Comparing Competitive Priorities of Slow Fashion and Fast Fashion Operations of Large Retailers in an Emerging Economy

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Miguel Afonso Sellitto[1] (correspondent author)
sellitto@unisinos.br, Av. Unisinos 950 zip code 93022.750 São Leopoldo Brazil.
Domingos Rafael Ferla Valladares[2]
domingos.valladares@pucrs.br
Erica Pastore[3]
erica.pastore@polito.it
Arianna Alfieri[3]
arianna.alfieri@polito.it

[1] Production and Systems Engineering Graduate Program, Universidade do Vale do Rio dos Sinos, São Leopoldo, Brazil.
[2] Management School, Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre, Brazil
[3] Politecnico di Torino, Turin, Italy

Abstracts

The purpose of this study is to compare the competitive priorities of the slow and fast fashion retail operations of large retailers in an emerging economy. The study embraces the six largest Brazilian companies operating both fast and slow fashion businesses. The methodological path comprises a qualitative phase, in which four experts review the competitive priorities in fashion supply chains. Then follows a quantitative phase, in which the practitioners, supported by AHP, the analytical hierarchy process, weight the fast fashion and slow fashion supply chain priorities. Finally, the study compares the two sets of priorities by considering the uncertainty in the judgment. The most relevant priorities in slow fashion are price and quality, whereas those in fast fashion are customer relationships and flexibility. This study proposes guidelines for simultaneously managing these two strategies. In slow fashion, companies should reduce costs and improve quality by implementing online process controls. In fast fashion, companies should decrease lot sizes, increase the variety of mixes and assortments, and strengthen ties with customers. The main novelty of this study is the evidence that retailers operating fast and slow fashion must simultaneously manage two different strategies to achieve different priorities. In addition, some novel procedures are adopted to mitigate the uncertainty in the judgments.

Keywords: Competitive priorities; Customer relationships; Fashion supply chain; Fast fashion; Flexibility; Slow fashion.

JEL Codes: L60, L67, L68

1. INTRODUCTION

For many years, the fashion industry has attracted the attention of scholars and researchers interested in operations and supply chain (SC) management (Bruce et al., 2004; Christopher et al., 2004; Doyle et al., 2006; Iyer and Bergen, 2007; Bianchi, 2009; Sen, 2011; Li et al., 2014; Macchion et al., 2015; Wang, 2016; Shen et al., 2017; Usui et al., 2017; Cook and Yurchisin, 2017; Huang et al., 2018; Wen et al., 2018; Bick et al., 2018; Zhang et al., 2019). Meanwhile, the fashion industry has evolved, owing to the consolidation of globalized retail (Macchion et al., 2015), e-commerce (Mehrjoo and Pasek, 2014), and global diffusion of major brands (Wen et al., 2018). As fashion markets have become highly volatile, fast, and complex (Sardar and Lee, 2015), retailers have become more flexible and dynamic to avoid losing competitiveness (Ciarniene and Vienazindiene, 2014). Strong efforts have been made to identify fashion trends, transform them into products, and provide fast delivery to stores (Christopher et al., 2004). The combination of design, sales, marketing, and financial services enables fashion retailers to quickly connect global manufacturers to local markets (Kacani and van Wunnik, 2017).

The fashion retail industry requires more than just an efficient tradeoff between price and quality (Grewal et al., 2009). Currently, customers also demand a wide variety of items, high quality in products and service, and on-time and reliability in deliveries, as well as customized products (Shibin et al., 2016). Shopping for clothes has proven to be an opportunity for self-expressions of personality and personal values (Burns, 2010). It is no longer a single purchasing act, but a consumption experience that includes value co-creation, connections, and engagement with the firm, e.g., as leveraged by social media (Grewal et al., 2017). Moreover, thanks to market globalization and e-commerce,

consumers can instantly compare prices and products worldwide. Globalization and e-commerce can also be exploited by fashion firms to improve trend forecasts, analyze purchasing behaviors, recognize buying patterns, and identify global suppliers (Kim et al., 2014; Afrouzy et al., 2016).

It is possible to distinguish between two different fashion industries: traditional retail, i.e., the so-called slow fashion (SF), and fast fashion (FF) (Willems et al., 2012). SF usually focuses on high-quality, high-priced luxury products with very strong brands. New product launches may take up to a year, with two to four collections per year (Caro and Gallien, 2010). As production and design lead times are usually longer (6 to 12 months) (Cachon and Swinney, 2011), SF SCs adapt slowly to consumer trends; correspondingly, inventories easily accumulate throughout the SC, and must be sold at lower prices at the end of the season (Caro and Galien, 2012). In contrast, FF firms aim to offer a large assortment of low-price products to capture the latest trends of the moment in a very short time. FF stores show a new collection every few weeks, and a quick response strategy (very short design, production, and distribution lead times) is one of the main competitive assets of the industry (D'Amico et al., 2013; Gabrielli, 2013). By adopting FF strategies, owners of major global brands have increased profitability by opening stores in popular malls and selling new products at lower prices than those offered by SF (Matherly and Richards, 2013). Moreover, as FF consumers are more likely to have impulsive purchasing behaviors, profitability can be increased even in the case of an unexpected release of a collection (Cook and Yurchisin, 2017). Moreover, sales tend to grow when the perception of a shortage or lack of a product is perceived by the customer (Byun and Sternquist, 2011; Miller, 2013). Caro and Gallien (2010) studied an international FF retailer, and found that distributing a limited amount of inventory over time resulted in a 3%–4% increase in annual sales. In short, the FF

industry includes key elements such as quick response, quick changes in product assortments, short product life cycles, and product design that fits fashion trends and market needs (Sardar and Lee, 2015).

To create a competitive advantage in the FF industry, it is crucial to identify the factors or criteria that determine how competition occurs and competitive priorities. Ward et al. (1998) identified four key competitive priorities: low cost, high quality, high flexibility, and delivery performance. Further studies included other priorities such as innovation, customer service (Miller and Roth, 1994), sustainability, customer perspectives (Nauhria et al., 2011), lot size, sales, and service (Lin and Tseng, 2016).

This study focuses on the Brazilian textile and clothing industry. This industry earned US $ 48.3 billion in 2018 (most recent data available), and US $ 52.2 billion in 2017. Exports reached US $ 2.6 billion in 2018 and US $ 2.4 billion in 2017, whereas imports reached US $ 5.7 billion in 2018 and US $ 5.2 billion in 2017. The industry employs approximately 1.5 million direct workers and generates income for approximately 8 million indirect workers (outsourced or part-time workers), of which approximately 75% are women. It represents the second-largest contingent of workers in industry (16.7%), and is only lower than that of the food and beverage industry. The textile and clothing industry stands out in the Brazilian business scenario. Brazil has more than 100 fashion schools and colleges, and is a world reference for beachwear design, jeanswear, homewear, fitness, and lingerie. Brazil operates the largest complete textile chain in the western hemisphere, integrating fiber production and cotton planting with fashion shows and fashion weeks, passing through spinning, weaving, processing, clothing, and fashion retail (ABIT, 2020). Fashion retail accounts for 8.8% of the Brazilian retail sector. In 2018, the industry

covered more than 1 million companies (mostly medium and small companies), and earned more than 50 billion dollars. This study considers the six largest companies; jointly, these companies earned approximately 10 billion dollars in the same year (IBEVAR, 2019). This relevance in the local industry justifies the importance of this study.

A search on the Scopus and Web of Science databases, limited to the period from 2006 to 2019, did not find studies focusing on the FF or SF strategies and competition in the Brazilian market. To the best of our knowledge, no studies have compared competitive strategies between FF and SF operations in an emerging economy. This is the research gap that this study aims to bridge. To bridge this gap, this study poses the following research question: Are there differences in the competitive priorities between SF and FF operations in an emerging economy? Therefore, the purpose of this study is to compare the competitive priorities of the SF and FF retail operations of large retailers in an emerging economy. This study focuses on the six largest Brazilian fashion retailers that simultaneously manage SF and FF retail operations. Expert practitioners assess the priorities of both SF and FF, supported by the analytical hierarchy process (AHP). The main contribution of this study is a synoptic analysis of competitive prioritization in the largest SF and FF operations of the Brazilian retail industry. Extending the results to the entire industry, which would cover midsize and small businesses, is beyond the scope of this study. The research method employed both qualitative and quantitative modeling.

