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**PORTUGUESE FOOTBALL CLUBS' MERCHANDISING PRODUCTS:
A QUALITATIVE APPROACH TO GUIDE SUPPLY CHAIN STRATEGY
CHOICE**

TIAGO PEDRO BERNARDO SALCEDAS DA CUNHA
Student Number: 29104

Work project carried out under the supervision of:

Professor Manuel Pedro Baganha

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Title

Portuguese football clubs' merchandising products: A qualitative approach to guide Supply Chain strategy choice.

Abstract

In recent years the commercial activity has become increasingly important for Portuguese football clubs' finances, having as one of its main drivers the sales of merchandising products. Therefore, a competent management of their Supply Chains should be a priority for clubs. This thesis proposes to guide these products' Supply Chain strategy choice by conducting a qualitative assessment approach based on three global dimensions: Product, Demand and Supply characteristics. The merchandising products featured in the analysis are Match Shirts and Scarfs, for Big and Medium & Small Portuguese clubs. Data was collected by interviewing industry professionals and surveying consumers.

Keywords

Supply Chain Management; Operations Management; Sports Management; Manufacturing Strategy

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Introduction

Football is the sport that attracts the most fans in the world, with enthusiasts spread through almost all countries globally (Giulianotti and Robertson 2009; Palacios-Huerta 2004; FIFA 2020). Football club competitions (or leagues) generally are played yearly between clubs from the same country or region. Additionally, the best clubs from each national league compete in international competitions, and one intercontinental competition (FIFA; Goal.com; UEFA), which has contributed to the best performing clubs become known internationally. This fact, along with the advent of global broadcast of football matches and, recently, the Internet have meant that the biggest football clubs can now reach and sustain supporters from distant parts of the globe (J. S. Hill and Vincent 2006). By developing their own brands clubs have been exploring the commercial potential of this ever-increasing supporter base many kilometers away from their home stadiums (Bodet and Chanavat 2010; Hinson et al. 2020).

According to Bodet and Chanavat (2010) fans enjoy several benefits from being supporters of a winning club, which can be grouped into four categories: emotional (excitement), cognitive (“appreciation of performances”), social (“be part of the group”) and psychological (“ambition to succeed”), which, in turn, can induct brand loyalty responses by fans. Jacoby and Chestnut define brand loyalty as a “biased behavioral response (purchase), expressed over time, (...) with respect to one or more brands (...), and is a function of psychological processes” (1978). Some authors go to extent of applying the term “love” to this relationship between fans and club brands (Baena 2016). Components of “brand love” are “Passion”, “Brand connection”, “Intrinsic rewards”, “Emotional attachment” and “Thinking and frequent use”, which will subsequently trigger brand loyalty behavior (Velicia Martín, Toledo, and Palos-Sanchez 2020). Brand loyalty is, in turn, a strong positive predictor of purchasing intentions by fans, bringing additional commercial revenues to the club (Ladeira et al. 2014; Andre Richelieu 2003).

Through physical and online retail selling points football clubs sell branded physical goods, henceforth referred as “merchandising products”, which include, but are not limited to, official match shirts, scarfs, replica kits, training kits, casual and fashion wear, bags, hats, keyrings with the club’s badge, memorabilia, etc. meeting the demand from fans all over the world (Szymoszowskyj et al. 2016, 581–83; FC Barcelona, n.d.; Sport Lisboa e Benfica, n.d.; Futebol Clube do Porto, n.d.; Manchester United Football Club, n.d.). Football clubs’ commercial activity (which includes merchandising sales) has become of capital importance for the major club brands in the world, as it has been realized that it can be a major lever for the financial success of the club (Özer and Argan 2006; J. S. Hill and Vincent 2006).

In Portugal, football assumes the leading role of favorite sport and has a major relevance in the society, being it social, cultural or economically wise (Coelho 1999; Pordata.pt 2018). The football industry in Portugal is worth in excess of 847 million euros, 549 million of those contributing to the national GDP (generating 0.3% of the wealth of the country in 2019) (Liga Portugal 2019). Additionally, this industry generated “2621 workstations” and contributed with more than 150 million euros in taxes for the State in 2019 (Liga Portugal 2019). The major football clubs in Portugal have developed their brands in a quite successful fashion, with S.L. Benfica and F.C. Porto integrating Brand Finance’s 2019 Top 50 ranking by Enterprise Value, while Portugal poses as the 8th highest valued league in Europe (Brand Finance 2019). This can be further confirmed by the fact that the weight of the commercial activity - including merchandising sales, sponsorships, publicity and royalties revenues - on total operational turnover ranged from 22% to 31% in 2020 for the “big 3” Portuguese clubs (S.L. Benfica, F.C. Porto and Sporting C.P.), an increment compared to 2010 when commercial income directly related to the value of the brand accounted for 18% to 26% of total operational revenues (Appendix I – Figure 3). All but one of the 18 clubs in Portugal’s first division league (“Primeira Liga”) of the 2020/2021 season present at least one physical retail selling point where

merchandise is sold to fans, in addition to the clubs' official web shops (Appendix I – Figure 4). The management of the merchandising products' respective Supply Chains (SC) is key to maximize the profitability of clubs' commercial activity, both by increasing sales and reducing costs in the various steps of the SC (Szymoszkowskyj et al. 2016; Fisher 1997).

Filling a gap existing in sports operations management literature in Portugal, this study aims to guide Operations, Marketing and Commercial managers from all Portuguese football clubs choose the most suited SC strategy for their merchandising products with the objective of maximizing value creation for the clubs, counting with input from members of the various steps of the SC, namely manufacturers, clubs, external retailers and consumers themselves. This study will depart from an analysis of three global dimensions - Product, Demand and Supply Characteristics -, which will be subdivided into several criteria that will be used to evaluate each merchandising product individually. Based on their qualitative assessment, a SC strategy will be recommended for that specific product and context. The study presented on this thesis will only include Match Shirts and Scarfs as products under analysis. Nonetheless, this qualitative approach can be further applied to any other merchandising product.

The thesis is divided into nine sections. Following this Introduction, the second section presents a Literature Review of the themes explored in the thesis. Then, the third section describes the Methodology undertaken, while the fourth section presents the Findings resultant from the collection of data. The fifth section proposes to perform an Analysis of results, paving the way for the sixth section where Discussion and Recommendations are presented. The seventh section presents the Limitations of the study and Future Research on this topic, while the eighth displays a brief Conclusion of this thesis. The last section, Appendixes, contains several pieces of information to complement the content of this thesis.

Literature Review

Supply Chain Management

As all physical goods, also merchandising products flow through a supply chain (SC), which is defined by the Oxford Dictionary in its most basic form as “the series of processes involved in the production and supply of goods, from when they are first made, grown, etc. until they are bought or used” (Oxford Advanced Learner’s Dictionary n.d.). Complementing this definition, Martin Christopher describes a SC as a “network of organisations that are involved, through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and services in the hands of the ultimate consumer”(Christopher 1992). For a given firm the management of its SC cannot be done independently, but rather in coordination and collaboration with all chain players, namely “suppliers, intermediaries, third-party service providers, and customers” (Council of Supply Chain Management Professionals 2013), with the end goal of delivering superior value to the customer while minimizing costs to the SC as a whole (Christopher 1992). According to Chopra (2018, pp. 33–34) companies ought to seek a strategic fit between their competitive strategy and its SC strategies to improve performance. Christopher et al. (2006) defend that, in order to achieve this strategic fit, companies must look into three dimensions: the characteristics of the Product itself, Demand and Supply. A combination of the three dimensions provides clues about what is the best SC strategy to implement.

Characteristics of the Product

Marshall Fisher is one of the authors who has proposed a binary classification scheme to classify products based on their characteristics, and then presented a unique SC model for each of them. This author divides products into “Functional” or “Innovative”. Functional products “satisfy basic needs”, “don’t change much over time” and are associated with “lower

contribution margins” (Fisher 1997). These products are also characterized by being commoditized, having low variety and long life cycles (Mason-Jones, Naylor, and Towill 2000). Innovative products are characterized by presenting a high degree of variety and differentiation, leading many times to high profit margins, but having short life cycles, many times associated to fashion or technology products. The success of these products is measured by the degree of novelty that is introduced on the lives of consumers (Fisher 1997; Mason-Jones, Naylor, and Towill 2000).

Another important addition to this discussion is presented by Chopra (2018, pp.36-37), who states that different customer segments will present distinct needs regarding the product or service, which are defined as “attributes of demand”: Price, Quantity, Variety, Availability, Waiting time, and Degree of Innovation of the product. Each customer segment will value a different combination of these factors in a different way, which will in turn impact the strategic choices of a firm. One of these choices is precisely the choice of the most suited SC to implement, having to prioritize some goals in favor of others. This proposal by Chopra (2018) can be associated to the work of Hill (1993) (and continued by Mason-Jones, Naylor, and Towill (2000)) which postulates that there are four main possible priorities for any SC: Cost, Service Level, Quality and Lead time. Different SC will work towards different end goals and priorities according to the requirements of the customer, and, therefore, are better suited to different SC strategies.

Characteristics of Demand

Demand characteristics go hand-in-hand with the Product characteristics explored in the previous point (Christopher, Peck, and Towill 2006). For example, Fisher (1997) proposes a different demand pattern for each of the two product categories presented in this author’s work: the Functional products are defined as having a “stable, predictable demand with long life-

cycles” profile, whereas an Innovative product would be the opposite, presenting an unpredictable and volatile demand pattern and a “short life cycle” (customers use it for a short amount of time), as a result of its characteristics. These distinctions in demand uncertainty will in turn affect its predictability and forecasting, and, consequently, the management of the respective SC, according to the same author.

More specifically connected to the world of football clubs merchandising product’s SC, Szymoszowskyj and collaborators argue that the football setting generates a great amount of “market dynamism” in the sense that this market for merchandising products operates in a seasonal pattern and demand predictability patterns are correlated to the sport performance of the football club on the field of play, which, in turn, will affect “product assortment, supply chain and distribution” (Szymoszowskyj et al. 2016).

Characteristics of Supply

One of the most important topics when discussing Supply characteristics is the time that it takes a supplier to fulfill an order made by the customer, referred in literature as the “replenishment lead time” (Christopher 1992, 100–101). This metric has proven to be pivotal in determining SC performance in the sense that it will influence safety stock holdings by the customer (e.g. a retailer that has to hold large amounts of inventory if lead times are long) and variability in production by the supplier (e.g. a manufacturer that has to adapt production if lead times demanded by the retailer are constantly altered) (Boute 2007; Sourirajan, Ozsen, and Uzsoy 2007). As one can see, it can have a detrimental effect on the SC profitability if not accounted for and managed properly.

Bargaining power of buyers over suppliers is also of capital importance for this discussion, as it can alter completely the dynamics of any SC, influencing vastly its strategy choice. By leveraging on their relative power, buyers aim to “force down prices, bargaining for higher

quality or more services, and playing competitors against each other” (Porter 1990). Christopher S. Tang has developed work on this topic of bargaining power and its consequences for the contractual relationships between supplier and buyer (Tang 1999).

