

# Outsourcing and supplier development: capability development process in the Brazilian sports apparel industry



ISSN 0104-530X (Print) ISSN 1806-9649 (Online)

Terceirização e desenvolvimento de fornecedores: processo de desenvolvimento de capacidades na indústria brasileira de vestuário esportivo



**How to cite:** Scur, G., & Kolososki, C. (2019). Outsourcing and supplier development: capability development process in the Brazilian sports apparel industry. *Gestão* & *Produção*, 26(2), e2761. https://doi.org/10.1590/0104-530X-2761

**Abstract:** Outsourcing allows quick reactions to market fluctuations and allows firms to focus on their core business. This strategy is currently used in the Brazilian apparel industry. The paper analyzes the interaction between big customers (some multinationals firms) and Brazilian suppliers in the sports apparel industry to verify how these relationships can contribute to the capability development of suppliers. Multiple case studies were conducted. The findings indicated that collaborative, and long-term relationships are beneficial to businesses and customers significantly influence the development of the sewing factory suppliers with whom they work.

Keywords: Outsourcing; Supply Chain Management; Partnership; Brazilian apparel industry.

Resumo: A terceirização permite reações rápidas às flutuações do mercado e possibilita que as empresas se concentrem em seus negócios principais. Essa estratégia é usada, atualmente, na indústria brasileira de vestuário. Este artigo analisa a interação entre grandes clientes (algumas empresas multinacionais) e fornecedores brasileiros na indústria de vestuário esportivo, a fim de verificar como essas relações podem contribuir para o desenvolvimento de capacidades dos fornecedores. Múltiplos estudos de casos foram realizados. Os resultados indicaram que os relacionamentos colaborativos de longo prazo são benéficos para as empresas e que os clientes influenciam significativamente o desenvolvimento dos fornecedores da fábrica de costura com quem trabalham.

Palavras-chave: Terceirização; Gestão da Cadeia de Suprimentos; Parcerias; Indústria brasileira de vestuário.

#### 1 Introduction

The industrial sector has undergone considerable change in recent decades, forcing companies to compete in other ways, seeking alternatives that would ensure their competitiveness. The distinctive features of this new scenario are dynamism and uncertainty of markets.

In order to reduce cost and enhance speed and flexibility, firms are decentralizing some activities, placing the responsibility for implementing secondary functions on third parties as suppliers, while the companies specialize in capabilities that effectively generate value for their business (Krause & Scannell, 2002; Dixon et al., 2014; Barney, 1991). In this way, outsourcing is considered to be a compatible strategy

since it allows quick reaction to the constant variations in demand (Hoyt & Huq, 2000; Wu & Blackhurst, 2009; Zhang et al., 2013). However, some studies have shown that in most cases, suppliers do not possess the capabilities required by customers (Kotabe et al., 2003; Song & Di Benedetto, 2008). Thus, supplier development is a common customer strategy.

Therefore, this paper aims at analyzing the interaction between big customers (some multinationals firms) and Brazilian suppliers in the sports apparel industry in order to verify how these relationships contribute to the capability development of the suppliers.

The global textile industry relies on the participation of developing countries, especially China, which

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benefit from low labor costs. Given the impossibility of price competition with Asian countries, developed countries must adopt alternative strategies to concentrate on their core activities, which generate value for the firms. Thus, there is a trend of shifting production, which came to be outsourced, especially in the clothing sector, which has a greater share of the labor force (Lupatini, 2007).

In Brazil, the textile industry was hampered by the opening of the market in the 1990s. This led to a significant period of crisis, which resulted in the closure of many firms. The ones that survived in the market had to professionalize and modernize their plants and employ outsourcing strategies (Gorini, 2000; Ferraz, 2011).

This paper focuses on the apparel industry for two reasons. First, because it is an important part of the Brazilian economy. The textile and clothing industry is considered to be the second largest employer in the manufacturing industry and represents 3.5% of the total GDP of the country (Brasil, 2012).

Second, it is the sector with the lowest level of mechanization in the textile and clothing industry, thus requiring intensive labor. Given the high tax in Brazil, production flexibility is critical to ensure competitiveness (Ferraz, 2011).

Another important point on the Brazilian apparel industry is that 97% of their companies are small and medium-sized, employing up to 99 employees, which are responsible for 56% of the national production (IEMI, 2011). Moreover, it is a sector with high levels of informality (Ferraz, 2011; Gorini, 2000).

The textile and apparel sector is not limited to fashion. There are many companies worldwide, especially in Europe and in the U.S., which develop technology and innovation, with application in the medical field, construction, and sports apparel. Many of these firms operate in the Brazilian market and use local factories. It would not be incorrect to say that industry in Brazil is immature, with low levels of technology and knowhow.

# 2 Outsourcing, partnership and supplier development

According to Krause & Scannell (2002), Krause (1997) and Zhang et al. (2013), many companies have adopted the strategy of productive decentralization of secondary activities, so they can focus on their core competencies, which have to be dynamic given the turbulence of the external market (Dixon et al., 2014).