The remainder of this paper is organized as follows. Section 2 reviews the literature on SF and FF, Section 3 describes the methodology, and Section 4 presents

the results. Section 5 concludes the paper with the main insights, limitations, and ideas for further research.

2. LITERATURE REVIEW

Culture shapes fashion trends. When culture changes, fashion also changes and directly affects people's habits and preferences, which must be captured by the fashion industry (Yuksel, 2012). Fashion SCs (FSCs) are peculiar, because they have short life cycles (Pal and Gander, 2018) and long production lead times (D´Avolio et al., 2015). Furthermore, some products can be proposed years later if not sold in the current season (that is, fashion is somehow cyclic). This can sometimes induce the storage of unsold inventories rather than the promotion of clearance sales, even though this approach requires a more complex warehousing system than other industries (Shan et al., 2018). In FSCs, forecasts are usually more complex than in other contexts (Belvedere and Goodwin, 2017), owing the high uncertainty in anticipating demands (Nenni et al., 2013). Promotions, seasonality, and volatile customer preferences influence the process and reduce accuracy (Mou et al., 2018).

FSCs usually include raw material suppliers (e.g., yarn, clothes, fabrics, and accessories), manufacturers, distribution channels, retailers, customers (Ertekin and Atik, 2015), and logistics reverse channels (Sellitto, 2018). To manage supplier and sales uncertainty, FSCs may integrate vertically from design to retail (Wen et al., 2018), i.e., operating with owned brands and stores. Alternatively, FSCs may hire manufacturers to produce according to the brands and quality standards required by owned stores (Mihm, 2010). Finally, FSCs can outsource design, manufacturing, and

distribution to stores under the coordination of the brand owner (Ciarniene and Vienazindiene, 2014).

The fashion industry encompasses SF and FF chains, which differ in their design and strategies. SF focuses on slow-changing assortments of luxury products, whereas FF concerns quickly changing assortments of cheap and trendy products. In the following, we review the literature on FF SCs (hereafter FFSCs) and their competitive priorities.

2.1 Fast Fashion Supply Chains

Usually, the business strategy of a FFSC aims to create the perception of buying fashionable items at affordable prices (Camargo et al., 2020). According to Barnes and Lea-Greenwood (2006), the main strategic goal of an FFSC is driven by consumer demand for the latest fashion trends of the moment. FFSCs produce a large number of fashionable design products that, combined with frequent assortment changes, create a permanent sensation of renewal for customers (Caro and Albéniz, 2015). The design, manufacturing, and distribution processes require agility to increase the flexibility of FFSCs (Barnes and Lea-Greenwood, 2010).

FFSCs reduce lead times and intermediate inventories, allowing them to be highly responsive and to frequently change assortments (Alfieri et al., 2019). Mehrjoo and Pasek (2014) studied the effect of product variety (and, consequently, assortment changes) on FFSC performance, and highlighted a tradeoff between assortment and profit: too much or too little assortment undermines firm profits. Kacani and van Wunnik (2017) analyzed the Zara brand, and observed that its business was characterized by small batches, autonomous teams (including designers

and SC practitioners), and very low inventories that increased the risk of shortages. Mehrjoo and Pasek (2016) also studied the effects of lead time and delays, and concluded that, owing to limited inventories, delays deeply jeopardized the overall profitability of the SC.

Hauge et al. (2009) observed that the Swedish FF industry was organized into clusters of geographically close companies (*hotspots*) based on intensive market information rather than high-level technology, aiming to accurately meet local customer fashion expectations. The same strategy was applied in Dongdaemun, an FF hub in South Korea, where geographical proximity and self-sufficient structures assured agility and flexibility (Moon et al., 2017). Caro and Gallien (2010) studied optimal strategies for distributing small inventories among many stores, and concluded that an optimized distribution could reduce inventory and simultaneously increase the display time of products, thereby increasing sales revenue by 3% to 4%. The main reason was the perception of forthcoming shortages owing to continuous assortment changes, allowing for higher prices. Byun and Sternquist (2011) showed that perishability, perceived scarcity, and low-price perceptions tended to produce positive retailer outcomes. As for design, Cachon and Swinney (2011) discovered that the more elaborate the design, the fewer the customers willing to wait for clearance.

However, a problem exists with FFSCs. Joy et al. (2012) and Joung (2014) revealed a negative relationship between FF and sustainability. FF encourages disposability by fostering quicker product replacement. As shown in Watson and Yan (2013), while SF consumers buy less, prefer durable and high-quality clothing, and hardly replace items, FF consumers spend less, buy frequently, and replace items quite often. Furthermore, quality problems owing to uncontrolled processes

are more frequent in SF than in FF (Tran et al., 2011), increasing leftovers and waste (Bick et al., 2018).

The design process in FF includes surveys for capturing fashion trends and providing information for new products (Peroni and Vitali, 2017), and prototypes (Hauge et al., 2009). Designers should also collaborate with SC operations to simplify manufacturing and distribution processes (Brooks, 2015). Integrated by multichannel communication (Pantano and Viassone, 2015), consumer preferences play a central role in this phase, creating the closed-loop process shown in Figure 1 (Khan et al., 2012).

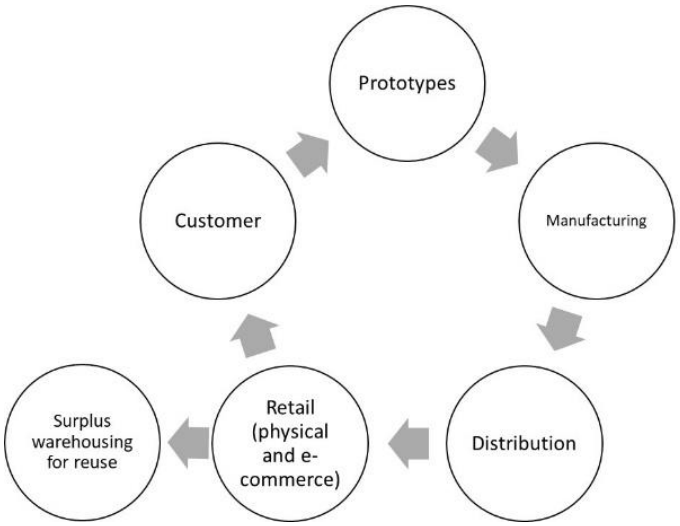


Figure 1 - The central role of customers in FFSC processes (Khan et al., 2012)

To ensure high inventory turns, fast replenishment, and frequent introductions of new products, FF requires agile SC management combining geographical proximity, fast manufacturing, flexibility, low costs, and retail agility (Runfola and Guercini, 2013). Thus, FFSCs can be considered as a type of lean retailing. Owing to their small batches and integrated suppliers, FFSCs can simultaneously reduce both inventories and lead times (Caro and Albéniz, 2015).

Moon et al. (2017) studied influent factors in agile and collaborative SCs, such as FFSCs. They found that self-sufficient and agile structures for design, responsive manufacturing, and distribution processes ensured reliability for retailers. In this context, all levels of the SC are required to collaborate, communicate, and mutually exchange information through integrated multichannel networks (Pereira and Frazzon, 2020). Close and long-lasting relationships ensure the reliability of the entire network. All these factors are key elements in achieving quick responses in delivery and inventory replenishment under frequent assortment change requirements (Moon et al., 2017).