Supply Chain Strategies

The majority of authors mentioned above recommend a SC strategy or model based on their research. Despite the disparity between authors, these strategies can be grouped into two major blocks: *Lean* and *Agile* SC strategies. The *Lean* (or Efficient) SC strategy is recommended for products that present a low level of demand uncertainty, low variety, long life-cycles, which are seen by customers as “functional” and price is the predominant customer need (Fisher 1997; Chopra 2018; Mason-Jones, Naylor, and Towill 2000; Szymoszowskyj et al. 2016). This strategy has as its main goal to eliminate everything that does not add value to the production process, i.e. waste. The philosophy of waste reduction was pioneered by the automobile factories of Toyota in Japan in the decade starting in 1990. The types of waste (or *muda*, as it was referred then) identified by Toyota were seven: “overproduction, waiting, conveyance, processing, processing, inventory, motion and correction” (Kasul and Motwani 1997). The *Lean* principal of manufacturing aimed at improving efficiency at maximum, minimizing the physical costs of production through strategies of just-in-time delivery of supplies, reduction of inventory and high capacity utilization (Christopher and Towill 2000). In recent years it has been acknowledged by some authors that the *Lean* principal was too enclosed in factory production, with a clear need of recognition not only of physical “product development costs”, but especially “marketability costs”, which include stockout and obsolescence costs (Christopher and Towill 2000). There was the need to look beyond the factory and observe the needs of the downstream parts of the chain, namely considering flexibility and speed in production as key objectives of the SC.

This is where the concept of the *Agile* (or Market-Responsive) SC model was born from, which is a strategy recommended for products which present high demand uncertainty, high variety, high margins, long life cycles, and which Availability and Innovation are the most relevant customer needs (Fisher 1997; Mason-Jones, Naylor, and Towill 2000; Chopra 2018; Szymoszkowskyj et al. 2016). This strategy aims to achieve flexibility in the sense that production processes must be able to adapt quickly and effectively to short-term market changes (Madhani 2017). Customers demand new technologies, greater variety of products, with superior quality and are not willing to wait a great amount of time for them, so companies must achieve a high level of market responsiveness to be able to maintain their competitive advantage and maximize value captured from the customer base (Christopher and Towill 2000; Christopher 1992, 99). The pillars for building a successful *Agile* SC can be briefly summarized as: being market sensitive (“listening to the market needs”); sharing real-time demand data information between SC partners in order to achieve full transparency in the chain; Process integration (different nodes of the SC collaborating to achieve “shared solutions”); and, lastly, adopting the paradigm that a SC cannot be managed independently, but rather as network of partners competing for the same goal, achieving closer and more agile relationships with the final customer and maintaining their competitive position as a whole, rather than as isolated companies (Christopher and Towill 2000; Goldsby, Griffis, and Roath 2006).

Christopher (1992, p. 101) goes one step further and includes a second axis on this SC strategic choice – adding Supply characteristics. In addition to the Demand considerations mentioned in previous paragraphs, this author proposes a binary categorization of Supply into short and long lead-times (LT) of replenishment. Thus, the resulting combination of characteristics yields a two-by-two matrix which contains four different SC strategies, as seen in Appendix I – Figure 5. When demand patterns are predictable and replenishment LT are long a *Lean* SC strategy is recommended (planning ahead of demand). However, in the same

scenario but with short LT a strategy of *Continuous Replenishment* is advised, whereby the replacement of supplies/products is done almost as these are used/sold, minimizing inventories to the extreme. In the opposite scenario, when demand is unpredictable, but LT are short the *Agile SC* strategy is the most recommended, guaranteeing a quick response to customer orders as they come. Lastly, when demand is difficult to access and LT are long it creates a complex situation: the company is facing two distinct problems, needing a smart and creative solution. Christopher (1992) proposes an *Hybrid* solution, called the *De-coupling through postponement* model: a separation of the SC into two phases, divided by a center point in time called the “de-coupling point”. Before this point (in the upstream stages) *Lean* principles should be applied, maximizing efficiency of production, and holding unfinished inventory in a generic form, optimally further down the chain as possible, meaning that the final stages of production are postponed. When real demand is known then this unfinished work-in-progress is quickly configured into its final form in an *Agile* fashion (Christopher 1992).

Football Clubs’ Merchandising Supply Chains

After looking at the general literature concerning SC management, it is important to explore investigations done in the area of football merchandising SC. One of the main papers describing football clubs retail branding strategies (which include merchandising product sales) was presented by Szymoszowskyj, Winand, Kolyperas and Sparks (Szymoszowskyj et al., 2016), in which the authors described the retail merchandise SC for several football clubs in Scotland, UK. As seen before in this section, on the *Characteristics of Demand* point, these authors also found various differences between products in what regards demand predictability and life cycles resulting from a dynamic market environment in which club performance is highly influential. Consequently, football clubs must adapt their SC strategies, for example adopting *Lean* and *Agile* models of SC design in order to sustain profitability and keeping fans satisfied (Szymoszowskyj et al. 2016).

Methodology

To characterize the supply chains (SC) of the different merchandising products under analysis, as well as comprehend their characteristics, demand profiles and specific supply context data was collected from two main sources: six semi-structured interviews and a survey. The six interviewees were professionals who currently work or have previously worked at companies present in the various steps of the SC of the Portuguese football club's merchandising products. These companies include three football clubs, a brand manufacturer, a small manufacturer and an external retailer. A summary of each interview is presented in the Appendix II – *Interviews Summary* section, numbered between 1 to 6. The survey, which assessed the purchasing habits of the final customers of these merchandising products, was taken by 122 respondents representing the customer base from 11 Portuguese football clubs. Several aspects that characterize demand were evaluated in this survey, which is reproduced on Appendix III along with a detailed characterization of the sample. The combination of both data sources enabled the collection of rich and valuable data which is presented and analyzed in the following sections.

Findings

Supply Chain Characterization

From the six interviews made it was possible to have a picture of what the supply chains (SC) for the different merchandising products look like, and, therefore, collect information about the Supply characteristics for different products. These SC configurations were grouped into three models. A brief characterization of each model will be presented, while a more complete description and the corresponding flowcharts will be presented on Appendix IV. The first one (Model 1) can be characterized by a direct relationship between the manufacturer and the club

(retailer). The club orders directly from this supplier and there are no intermediaries in between. This SC model is usual for a great number of merchandising items, such as scarfs, clothing, decoration items, or even wines. The second type of SC identified (Model 2) involves more entities. This SC setting occurs usually when a small club desires to be sourced from a major brand manufacturer (e.g. Nike, Adidas), mostly when the merchandising products in question are the official match shirt and other apparel products. These types of merchandising products are referred as “co-branded”, which means that they display references to the brand of both the brand manufacturer and the club. In this model there is an intermediary that connects the brand manufacturer to the club, as there is a great size differential between the two entities. The third type of SC (Model 3) is a more complex one. The club, in this case a major one, negotiates directly with the brand manufacturer (supplier) and these two parties engage in what is called a *sponsorship deal*. In this type of contract the brand manufacturer, usually a major company in the sports apparel industry, acts as a sponsor, paying the club an agreed sponsorship fee in order to be the official supplier of the majority of the merchandising co-branded kits and apparel items of the club (including the match shirts).

Product and Supply Characterization

After conducting interviews with representatives from three football clubs of the Portuguese first division (Interviews 4, 5 and 6), it was possible to gather information concerning the characteristics of the different products sold as merchandising and also the characteristics of each club’s SC contexts, as mentioned in the previous point. The clubs whose representatives were interviewed (referred as clubs A, B and C (for anonymity reasons) in interviews 4, 5 and 6, respectively) are different among themselves. Club A can be characterized as a small club in the first division in Portugal, still taking its initial steps in becoming a relevant club in Portugal, despite winning the League Cup title recently. Club B can be considered a small-medium club in the Portuguese’s first division. Club C is considered one of the Big clubs of Portuguese

football, sitting among the most successful top 3 in terms of titles (leagues and cups). The club enjoys major international recognition and the commercial activity is one of the most important for the club, bringing a relevant share of revenues to the club's income statement.

Demand Characterization

From the survey it was possible to obtain data regarding the purchasing habits of fans, including but not limited to the most purchased merchandising items, products' life cycles, impact of performance on purchasing decisions and most determinant product attributes. This information on the characteristics of demand will be further analyzed on the following section.

Analysis

Based on the information gathered on the semi-structured interviews and on the survey, Figure 1 was constructed. This table aggregates the key criteria that enable the decision of the most suited supply chain (SC) strategy for each product, based on literature on SC Management considered relevant (Appendix I – Figure 6). On the vertical axis of Figure 1 there are present the three Dimensions of Analysis: Product, Demand and Supply Characteristics, which then are subdivided into several sub-dimensions, referred as Assessment Criteria. The assessment qualitative scale used, ranging from “Low” to “High”, reflects the information collected from the data sources. For a more complete description of the construction of each of these criteria please consult Appendix V.

The products considered for evaluation are the Match Shirts and the Scarfs, each of them sub-divided by Big Clubs and Medium & Small Clubs. The reason for the choice of only these two products stems from the fact that those were most represented on the survey answers and the more frequently mentioned products on the interviews. The reason for the separation by size of the club (Big Clubs and Small & Medium Clubs) is based on the information gathered on the

interviews regarding the different structure and complexity between these two groups of clubs. Big Clubs considered are F.C. Porto, S.L. Benfica, Sporting C.P. for their relevant size in terms of fans, historic status, sporting success in the last years and their high number of retail locations, whether more local or spread nationally.

			Merchandising Product			
			Match Shirt		Scarf	
Dimension of Analysis	Sub-dimension	Assessment Criteria	Big Clubs (n=32)	Medium & Small Clubs (n=8)	Big Clubs (n=11)	Medium & Small Clubs (n=10)
Product Characteristics	Product Attributes	Price	High importance	High importance	Medium-High importance	Medium-High importance
		Quality	Medium-High	High	High	Medium
		Variety	Medium-Low	Low	Medium	Medium
		Availability in-store	Medium-Low	Low	Medium	High
		Innovation	Medium	Medium	Low	Low
Demand Characteristics	Demand Uncertainty	Impact of performance on decision	Medium impact	Medium-Low impact	Medium-High impact	May vary (between Low and High impact)
		Product life cycle	Medium (2-3 years)	Long (around 5 years)	Long (more than 5 years on average)	Long (more than 5 years on average)
Supply Characteristics	Supplier Relationship Dynamic	Replenishment lead-times	Long (around 3 months)	May vary (between few weeks and months)	Medium-Long (1.5 months)	Short (few weeks)
		Bargaining Power against Suppliers	Low power	May vary (between High and Low power)	High power	Medium-Low power

Figure 1: Assessment table where the Match Shirts and Scarfs are qualitatively evaluated by each assessment criterion.