The decentralization of production (named outsourcing or subcontracting) prepares companies to react quickly to dynamic changes in the market (Hoyt & Huq, 2000; Wu & Blackhurst, 2009). In this way, outsourcing transfers the responsibilities of a firm's internal activities and decision making to

external partners. Supplier capability is an important competitive advantage (Zhang et al., 2013).

When firms combine efforts, levels of knowledge and experience, they perform better with respect to efficiencies, flexibility, quality, and product development, among other benefits, all of which reduce industrial cost and are impossible to achieve working alone (Rossoni et al., 2015; Krause & Scannell, 2002). This new productive configuration of companies has rendered them increasingly dependent on their suppliers. Their performance thus impacts the company's business.

In order to increase the success of this strategy, companies and suppliers must keep long-term relationships. In the 80s, as far as vertical integration had been used as the main productive strategy, relationships were distant, with little or no interaction between parties, based only on price and quality levels and delivery offered by suppliers as a criteria decision to buy from companies. This relationship is referred in the literature as an "arm's-length relationship". Since the 90s, this has shifted, and communication and trust have become the basis of the relationship (Hoyt & Huq, 2000; Goffin et al., 2006; Branski & Laurindo, 2013).

Lambert et al. (1996) state that, in order to create partnerships with suppliers, it is important to strengthen the level of integration in the supply chain through information exchange, trust and capability development. According to Ellram & Hendrick (1995) and Chou et al. (2015), partnership involves commitment in the long run, mutual information exchange and rewards generated from this relationship. It can exist for strategic or operational reasons and can allow the parties involved to reap the benefits of vertical integration.

This significance of this relationship has arisen because it plays an important role in leveraging the supplier's capabilities and facilitating the alignment of inter-firm processes for outsourcing in general (Chou et al., 2015).

Although the concept is extremely simple, creating a partnership is complex. First, the firm needs to analyze how desirable and feasible it would be. This means checking that the technical capabilities offered by the supplier are compatible with the customer's needs and also that both companies are aligned with respect to the benefits and needs (Goffin et al., 2006).

Although it sounds obvious that suppliers must comply with basic manufacture, in practice there are often challenges inherent in achieving a good level of performance on certain criteria, as well as difficulties adopting new technologies and product development. Moreover, there is evidence that the capacity of suppliers cannot meet future customer needs, if there is no type of intervention. For these reasons, many companies work together with their

suppliers to develop them, thus ensuring good results. (Krause, 1997; Krause & Scannell, 2002). Thus, when supplier capabilities do not match customer needs it is necessary to develop the supplier. Several actions can be performed to develop a supplier, ranging from limited actions, such as an informal evaluation, to intensive actions, such as training and investment (Sancha et al., 2015).

Krause & Scannell (2002) describe four actions to develop suppliers. The first is competitive pressure. This action is applied when there is a possibility and/or willingness on the part of the customer to change the production supplier in search of better prices. Having this option, suppliers strive to maintain their competitiveness by improving quality, service and other performance measures. According to Krause (1997), this type of action aims to motivate the supplier through competitiveness. There is neither direct involvement nor commitment on the part of the customer; therefore, the good or bad performance of the supplier is based on its own merits or demerits. The second action refers to the evaluation of suppliers. Suppliers are evaluated and reported on their performance in quality questions, delivery, price level and in technical and managerial capacities. Such assessments allow them to identify and focus on areas for improvement, developing action plans that make it possible to perform better. In cases in which supply options are more numerous, suppliers can also be informed about the performance of its competitors. The third action refers to incentives given to suppliers, i.e., recognition of good performance. This type of action promotes competition between suppliers, motivating them to achieve better results than their competitors. The fourth action refers to the direct involvement of the client in activities with their suppliers that aim to improve results. They can be expressed through training and temporary allocation of human resources in supplier facilities. This action, however, is a risk to the client that performs, since such efforts and investments are non-transferable and irrecoverable and might be lost in the event of termination of partnership (Krause et al., 2000).

All actions have in common the goal of developing suppliers and encouraging them to perform better. According to Krause (1997), the greatest benefit of promoting supplier development actions is not necessarily the improvement in results and performance, but the development of supplier capabilities.

Liker & Choi (2004) presented a study on the Japanese model of supplier development. According to the authors, the difficulty of the companies is not in the decision-making in creating partnerships, but in how to execute them successfully.

The Japanese model is based on reducing the supplier base and having an intense, direct interaction with them, prioritizing continuous improvement,

cost reduction, and, especially, raising product development capabilities.

According to Liker & Choi (2004), Honda and Toyota have successful relationships with their suppliers because they set goals and work on six steps with them.

The first step is related to understanding the processes and operations of the suppliers. Um ponto chave para conseguir melhorar a performance de um fornecedor é justamente conhecer sua forma de trabalho, para ser possível identificar seus problemas e limitações e propor soluções. The second stage is related to the creation of a working model that transforms the rivalry of competition between suppliers into business opportunities. The third step is related to a system of monitoring suppliers, setting goals and following them steadily. According to the literature, this action is essential in the supplier capability development process as it would be possible to identify the points to improve and create corrective action plans. The fourth step relates to the development of the technical capabilities of suppliers in order to encourage innovation and excellence in processes that are far more valuable than those with low costs, offered by countries such as China. The fifth step is related to the way information is exchanged between agents. Being effective does not mean exchanging a lot of information, but rather knowing how to select and communicate the necessary information. The sixth step is the most sophisticated and relates to joint actions.