2.2 Competitive Priorities

Studies focusing on competitive priorities analyze the strategic capabilities, strengths, stocks of assets, and/or proficiencies that a company develops over time to afford competition (Ward et al., 1996; Größler, 2010; Terjesen et al., 2010; Nauhria et al., 2011). Within their capabilities, companies choose priorities to achieve high business performance in a specific market (Li, 2000). Ward et al. (1998) and Li (2000) considered *competitive* and *strategic capabilities* interchangeably. However, Roth and van der Velde (1991) differentiated between *intended capabilities* (competitive priorities) and *realized capabilities* (competitive capabilities). In short, customers require companies to have competitive priorities, i.e., the abilities that a company should develop to gain orders, whereas companies own competitive capabilities and abilities developed over time.

Seminal studies on operations strategy (Skinner, 1969, 1974, 1996) indicated that priorities might be mutually exclusive, i.e., to succeed in a given priority, a

company must give up another priority. For example, to achieve a quality level higher than that of its competitors, the manufacturing cost must be increased. This means that to win high-quality orders, the company risks losing low-price orders. These dichotomies are referred to as *tradeoffs*. Recent studies, such as Esmizadeh and Parast (2021), also stressed the need to manage tradeoffs when a company addresses multiple competitive priorities simultaneously. Alternatively, priorities may need to be combined to address a competitive strategy. Idris and Naqshbandi (2019) observed from a sample of companies in a developing country that, after executing a factor analysis, the quality and delivery priorities were loaded into a single factor, whereas cost and flexibility were loaded into two factors. Similarly, Pathak et al. (2021) addressed the delivery of quality services as a single, unique competitive priority.

Ferdows and De Meyer (1990) proposed a model in which manufacturers prioritized each another in a given sequence. In this model, the manufacturer must first achieve quality, delivery, flexibility, and cost. Depending on the addressing sequence, a priority needs not to succeed at the expense of another (Noble, 1995). For instance, when a manufacturer develops a high-quality, free-of-failure process (i.e., a capability), the company increases its quality level (the first priority). The reduction of rework and additional, non-scheduled order processing reduces the uncertainty in the lead time (another capability) and hence, increases the likelihood of a reliable delivery (the second priority), without jeopardizing the quality.

Despite minor differences in terminology, Miller and Roth (1994), Noble (1995), and Ward et al. (1996) referred to four primary or primitive priorities: cost, quality, delivery, and flexibility. Kim (2013) stated that priority is a multidimensional concept, and requires multiple items to capture its importance

(Burgess et al., 1998). For instance, they proposed combining integrity (likelihood of a complete delivery), reliability (likelihood of meeting due dates), and responsivity (likelihood of achieving a promised due date to meet customer expectations) to capture the overall importance of delivery issues. Durugbo et al. (2020) identified 19 competitive priorities, and organized them into five thematic groups: productivity-efficiency, relationship-building, technology-enabled, environmentally-conscious, and conformance-improvement. These can be associated with the four primitive priorities. For example, the first three clusters can be associated with cost, dependability, and flexibility, whereas the last two can be associated with quality.

Competitive priorities may influence performance. Fazal et al. (2020) studied a sample of small and micro manufacturing enterprises in a developing country. They indicated that financial performance may be associated with focusing on cost, flexibility, and quality priorities, whereas non-financial performance may be associated with prioritizing delivery and quality. Competitive priorities may also influence supporting systems. Sellitto and Vargas (2020) demonstrated the importance of alignment between the information system and key competitive priorities of a company.

Other priorities such as innovation (Miller and Roth, 1994), customer service (Russell and Millar, 2014), corporate social responsibility (CSR) (Garrido et al., 2011), lot sizes (Demeter, 2003), product-associated services (Lin and Tseng, 2016), customer relationships (Nauhria et al., 2011; Bouranta and Psomas, 2017), and customer details (Nauhria et al., 2011; Kim, 2013) have been considered. Esmizadeh and Parast (2021) introduced resilience as a key competitive priority. Baştuğ and Yercan (2021) described the resilience of a SC as the ability to withstand disruptions

and quickly recover operational capability after such disruptions. Table 1 presents some recent studies, including combinations of priorities serving as empirical foundations for this study.

Table 1 - Empirical studies comprising different combinations of competitive dimensions

Priority	Nauhria et al. (2011)	Ahmad and Schroeder (2011)	Garrido *et al.* (2011)	Thürer *et al.* (2014)	Bulak and Turkylmaz (2014)	Lara and Guimarães (2014)	Russell and Millar (2014)	Hussain *et al.* (2015)	Vergara *et al.* (2016)	Bouranta and Psomas (2017)	Camfield and Sellitto (2018)
Price		x	x	x	x	x	x	x	x	x	x
Flexibility	x	x	x	x	x	x	x	x	x		x
Quality	x	x	x	x	x	x	x	x	x	x	x
Delivery	x	x	x	x	x	x	x	x	x	x	x
Innovation	x	x		x		x				x	x
Service							x		x		
CSR			x						x		
Customer relationships	x									x	

The importance of competitive priorities may change over time and according to the activity (Nauhria et al., 2018), speed of introduction of technological innovations, and actors in the competition (Bouranta and Psomas, 2017). These changing scenarios underscore the need to re-evaluate priorities (Durugbo et al., 2020). For example, deliveries may influence manufacturing more than in the service sector (Jayaram and Xu, 2016). Within the fashion industry, Kim (2013) stated that the choice and importance of a competitive dimension depends on the target market, which, in turn, defines the SC strategy (Macchion et al., 2015).

Key priorities may change not only in a single company, but also in the entire industry. Prabhu et al. (2020) measured the importance of six key priorities in a sample of manufacturing companies located in a territory of a developing country. The study ranked the priorities according to their importance, as attributed to the respondents. The ranking of importance was as follows: delivery, quality, cost, innovation (the study employed the term "know-how"), flexibility, and customer relationships.

Therefore, attributing importance to FSC competitive priorities is not a one-off exercise, but rather a specific procedure for each type of strategy. To the best of the authors' knowledge, no recent study has suggested how to assign importance and compare competitive priorities in FSCs, both for SF and FF. This is the research gap that this study aims to bridge.

3. METHODOLOGY DESIGN

This study used a twofold (qualitative and quantitative) methodology, as follows.

(i) In the *qualitative phase*, four experts (experienced practitioners with academic degrees) participated in a focus group led by researchers who reviewed competitive priorities in FSCs, intending to identify the relevant issues underlying each priority. The outcome of the focus group was a list of priorities, descriptions suitable for the next phase, and a comparison with the literature (to reinforce the definitions).

(ii) In the *quantitative* phase, as supported by AHP, managers and practitioners of the six largest Brazilian companies operating in the FF and SF retail industry

received the previous list, and distributed importance (the sum was 100%) to the FF and SF priorities. The outcome was the strategic prioritization for both FF and SF.

(iii) The study ended with a final *comparative analysis* between FF and SF priorities, and feedback from the managers and practitioners that participated in the quantitative phase.

Figure 2 summarizes the key points of the methodology.

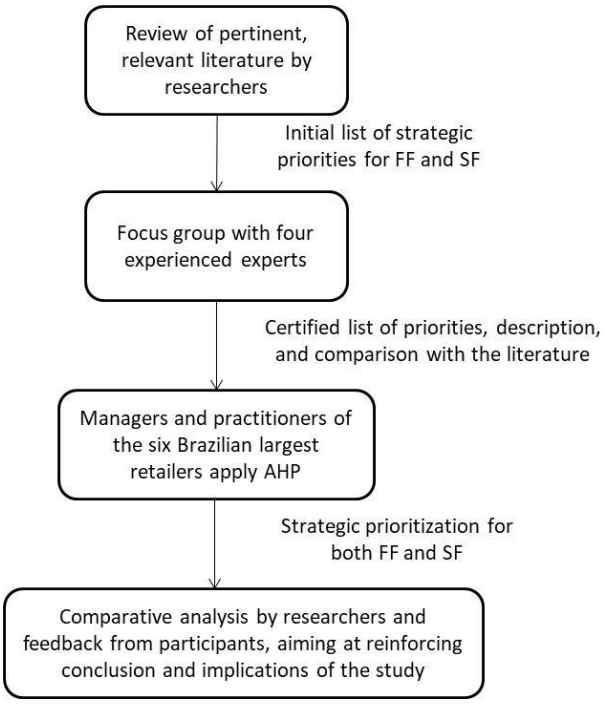


Figure 2 – Key steps of the methodology and partial outcomes

Tables 2 and 3 present the experts and companies that took part in steps (i) and (ii), respectively. The names are omitted herein for confidentiality reasons.