Match Shirts

a) Big Clubs

The share of fans that have purchased Match Shirts from Big Clubs represents the biggest portion of the survey respondents (n=32). It is possible to observe that these purchasers have attributed a strong importance to the Price of the product (39.1% of answers), followed by Quality (29.7%) as Product Attributes. This may indicate that these customers are quite price-sensitive, but also expect Quality from the merchandising products of their clubs. In what concerns the impact of the club's performance on the purchase decision, the survey answers show that 56.3% of respondents feel that this factor did not have any impact on their decision, with only 12.5% claiming a big importance given to performance on their behavior. Moreover, respondents reported that the main reasons that motivated them to purchase the club's Match

Shirt were related to feelings of pride (31.6%), appreciation for the particular product (15.8%) or a sales event (10.5%), which cannot be considered related with sport performance. Notwithstanding, the interview with the representative of the Big Club (interview 6) revealed that performance does have an influence on demand for all merchandising products, including Match Shirts, especially at the end of the season if the club is crowned champion. Therefore, the assessment for this criterion is that performance impacts the purchase decision with a Medium intensity. Another criterion that contributes to the understanding of the Demand Uncertainty assessment is the Product life cycle. The survey has shown that most respondents (87.9%) purchased a Match Shirt for the last time 2 years or less from now. However, when inquired about the expected useful time of the product, 60% of respondents claim to be using their Match Shirt for a period superior to 5 years. This leads to the supposition that fans hold more than one Match Shirt at a time, expecting to use each one for a large period of time. Hence, the assessment for this criterion of product life cycle is in average a value between 2 and 3 years, which is considered a Medium time, considering that collections change every year. A longer product life cycle can be correlated with a more stable pattern of demand, in theory. The assessment of these last two criteria leads to the hypothesis that the demand pattern for Match Shirts is predictable during the season to a certain extent, despite the impact that the end of the season classification has on sales. This volatility in demand patterns is mitigated by the forecasting tools implemented by these Big Clubs, such as usage of past sales data according to various scenarios and full transparency of sales levels in real time across the SC, as per revealed in the interview with the club representative (interview 6). In what regards Supply Characteristics, it is observed that the replenishment lead times for this product are long, amounting to three months on average, since Big Clubs are sourced by brand manufacturers which have their manufacturing facilities spread across the world, leading to long transportation times. The fact that these brand manufacturers are major international corporations of the sports

apparel industry, which supply many of the top European football clubs, causes Portuguese clubs to present a low bargaining power against them by the fact that the latter only represent a fraction of the revenues and commercial importance for these international suppliers.

b) Medium and Small Clubs

In what regards the purchasers of Match Shirts from the Medium & Small (M&S) clubs of the Portuguese first division (n=8) it was discovered that the Product Attributes that they value the most are Price and Quality, almost in equal proportion (37.5% and 31.3% of answers, respectively). This may indicate that these customers are price sensitive, but also are concerned with the Quality of the product. Regarding the impact of performance on the purchase decision both M&S clubs' representatives (interviews 4 and 5) agreed that the level of demand is predictable in the beginning of the season, not varying much with the performance of the club. This seems to be confirmed by the survey results, in which 50.0% of the purchasers of this product affirm that performance did not have any influence on the purchasing decision. Nonetheless, as many as 37.5% of these respondents affirm that this factor has had indeed an effect on their purchasing behavior. Combining all data sources, it can be hypothesized that the impact of performance has a Medium-Low impact on the purchasing decision. The other criterion affecting Demand Uncertainty, product life cycle, can be said to be long (around 5 years), following the analysis of the survey responses, with 75.0% of respondents claiming to be using their Match Shirt for more than 5 years, and 50.0% of respondents affirming to have purchased their last shirt between 2 and 3 years ago (the maximum amount of time allowed in question 9). It is, then, safe to assume that the profile of demand for this product is predictable when planning for the football season, and presents a stable pattern across seasons, with performance having little impact on demand volatility. In what regards the Supplier Characteristics, it can be said that there is some disparity between clubs, resulting from different SC contexts observed across M&S clubs. For the clubs which are supplied by Portuguese brand

manufacturers the replenishment lead times are expected to be low (few weeks), and the bargaining power of clubs to be Medium to High. For clubs which are supplied by international brand manufacturers (with or without the participation of intermediaries) the lead times may vary greatly depending on the manufacturing locations and type of contract, and the bargaining power of clubs is usually lower compared to the first case. The two clubs whose representatives were interviewed (interviews 4 and 5) present slight differences in respect to this factor. These differences in SC characteristics will impact the SC strategy to be adopted, which will be discussed in the *Discussion and Recommendations* section.

Scarfs

a) Big Clubs

The sample of purchasers of Scarfs from the Big 3 clubs in Portugal (n=11) values Quality above all Product Attributes (45.5% of answers). This can be possibly explained by the high-quality expectations that fans possess regarding all of the merchandising products sold by Big Clubs. Another highly valued Product Attribute is Price (27.3%). In what regards Demand Uncertainty, survey responses display a demand pattern that is slightly dependent on performance (63.6% claiming this factor had impacted their behavior), despite question 11 showing that the majority of respondents (60.0%) mention other reasons (such as a visit to the stadium, liking the product in particular or feeling proud) as more determinant for their purchasing decision. Nonetheless, the club representative interviewed (Interview 3) painted a different scenario: club's sales of Scarfs are more volatile than Match Shirts', especially at the end of the season if the club is crowned champion. Combining both data sources, we can propose that demand for Scarfs is impacted by performance in a Medium-High intensity. In what concerns the product life cycle, it was demonstrated that fans believe that they will find Scarfs useful for a long period of time, with slightly half of respondents (45.5%) claiming to be

using it “forever”. This seems to fit well with the finding that customers value Quality in a high regard, possibly because they highly appreciate a product that is durable since they are planning to use it for a great number of years. A long product life cycle can also be connected to a more predictable level of demand since only a fraction of fans will substitute their scarfs each year (although each fan may own and use more than one scarf). In summary, in what regards the Demand Uncertainty assessment it can be said that volatility of sales is enhanced by the performance of the club, but that effect may be mitigated by the long life cycle, as explained before. In what concerns the Supply Characteristics, replenishing lead times for this product seem to be around 1.5 months, which can be considered a Medium-Long value, especially when demand surges occur at the end of the season in space of few days. Lastly, it was understood that the bargaining power that Big Clubs enjoy against their suppliers of scarfs (which usually are small/medium national manufacturers) is High, resulting from their relative higher size.

b) Medium and Small clubs

For the sample of purchasers of Scarfs of the Medium & Small (M&S) Clubs of the Portuguese first division (n=10) it was discovered that Availability in-store is the most valued Product Attribute (40% of answers), with Price coming in second place (25%). This higher appreciation for Availability can be possibly explained by the fact that these M&S clubs usually sell in smaller quantities, being more probable the occurrence of stock-outs, which are rarer to occur in Big Clubs (availability may be taken for granted in these latter clubs). In what regards the impact of performance on demand there were contradictory results from the two data sources. The interview with club A’s representative (Interview 4) suggests that sales are highly dependent on the club’s sporting performance, but the survey results show that 70.0% of respondents do not feel that performance impacted their purchase decision in any way. This incongruence may stem from the fact that the survey sample is small, and, thus, not representative of the population, or that the interview with the club representative does not

reflect the experiences from the rest of the M&S clubs in Portugal. Therefore, the assessment of this criterion may be ambiguous, as different clubs may experience different behavior by consumers. Some clubs' products may experience a predictable demand profile, while others an unpredictable one. These differences will impact SC strategy choice, as it is going to be seen on the following section. Nonetheless, it can be hypothesized that a possible high Demand Uncertainty can be mitigated by the fact that the majority of fans do not substitute their Scarfs yearly, as they claim to hold on to their product for a long time (long life cycle of more than 5 years on average), creating an element of stability across seasons. In the realm of Supply Characteristics, this dimension can be characterized by a short replenishment time of a "few weeks" (this is the case for the interviewee's club, but may change for other clubs) stemming from the fact that the supplier is based in close geographical proximity to the club. The club maintains a close business relationship for some years with the Scarf supplier, being this a reason for the assessment of a Medium-Low bargaining power of the club against its supplier of Scarfs, as the costs of changing supplier (switching costs) are high for this club (we can theorize that this might be the case for the other M&S clubs in the same context).

Discussion and Recommendations

Based on the assessment of all the criteria presented in Figure 1 it is possible to recommend a supply chain (SC) strategy that would be best suited for each merchandising product under analysis. The model proposed by Martin Christopher in *Logistics & Supply Chain Management* (Christopher 1992, 101) of the four "Generic Supply Chain Strategies" (explained in further detail in the *Literature Review* section) will serve as the basis for the following proposals, which will be accompanied by further considerations based on the context of each SC. A summary of the following recommendations can be found on Figure 2.

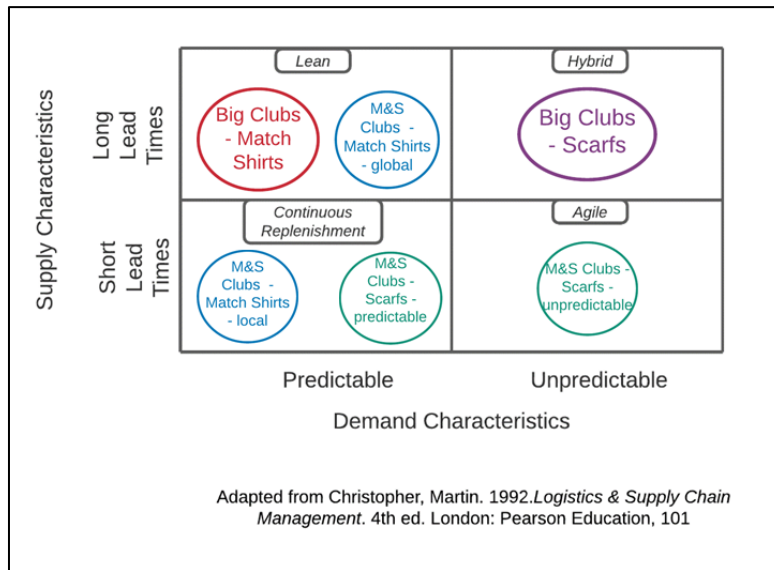


Figure 2: Generic Supply Chain strategies recommended for the Match Shirts and Scarfs of Big and Medium & Small clubs following the qualitative assessment performed.

For the Match Shirts it is advised that Big Clubs follow a *Lean* SC strategy, given the long replenishment lead times and a predictable level of demand for this product. This is an example of a Model 3 type pf SC. By ordering stock with several months in advance these clubs can tackle the long lead times, without the severe risk of forecasting errors, as demand is predictable within a certain range. This would lead to an optimization of production planning for the brand manufacturer, which could lead to a reduction in manufacturing costs. This cost-effective approach would help decrease costs in the whole SC, which could enable a decrease in the retail price. However, it is unlikely that this happens given the low bargaining power that clubs have compared to the mighty brand manufacturers’ power, which decide unilaterally the retail price for their co-branded products, a context that may push away price-sensitive customers. Nonetheless, these sponsorship contracts with current brand manufacturers are beneficial for the Big Clubs, as they carry several advantages which could not be provided by smaller brand manufacturers. One of these advantages is in terms of Quality and Innovation of products, which are set at a high level, as these brand manufacturers have the incentives aligned with the clubs to supply cutting-edge quality co-branded merchandising products to customers. In order

to maintain this level of demand predictability clubs should continue to aim for higher levels of integration with their brand manufacturer. In practice, this may include the sharing of sales data for the co-creation of more accurate demand forecasting models, which would improve the performance of the SC as a whole.

