at the same level for all”. The inexistence of quota or others barriers that could limit the imports are seen as favorable aspects.

The analysis of external barriers (Proposition 12) is conducted by Company A based in two internal questions: (1) is it possible to produce at home country and be competitive even with the barrier, and (2) how long will that barrier possible persist? Based on these answers, the managers take the decisions.

The results achieved by Company A (Proposition 13) are related with a learning process that lead the company to start developing global operations based on the division of the value chain operations in different global locations. The knowledge about the suppliers’ countries is one of the reasons that make Company 1 prepared to start these operations, followed by the experience with new suppliers sourcing process, and the flexibility and agility that the company had to develop in order to negotiate with these global companies.

Based on the analysis of the case, we can conclude that the framework allowed us to understand how GS process is being conduct by Company A. Looking at the dimensions analysis made by the investigation of the propositions of this study; it is possible to identify the key success factors for each dimension, as presented in Table 1.

Dimension	Proposition	Key-success factors
Antecedents to GS / Strategic orientation	P1: The adoption of GS is motivated by competitive advantages.	<ul style="list-style-type: none"> • Motivation to become a global player • Faster access to new technologies
Antecedents to GS / Organizational Structure	P2: The centralization of GS activities is related with the potential synergy between units, and their supply needs.	<ul style="list-style-type: none"> • Not identified at the cases
	P3: The adoption of GS implies that the availability of resources for establishing and managing the activity is relative to the organization’s size and, the importance attributed to GS, including the top management support, and the industry features.	<ul style="list-style-type: none"> • Firm’s functional structure • Global industry • Top-management support
	P4: The presence of the purchase company in the supply country motivates the adoption of GS.	<ul style="list-style-type: none"> • Not identified at the case

Opportunities	P5: The supply opportunity analysis process includes the investigation of the supplier company, the inputs, and the supply and sourcing environments, as well as customer requirements improving the adopting of GS.	<ul style="list-style-type: none"> • Visits to suppliers countries and companies • Identification of “product tendency”
Process of GS / Supplier’s management	P6: The adoption of GS is related with the involvement of suppliers into new product development as the units of the company and units areas are more related, but on the other hand work with global suppliers is more difficult comparing with local suppliers.	<ul style="list-style-type: none"> • Establishment of interfaces with suppliers specially with the engineering area
	P7: The choice to use foreign suppliers based on the purchaser country will be related with support, customer service, and cultural aspects related to the supplier management process.	<ul style="list-style-type: none"> • Not identified at the cases
Process of GS / Purchase Process	P8: The GS activity is oriented to inputs consider strategic for the company, and the other inputs should be included in the context of this strategy.	<ul style="list-style-type: none"> • Classification of all imported inputs as strategic
	P9: The GS approach requires qualified personnel and continuously training of them in order to identify better opportunities and conduct efficient sourcing process.	<ul style="list-style-type: none"> • Cultural (languages), technical and negotiation skills
	P10: The existence of communication tools and platforms are important to global supply management, including actual and potential suppliers, and actual and potential demands.	<ul style="list-style-type: none"> • Use of internet
Difficulties and risks	P11: GS includes the management of risks, considering cultural and governmental diversities and its special characteristics.	<ul style="list-style-type: none"> • Development of alternative sourcing opportunities
	P12: The analysis of external barriers is important during the process of purchase opportunity analysis to avoid risks and ensure benefits.	<ul style="list-style-type: none"> • Trade-off analysis
Results	P13: The adoption of GS leads to competitive advantage comparing with firms that purchase internationally	<ul style="list-style-type: none"> • Faster product development • Introduction of new technologies

Figure 2 – Case Analysis Summary

9. DISCUSSION

The investigation of GS adoption by emerging countries companies is an opportunity to extend the knowledge developed about GS based on companies from developed countries. The use of the framework based on the previously theory contributes to carry out one single case study to illustrate the key success factors on each dimension.