The actions proposed by the Japanese model led to such favorable results that American companies were motivated to adopt it (Krause et al., 2000).

Manufacturers acknowledge that supply chain integration contributes to their profits by facilitating new waves of transformational processes in the supply chain, such as information sharing, establishing systems and procedures to create smooth supply flow, and ensuring that buyers and suppliers both develop innovative supply chain projects to support cooperative objectives (Vanpoucke et al., 2014, p. 446).

#### 3 Methods

This research is empirical and qualitative and a multiple case study design. This method is particularly appropriate owing to the contemporaneity of the content, the research question, and the impossibility of manipulating behaviors (Yin, 2009). This study is descriptive: it aims to analyze the interaction between customers and Brazilian suppliers in the sports apparel industry in order to verify how this relationship can contribute to the capabilities development of the suppliers. This technique allows an objective exploration of events or phenomena without manipulation of the events (Cervo & Bervian, 2002).

Several steps are required to plan and conduct case studies (Eisenhardt, 1989). This study adopted

the steps proposed by Stuart et al. (2002): defining the research question and constructs, developing instruments and selecting sites, gathering data, analyzing data and disseminating findings.

### 3.1 Defining the research question and constructs

This stage provides the basis for measuring the constructs (Eisenhardt, 1989). The research question here is, how is the apparel supplier development process best characterized? Understanding this will reveal which stage companies are in according to

the theoretical model and the types of relationships between apparel customers and suppliers.

In order to answer the question related to the supplier development, six constructs were created based on actions proposed by Krause (1997), Krause & Scannell (2002) and Liker & Choi (2004). The constructs, actions and indicators are shown in Chart 1.

#### 3.2 Site selection and data collection

Data was collected from eight companies, four clients, and four suppliers. The suppliers were suggested by the clients although they were not necessarily their

Chart 1. Research protocol.

|   | CONSTRUCTS                  | ACTIONS   | INDICATORS   | QUESTIONS: clients and suppliers  |
|---|-----------------------------|---|--|---|
| 1 | Knowing my supplier         | 1) Buyer: visits and information gathering; 2) Knowing my supplier's processes; 3) Understanding and respecting supplier's limitations.   | - Frequency and duration of the visits; - Comprehension of supplier's flow and culture; - Existing level of interaction.   | - What is the existing level of interaction with suppliers / clients? - What is the subjects of these interactions? - Are there engineers in the client / supplier? - Do the clients visit suppliers? - What are the frequency and duration of the visits? - In case of problems, does the client active participate with the supplier on the resolution? - Does the client really understand supplier's process, culture and limitations? - Is there mutual respect between the parties?   |
| 2 | Competition among suppliers | 1) Promoting competition among suppliers; 2) Suppliers certification / segmentation.  | - Business gains or<br>losses;<br>- Results<br>improvement<br>generated by the<br>motivation to<br>compete.  | - Does the client promote competition<br>between suppliers and how does it occur?<br>- What is the reward given to the winner?<br>- What are the criterea to evaluate the<br>competitors?<br>- Does the client believe that this practice<br>motivates suppliers? / Does the supplier<br>believe this practice is motivating?<br>- Does the company certify and segment<br>suppliers by their levels?   |
| 3 | Suppliers<br>supervision    | 1) Suppliers assessments and monitoring; 2) Buyers involvement in supplier's improvement action plans; 3) Senior management involvement in performance meetings; 4) Development of suppliers' problem solving skills; 5) Great performance recognition. | - Key performance indicators and frequency of monitoring; - Suggestions and buyers level of involvement; - Position of people involved in the meetings; - Trust and autonomy; - Recognition. | - Does the client assess supplier's performance? - What are the indicators and frequency? - Does the supplier also assess client's performance? - Does the client get involved to help suppliers getting better performances? - Is top management from both parties involved in performance meetings? - Is the focus of the client acting on problem solving or on developing supplier's skills on problem solving? - Does the client trust suppliers? Does the supplier trust the clients? - Does the client recognize supplier's good performances? |

Chart 1. Continued...