Continuing with Match Shirts, Medium & Small Clubs (M&S) would require two different SC strategy models depending on their SC context. For the clubs which take part in more local SC, being supplied by a national manufacturer (presenting a Model 1 SC setting), the most suitable SC strategy would be a *Continuous Replenishment* model. This would be the most suited strategy as it leverages both the short lead times (achieved by the geographical proximity of all parties) and the predictable pattern of demand for this product. This strategy would allow clubs to maintain inventory levels as low as possible while being replenished at a constant pace. Cost savings could be generated as inventory costs would decrease, and the supplier would have a more predictable production schedule; this could translate in a lower retail price which could, in turn, attract more price-sensitive consumers. Moreover, clubs could make use of its medium-high bargaining power to push for higher Quality and Innovation standards on this product, as these are high-valued Product Attributes for consumers of Match Shirts. For clubs which are supplied by international brand manufacturers (sometimes with production facilities at a great distance from Portugal, presenting a Model 2 or 3 SC type) the recommended SC strategy is a *Lean* one, given the presumable high lead times that such SC setting entails. A *Lean* SC strategy is characterized by a focus in planning and high capacity utilization, leading to cost advantages. A further explanation can be found in the *Literature Review* section. With a predictable level of demand, it is possible for clubs to order the stock in advance according to a seasonal plan. This can lead to a lower probability of stockouts while the supplier benefits from a better production planning schedule, yielding lower production costs. These lower costs of production can potentially benefit the whole SC, in theory enabling lower wholesale and retail prices which

would attract more price-sensitive consumers. In terms of Quality - a highly-valued Product Attribute - it tends to be set a high standard as the major brand manufacturers have the incentive to produce high perceived quality co-branded merchandising products to set themselves apart from competition in the sports apparel market. In order to explore the full advantages of this *Lean* SC strategy M&S Clubs should thrive for a transparent SC so that all players have visibility of demand in real time in order to successfully develop accurate sales forecasts, which benefit all parties.

The Scarfs sold by Big Clubs are an example of a Model 1 type of SC. This product usually presents a predictable level of sales which can be, nevertheless, destabilized by the level of performance of the club, especially in the event of winning the championship. The following proposal aims to tackle especially this end-of-season unpredictability. Having in account the uncertain demand pattern and a replenishment lead time of around one month and a half (which can be classified as a medium-long amount of time when demand suddenly escalates in a matter of days after the league-winning matches), arriving to the most suited SC strategy seems to be a complex exercise. One hypothesis could be to decrease supply lead times and follow a classic *Agile* SC strategy. However, if this is not possible, the recommended strategy would be a *Hybrid* one, known as *De-couple through postponement* model. In this model the production process of Scarfs is separated into two stages, in which the first would be focused in producing the Scarfs only up until a generic stage, for example postponing the addition of color to the product. This inventory of unfinished Scarfs could be manufactured following *Lean* principles discussed previously and would be stored until required. Then, if the club needed an extra supply of Scarfs at the end of the season these would be rapidly finished, adding coloring, or personalized content for the occasion, enabling a more agile response to a demand surge. Possible limitations of this strategy could be the higher inventory costs bared by the manufacturer or the costs of reconfiguration of processes, which could potentially harm the retail price presented to

customers. In what regards the Quality of Scarfs - the Attribute most valued by customers of this product - it can be theorized that it is not overly damaged by this strategy, as this Attribute does not have to necessarily be forgone on the pursuit for higher production agility. This is especially true considering that Big Clubs have a high degree of bargaining power over these suppliers, which means that clubs can more easily require a high degree of quality from them, disregarding the ones that do not meet the standard level required.

Finally, the case of the Scarfs sold by Medium & Small (M&S) Clubs, which are inserted in a SC of the type described in Model 1, is presented. Although the assessment of the level of demand predictability did not provide a definite answer, as data sources returned opposing results, one can at least be confident that the replenishment lead times from suppliers are short for the majority of clubs, given the local SC settings. We can, then, establish two scenarios according to the level of Demand Uncertainty experienced, and provide a recommended SC strategy for each of them. In the case of clubs which present high levels of sales uncertainty resulting from a strong impact of performance on purchasing intentions, the most suited SC strategy would be an *Agile* configuration, in which the club waits for demand to materialize and places orders to the supplier accordingly. Suppliers are expected to deliver quickly through these demand surges, as to serve the maximum of costumers as possible, guaranteeing a high level of Availability of Scarfs to fans, which is the most valued Product Attribute. A short lead time of supply may not necessarily mean that this SC can achieve a high level of agility, as there are other pre-requisites for this objective to be achieved, such as a rapid reconfiguration of production processes in the factory and efficient communication between club and manufacturer, for example. The retail price of the Scarf may be expected to increase as a result of this strategy, as this *Agile* model usually comes at the expense of higher production costs to accommodate the higher capability of response. The second scenario occurs when the level of demand is more predictable, and performance does not impact sales in great intensity. In this

case the recommended SC strategy would be one of *Continuous Replenishment*, in which stock would be continuously supplied at an agreed rate according to the natural demand fluctuations throughout the football season. The main advantage of this strategy is the possibility of keeping inventories at a level low enough to meet demand until the next delivery, minimizing inventory holding costs for the whole SC. This would assure an instant Availability of Scarfs for costumers, and a lower price point for customers resulting from the several cost reduction opportunities inherent form this SC strategy, such as better planning of production and transportation prospects, along with the mentioned reduction of inventories, for example. In this case the Medium-Low bargaining power of M&S clubs over their suppliers could help improve contract conditions for clubs in some cases.

Limitations and Future Research

This analysis is not exempt from limitations. Concerning the technical aspects of the data gathering it can be said that they carry some constraints. In what regards the semi-structured interviews, it would have been interesting to interview representatives from all 18 clubs from the Portuguese first division, as to get a better perception of the context of merchandising products' supply chain (SC) across the various clubs. Despite the multiple interview invitations sent to professionals from all clubs, only three were available for an interview. Moreover, during the interviews it was not possible to gather data regarding financial information, such as sales volumes or profit margins, due to anonymity reasons, which would have enriched the analysis. In respect to the survey conducted, responses proved to be very spread across the different merchandising products, resulting in a low number of responses for each one of them, impacting the strength of the analysis. A higher number of responses could have resulted in better insights on this theme. Finally, in what regards the proposals for the best SC strategies to

implement for each product it is worth noting that these are not perfect solutions in the sense that there might be features of each strategy that need to be tailored according to the specific context of each product and the respective SC. These recommendations should serve as starting point for managers to look at their products and devise the strategies that are most suited for each case.

Avenues for further research might include a more comprehensive study of all clubs' products' SC contexts, as well as a thorough investigation of all parties involved in these SC, from manufacturers to clubs/retailers and all intermediaries in between. Moreover, a more complete and representative study of fans' purchasing behaviors would also be of extreme value for future knowledge creation in this area.

Conclusion

This thesis proposed to guide the choice of the most suited supply chain (SC) strategy for the merchandising products sold by football clubs in Portugal, supported by insights provided by both a group of professional representatives from different companies present in various steps of these SC - through interviews - , and consumers, through a survey assessing their purchasing behaviors. Based on Product, Demand and Supply characteristics it was possible to profile the most relevant merchandising products sold by clubs – Match Shirts and Scarfs – and propose the most fitting SC strategy model for each case, “standing on the shoulders” of several authors who have developed literature on SC management. This thesis' recommendations could prove useful for managers of Operations, Marketing and/or Commercial departments and even Executive Board members of Portuguese football clubs who are tasked with coordinating the various aspects of SC dynamics, from manufacturing production processes, supplier relationships, to everything that involves retailing to the final consumer.

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Appendixes

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Appendix I – General Figures

2019/2020				
Club	Operational Revenue (excl. Players passes)**	Commercial Revenue**	Percentage of total	Includes
Benfica	139 954	30 518	21,81%	Sponsorships, Rents, Royalties and Others
Porto*	52 428	16 150	30,80%	Merchandising, sponsorships and advertisement
Sporting	47 978	15 008	31,28%	Loja verde (store), distribution & retail, sponsorship and publicity

* data from 2018/2019 season. Data not available for season 2019/2020
 **values in thousands of Euros (€)

2009/2010				
Club	Operational Revenue (excl. Players passes)**	Commercial Revenue **	Percentage of total	Includes
Benfica	66 382	16 297	24,55%	Sponsorship, publicity, rents, royalties
Porto	57 613	14 859	25,79%	Merchandising, sponsorship and publicity
Sporting	34 195	6 037	17,65%	Sponsorship, publicity, merchandising, licensing

**values in thousands of Euros (€)

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Figure 3: Time comparison of Big Clubs' commercial revenue weight on total operational revenue.

Club	Owned Store?	Nr. Physical Stores (location)	Online Stores	External Retail Channels	Brand Manufacturer	Website of Brand Manufacturer
B-SAD	No (*store in Restelo belongs to CF Belenenses)	-	Yes (club website)	Yes (OfficialShirt.com)	Lacatoni	No
S.L. Benfica	Yes	7 (stadium, City downtown, Airport, Shoppings)	Yes (club website)	Yes (decatlhon, sport zone, Adidas stores, OfficialShirt.com)	Adidas	Yes
Boavista F.C.	Yes	1 (stadium)	Yes (club website)	Yes (OfficialShirt.com; KelmePortugal.com)	Kelme	Yes
C.D. Tondela	Yes	1 (stadium)	Yes (club website)	Yes (OfficialShirt.com; Loja CDT (?))	CDT equipamentos	No
S.C. Farense	Yes	1 (stadium)	No	Yes (Desportiva.pt)	Adidas	No
F.C. Famalicão	Yes	1 (city downtown)	Yes (club website)	Yes (OfficialShirt.com)	Macron	No
F.C. Porto	Yes	7 (Stadium, city downtown, Shoppings)	Yes (club website)	Yes (Decathlon, Sport Zone; New Balance store; OfficialShirt.com; SportsDirect.com)	New Balance	Yes

By 6th September 2020

Panel A

Club	Owned Store?	Nr. Physical Stores (location)	Online Stores	External Retail Channels	Brand Manufacturer	Website of Brand Manufacturer
Gil Vicente F.C.	Yes	1 (stadium)	No	Yes (Lacatoni.com)	Lacatoni	Yes
C.S. Marítimo	Yes	3 (Stadium, city downtown, training complex)	Yes (club website)	No	Nike	No
Moreirense F.C.	Yes	1 (headquarters office)	Yes (club website; *through email order)	Yes (partner establishments on the city)	CDT equipamentos	No
C.D. Nacional	Yes	1 (training complex)	Yes (club website)	No	Hummel	No
F.C. Paços de Ferreira	Yes	1 (stadium)	Yes (club website)	Yes (Joma-sport.com)	Joma	Yes
Portimonense S.C.	Yes	1 (stadium)	Yes (club website)	No	Mizuno	No
Rio Ave F.C.	Yes	2 (stadium, town downtown)	Yes (club website)	Yes (OfficialShirt.com)	Nike	No
C.D. Santa Clara	Yes	1 (city downtown)	Yes (club website)	No	Kelme	No
S.C. Braga	Yes	2 (city downtown, shoppings)	Yes (club website)	Yes (OfficialShirt.com; ishopbraga.com;)	Hummel	No

By 6th September 2020

Panel B

Club	Owned Store?	Nr. Physical Stores (location)	Online Stores	External Retail Channels	Brand Manufacturer	Website of Brand Manufacturer
Sporting C.P.	Yes	2 (Stadium, city downtown)	Yes (club website)	Yes (Macron.com; OfficialShirt.com)	Macron	Yes
Vitória S.C.	Yes	3 (Stadium, city downtown, shopping)	Yes (club website)	Yes (Macron.com; OfficialShirt.com)	Macron	Yes

by 6th September 2020

Panel C

Figure 4 (panels A, B, and C): Retailing channels for merchandising products used by the football clubs of the Portuguese first division (season 2020/2021). Source: Student own research on the clubs official platforms.