Table 2 – Experts contributing to the qualitative phase

Expert	Years of experience in FF/ SF	Highest Academic Degree
A	> 14	MSc
B	> 12	MSc
C	> 22	MBA
D	> 17	PhD

Table 3 – Companies participating in the quantitative phase

Company	Annual Revenue (US$ Billion)	Number of operations
A	> 2.4	> 750
B	> 2.0	> 600
C	> 1.3	> 300
D	> 1.2	> 350
E	> 1.2	> 400
F	> 0.7	> 270

This methodology ensured both the validity and reliability of the findings (Sellitto, 2018). Validity was ensured by the review and focus group with experts. Both ensured that the assessed variables were competitive priorities relevant to the fashion industry. No unusual variables were present. The discussion with researchers before the prioritization, triangulation with more than one respondent for each company, presence of various relevant retailer companies, and respondents' feedback prevented spurious interference or assessment errors. The methodology also ensured reliability by applying the same objective table of contents to all respondents. Therefore, the different responses were owing to differences in the object, not in the procedure.

A multi-criteria decision method was included to manage the conflicting objectives, multiple alternatives, and uncertainty regarding the consequences of the choices. Multicriterial methods are common in studies on strategy, and mainly involve comparisons between alternatives and ranking purposes (Singh et al., 2018; Haleem et

al., 2018). The AHP is one of the most cited approaches in the literature (Achimugu *et al*., 2014; Javid *et al*., 2014; Bulut *et al*., 2015). The elements in use are the fundamental ratio scale [1–9], preference matrix **A** [a_{ij}], priority vector calculated by the eigenvector method (as suggested by Singh et al. (2018)), and consistency ratio (*CR*), i.e., the probability that the outcome results from a random, non-rational decision-making process. A $CR < 0.1$ is acceptable. Saaty (2008) proposed a fundamental scale, as shown in Table 4.

Table 4 – Fundamental scale (Saaty, 2008)

Intensity of importance	Definition	Explanation
1	Equal Importance	Two activities contribute equally to the objective
3	Moderate importance	Experience and judgment slightly favor one activity over another
5	Strong importance	Experience and judgment strongly favor one activity over another
7	Very strong importance	An activity is favored very strongly over another; its dominance demonstrated in practice
9	Extreme importance	The evidence favoring one activity over another is of the highest possible order of affirmation
2, 4, 6, 8	Intermediate values	Used for graduation in slight differences
Reciprocals	An assignment to *i* compared with *j* implies the reciprocal to *j* compared with *i*	

In general, for an *n*-dimensional problem, an $n \times n$ preference matrix stems from $[n\ (n\text{-}1) / 2]$ pairwise comparisons using a ratio scale ($a_{ii} = 1$; if $a_{ij} = k$, then $a_{ji} = 1/k$; $i, j = [1, 2, \ldots, n]$). The priority vector **W** (the principal eigenvector, the eigenvector with the maximum eigenvalue) is calculated iteratively, as follows. **A** is squared and its rows are summed, resulting in a single-row matrix $\mathbf{W}_0$. The initial priority vector $\mathbf{W}_1$ is obtained by normalizing $\mathbf{W}_0$. The next steps are to square the squared matrix $\mathbf{A}^2$, obtain $\mathbf{W}_2$, and to compare $\mathbf{W}_1$ and $\mathbf{W}_2$. If a difference exists, then the procedure is repeated *k* times until $\mathbf{W}_k - \mathbf{W}_{k\text{-}1} < \varepsilon$.

The subjectivity in a judgment reflects the uncertainties and ambiguities in the decision-maker preferences and produces inconsistent matrices, either in the order or in the intensity of the preferences. In a consistent judgment, the values are transitive, that is, $a_{ij}.a_{jk} = a_{ik}$, $\forall$ (i, j, k). Nonetheless, if $(a_{ij} \geq 3, a_{jk} \geq 4)$ or $(a_{ij} \geq 2, a_{jk} \geq 5)$, then $a_{ik} > 9$, which is impossible, so a certain level of ambiguity remains (Ishizaka and Labib, 2011). The *CR* sets the amount of inconsistency remaining in the judgment. Equations (1) and (2) provide the calculations (Ishizaka and Labib, 2011).

$$IC = \frac{\lambda_{\max} - n}{n-1} \quad (1)$$

$$CR = IC/IR. \quad (2)$$

In the equations, n is the number of priorities, and λ_{max} is the maximum eigenvalue (i.e., the maximum value satisfying $\mathbf{A}.\mathbf{W}_k = \lambda_{max}.\mathbf{W}_k$). The latter is obtained by summing the products of each row of $\mathbf{A}$ by $\mathbf{W}_k$ (one column, n rows), dividing the n resulting values by the n rows of $\mathbf{W}_k$ (one column, n rows), and finally extracting the mean of the last single column. *IR* is a random index obtained by simulation, as shown in Table 5.

Table 5: Random index (Ishizaka and Labib, 2011)

N	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
IR	0,58	0,9	1,12	1,24	1,32	1,41	1,45	1,49

Reducing inconsistency is a central issue in the AHP (Brunelli and Fedrizzi 2015). To manage inconsistency, Eskandari and Rabelo (2007) calculated confidence intervals for the $\mathbf{W}$ components instead of point estimates. Inconsistency can also be related to numeric errors in the point estimates. The errors Δw_i in the calculation of the components w_i of the priority vector define the intervals $[w_i \pm \Delta w_i]$ for the priorities. In

a reliable ranking, the priority intervals are disjoint, that is, $[\Delta w_i + \Delta w_j] < |w_i - w_j|, \forall (i, j)$. Equations (3) and (4) calculate the error Δw_i and a suitable approximation for the mean relative error (*MRE*) of the point priority estimates, respectively (Tomashevskii, 2015).

$$\Delta w_i = e_i = \sqrt{\frac{1}{n-1}\sum_{k=1}^{n}\left(\frac{n}{\lambda_{max}}a_{ik}w_k - w_i\right)^2}, \; i = 1, 2, \ldots, n \tag{3}$$

$$MRE = \left(\frac{\Delta w_i}{w_i}\right)_{mean} = \sqrt{\frac{2(\lambda_{max}-n)}{n-1}} \tag{4}$$

4. RESULTS

In the following, the results are presented for each phase of the methodology. The list and discussion of priorities from the qualitative phase are presented first. Then, the quantitative results emerging from the quantitative phase are discussed, along with a comparative analysis between the SF and FF industries and feedback from respondents.

4.1 Priority Qualification

In the qualitative phase, the researchers mediated a focus group with four experts in the fashion industry. Eight competitive priorities for the fashion industry were retrieved from the literature and presented to the experts: price, flexibility, quality, delivery, innovativeness, service, CSR, and customer relationship. Each priority was considered in a discussion in which the experts highlighted the multidimensionality, and pointed out characteristic items that should be considered

by practitioners in their assessment. The group considered that the eight priorities fulfilled the competitive scenario of the fashion industry. Thus, no priority was dropped or added. Finally, the group proposed a comprehensive definition for each priority. The key points that emerged from the focus group are discussed below. Researchers also compared these key points with those in the literature.