|   | CONSTRUCTS                         | ACTIONS   | INDICATORS  | QUESTIONS: clients and suppliers   |
|---|------------------------------------|---|---|--|
| 4 | Technical capabilities development | 1) Buyers<br>involvement on<br>the development of<br>supplier's technical<br>capabilities;<br>2) Trainings<br>provided to<br>suppliers. | - Technical<br>capabilities<br>developed;<br>- Amount of<br>trainings provided.           | - Considering technical issues (product development, production, etc.), do the client develop supplier's capabilities? - What were the supplier's technical capabilities already developed by the company? - What are the benefits on developing supplier's capabilities? - How does it occur: by a missing capability identified by the client or under supplier request? - Does the client offer technical trainings to its supplier? How often?   |
| 5 | Dissemination of information       | 1) Criteria for information dissemination; 2) Meeting structuring.  | - Accurate and useful information; - Effective meetings.                                  | <ul> <li>How does information sharing occur between client and its supplier?</li> <li>Does the client / supplier consider it is an effective or an exaggerated information sharing?</li> <li>What are the information exchanged?</li> <li>Are the meetings previously scheduled and prepared? Are they effective?</li> </ul>   |
| 6 | Joint improvement activities       | 1) Good practices exchanges; 2) Joint projects developed; 3) Investments.   | - Exchanges: experiences and know how; - Project performances; - Return over investments. | - Do the client and supplier conduct joint activities? - What are the focus and frequency of the joint activities? - What are the contributions of each party of joint activities? - What are the results? - What are the results? - Has the company / supplier ever done any investment due to specific request of the partnership? - What and how much were them? - Have these investments had the expected return? - What are the other kind of investments (except money) the client has ever done to its suppliers? |

own suppliers. Six companies were sports-related and two from the premium fashion sector. According to Eisenhardt (1989), it is appropriate to consider between four and ten cases. The sports apparel sector was chosen for its intensive technological evolution in comfort, thermal equilibrium, breathability, waterproof, material strength, and heating. The clients are large multinational firms; the suppliers are small and medium-sized. The premium fashion sector was used to compare strategies.

To maintain confidentiality, the names of the companies are not revealed and will be referred to as Sportfrance, Sportbra, Sporteuro, Modafashion (clients) and Apucarana, Cascavel, Apucarana caps and Sppremium (suppliers).

Table 1 below provides a summary of comparative data between the participating companies.

Interviews were conducted face-to-face at the plant or in the company office during the first half of 2012. Companies were selected from the sports industry, which consists in well-structured major brands, all of which function according to the philosophy of partnership and supplier development. Supplier selection criteria were importance for buyer in terms of volume and specificity of the assets. Moreover, it was a case of added provider of premium title to compare with other products, since it has a different form of relationship with other participants.

### 4 Results

In order to determine which actions are performed in the supplier capability development process, six constructs were created, based on Krause (1997), Krause & Scannell (2002), and Liker & Choi (2004),

| data sources. |
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| CLIENTS     | Origin   | Year of<br>Foundation | Turnover 2011 | Qty of Stores        | Qty of<br>employees | Oty of suppliers (in Brazil) | Oty of pcs/year<br>(in Brazil) | Interview  | Secondary data  |
|-------------|----------|-----------------------|---------------|----------------------|---------------------|------------------------------|--------------------------------|--|---|
| SPORTFRANCE | Foreign  | 1976                  | EUR 6,5 bi    | 630                  | 45,000              | 13 suppliers                 | 2 million                      | Position: Manager of Sustainability Duration: 3 hours        | Sustainability report News from Internet portal Data from company's |
| SPORTBRA    | National | 1988                  | R\$ 150 mi    | 80                   | 150                 | 3 suppliers<br>10 factions   | 1,5 million                    | Position: Manager of Industrial Operations Duration: 2 hours | Sustainability report News from Internet portal Data from company's |
| SPORTEURO   | Foreign  | 1948                  | EUR 13 bi     | 560<br>+ multibrands | 46,000              | 14 suppliers                 | 2 million                      | Position: Manager of Industrial Operations Duration: 1h30min | News from<br>Internet portal<br>Data from<br>company's<br>website   |
| MODAFASHION | National | 2003                  | R\$ 3 mi      | 1<br>+ multibrands   | 30                  | 10 suppliers                 | 20 thousand                    | Position: Manager of Industrial Operations Duration: 1h30min | News from<br>Internet portal<br>Data from<br>company's<br>website   |
| SUPPLIERS   | Origin   | Year of<br>Foundation | Turnover 2011 | Size                 | Qty of employees    | Oty of clients               | ı                              | Interview  | Secondary data  |
| APUCARANA   | National | 2008                  | R\$ 3,6 mi    | Mid size             | 08                  | 40                           |                                | Position: Manager of Industrial Operations Duration: Ih30min | News from<br>Internet portal<br>Data from<br>company's<br>website   |