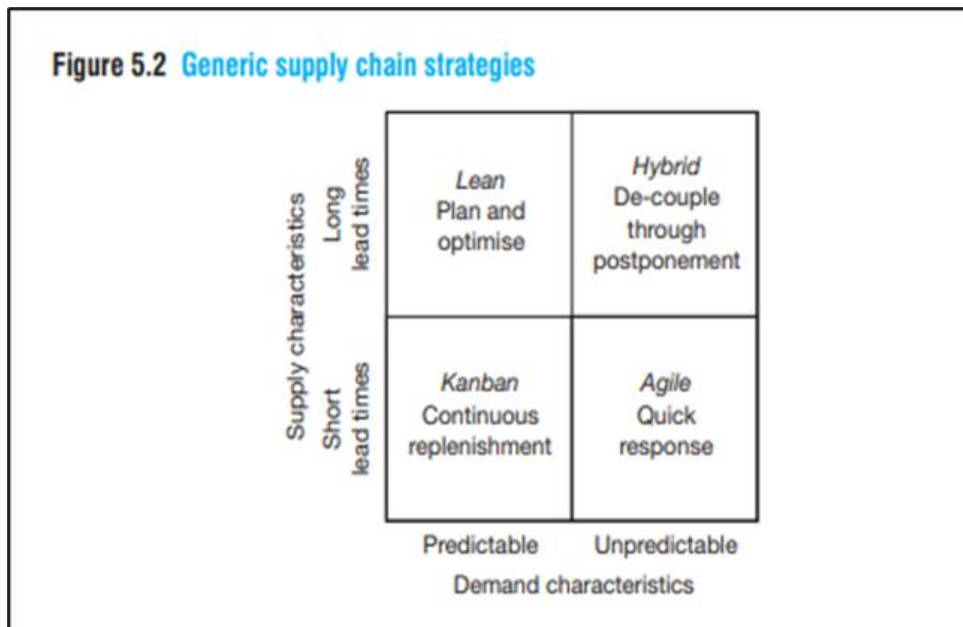


Figure 5: Generic Supply Chain strategies. Source: Christopher, Martin. 1992. Logistics & Supply Chain Management. 4th ed. London: Pearson Education, p. 101

Dimension of Analysis	Sub-dimension	Authors	Topic
Product charct.	Product Attributes	Hill 1993	Market qualifiers and winners
		Fisher 1997	Functional and Innovative products
		Chopra 2018	Attributes of demand
		Mason-Jones, Naylor, and Towill 2000	Attributes of lean and agile supply
Demand charct.	Demand Uncertainty	Szymoszkowskyj et al. 2016	"Market dynamism" - impact of performance on demand uncertainty
		Fisher 1997	Functional and Innovative products
Supply charct.	Supplier Relationship Dynamic	Christopher 1992	Replenishment lead times
		C.S. Tang 1999	Supplier-Buyer contract models

Figure 6: Authors consulted to construct the qualitative assessment criteria approach present in Figure 1.

Appendix II – Interviews

Interviews Summary

Interview 1

Company: Small manufacturer of scarfs, supplying various clubs in Portugal and abroad.

Role in the Supply Chain: Manufacturer

Location of the interviewee: Braga, Portugal

Role of interviewee: Head of the Research, Development, and Innovation Department

Longevity in the role: 6 months

Type of interview: Video interview

Date: 10th September 2020

a) Main Products Manufactured

This manufacturer specialized in producing scarfs and beanies that are sold as merchandising by sports clubs and organizations (mainly football).

b) Customers

As much as 90% of the production is exported, most of it sold directly to foreign clubs and organizations (UEFA, for example). The rest is sold directly to Portuguese clubs, mainly to one of the four big clubs, which has granted this manufacturer an official production license. This manufacturer has also established contracts with bigger brand manufacturers to function as a manufacturing sub-contractor when necessary.

Interview 2

Company: Sports apparel brand with international presence; founded in Germany in 1923. Supplies equipment and merchandising to 2 first divisions in Portugal.

Role in the Supply Chain: Brand Manufacturer

Location of the interviewee: Coimbra, Portugal

Role of interviewee: Commercial Area Manager. Represents the company in Portugal and negotiates directly with clubs' commercial department.

Longevity in the role: 15 years

Type of interview: Video interview

Date of the interview: 15th September 2020

a) Main Products Supplied

In the context of football club's merchandising, the main products that this brand manufacturer supplies to clubs are co-branded match shirts, shorts, socks, training kits, footballs and other sports apparel items, depending on the size of demand generated by each club.

b) Clubs Sponsored/Supplied

In Portugal, this brand manufacturer has established sponsorship contacts with three clubs (referred as club D, club E and club F hereafter). Club D is one of the four big clubs in Portugal, generating a major level of demand. Clubs E and F can be considered small clubs in the context of the first division, generating only a small level of sales. Usually contracts are established with a duration of four years.

c) Retailing Channels

Most clubs own some form of retailing channel for their merchandising products, such as owned physical and online stores. This is also the case for the three Portuguese clubs supplied by this brand. Some brand manufacturers also may have retailing channels of their own in which they sell co-branded products, which is not the case for the Portuguese clubs' merchandising. There are also external retailers (independent from the club and brand) which sell these products to the final consumer. In the case of club D these external retailers include local and national sports goods retailers (in physical stores and online), whereas in the case of clubs E and F these external retailers are limited to some local stores. The exploration of these external retailing channels can be performed by the club or by the brand manufacturer.

d) Contracts Established

These sponsorship types of contracts are generally established with similar conditions across brand manufacturers and clubs. In the case of this particular brand manufacturer the

sponsorship fee is included as a plafond that the club has available when ordering stock from this brand manufacturer (the direct supplier). There is a minimum ordering quantity that the club must commit during the course of the football season, at an agreed order price. The retail price (the price charged to the final consumer) of the several items is also established in the contract, in force in all retailing channels. In what regards the exploration of the external retailing channels there are two possible variants. In the first one the club owns the rights to explore the external retail channels, negotiating directly with them. This variant is preferable when clubs have a commercial structure in place to negotiate with potential clients, and was followed by clubs D and E. The second variant is characterized by having the brand manufacturer negotiating with external retailers, with no intermediation by the club, which is then are entitled to royalties on each sale. This variant may not yield such high profit margins for clubs but may be optimal when clubs do not have an extensive contact network or expertise in negotiating these contracts with retailers, generating revenues with a low amount of effort for the former.

e) Strategy

The value proposition of this manufacturer is based on their historical presence on the market (“oldest sports apparel brand”), worldwide recognition, and the high quality and *avant-garde* design of their products. Recently the brand has changed their channel management strategy in Portugal: previously they contracted distributors who made business with clubs, but nowadays the brand has a direct business relationship with clubs, which increases the trust that clubs have on their supplier, brings logistics improvements and cuts supply chain costs by eliminating the middlemen. The national overall strategy of the brand was to sponsor a representative club from each of the regions (North, Centre, South, Madeira and Azores), which is clear by the geography placement of clubs D, E and F.

f) Manufacturing Facilities

This brand manufacturer owns several factories in Asia (China and Vietnam), where a big part of its production capacity is located, and also manufactures in sub-contracted factories in Europe. The owned factories in Asia enable a lower unitary cost but carry a higher lead time of supply due to great distance to Europe. The sub-contractors in Europe are used when there is a need for a rapid production of a specific product, but the drawbacks are the higher unitary costs. The usual lead time expectation for a supply of a batch of match shirts is around 3 or 4 months.

g) Industry Trends

In recent years it has been observed some cases of vertical integration of clubs into manufacturing of their merchandising products. This trend is expected to be enhanced by the growing importance of merchandise sales revenues for clubs, and the high-quality and fragmented nature of the textile manufacturing sector in Portugal.

Interview 3

Company: Sports retail store chain, part of a major Portuguese corporate group

Role in the Supply Chain: External retailer. Purchases merchandising from the brand manufacturer or the intermediary to sell to the final consumer.

Location of the interviewee: Porto, Portugal

Role of interviewee: Demand forecasting at the Planning and merchandising team

Longevity in the role: 5 years

Type of interview: Message Interview (through social platform LinkedIn)

Date of the interview: 30th September 2020

a) Clients' Relationship

Despite selling merchandising products from the main Portuguese and international football clubs, this retailer has established business relationships only with the brand manufacturers and suppliers of these items, from which they order directly without intermediation from clubs or other entities.

b) Demand Forecasting

This retailer forecasts demand based on past sales data and growth projections, with no intermediation from suppliers. When demand is estimated orders are placed to the supplier and prices are negotiated.

Interview 4

Company: Football club from the Portuguese first division

Referred as: Club A

Role in the Supply Chain: Small football club with one owned retail store and an online store. Some local town shops (external retail) sell the club's match shirt, but not as their core activity.

Location of the interviewee: Braga district, Portugal

Role of interviewee: Former intern in the Marketing department

Longevity in the role: 4 months

Type of interview: Message Interview (through platform LinkedIn.com)

Date of the interview: 19th – 22nd October 2020

Club A can be characterized as a small club in the first division in Portugal. Averaging less than 3000 spectators in attendance per home match and with less than 10 presences in the Portuguese first division since it was founded (Liga Portugal 2020), we can say that club A is still taking its initial steps in becoming a relevant club in Portugal, despite winning the League Cup title recently.

a) Main Merchandising Products Sold

In terms of commercial activity, we can say that it is rather limited, with close to “90%” of sales being the official match shirt (home and away models). The rest of the items sold is constituted mainly by scarfs.

b) Volatility of Demand

Regarding the demand level for match shirts, it can be said that this value is predictable and stable during the season. For this reason, the club holds this merchandising of match shirts in stock on its only physical store, located in the stadium. This product is always available for customers at the moment of purchase, and the club rarely incurs in stock-outs.

c) Match Shirts: Relationship with Brand Manufacturer

If the customer wants to personalize his/her match shirt (with number and name on the back of the shirt), then an order is sent to the supplier, which is fulfilled in “3 or 4 days”. This short lead time can be attributed to the fact that the supplier is in close proximity to the club’s stadium, supplying the club for many years. We can say that this club’s merchandising SC construction follows the concept of SC Model 1 (described in the *Supply Chain Characterization* point). Unfortunately, information regarding order quantity or frequency of orders for these merchandise products before and during the season was not obtained in this interview.

d) Scarfs

Regarding scarfs, it was pointed that there is a great variety on offer, and the demand for this product is highly influenced by the club’s on-field performance. The supplier of scarfs is the same as the one for match shirts.

e) Determinants of Supplier Choice

The supplier of match shirts and scarfs is a local manufacturing company which enjoys good institutional relations with the club’s President and Vice-President, being this one of the main reasons for the choice of this supplier, along with the physical proximity.

Interview 5

Company: Football club from the Portuguese first division

Referred as: Club B

Role in the Supply Chain: Small/Medium football club with one owned retail store and an online store. Club merchandising sold through the brand manufacturers’ website retail channel.