Price. The experts observed that competing by lowering price includes not only selling at prices lower than competitors, but also creating a sensation of a low, advantageous price. Many times, mainly in FF, customers choose not only according to the absolute price, but also according to a positive price-benefit perception. Customers may buy a fashioned-like item at an affordable price that is not necessarily the lowest; this result aligns with the study of Mihn (2010). The respondents stated that for a company to compete by lowering the price, the main capability it should develop is a cost-efficient SC. According to the respondents, cost-efficient SCs are largely found in the fashion industry, and are by far the most employed strategy in the industry. Low production and inventory costs (including distribution and warehousing activities) allow for profitability even at low prices. The importance of cost efficiency in the fashion industry was confirmed by Mihm (2010) and Ciarniene and Vienazindiene (2014).

Flexibility. Competing by flexibility implies a fast response to customers' behaviors, and requires rapid changes in lot sizes, mixes, and varieties of items. The ability to quickly change a lot size and mix stems from a responsive SC, as supported by fast exchanging-die machinery in manufacturing and continuous replenishment policies in distribution. Alfieri et al. (2019) stated that to achieve flexibility, low inventories are stored, and frequent replenishment is issued according to customer consumption. Continuous replenishment relies on online information and a network of multiple

depots connected by agile transportation, in line with the study of Brun et al. (2015). The respondents stated that responsive SCs are difficult to manage and, although the theory exists, few examples are found in the industry. This is mainly owing to transportation difficulties, as confirmed by the studies of Maclennan et al. (2017) and Choi and Luo (2019) conducted in emergent markets.

Quality. Competing by improving quality implies offering items with low variability, high durability, and exceptional performance. In FF, trendy items do not need to last very long, as they are expected to be replaced by the next collection. In general, low variability stems from manufacturing process control, whereas durability and performance are influenced by design choices, including those for materials and manufacturing processes. According to the respondents, most companies in the industry assure a quality level by combining online process control with statistical models and final inspections. The conclusions of the respondents are aligned with those of Tran et al. (2011), Caro and Gallien (2012), Watson and Yan (2013), Xavier et al. (2015), and Usui et al. (2017).

Delivery. Competing by improving performance in deliveries implies promising due dates faster than competitors, fulfilling the promised dates, and achieving high accuracy in the orders, without errors in the quantity, quality, or mix of the items. As fashion items are perishable, the speed and reliability of deliveries are essential in this industry. Promising faster due dates, complying with promised due dates, and providing accuracy stem from agility in the SC, reliability in manufacturing and distribution, and quality control, respectively. Noble (1995) referred to the combination of speed and accuracy as *dependability*, implying that a retailer could depend on its SC for timely store replenishment. This type of SC combines lean concepts with agility (*leagile* = lean + agile) to achieve satisfactory performance in

deliveries (Naim and Gosling, 2011). According to the respondents, the most adopted strategy is the use of a stock decoupling point. Upstream operations receive large lots from a few suppliers at a low cost (lean). Downstream operations quickly distribute small lots among many stores (agile). These agile FSC definitions meet the conclusions of Bruce et al. (2004), Christopher et al. (2004), and Moon et al. (2017).

Innovation. Competing by innovation implies reducing the time to launch new products to be shorter than that of competitors. All of the respondents believe that the industry should develop two main capabilities to compete by innovation: fast design and forecast accuracy. The respondents stated that fast design implies using consolidated techniques such as computer-aided design and computer-aided engineering, as well as novel techniques such as modular design, virtual prototyping, ecodesign, and additive manufacturing. Footwear, fashion apparel, and jewelry design already use such techniques (Yap and Yeong, 2014). Forecasting accuracy requires big data and mathematical modeling (Brooks, 2015). Although all respondents recognized the relevance, only one respondent assured that the corresponding company had the computational support to implement big data analysis.

Service. Competing in service requires differentiation and (sometimes) product customization. The client must feel satisfied with their individuality, and always find their desired size and model. Each product must be in the right place according to the customer preferences in each region. In the case of excesses and shortages in regions, the logistics system must provide rapid relocations; this agrees with the study of Pereira and Frazzon (2020). Reverse logistics systems should collect and store excess inventory until items become attractive again (as usual in the footwear

industry), as confirmed by the study of Sellitto (2018). According to all respondents, the main capability required for competing based on service is the integration of direct and reverse logistics channels through fast vehicles, online information, and a network of facilities (depots and distribution centers). The respondents reported implementing integration programs in the industry, and also discussed plans not yet developed.

CSR. Competing by complying with CSR principles implies transparency, preferably by issuing periodic sustainability reports. Such a document must include the economic, environmental, and social impacts caused by company activities. It also implies full compliance with legislation. In the clothing industry, there is a growing concern for buyers to avoid brands and products made by workers in demeaning or humiliating conditions, confirming the findings of Bick et al. (2018). Two respondents stated that FF does not contribute to a positive corporate image. The short lifecycle of items may stimulate consumerist behavior. The problems with corporate image in FF are in line with those suggested Todeschini et al. (2017). Nevertheless, the industry encourages designers to adopt eco-design principles such as component reuse and product recycling, as discussed in Borchardt et al. (2012) and Sellitto et al. (2020). It also encourages the application of codes of conduct to SC members (Turker and Altuntas, 2014). The industry should rely on sustainable (Sellitto, 2018) and responsible (Bick et al., 2018) SCs to manage CSR.

Customer relationship. Finally, competing by satisfying clients implies knowing consumption patterns as well as customer habits, behaviors, and preferences before developing new products. In FF, the focus is on customer behaviors and preferences, whereas in SF, the focus is on the consumption pattern. According to the respondents, competition in the fashion industry is increasingly centered on the

ability to capture changing customer preferences in a timely manner. Respondents point out that this changing scenario motivates multichannel strategies combining discount stores, physical stores, and e-commerce. They highlighted the use of augmented reality, automatic payment, self-service, big data systems, new product development (considering thematic updates), real-time performance monitoring, interactivity, virtual fitting and size selection, online shopping with physical withdrawal in stores, coexistence between physical and digital retail, smart and sustainable fabrics, and wearable technologies. To handle such requirements, FSCs should employ technological support to provide online, permanent interactivity, and to create and promote membership perception in customers. These statements are in line with the studies of Grewal et al. (2017), Khan et al. (2012), Yuksel (2012), D'Avolio et al. (2015), Pantano and Viassone (2015), and Peroni and Vitali (2017).

Table 6 summarizes the previous discussion. Regarding each priority, the table shows the more relevant issues, supporting literature for the issues (to ensure validity), required capabilities to achieve the priorities, and suitable definitions used in the next step of the study.

Table 6 – Priorities of the fashion industry

Priority	Relevant issues	Supporting literature	Required capabilities	Definition
Price	Production and inventory cost, profit margin, and low-price sensation;	Barnes and Lea-Greenwood, (2010); Mihm (2010); Joy et al. (2012); Runfola and Guercini (2013); Ciarniene and Vienazindiene (2014).	Cost-efficiency in the SC;	Ability to compete in markets where customers buy at the lowest price.
Flexibility	Lot size and mix responsivity, and variety in the assortment;	Caro and Gallien (2010); Sardar and Lee (2015); Caro and Albéniz (2015); Brun et al. (2015); ; Maclennan et al. (2017); Alfieri et al. (2019); Choi and Luo (2019).	fast exchanging-die machinery, continuous replenishment, and design for variety;	Ability to provide a fast response to changes in volume, mix, and variety required by customers.
Quality	Variability, durability, and performance of items;	Tran et al. (2011); Caro and Gallien (2012); Watson and Yan (2013); Xavier et al. (2015); Usui et al. (2017).	manufacturing process control, design for durability, and design for performance;	Ability to offer products with low variability, high durability, and superior performance according to specifications.
Delivery	Fast promised due dates, punctuality, and accuracy in fulfilling the orders;	Christopher et al. (2004); Bruce et al. (2004); D'Amico et al. (2013); Gabrielli (2013); Moon et al. (2017); Kacani and van Wunnik (2017); Moon et al. (2017); and Wen et al. (2018).	Agility, reliability, and accuracy (dependability on the SC), leagile SC;	Ability to promise fast due dates and fulfill orders with timely and fully accurate deliveries.
Innovation	speed in launching new, innovative products; Accuracy of sales and trend forecasting; Time to market;	Cachon and Swinney (2011); Nenni et al. (2013); Kim et al. (2014); Brooks (2015); Afrouzy et al. (2016); Belvedere and Goodwin (2017); Mou et al. (2018); Ye et al. (2018).	Fast design, accuracy of sales forecasting, accuracy of fashion trend forecasting;	Ability to develop different, innovative products and processes that meet current and emerging trends within a short time interval
Service	Distribution (speed and accuracy); Aftersales and post-consumption requirements;	Ciarniene and Vienazindiene (2014); Brooks (2015); Ertekin and Atik (2015); ; Melis et al. (2015); Kacani and van Wunnik (2017); Sellitto (2018); Pereira and Frazzon (2020).	Integrated and agile direct and reverse logistics channels;	Ability to distribute items quickly and accurately, as well as to meet post-consumption and aftersales requirements
CSR	Full compliance to legislation; Sustainability corporate report; Positive corporate	Joy et al. (2012); Watson and Yan (2013); Turker and Altuntas (2014); Joung (2014); Xavier et al.	Sustainable supply chain	Ability to develop sustainable products and processes with social responsibility, to fully comply with legislation, and