| SUPPLIERS Origin Foundation   Turnover 2011   Size   Rangloyees   Oty of clients   - Interview   Secondary de employees   310 Brazil   8   - Bosition: Sustainability   Substantial   Size   Substantial   Substanti   | Table 1. Continued |          |                       |               |          |                  |                |   |                |                 |
|--|--------------------|----------|-----------------------|---------------|----------|------------------|----------------|---|----------------|-----------------|
| National 2000 R\$ 30,9 mi Big size 310 Brazil 8 - Position:  100 Paraguay 100 Paragu  | SUPPLIERS          | Origin   | Year of<br>Foundation | Turnover 2011 | Size     | Qty of employees | Oty of clients |   | Interview      | Secondary data  |
| 100 Paraguay   General Director  | CASCAVEL           | National | 2000                  | R\$ 30,9 mi   | Big size | 310 Brazil       | 8              |   | Position:      | Sustainability  |
| ARANA National 1989 R\$ 1,3 mi Big size 160 30 - Position: Manager of Industrial Operations Duration: 2 Hours  MIUM National 1987 R\$ 2 mi Mid size 25 25 - Position: Manager of Sustainability Duration: 1130min 1130min  |                    |          |                       |               |          | 100 Paraguay     |                |   | General        | report          |
| ARANA National 1989 R\$ 1,3 mi Big size 160 30 - Position:  Manager of Industrial Operations Duration: 2 hours  MIUM National 1987 R\$ 2 mi Mid size 25 - Position: Manager of Sustainability Duration: 1 H30min 1130min   |                    |          |                       |               |          |                  |                |   | Director       | News from       |
| ARANA National 1989 R\$ 1,3 mi Big size 160 30 - Position:  Manager of Industrial Operations Duration: 2 hours  MIUM National 1987 R\$ 2 mi Mid size 25 25 - Position:  Manager of Sustainability Duration: 1130min  |                    |          |                       |               |          |                  |                |   | Duration: 2    | Internet portal |
| ARANA National 1989 R\$ 1,3 mi Big size 160 30 - Position:  Manager of Industrial Operations Duration: 2 hours  MIUM National 1987 R\$ 2 mi Mid size 25 25 - Position:  Manager of Sustainability Duration: 1130min  |                    |          |                       |               |          |                  |                |   | hours          | Data from       |
| ARANA National 1989 R\$ 1,3 mi Big size 160 30 - Position:  Manager of Industrial Operations Duration: 2 bours  MIUM National 1987 R\$ 2 mi Mid size 25 25 - Position:  Manager of Sustainability Duration: 1130min  |                    |          |                       |               |          |                  |                |   |                | company's       |
| ARANA National 1989 R\$ 1,3 mi Big size 160 30 - Position:  Manager of Industrial Operations Duration: 2 hours  MIUM National 1987 R\$ 2 mi Mid size 25 - Position:  Manager of Sustainability Duration: 1180 Duration: 11 |                    |          |                       |               |          |                  |                |   |                | website         |
| Manager of Industrial Operations Duration: 2 hours Mid size 25 25 - Position: Manager of Sustainability Duration: 11987 R\$2 mi Mid size 25 25 - Sustainability Duration: 1130min  | APUCARANA          | National | 1989                  | R\$ 1,3 mi    | Big size | 160              | 30             | , | Position:      | News from       |
| Industrial Operations Operations Duration: 2 hours National 1987 R\$ 2 mi Mid size 25 - Position: Manager of Sustainability Duration: 1h30min  | CAPS               |          |                       |               |          |                  |                |   | Manager of     | Internet portal |
| Operations  Operations  Duration: 2  hours  Manager of  Sustainability  Duration: 1987  R\$ 2 mi  Mid size 25 25 - Position:  Manager of Sustainability  Duration: 1h30min   |                    |          |                       |               |          |                  |                |   | Industrial     | Data from       |
| Duration: 2 hours National 1987 R\$ 2 mi Mid size 25 25 - Position: Manager of Sustainability Duration: 1h30min  |                    |          |                       |               |          |                  |                |   | Operations     | company's       |
| hours  National 1987 R\$ 2 mi Mid size 25 25 - Position:  Manager of Sustainability  Duration:  1h30min  |                    |          |                       |               |          |                  |                |   | Duration: 2    | website         |
| National 1987 R\$ 2 mi Mid size 2.5 - Position: Manager of Sustainability Duration: 1h30min  |                    |          |                       |               |          |                  |                |   | hours          |                 |
|  | SPPREMIUM          | National | 1987                  | R\$ 2 mi      | Mid size | 25               | 25             |   | Position:      | News from       |
|  |                    |          |                       |               |          |                  |                |   | Manager of     | Internet portal |
|  |                    |          |                       |               |          |                  |                |   | Sustainability | Data from       |
|  |                    |          |                       |               |          |                  |                |   | Duration:      | company's       |
|  |                    |          |                       |               |          |                  |                |   | 1h30min        | website         |

to investigate and compare the interaction level maintained between parties. The results of both customers and suppliers are related to how they perceive the relationship with its partners; not necessarily the actual relationship. Chart 2 presents the constructs, actions and main results from the perspectives of clients and suppliers.

### 4.1 Construct: knowing my supplier

The purpose of this construct is to verify whether clients know their suppliers. According to Liker & Choi (2004), knowing how the supplier works is crucial in being able to identify their problems and limitations.