Location of the interviewee: Porto district, Portugal

Role of interviewee: Communication and Marketing Manager

Longevity in the role: 3 years

Type of interview: Message Interview (through social platform LinkedIn.com)

Date of the interview: 20th - 22nd October 2020

Club B can be considered a small-medium club in the Portuguese’s first division. With 20 presences in the top-flight of Portuguese football, reaching two cup finals and three participations in European competitions, this club is one of the most relevant in the last decade of the Portuguese football scene. Nonetheless this relative success on-field does not reflect on the size of its fan base, with an average attendance of 3500 spectators per home match on its last participation in the first division, sitting in the bottom half when compared to the other clubs on this division.

a) Main Merchandising Products Sold

In terms of products sold through retail channels, the top 3 best-selling items are the home match shirt, the away match shirt and the anti-Covid masks. The club sells these

merchandising items through its single owned retail store and also through its website's online store.

b) Volatility of Demand

For both match shirts there is a predictable level of demand throughout the season, so much so that the club orders all inventory for the year in the beginning of the football season. If sales exceed expectations the club will place an order to the supplier with a lead time of "one week". It was also pointed that, although demand is fairly easy to predict, there are three clear demand peaks during the season: first month after launch of the match shirts (July/August), Christmas, and end-of-season sale (May/June).

c) Match Shirts: Relationship with the Brand Manufacturer

The supplier of these match shirts is an international brand manufacturer with large experience in the sports apparel market, sourcing several high-profile clubs in the Europe. The nature of this contract is of a sponsorship deal between club and brand manufacturer, in which the latter pays an upfront sponsorship fee to the club and gains the rights to commercialize co-branded merchandising products through third-party (external) retail channels, as well as the brand manufacturer's own website online store. This SC setting can be defined as the second variant of SC Model 3, presented on the *Supply Chain Characterization* point above.

d) Relationship with other Suppliers

The rest of the merchandise products sold in store present different characteristics, which then will be reflected on the lead time from to supplier to store. Such characteristics can be the degree of novelty of the product, or if the club requires a sample batch prior to the commitment of production.

e) Determinants of Supplier Choice

In what concerns the criteria by which the club evaluates and chooses its suppliers of merchandise, club B places price as relevant factor, but not always the determinant one, with lead time and quality presenting a heavier weight in some decisions.

Interview 6

Company: Football club from the Portuguese first division

Referred as: Club C

Role in the Supply Chain: Major football club in Portugal, with an immense customer base in Portugal and abroad. Owns 7 retail stores and an online retail channel on its website. Vast range of merchandise products on offer. Club merchandise sold through various external retail channels, from specialized sports retail stores to small retail points. Established a partnership deal with a brand manufacturer, with the latter owning the rights to explore external retail channels, negotiating the supply of co-branded products with external retailers.

Location of the interviewee: Lisbon district, Portugal

Role of interviewee: Senior Brand Manager

Longevity in the role: 4 years

Type of interview: Video Interview

Date of the interview: 23rd October 2020

Club C is considered one of the major clubs of Portuguese football, sitting among the most successful top 3 in terms of titles (leagues and cups). With one of the biggest stadiums in Portugal, it averages attendances of more than 50,000 spectators per home game in recent seasons, having the lion's share of football fans in Portugal among all clubs. The club also enjoys major international recognition, mainly due to two reasons: regular participation in European competitions and a worldwide spread fan base constituted by Portuguese immigrants and descendants. The commercial activity is one of the most important for the club, bringing a relevant share of revenues to the club's income statement. Hence, it has been in the best interest of the club to develop a strong brand to capture value from its fanbase, and arguably it has been achieving it in recent years. This club owns seven physical stores in Portugal and also sells through its website online store, shipping to various countries around the world.

a) Main Merchandising Products Sold

The main products sold through these owned retail channels in terms of volume are undoubtedly the official match shirts and other co-branded products with the brand manufacturer, one of the biggest and most renowned sports apparel companies in the world. Replica shirts (similar to match shirts, but without the brand manufacturer logo) and replica training kits also represent a growing share of sales volumes.

b) Volatility of Demand

Merchandising sales present some degree of volatility during the year mainly for two reasons: seasonality and the performance of the club on-field. Regarding the first factor - seasonality - it can be said that demand peaks and troughs are predictable during the football season, as there are yearly events that impact sales. It can be said that during a season the events that bring additional sales are the launch of the official collections in July; Christmas; Easter; and finally, End of season. The typical months where demand drops significantly are January, February, and March (from Christmas until Easter). The second factor, performance, is, by nature of this sport, unpredictable during a season. In sporting terms, if the club is performing well in the championship or the cups, then fans will be more satisfied, feel prouder and will tend to purchase more merchandising, and, thus, it can be said that performance has a great influence on merchandise sales for Club C. When performance is exceptional, it is observed that demand is amplified on the seasonal events where demand is historically higher, especially at the end of the season, which is a moment that represents a major source of sales if the club is crowned champion of the Portuguese league. It is also worth noting that when the club participates in the Champions League (the main European club competition) sales of merchandising relating to this competition will be significant, while the club remains in competition.

c) Match Shirts: Relationship with Brand Manufacturer

In what concerns the relation with the supplier of match shirts and various other co-branded products, the brand manufacturer, it has been a long-lasting partnership for more than 20 years. The current contract between the two parties constitutes a sponsorship deal (as

described in the *Supply Chain Characterization* point under the SC Model 3 concept), which poses as a very important revenue stream for the club's annual income. Moreover, the prestige that the brand manufacturer holds is of extreme commercial value for the club, as it is a major driver of product sales. The brand manufacturer owns the rights to explore external retail channels (such as sporting goods chain stores) for the co-branded merchandise products, benefitting from its global coverage and its greater expertise in distribution and sales compared to Club C.

Demand predictability for the flagship co-branded product, the match shirt, can be described as high, in the sense that the club has a fairly accurate picture of what the demand for this product will be during the year, even in the face of performance uncertainty. The lead time of stock transportation from manufacturer to retailer is large, amounting to more than 3 months for some match shirt models, which results from being supplied by an enormous company that is sourced by several manufacturing locations spread worldwide, meaning that flexibility in terms of quantities produced and lead time cannot be easily achieved. Nonetheless, the club can still safely place orders several months in advance thanks to two main reasons: the predictable demand pattern of match shirts; and an accurate forecasting capability, which can be attributed to an historical database with past orders and to a transparent communication and data-sharing dynamic between club and brand manufacturer, meaning that there is full visibility of sales across this supply chain at all times, by all parties. Moreover, match shirts which are not sold during the season can be sold at a discounted price after the football season ends, reducing the costs of overstocking.

d) Scarfs

Scarfs present a more volatile pattern of demand compared to match shirts, specially scarfs that are custom made specifically for a certain match (normally a match of a European competition). This makes it harder for the club to sell these scarfs after those matches, even at price discounts, as they are virtually useless by then. Therefore, the cost of overstock is greater for scarfs than for match shirts, which forces the club to be more conservative on its orders for these products, which entails, for example, negotiating lower minimum order quantities with suppliers. In terms of the sourcing of scarfs, club C is fully supplied by national manufacturers, as part of its social responsibility strategy.

e) Determinants of Supplier Choice

The main determinant of merchandising supplier choice (except for the brand manufacturer) for club C is Price - the lower the price of merchandising sourced the better – a factor for which the club is able to negotiate with smaller suppliers thanks to the former's higher bargaining power. Nonetheless, Quality (the higher the quality of the products the better) is also very important for the club, as well as Lead Time (the lower the time it takes from order to arrive at the club store the better). This last factor, Lead Time, is especially important at the end of the season if the club becomes the winner of the league, as there is great demand for merchandise products in a short period of time. In normal circumstances lead time of production and distribution of scarfs amounts to 45 days on average, plus 2 weeks in the case of new products that require a sample batch.

f) External retail channels

Club C's merchandising is also sold through various external retail channels. The rights to explore these channels are owned by the club, which means that the club can negotiate with external retailers and enjoy the profits from it. The exception to this rule is for the co-branded products with the brand manufacturer, with the latter company having the rights to negotiate these third-party contracts with external retailers, with Club C being entitled to royalties as part of their sponsorship deal (as described in SC Model 3 in the *Supply Chain Characterization* point).

g) Licensing

Being a club brand with a great amount of brand equity, Club C has seen a great potential in exploring commercially the value of its symbols (name, logo, anthem, historic figures, etc). With its Licensing program the club intends precisely to tap into this source of revenue. In basic terms, Club C sells to other companies (licensees) the rights to use its symbols for the manufacture of merchandising products. These companies are then contractually allowed to independently commercialize these products in external retail channels. This process is wholly supervised by Club C, which must approve all steps of this chain, from design of products, retail channels used to prices charged to the public, for example. Sometimes these products are purchased back by the club to be sold through the owned retail channels of the club.

Appendix III – Survey

Survey Reproduction

[Note: The survey was originally presented in Portuguese to respondents. Translation was made by the student author of this thesis.]

Introduction to the survey

This survey is part of my Master's in Management Work Project at Nova School of Business and Economics (Universidade Nova de Lisboa). Your participation in this survey is completely voluntary and you are granted the option to quit at any moment, without any penalization.

The objective of this study is to understand the purchasing habits for merchandising products sold by **Portuguese football clubs** through **official retailing channels** (clubs' physical and online stores, brand manufacturer stores or external retailers).

Some questions related to this topic will be presented to you in a few moments. Please answer with total honesty. Your answers will be kept in **total anonymity** and all data will be analyzed in aggregate terms. There are no risks nor benefits of participating in this study.

This survey has an approximate duration of **5 minutes**.

Note: Only people who are **18 years old or older** are eligible to answer this survey.

If you have any doubt or need clarification, please contact student:
Tiago Salcedas da Cunha

29104@novasbe.pt

Thank you for your attention!

Eligibility Question: Please select the option that describes your case:

- (1) I am older than 18 years old.
- (2) I do not want/ am not eligible to participate in this survey

Q1: Age:

- (1) 18 – 25
- (2) 26 – 35
- (3) 36 – 65
- (4) More than 65

Q2: District (optional):

Q3: What is your level of interest for football, in general?:

- (1) No interest
- (2) Some interest
- (3) Great interest

Q4: What is the Portuguese football club that you are a fan/member/sympathizer of? (optional):

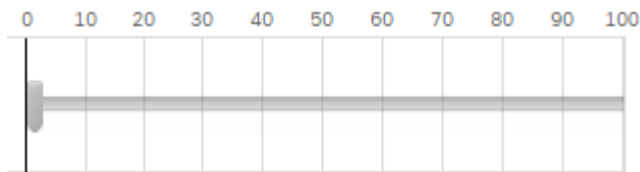
Please select only one option.

- (1) FC Porto
- (2) SL Benfica
- (3) SC Braga
- (4) Sporting CP
- (5) Rio Ave FC
- (6) FC Famalicão
- (7) Vitória SC
- (8) Moreirense FC
- (9) CD Santa Clara
- (10) Gil Vicente FC
- (11) CS Marítimo
- (12) Boavista FC
- (13) FC Paços de Ferreira
- (14) CD Tondela
- (15) CF Os Belenenses
- (16) Portimonense SC
- (17) SC Farense

- (18) CD Nacional
- (19) Vitória FC
- (20) CD Aves
- (21) No club
- (22) Other. Which one? _____

Q5: What is the percentage of matches that you have watched during a normal season (live, on television, computer, etc.)?:

Please drag the mouse until you reach your answer.



Introduction to the topic

Official club products are any **physical products** that contain an **identifying symbol** of the club in question. They can also be referred to as "merchandising products". Examples of such products can be: match shirts, replica shirts, scarfs, tracksuits, jackets, anti-Covid masks, footballs, everyday wear, key rings, mugs, watches, decorative items, etc. .

Match tickets, membership cards, annual seats, or any other type of experiences **are not classified as physical products** for the purposes of this study.