Some of the propositions of the theoretical framework were not found during the case investigation. Proposition 2 was not found because it refers to the centralization of GS activities considering a company that has more than one purchase unit and Company A has just one site and one purchase area. The same problem happened with the analysis of Proposition 4 that is related with the presence of the purchase company in the supply country. While these propositions are related with the structure of Company A, the Proposition 7 was also not found. The interviewee does not highlighted aspects related with the use of foreign suppliers based on their country. The impossibility to identify results related to these propositions may occurred because of the size of the company and the centralization of operations. The characteristics of electro-electronics industry may also be a reason for it, it has global products made of global inputs that are manufactured primarily overseas (especially in Asian countries).

An aspect that was identified at the study is the capability of the company to analyses its value chain and defines to focus on the activities that add more value: product development and distribution channels. The capability to manage a global operation is being developed by Company A as an incremental process that started with the movement from local to global suppliers and it is getting intense with the total manufacture of finished products abroad. The concern with the creation of a learning process as the company goes forward on this process seems to be an important aspect of the adoption of GS by the company. The managers do have a strategic view of their global market and are trying to build competitiveness with the integration of global operations maintaining the core competence protected in order to be able to compete. The ability to develop relationships with global suppliers is also an important characteristic of Company A as it allowed them to develop a negotiation not based just on cost, but also on trust and mutual benefits.

It is important to make some considerations about the industry. The electrical and electronic industry in

Brazil is an import-based industry what can directly impact the sourcing strategy of its companies. This industry sector was chosen as it is dependent of international suppliers as their current market and their supplier market act as global even inside the Brazilian territory. This situation would lead the companies of this industry to have the possibility to choose raw materials from representative inside Brazil or purchase them abroad. This possibility of choice can make the strategy definition a complex process and lead to different approaches of sourcing.

10. CONCLUSIONS

The first contribution of the case is a framework to guide further research and the generation of insights about the adoption of GS by a Brazilian company that may represent some directions about how these companies are adopting this strategy. As this case represents the first stage of a large research project and more cases will be analyze, it is a preliminary empirical data to guide further research, even at the same industry.

Looking at the internationalization process of the investigated company, it was identified that it is moving from being just a manufacturer, to become a distributor in the Brazilian market. The production outsourcing process is a change identified in some companies in several industry sectors, like footwear, that is not as intense in technology as the electric and electronic industry (Paiva and Vieira, 2011). The presence of this change in an industry based on technology with the maintenance of the product development, or part of it, is something new in internationalization studies. This issue is a potential gap identified in the empirical research.

Company A is motivated to adopt GS by the possibility to innovate (faster access to technology) and to become a more competitive player in the Brazilian market through the control of distribution channels. At the same time, it was a way to compete with global players. These aspects were not found in the previous literature review. The role of the company's owner into the GS process was also not found in the literature review from developed countries. In this case study, we identified that the owner played a strategy role as a real entrepreneur for the international market. The owner was responsible for the beginning of sourcing internationalization process. They lead us to reformulate the Proposition 1.

P1.1: The adoption of GS is motivates by the gain of faster access to new technologies and to become a global player.

P1.2: *The adoption of GS is motivated by the company's owner and its entrepreneurial capacity for international operations.*

These propositions represent the second contribution of this research. They came from empirical evidence from the case study but it is not present in the current literature. These propositions can improve the theoretical framework as they reveal new aspects about the adoption of GS by companies from emerging countries that can be verified in other case studies. The results of the analysis of a single case study are not strong enough to contribute to theory development, but provide insights that, in global sectors, companies from emerging countries must have to develop global sourcing strategy to compete in their local market (Brazil) and low development countries (other South American countries). Even if this GS strategy has been successful to the Company A so far, it does not allow it to get a competitive advantage to reach more sophisticated markets. It also shows that replicating the relationship with suppliers established with local suppliers can have some barriers related to cultural differences. Companies from developed countries have already overcome these barriers, as they are more culturally diverse. Further research based on the new two propositions can expand the understanding of companies from emerging countries and GS strategies.

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