Chart 2. Main results.

|   | CONSTRUCTS                               | INDICATORS   | CLIENTS   | SUPPLIERS  |
|---|--|--|---|--|
| 1 | Knowing my supplier                      | Level of client involvement Subject of discussion Engineers on the field Frequency and duration of the visits Involvement or charging solution Understanding supplier operations, culture, limitations Mutual respect                            | Significant Product development, Quality, Production Yes Monthly - 2 days Participation Yes Yes   | Low<br>Product development,<br>Quality, Audits<br>No<br>Once/2 months - 2 days<br>Charging solution<br>Superficial<br>Yes    |
| 2 | Competition among suppliers              | Competition among suppliers Reward to winners Criteria for competition Motivating action? Clients direct involvement to help Certification of suppliers  | Not directly Volume, New product models Price, Delivery, Quality Yes Yes No   | Yes Volume, New product models Price, Delivery No No   |
| 3 | Suppliers<br>supervision                 | KPIs assessed Frequency of monitoring Clients direct participation to improve KPIs Development of problem resolution skills Mutual trust Recognition for good performances   | DOT, Quality, Product<br>development<br>Monthly<br>Yes<br>No<br>Yes<br>Yes  | DOT, Quality Monthly Yes No Yes Sometimes  |
| 4 | Technical<br>capabilities<br>development | Clients develop technical capabilities Developed capabilities Benefits Training promoted by the clients Frequency of trainings   | Yes Quality, Productivity, Factory infrastructure Better prices, Flexibility, Product compliance Quality, Audit requirements, Purchase Whenever necessary | Yes Quality, Process organization, Factory infrastructure Culture of quality, better performances Quality Whenever necessary |
| 5 | Dissemination of information             | Effective exchange of information Scheduled and effective meetings   | Yes<br>Yes  | Yes<br>Yes   |
| 6 | Joint improvement activities             | Good practice exchange Realization of joint projects Performance obtained Contribution client side Contribution supplier side Investments - clients requirements Investments - to help suppliers Guarantee for investments Return on investments | No No No Yes: Machinery, Factory infrastructure, Time, Visit, Audit, Quality tests Dedicated staff No Yes   | No No No Yes: Machinery, Facture infrastructure, Time, Visit, Audits, Quality tests Dedicated staff No Yes                   |

The data presented in Chart 2 indicates high levels of interaction between buyer and supplier. However, this is limited, to validate samples and quality requirements.

The opinions of clients and suppliers diverge. Some suppliers visit more frequently; however, this does not guarantee that clients understand the supplier process. This is evident by the low number of engineers on the client-side. Some clients employ more engineers. However, they neither work directly in production, nor do they have experience on the factory floor.

Clients believe that their level of interaction and participation in the process is high and significant, once they invest in supporting and developing their suppliers.

# 4.2 Construct: competition among suppliers

The purpose of this construct is to investigate whether clients use competition to develop supplier capability. According do Krause (1997), Krause & Scannell (2002), and Liker & Choi (2004), competition motivates suppliers to create alternatives and offer better prices, quality and delivery performance, enabling them to evolve their capabilities.

Competition is promoted with the goal of obtaining the lowest price but can also alert suppliers to areas that require improvement. Clients believe competitions are motivating. Suppliers believe there is a great demand and pressure in the market for low prices, forcing them to seek alternative, often informal options, which contribute to the growth of an illegal industry. If the supplier cannot propose a specific price, production orders will not be designated to this supplier. The intense search for the best price also reduces quality, when the cheapest raw materials are used. Such competition is unfair since it is based on different levels of products and supplier structures. Too often, comparisons are made directly with other countries, through the simulation of nationalized prices.

Often the customer's ordering favor unproductiveness (low quantity, products with many details, varied delivery formats, etc.) and therefore lack of competitiveness.

The price study and possible performance comparisons are important, but do not generate a special motivation and a common goal between the parties that would mobilize the supplier to improve specific capabilities.

### 4.3 Construct: supplier supervision

The construct "supplier supervision" aims to determine whether clients have a structure for monitoring their suppliers. It is possible to highlight the strong points of a supplier, recognizing its performance.

The data allows us to infer that there is a concern on the part of clients to control the level of performance of their suppliers. The main indicators controlled by the clients are the Delivery On Time (DOT) and quality. The control is performed monthly, but the dissemination of this data to the supplier can vary from company to company, when feedback is done.

The most critical case observed was that of companies in the premium sector. The client Modafashion does not monitor any key performance indicators of its suppliers. At the end of each season, which means twice annually, Modafashion and Sppremium usually meet with its supplier managers, in order to provide feedback about sales performance. Prices and quality issues might also be qualitatively discussed

When asked about being directly involved in helping suppliers improve, all clients were willing to do so. Clients are available to help and to find the best alternatives, but do not develop their capabilities in solving problems or providing tools and support for autonomy.

Performance evaluation can also occur between supplier and client. The main performance indicators evaluated by the suppliers are: volumes and turnover growth, capacity analysis, and payment conditions. It is important to conduct this type of analysis in order to determine its major customers and to create a stable and profitable network.

## 4.4 Construct: technical capabilities development

The purpose of this construct was to determine whether clients contribute to the development of technical capabilities of suppliers in terms of the manufacturing process.

Clients influence the development of technical capabilities in their suppliers. This ensures higher levels of quality, delivery, and prices. Additionally, developing technical capabilities also allows suppliers to acquire knowledge in certain processes, enabling them to produce more complex models.

Sportfrance recognizes that it does not do this in as much depth as desired. Its staff uses supplier visits to address issues that impact on important indicators. Nevertheless, Apucarana developed the capabilities of its employees, developing a quality culture. In terms of the promotional market, the company has developed flexibility and agility. The Apucarana caps were also developed based on the quality and information systems, by implementing shared software.