Please try to remember the occasions when you purchased **any of these merchandising products** in the **past 3 years**. If you have not purchased any product, please think of someone close to you who did (may be from another Portuguese club) and answer the next questions according to such case.

Q6: What is the option that best describes your purchasing behavior in what regards football clubs' merchandising products?

- (1) I am a regular buyer of merchandising from my club
- (2) Occasionally I have purchased merchandising products from my club in the last 3 years.
- (3) I haven't purchased any merchandising lately, but a relative has.
- (4) I haven't purchased any merchandising lately and I don't know anyone who has.

Q7: What is the official product you purchased most recently?

- (1) Match Shirt (home, away, third kit, goalkeeper, etc.)
- (2) Replica shirt (without the manufacturer's brand logo)
- (3) Scarf

- (4) Football
- (5) Tracksuit
- (6) Anti-covid mask
- (7) Hat/Cap
- (8) Casual clothing (day-to-day)
- (9) Club Shoes / Tennis
- (10) Retro Equipment
- (11) High-value accessory (watch, necklace, ring, etc.)
- (12) Accessory of lower monetary value (pen, mug, key ring, decorative item, etc.)
- (13) Book / DVD / Game
- (14) Toy
- (15) Other:

Please answer the next questions taking into account the **product you selected in the previous question.**

Q8: Where did you buy this official merchandising product?

- (1) Club's official physical store
- (2) Club official website / online store
- (3) Physical store of the brand manufacturer (Adidas, Nike, New Balance, Macron, etc.)
- (4) Brand manufacturer website
- (5) Another physical store (Decathlon, SportZone, JD, Força Portugal, etc.). Which one?
- (6) Another online store (TheOfficialShirt.com, JDSports.pt, Decathlon.pt, FutebolClubeLoja.com, etc.). Which one?

Q9: How long has it been since the last purchase of this product?

- (1) Less than 3 months
- (2) Between 3 and 6 months
- (3) Between 6 months and 1 year
- (4) Between 1 and 2 years
- (5) Between 2 and 3 years

Q10: For how long do you believe you will use this product until it ceases to be useful or fails to bring you satisfaction?

- (1) Less than 1 month
- (2) 6 months
- (3) 1 year
- (4) 2 to 3 years
- (5) 5 years
- (6) More than 5 years

(7) Forever

Q11: Has your club's recent sporting performance influenced your decision to purchase this official merchandising product?

- (1) Yes, it had a big impact on the decision
- (2) Yes, but it only had a slight impact on the decision
- (3) No, it did not influence the decision in any way

Q12: What were the main reasons that led to the purchase of this official product?

Select up to 3 options please.

- (1) Exceptional final league / cup ranking
- (2) Take pride in using club products
- (3) Promotion / Sale
- (4) Like/Fancy this particular product
- (5) Stadium / store visit
- (6) Festive season (Christmas, Easter, Club Anniversary, New Year, Black Friday,)
- (7) Match series with good results
- (8) The product is a novelty
- (9) Alluding to a European competition
- (10) Buying tradition at the beginning of the football season
- (11) Replacing a product that is out of date, or that no longer serves
- (12) Purchase for a specific match (e.g. match scarf)
- (13) Good performance by a specific player / New signing
- (14) Birthday gift
- (15) Another

Q13: What are the two most determining factors for you when thinking about buying the official product of your preference?

- (1) Price
- (2) Quality
- (3) Variety (of colors, models, etc.)
- (4) Product innovation
- (5) Immediate availability in store / website
- (6) Fast delivery
- (7) Delivery at home
- (8) Other:

Thank you very much for your participation in this study! If you want to report a problem or want to be informed of the final result of this Master's thesis please contact the email address **29104@novasbe.pt**.

Characterization of the Sample

In total, the survey was initiated by 122 people, of which 100 have completed it. This sample of the total population of purchasers who have acquired merchandising products of Portuguese football clubs recently can be characterized by their answers to the 13 questions of the survey.

In what regards age (question (q) 1), most respondents are between 18 and 25 years old (64%), with the second most represented group being 36 to 65 years old (30%).

Concerning naturality (q2), most respondents are residents in the Faro district (39%), followed by Lisbon (21%) and Porto (15%). In total, 14 out of the 20 districts of Portugal were represented by at least one respondent in this survey.

When inquired about their level of interest in football (q3), 60% of respondents claim to have a “great level of interest” in this sport, while 33% affirm to demonstrate “some interest”. The rest demonstrates “no interest”.

In question 4 it was asked about which club they support, most respondents claimed to be a fan of S.L. Benfica (39%), with Sporting C.P., F.C. Porto and S.C. Farense also capturing an important share of respondents’ preferences (21%, 16% and 13%, respectively). In total, nine clubs from the Portuguese’s first division, out of 18 possible, were represented in this survey, with the additional presence of two clubs from lower divisions (A. Académica de Coimbra and S.C. Santacruzense).

In terms of the measure of fan engagement to the club, the percentage of matches watched by fans (q5), it was observed that the mean of value was of 46.8% of matches, with a standard deviation of 37.4%.

Concerning the purchasing behavior of fans on the last 3 years (q6), 51.9% of respondents classify themselves as occasional purchasers of merchandising products, while 34.0% of respondents claim to have a relative person who has purchased a product in the past despite the former not being purchasers themselves. The rest of the respondents is divided equally between the two extreme cases: regular purchasers and people who have never purchased and are not familiar with anyone who has.

Moving forward, it was asked to respondents to select the merchandising product which they have purchased most recently (q7). 38.7% of respondents claimed to have purchased the club’s match shirt in the last 3 years. The second favorite merchandising item in terms of purchasing events were scarfs, with a 19.8% weight; the third place is occupied by the club’s replica shirt (which is not produced by the brand manufacturer). An additional 10 products were reported to be purchased by respondents in the last 3 years, all of them with a weight of less than 10% of responses each.

In what regards the purchase channels used by fans (q8), respondents have reported to purchase their club’s merchandise products preferentially from the club’s owned retail channels, namely physical store(s) (44.3%) and online store (17.9%). The second most preferred purchasing channel are external retail channels, with 17.9% reporting to buy from external physical stores (which can be sports goods stores, supermarkets, fairs, among others) and 5.7% from external online stores. In the last place there are the brand manufacturer’s retail

channels, physical and online stores, which grossed a combined share of 14.2% of responses (12.3% and 1.9%, respectively).

When asked about the timing of the last purchase (in the last 3 years) (q9), the majority of respondents claimed to have made their last purchase more than one year ago (34.0% + 27.4% = 61.4%). 17.0% of respondents claim to have made their last purchase in the last 6 months (7.6% + 9.4%), while 21.7% have purchased an official merchandise product for the last time between 6 months and one year ago.

In order to have an estimate at the product life cycle, it was asked to respondents to give an approximation of the amount of time they expect to use the product until it lost its usefulness (q10), being by a need for substitution, or being out-of-date, among other reasons. The majority of respondents expect their merchandise product to remain useful for 5 years or more after purchase (9.4% + 20.8% + 38.7% = 68.9%), with 38.6% of the total respondents even claiming to be expecting to use the product forever. 18.8% of respondents claimed that the useful life of their product would be around 2 to 3 years, while 12.3% expected their product to be useful for one year or less (0.9% + 3.8% + 7.6%).

Regarding the importance of the club's on-field sporting performance (i.e. winning matches/trophies) for the decision to purchase an official merchandise product (q11) this survey provided the following results. 57.0% of respondents claimed that performance did not have any impact in their purchasing intention; 29.0% responded that it had a slight impact in their decision; a minority of 14.0% claim that performance indeed had a major impact on their decision to purchase his/her club's merchandise product.

In what respects the reasons that led respondents to purchase a merchandise product for the last time (q12) the most common motivation pointed was the feeling of pride of wearing the club's colors, with 27.7% of responses. The second most common reason for the purchase decision was fancying the product in particular, capturing 17.5% of responses. The rest of the reasons presented obtained a weight of less than 10% of responses, with the rest of the top six reasons being completed by: visit to the stadium; anniversary gift; Promotion/Sales; and Substitute or update an older product.

Finally, when asked the two product attributes which have the most impact when assessing the purchasing decision (q13), respondents have selected Price the greatest number of times (37.5%), with Quality coming as a strong second factor (29.0% of responses). Another six factors were selected, with Innovation of the product, Availability in-store and Variety closing the top-5 attributes that have the most influence when deciding to purchase a merchandise product.

Appendix IV – Supply Chain Characterization

Model 1

This model can be characterized by a direct relationship between the manufacturer and the club. The club orders directly from this supplier and there are no intermediaries in between. This is typically the case when the manufacturer is a small company and does not hold a great degree of negotiating power against the club. A variant of this SC type is the licensing model. The club grants a license to a company/factory, called the licensee (charging a flat fee or royalties on top of revenues), with the latter then having the rights to commercialize this merchandise with the club's symbols. Many times, the club will purchase this merchandise from the licensee and sell it in its official stores. Nonetheless, there are many instances where these products are sold to the final consumer through outside retailers, which are not directly controlled by the club. This SC is usual for a great number of items, such as scarfs, clothing, decoration items, or even wines.

Model 2

The second SC configuration involves more entities. This SC setting occurs usually when a small club desires to be sourced from a major brand manufacturer (e.g. Nike, Adidas), mostly when the product sourced is the official match shirt. As the clubs' bargaining power is too low to even begin to negotiate with these corporate giants, the former have established relations with intermediary companies which have acquired a license to supply products under the name of these world-renowned brand manufacturers. These items are sold to the final customer through the club's official store (online or physical channels), or even through the intermediaries' website. As the customer base for these products is rather low (as these are small clubs), there is not sufficient demand that justifies outside retailers wanting to sell this merchandising. The benefits for the club of this SC setting are obvious: being associated to a top tier sports brand; being supplied products which present a high perceived quality; and its merchandising being highly marketable. These brand manufacturers will then manufacture the products in owned factories, or sourcing from outsourced manufacturing centers, benefiting from large scale economies in terms of quantity ordered.

Model 3

The third type of SC configuration is a more complex one. This is almost exclusively observed when the product is the official match shirt of major club, which presents a great potential demand due to the large fanbases that these clubs carry. The club negotiates directly with the brand manufacturer and these parties engage in what is called a *sponsorship deal*. In this type of contract, the brand manufacturer, usually a major company in the sports apparel industry (e.g. Adidas, Hummel, New Balance, Macron, to state the ones that supply Portuguese clubs), acts as a sponsor, paying the club an agreed flat sponsorship fee each year in order to be the official main supplier of the majority of the merchandise kits and apparel items of the club (including match shirts, training kits, branded footballs, and many other items). Before and during the football season the club will be supplied these products in a regular buyer-supplier relationship fashion, with both parties previously agreeing on the unit price for each item. The

advantages for the brand manufacturer on this type of deal are also evident: the exposure granted by the size of the club's fanbase will generate a high number of guaranteed sales, and if demand exceeds expectations then it will generate even more orders (and, thus, profit) for the manufacturer. Moreover, being associated to historic clubs brings higher status to the brand manufacturer (André Richelieu and Desbordes 2013), which can enable the latter to establish further contracts with other clubs, and also generate demand from consumers on other products made by the brand. Regarding the retailing rights of these merchandise products, there are two opposite variants occurring among Portuguese clubs. In the first variant the club owns the rights to manage the retailing channels for these co-branded products (i.e. containing identifying symbols of both the club brand and the brand manufacturer), selling them in their own stores and also negotiating directly with the external retailers that intend to sell these items in their stores. Inventory is ordered by the club to the brand manufacturer, with the former then distributing it to external retailing clients. This solution is usually adopted when the club possesses a wide network of contacts with external retailers aiming to conduct business with the club. The other variant is characterized by the brand manufacturer owning the rights to manage the retailing channels of these co-branded merchandise products. The brand manufacturer will negotiate with the external retailers and directly supply them, without intermediation by the club. Nonetheless, the club usually still retains a share of the revenues realized by these external retail sales in the form of royalties charged on sales proceeds. This variant is adopted when clubs lack the expertise to conduct business with external retailers, or when worldwide demand for these products is so massive that the immense scale of the brand manufacturer (in terms of global coverage, amount of sales personnel, major retailing expertise, etc.) is better suited when negotiating with external retailers. In both these variants the price charged to the final consumer is agreed upon and stated in the contract, so that every point of sale presents the same price point. The reasons for this practice are to deliver consistency across retail locations and avoid arbitrage opportunities by any party.