	image	(2015); Todeschini et al. (2017); Cousins et al. (2019).		create a positive corporate image
Customer relationships	Interactive communication with customers; multichannel operations; exclusive, permanently updated items; payment options.	Khan et al. (2012); Yuksel (2012); D'Avolio et al. (2015); Melis et al. (2015); Pantano and Viassone (2015); Grewal et al. (2017); Peroni and Vitali (2017); Ye et al. (2018).	Membership perception	Ability to put the customer as the main focus of the company.

4.2 Priority Quantification

The researchers organized meetings with practitioners (one meeting for each of the six companies) to identify the importance of each priority in the companies. Two respondents for each company (an operations manager and director) assigned importance values among the priorities by applying the AHP methodology.

The researchers helped the respondents achieve a preference matrix with a $CR < 0.10$. A procedure previously used by Sellitto and Mancio (2019) helped avoid contradictory judgments. Given a matrix with CR < 0.10, the matrix was rearranged in descending order, that is, the highest priority in the first row, second-highest priority in the second row, and so on. In a consistent matrix above the diagonal, all cells had $a_{ij} \geq 1$. Additionally, starting from any diagonal cell toward the right, the next cell had $a_{ij} \geq a_{(i-1)j}$ and toward the top, the next cell had $a_{ij} \geq a_{(i-1)j}$. Reciprocal relations were found below the diagonal, and violations represented contradictory judgments. Previous experience has resulted in a CR < 2% (Sellitto et al., 2012; Sellitto and Mancio, 2019). To exemplify the evolution of the consistency, Figure 3 presents the preference matrix of company A for SF.

	Price	Flexibility	Quality	Delivery	Innovation	Service	CSR	CRM	Order
Price	1	4	2	5	3	2	5	5	1
Flexibility	1/4	1	2	3	2	1/2	2	2	4
Quality	1/2	1/2	1	3	3	2	4	4	2
Delivery	1/5	1/3	1/3	1	2	1/3	2	2	5
Innovation	1/3	1	1/3	1/2	1	1/3	1	1/2	7
Service	1/2	2	1/2	3	3	1	3	3	3
CSR	1/5	1/2	1/4	1/2	1	1/3	1	1	8
CRM	1/5	1/2	1/4	1/2	2	1/3	1	1	6

	Price	Quality	Service	Flexibility	Delivery	CRM	Innovation	CSR	Order
Price	1	2	2	4	5	5	**3**	5	1
Quality	1/2	1	2	**1/2**	3	4	**3**	4	2
Service	1/2	1/2	1	2	3	3	3	3	3
Flexibility	1/4	2	1/2	1	**3**	2	2	2	4
Delivery	1/5	1/3	1/3	1/3	1	2	2	2	5
CRM	1/5	1/4	1/3	1/2	1/2	1	**2**	1	6
Innovation	1/3	1/3	1/3	1/2	1/2	1/2	1	1	7
CSR	1/5	1/4	1/3	1/2	1/2	1	1	1	8

	Price	Quality	Service	Flexibility	Delivery	CRM	Innovation	CSR	Order
Price	1	2	2	4	5	5	**5**	5	1
Quality	1/2	1	2	**2**	3	4	4	4	2
Service	1/2	1/2	1	2	3	3	3	3	3
Flexibility	1/4	1/2	1/2	1	**2**	2	2	2	4
Delivery	1/5	1/3	1/3	1/2	1	2	2	2	5
CRM	1/5	1/4	1/3	1/2	1/2	1	**1**	1	6
Innovation	1/5	1/4	1/3	1/2	1/2	1	1	1	7
CSR	1/5	1/4	1/3	1/2	1/2	1	1	1	8

Figure 3 – Evolution for slow fashion (SF) in company A: (a) initial consistency ratio (CR) = 5.13%; (b) reordered matrix and inconsistencies; (c) reviewed judgments, CR = 1.43%

Even a matrix with an acceptable consistency (5.13%), as shown in Figure 3(a), may entail contradictory judgments, as unveiled by the reordered matrix in Figure 3(b); this produces the matrix in Figure 3(c), which is more consistent (1.43%). The other five pairs of matrices are passed through similar procedures. Tables 7 and 8 present the final prioritizations for SF and FF, respectively, including the weight w_i and error e_i. Equation (2) is used to compute the error. The last pair of columns shows the aggregate values (the average value of the individual evaluations) for the weight w_i and error e_i. The last three rows show the consistency of the judgments (Equation (1)), *MRE* (Equation (3)), and principal eigenvalue, respectively. Business Performance Management Singapore (BPMSG) software (Goepel, 2018) was used to run the calculations. Singh et al. (2018) also used a BPMSG AHP priority calculator.

Table 7 – Prioritization of SF

	A		B		C		D		E		F		Aggregate	
	w_i	e_i	w_i	e_i	w_i	e_i	w_i	e_i	w_i	e_i	w_i	e_i	w_i	e_i
Price	31.3%	7.0%	28.1%	7.1%	32.8%	12.0%	27.8%	6.9%	30.0%	10.0%	24.7%	6.2%	29.1%	8.6%
Quality	20.8%	5.8%	22.8%	4.1%	21.3%	6.9%	19.8%	5.2%	20.0%	6.0%	20.3%	6.1%	20.8%	5.6%
Service	15.8%	2.8%	15.9%	4.9%	10.8%	1.5%	13.3%	3.3%	11.9%	2.1%	11.4%	2.9%	13.2%	2.9%
Flexibility	9.9%	1.8%	11.7%	3.0%	11.8%	2.1%	12.6%	2.3%	10.1%	2.3%	15.4%	3.5%	11.9%	2.3%
Innovation	4.9%	0.8%	8.1%	2.2%	8.2%	1.9%	9.6%	2.4%	6.8%	1.2%	7.3%	0.8%	7.5%	1.7%
Delivery	7.4%	2.2%	5.7%	1.7%	3.5%	1.2%	5.0%	0.7%	7.4%	1.4%	12.4%	2.1%	6.9%	1.4%
CRM	4.9%	0.8%	4.5%	0.9%	5.2%	1.2%	5.2%	0.9%	7.4%	1.4%	5.1%	1.0%	5.4%	1.0%
CSR	4.9%	0.8%	3.2%	0.9%	6.3%	0.8%	6.8%	1.5%	6.3%	1.0%	3.5%	0.8%	5.2%	1.0%
CR	1.43%		2.49%		3.24%		1.82%		1.96%		2.18%			
MRE	19.9%		26.4%		20.1%		22.6%		23.4%		24.7%			
Principal ev	8.140		8.244		8.317		8.178		8.192		8.214			