Sportbra has a technical team to help suppliers. This client is concerned about the quality of its products, which are mostly difficult to produce. For this reason, it develops an exclusive team for brand production at each supplier.

According to the literature, the client's direct involvement in developing supplier technical capabilities allows them to create value in the implementation of tasks, which are important to clients. Although price is a main factor for the market, this alone does not guarantee success. The development of technical capabilities that enable quick product development, quality, and flexible delivery can increase supplier's competitiveness and generate benefits for clients.

Suppliers recognize the importance of clients concerning their controls and requirements, which generate a need for the supplier to adapt to this way of working.

In the cases studied, these capabilities are developed, but indirectly. In this respect, there is much to evolve and clients can contribute even more to suppliers if they prepare and devote themselves to do so.

### 4.5 Construct: dissemination of information

The fifth construct aims to determine the level of information sharing between clients and suppliers.

Information sharing occurs satisfactorily between clients and suppliers. The channels for information sharing are open and can occur via several means, such as e-mail, telephone, meetings, and visits, covering various subjects, such as information about product development (technical specifications, patterns, BOM, expectations, or ideas), financial information, composition of prices, and production reports.

Regarding production aspects, at Sportfrance, Sportbra and Sporteuro there is a weekly communication report, Work in Process (WIP), which lists the status of each application in production and its evolution. Through this report, the communication regarding the progress or delivery is facilitated, allowing information to arrive early, facilitating quick decisions. Although it appears intrinsically linked to the concept of partnership, close communication and information sharing do not favor supplier development if not done without a control.

### 4.6 Construct: joint improvement activities

The purpose of this construct was to determine whether clients and suppliers work together, exchanging experiences, knowledge, and good practice. It also aims to verify the type of effort each part makes to promote the relationship.

Data analysis reveals that, considering joint projects, clients and suppliers do not typically interact and, consequently, do not share best practice.

Sportbra considers the training of each new production line as a joint project. In this case, the company offers technical knowledge, provide and pay for the movement of its staff to the supplier who, in turn, provides all the manpower and equipment needed for this training. Thus, there is exchange of good practice and, as a result, Sportbra guarantees the level of quality required and the conformity of products in accordance with technical specifications.

Apucarana cap stated, based on requests, some clients have adapted its manufacturing site to health and safety standards and to the requirements of social behavior, all necessary to achieve conformity to the Brazilian Association of Textile Retail (ABVTEX). According to Apucarana caps, it was a joint project developed alongside its clients, since the clients participated in providing a kind of consulting and training over the main points of the audit grid. The supplier contributed executing the necessary changes, in the stipulated time.

Cascavel highlights that, even considering participation of clients in the projects, the firm still is the gatekeeper to new processes, techniques and technology, since they are updated. In addition, unlike of the rivals, the company participates in national and international fairs to access to innovation.

There are no joint actions involving financial investments. There is a total lack of commitment by the client in this type partnership.

### 5 Discussion

The data presented above highlight several points. Figures 1 and 2 illustrate the main results. Figure 1 shows an analysis by construct and designates which client stands out in terms of development of more complex actions with suppliers.

Construct 1: It was observed that Sportfrance possesses a closer contact with its suppliers in terms of greater frequency of visits for joint product development, allowing a greater degree of knowledge in their suppliers.

Construct 2: Sporteuro was chosen as a reference in this construct; among customers, it promoted competition among suppliers the most, given the structure created for this purpose, implication and different criteria used for evaluation of its suppliers.

Construct 3: Sportfrance customers were chosen as a reference, since it is more involved in monitoring its suppliers, observed by applied KPIs and management format, which involves different levels in an organization, including the analyst level to board in the supplier monitoring process.

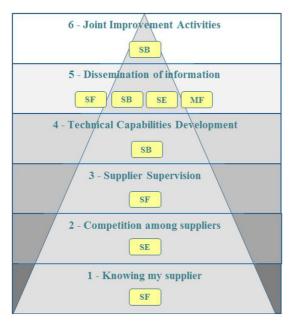
Construct 4: Sportbra was highlighted in the process of developing technical skills of suppliers. The customer has an internal structure of machinery and process experts available to assist suppliers in product development and manufacturing.

Construct 5: We observed a similarity in the way information is exchanged between customers and suppliers. Because actions performed and information

exchanged did not differ significantly, all clients were classified at the same level.

Construct 6: Sportbra is the only client that develops joint projects, contributing practical expertise to the manufacturing processes, and generating an improvement in supplier quality level.

Another way to analyse the data is to understand how the companies studied are located in the zones, according each construct. Figure 2 illustrates that three areas of the six constructs were designated as level of development and, thus, partnership. These are allocated different axes on the graph.



**Figure 1.** The Supplier-Partnering Hierarchy. Legend: SF = Sportfrance; SE = Sporteuro; SB = sportbra; MF = modafashion. Source: Adapted to Liker & Choi (2004).

The first zone was designated as "comfortable", indicated by the green color. This level of development of a particular dimension is considered satisfactory.

The second zone, referred to as "regular" and indicated by yellow, represents an area of discomfort, whereby the level of development of a given dimension is unsatisfactory, and requires significant improvements.

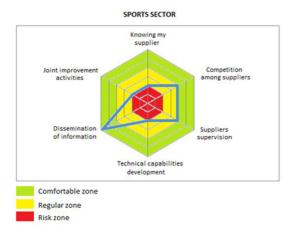
The third zone, designated as "at risk" and indicated by the red color, highlights a problem in the execution of a certain dimension. In this way, a revision in its implementation process is necessary.

It is important to notice that the construct "dissemination of information" is the only satisfactory one, since customers and suppliers provided evidence that they are satisfied with the current way exchange of information is conducted.

Furthermore, the constructs "competition among suppliers" and "suppliers' supervision" remain in the regular zone, leaving firms to establish joint actions. Finally, the constructs "knowing my supplier," "technical capabilities development," and "joint improvement" are in the area of risk and lack of investment; these are thus priority areas to be reworked in the process of supplier development.

The graphic analysis of premium fashion shows a low level of supplier development. There were no constructs in the comfort zone and only one in the regular zone: "dissemination of information." All other constructs are located in the danger zone, alerting businesses to the need for action. A revision of business strategy and establishing new guidelines is strongly recommended in such cases.

Although there is consensus on the concept of partnership, not everyone agrees that this is the correct name to describe the relationship between client and supplier. There are joint actions driven to process improvements, as well as collaborative relationships. However, it is known that one cannot expect total transparency and trust between the parties.



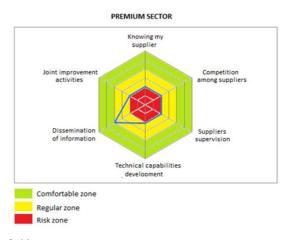


Figure 2. Graphical analysis of constructs: sports and premium fashion sectors.

Often, the process of supplier development occurs as a result of clients attempting to meet its minimum requirements and assure its corporate interests. Clients and suppliers agree that when they get to know each other and work together, levels of efficiency, velocity, and agility increase, maximizing results. This type of relationship provides security to the supplier and assures quality of goods. It also generates professional growth, learning, information exchange and updates in terms of technology and process, as the supplier is charged for meeting global trends, such as adaptation of manufacturing sites according to international quality standards and social responsibility requirements. If not requested by the client, these improvements would unlikely be implemented.

It was observed that product development is the area in which most exchanges occur, once designers and modelists interact on different aspects of the product, aiming to achieve the best style and pattern in order to achieve efficiency in the process. Quality is also an area of strong interaction. However, each client does not focus on training quality tools, but rather on their own procedures and control systems.

In summary, there is still much to be developed to state that the Brazilian apparel industry players work in partnership and that clients directly develop supplier capabilities, especially in terms of technical issues.

In general, the gaps between clients and suppliers demonstrate considerable inequality in the productive chain. On the one hand, there are leading firms which present high levels of technical and technological capabilities, modern machines and equipment, and exportation capacity. On the other hand, apparel firms have obsolete machines and equipment, low technical and managerial capabilities, and high levels of informality. Therefore, management and coordination mechanisms in the production chain fail and are insufficiently explored in this industry.

### 6 Final remarks

Owing to the need of companies to adapt to the new competitive scenario formed in the 1980s, marked by globalization and technological evolution, there was a movement of productive decentralization that encouraged companies to focus on core activities, delegating secondary activities to third parties. Thus, outsourcing of production emerged and was adopted by companies as a strategy that allowed them to maintain their market position through the benefits generated by cost reduction and increased flexibility. For this strategy to be successful, it is necessary to develop suppliers to fulfill client requirements.

In the Brazilian apparel industry, this movement is in the early stages. In general, the relationship between buyer and supplier does not include exchanging information about technical specifications for products. Clients who promote a closer partnership are those that have more differentiated products, and whose suppliers thus require more technological content in their processes, which, in turn, requires more sophisticated capabilities.

Once the parties have decided to work in a partnership, clients must be available and prepared in a direct way. It requires structuration, resource organization, and investments that allow monitoring and evolution of the supplier.

Clients and suppliers must assess each other and have frequent meetings, in order to discuss indicators and align goals, which should be clear from the beginning. Reactions to problems must be quick, based on the autonomy developed and strong communication. The improving points of each party should be evidenced, so that action plans can be created and monitored by everyone. It is important that managers and directors become involved.

To apply all this in practice, it is essential that clients and suppliers agree on the best type of relationship to be maintained. Both parties need to make efforts and commitments to avoid a unilateral relationship.

This research does not intend to present partnership as a solution for the problems faced by the apparel industry in Brazil, which go far beyond this issue. However, through partnership, it is possible to create links that favor business relationships, collaboration, and especially, a long-term view.

The pyramid framework is planned to be largely applicable. However, any effort to understand the relationship between client and supplier must consider the specific circumstances of the supply chain.

The findings presented are inherent to the cases studied. The findings are based on the experiences of a limited number of companies, which belong to a specific segment. However, this possibility represents an opportunity worth exploring for the industry. Thus, future studies could be designed to validate the model, allowing the findings to be generalized.

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