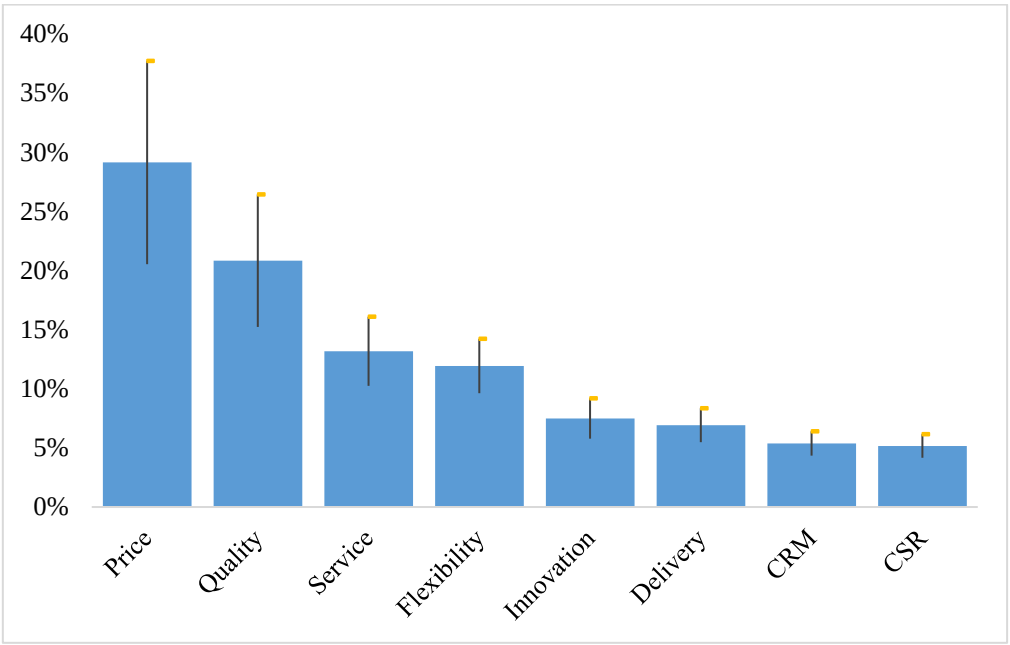
w_i = importance of the *i*-th priority; e_i = error in the calculation of the *i*-th priority

Table 8 – Prioritization of FF

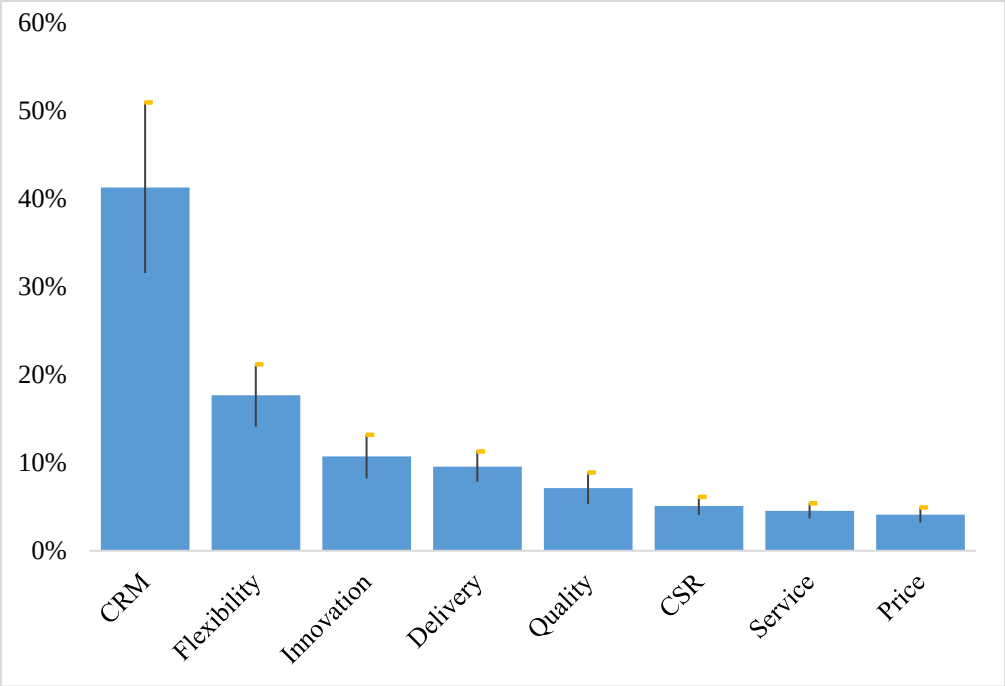
	A		B		C		D		E		F		Aggregate	
	w_i	e_i	w_i	e_i	w_i	e_i	w_i	e_i	w_i	e_i	w_i	e_i	w_i	e_i
CRM	39.0%	12.6%	43.0%	13.2%	45.2%	9.4%	41.8%	7.4%	41.7%	9.1%	36.7%	6.5%	41.2%	9.7%
Flexibility	22.6%	5.5%	17.3%	4.4%	15.2%	2.9%	17.6%	2.1%	17.5%	3.0%	15.7%	3.4%	17.7%	3.6%
Innovation	13.6%	2.7%	10.7%	2.3%	8.6%	1.2%	10.1%	2.9%	9.9%	2.6%	11.3%	3.2%	10.7%	2.5%
Delivery	8.6%	1.4%	9.2%	1.2%	10.2%	3.3%	9.7%	1.0%	9.2%	1.3%	10.5%	2.2%	9.6%	1.7%
Quality	5.2%	1.1%	8.5%	2.5%	6.6%	2.0%	5.9%	1.7%	7.3%	2.0%	9.1%	1.4%	7.1%	1.8%
CSR	4.2%	0.7%	4.0%	0.9%	4.8%	0.9%	5.2%	0.5%	5.7%	0.9%	6.7%	2.3%	5.1%	1.0%
Service	3.5%	0.7%	3.7%	0.7%	4.8%	0.9%	4.8%	0.8%	5.3%	1.3%	5.1%	0.9%	4.5%	0.9%
Price	3.3%	0.7%	3.5%	0.5%	4.6%	1.0%	4.8%	0.8%	3.4%	1.1%	4.9%	1.1%	4.1%	0.9%
CR	1.80%		2.00%		1.80%		1.30%		1.90%		1.66%		1.70%	
MRE	18.8%		22.8%		22.7%		18.9%		23.2%		22.8%		21.5%	
Principal ev	8.178		8.196		8.179		8.124		8.187		8.184			

w_i = importance of the i-th priority; e_i = error in the calculation of the i-th priority

Figure 4(a) and (b) show the weight distribution and intervals for the weights of SF and FF, respectively.



(a) SF



(b) FF

Figure 4 – Weight distribution and intervals for (a) SF and (b) FF operations

Two competitive criteria stand out in SF operations: price and quality. The criteria are not disjoint, as the lower bound of the price (20.5%) is lower than the upper limit of the quality (26.4%). In contrast, two disjoint competitive criteria stand out in FF operations: customer relationship management (CRM) and flexibility. Flexibility is also disjoint to the third criterion, innovation, as the related interval boundaries are 14.1% and 13.2%, respectively. The results suggest two main guidelines for SF operations: reduce the price and, simultaneously, improve the quality of the items. For FF, the two main competitive criteria suggest guidelines: promote CRM and, simultaneously, increase the SC flexibility.

4.3 Feedback and Managerial Implications

In the final meeting, the respondents discussed and provided feedback on the findings. The refined results and implications were derived from this discussion.

The main implications relate to concerns regarding the operation strategy. According to the literature (Ferdows and De Meyer, 1990; Noble, 1995), two main models stand out in regards to operations strategy: tradeoffs and sequential models. From the discussion, in SF operations, the tradeoff model seems to fit better, owing to a common factor affecting both cost and quality, i.e., the raw material(s). If a company decides to reduce the price, it will also need to reduce quality, as high-quality items require high-priced raw materials. Usually, SF manufacturers adopt a final inspection of all of the items (100%). Items failing to meet the quality requirements are routed for reworking or disposal. A final inspection combined with reworking and disposal ensures high quality, but represents a massive fraction of the cost.

Therefore, the study implies that SF companies should overcome this tradeoff by implementing a disruptive action, i.e., a combination of online process control and final inspections according to a sampling plan. Online control uses statistical models, such as normal and Poisson distributions, to predict process deviations that may damage the final product. As the process failure rate decreases, the manufacturer no longer needs to inspect 100% of the items, by assuming a sampling plan to assure a given quality level. This combination implies a cost reduction by reducing rework, scrap, and inspection labor, and a quality improvement by reducing the variability. One of the respondents stated that, in one of the most important manufacturers in the SC, final inspection and reworking require up to 50% of the labor force. As for the sequence model, without a disruptive action in the overall process, the respondents did not identify any positive

relationship between price and quality. Cost reductions from reducing resources would not facilitate quality improvements, as claimed by the model.

In FF operations, the sequence model appears to be more suitable. According to the respondents, there is no clear negative relationship between CRM and flexibility. Improvements in one are not necessarily realized at the expense of the other. At first glance, there is no tradeoff between CRM and flexibility.

Therefore, a second implication of the study stems from a suggestion by most respondents: in FF, achieving flexibility attributes (such as responsivity in changing lot sizes and variety in mix and assortments) should precede CRM attributes (such as interactive communication and multichannel operations). If an SC implements fast set-up, continuous replenishment, and fast design procedures, the capacities for handling small, mixed lots, quickly changing the lot size and mix, and varying the assortments will increase. Only after engaging in these abilities should the company offer services such as interactive communication and multichannel operations. If the SC offers such services without responsivity to specific demands and variety, it may damage the corporate image and jeopardize existing ties with customers.

Finally, a third implication is that companies that run both operations must simultaneously manage two different strategies, which is not clear to most respondents. The SF operation should focus on cost reduction and quality improvement, whereas the FF operation should focus on customer relationships and flexibility.

Theoretical implications also stem from this study, and may be separated into those related to the fashion industry, methodology, and strategy.

The main theoretical implication related to the fashion industry is the difficulty in running both SF and FF strategies simultaneously in the same company with the same management team. In addition to requiring different key priorities, SF

and FF require different strategic approaches. SF seems to follow the tradeoff model, whereas FF seems to follow the sequence model. This duality reinforces the theoretical relevance of the existence of more than one model to cope with competitive priorities in the industry. A secondary implication is the need to manage severe uncertainty, which requires an accurate forecast methodology. Systemic methods and systemic concerns should be considered to understand the complex adaptive behaviors observed in the FF industry. The study reinforces that both SF and FF, but mainly FF, owing to its flexibility and agility requirements, must consider systemic relationships. Linear approaches may be insufficient to describe the cause-effect relationships observed in the fashion industry. Synthesizing and solving the problems arising in the retail sector may also require decisions from the other ties of the SC.

The main methodological implication concerns the utility of confidence intervals. When disjoint intervals exist, it is possible to achieve a robust priority ranking. In the current case, disjunctions appear between higher priorities for both SF and FF. Confidence intervals reinforce the need to address with the uncertainty expressed by the shading between the first and second priorities in SF, and between the second and third priorities in both SF and FF.

Finally, the main theoretical strategic implication concerns the difficulty in handling the two strategies simultaneously. In short, if a company decides to run SCs for SF and FF simultaneously, the company should assume two different businesses with two different strategic processes. Another implication stemming from the findings and from the review is that two or more key competitive priorities may be merged into a single, wider priority. Eventually, some subdimensions of different priorities (for instance, quality and delivery) may address similar contents

that fit a wider construct. Therefore, owing to the eventual similarities, a discriminant validity should be ensured in further studies encompassing SF and FF SCs.

5. CONCLUSION

This study compared the competitive priorities of the SF and FF operations of the six largest fashion retailers in Brazil. The results highlight that, in SF operations, two competitive criteria stand out: price and quality, whereas in FF operations, the two outstanding competitive criteria are CRM and flexibility. This is the answer to the research question posed in the introduction, i.e., there are differences in the competitive priorities for SF and FF. This study also bridged the research gap regarding the lack a study comparing the priorities in SF and FF.

The main scientific contribution of this study is the evidence that if a single retail company decides to run SF and FF operations simultaneously, it should entail different SC strategies. A second contribution is the formulation of guidelines that companies may apply to handle two different strategies simultaneously. Despite the important results achieved in this study, there remain some limitations. The main limitation stems from the research strategy, that is, a sample of the six largest Brazilian retail companies that operate both strategies and manage their SC. Therefore, the conclusions are valid only for large companies operating both strategies in emergent markets. The conclusion does not cover medium and small companies, companies operating only one of the strategies, and companies in developed markets.

This study opens room for further research. The model can be refined by including variables describing how companies construct CSR. Other studies should

include other regions, particularly other emergent markets, small and medium companies, and companies that do not have primacy in their SC strategy. Finally, in-depth case studies can help clarify how, supported by types of specific actions, the competitive capacities required by SF and FF can lead to competitive advantages in the retail market. Systemic studies may also help to establish cause-effect relationships between the capabilities, performance, and competitive advantages in the retail industry in emergent markets.

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Compliance with Ethical Standards

Conflict of Interest

The authors declare that they have no potential conflict of interest in the entire scope of the study that generated this article

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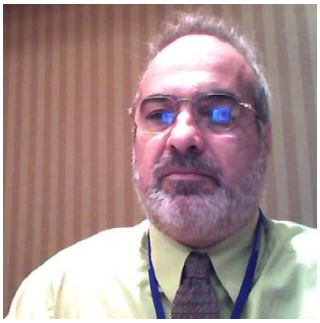
Key Questions for Reflection

1. How can practitioners of the fashion industry reduce or even eliminate uncertainties in evaluating the importance of competitive priorities?

2. Which factors can help practitioners of the fashion industry to manage two different strategies simultaneously achieving satisafactory performance in both strategies?



Miguel A. Sellitto is a full professor at UNISINOS, Brazil, in the PhD School of Production and Systems Engineering, and extern collaborator at UNIMORE, Italy, in the PhD School of Industrial Innovation Engineering. He earned a Ph.D. degree in industrial engineering and a bachelor's degree in electronics engineering. His research activities include logistics and supply chain management, complex adaptive systems, and advanced manufacturing management. His email address is sellitto@unisinos.br.

Domingos R. F. Valadares is an assistant professor at PUCRS, Brazil, in the Management Science School, teaching production, logistics, and international business management. He earned a Ph.D. degree in Production and Systems Engineering and a bachelor's degree in Business Management. Professor Valladares has more than 20 years of experience in large retailing companies, mainly as supply chain manager and director. His email address is domingos.valladares@pucrs.br.

Erica Pastore is an Assistent Professor at Politecnico di Torino, in Turin, Italy. She graduated in Mathematical Engineering at Politecnico di Torino and got her Ph.D. in Management, Production and Design at Politecnico di Torino in 2018. Her research areas include supply chain management, production planning and control, system simulation optimization and production scheduling. Her email is Assistant Professor at Politecnico di Torino. She graduated in Mathematical Engineering at Politecnico di Torino and got her Ph.D. in Management, Production and Design at Politecnico di Torino in 2018. Her research areas include supply chain management, production planning and control, system simulation optimization and production scheduling. Her email address is erica.pastore@polito.it.

Arianna Alfieri is a full Professor at Politecnico di Torino at Turin, Italy, where she currently teaches production planning and control and system simulation. Her research area includes scheduling, supply chain management and system simulation optimization. Her email address is arianna.alfieri@polito.it.