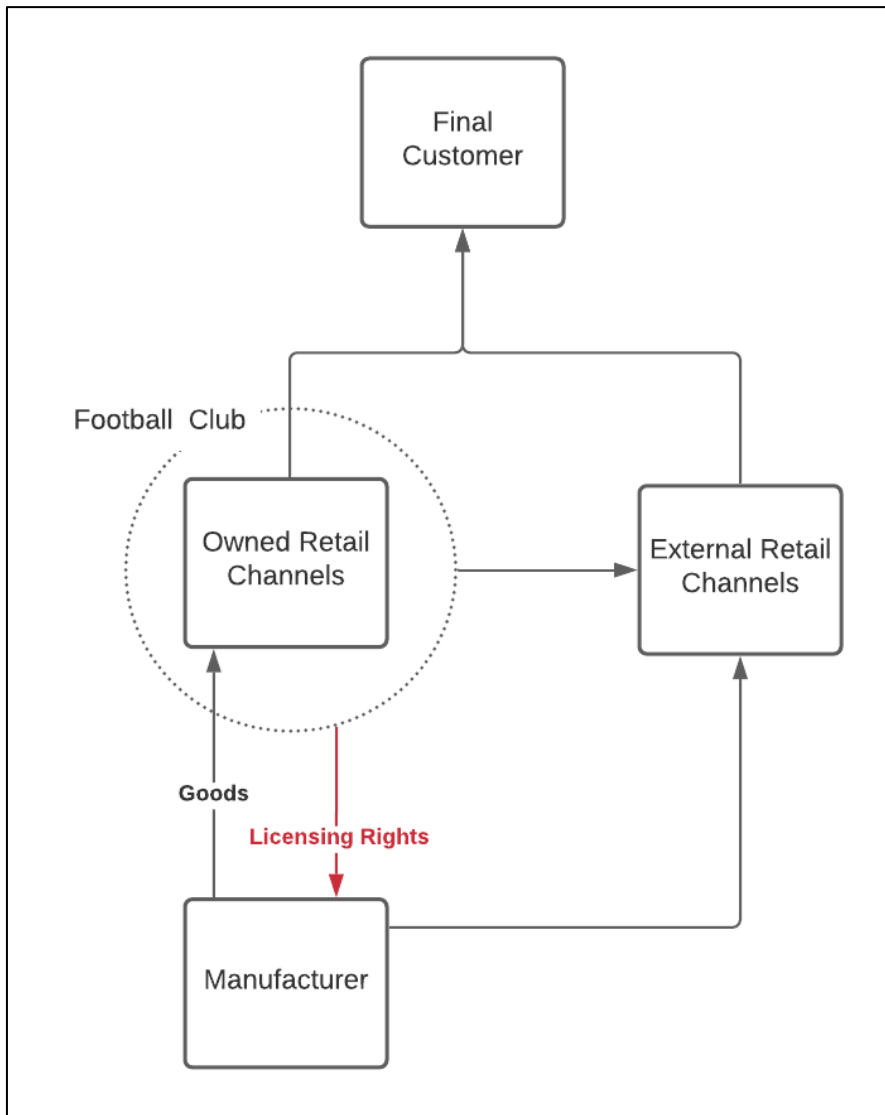


Figure 7: Supply Chain Model 1

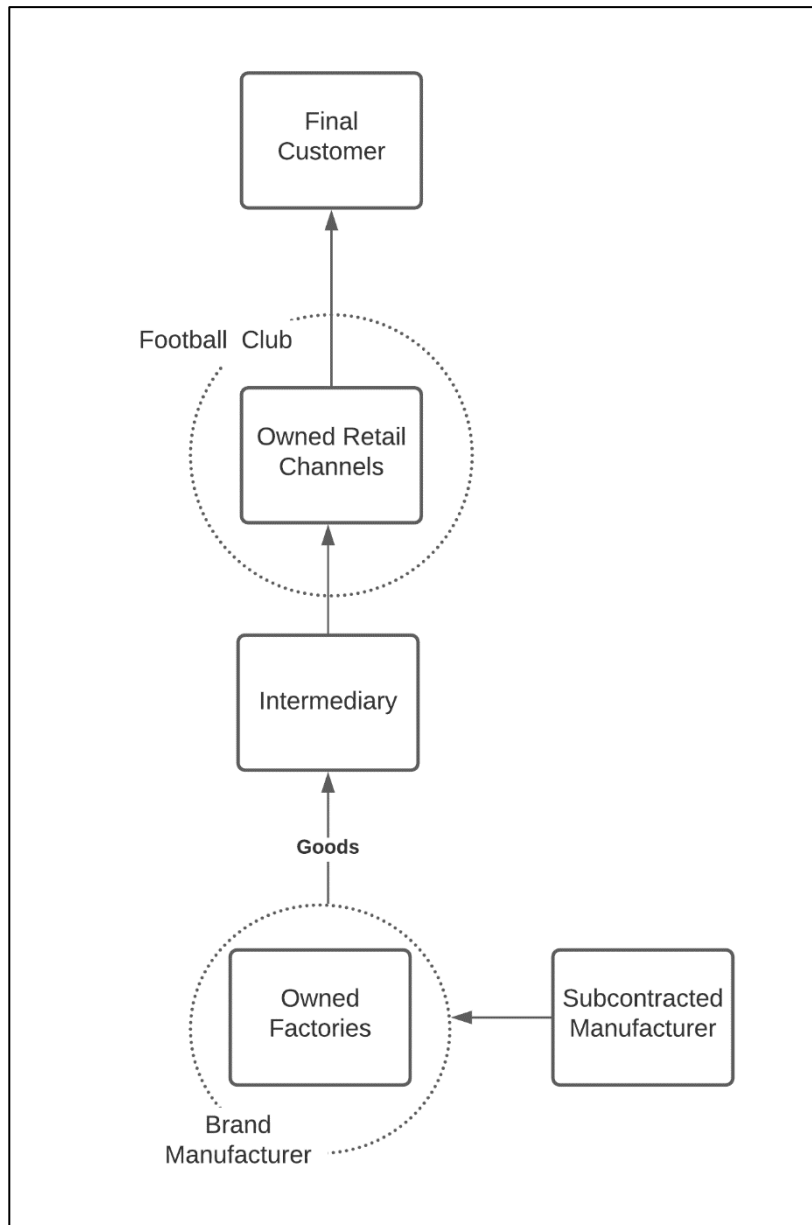


Figure 8: Supply Chain Model 2

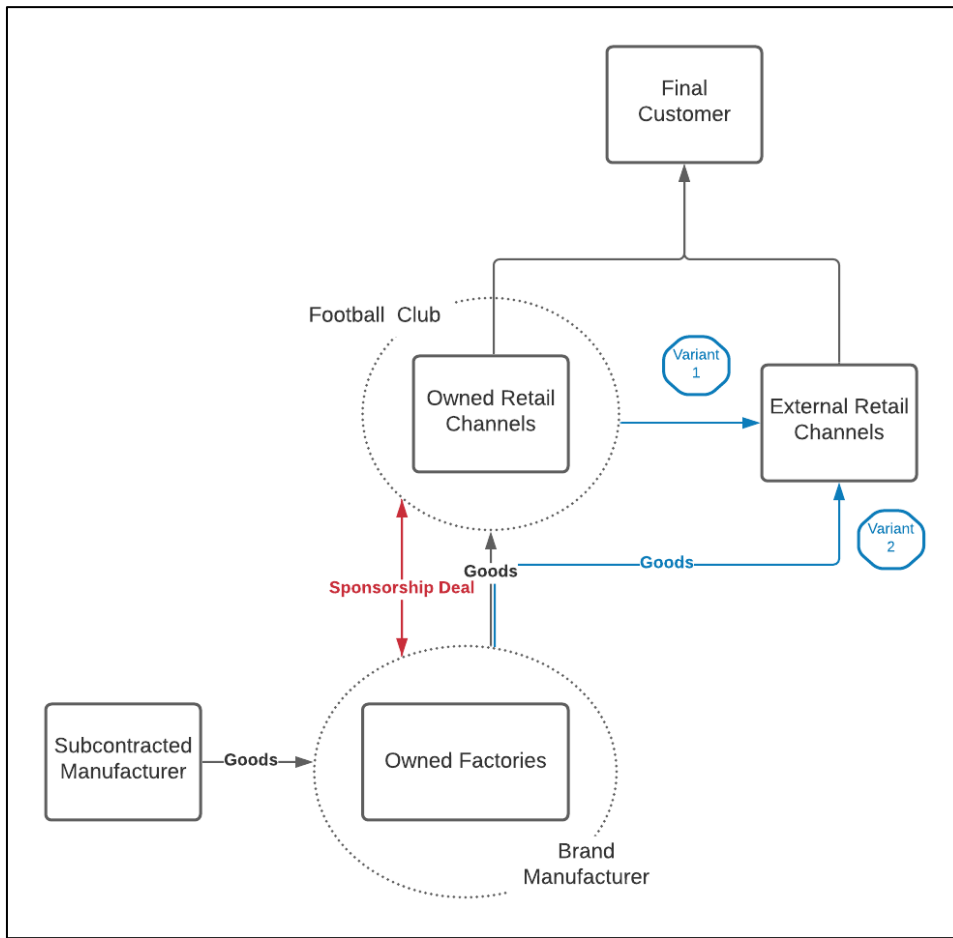


Figure 9: Supply Chain Model 3

Appendix V – Methodology for the creation of Figure 1

Regarding the Product Characteristics dimension, the Product Attributes (Price, Quality, Variety, Availability in-store and Innovation) were derived from the survey responses of multiple answer question 13 of the survey which aimed to evaluate the product features/characteristics that had more influence on the purchasing intention by respondents (a reproduction of the survey questions is presented on Appendix III).

In what regards the next dimension, Demand Characteristics, the assessment of the criteria respecting to Demand Uncertainty were collected using both sources. It is theorized that the impact of the club's sporting performance on the purchasing decision is a key factor when determining demand uncertainty of these merchandise products. This criterion was assessed using information both from the interviews with the club's representatives and questions 11 and 12 of the survey (q. 11 inquired about the respondents' perceived impact of performance on their purchase decision (between "No impact", "Slight impact" and "Great Impact"); q. 12 asked for the main factors that determined the purchase decision (in a multiple answer fashion)). The other criterion from the Demand Uncertainty dimension, Product life-cycle, is also believed to give clues in what regards demand predictability of a product, in the sense that a product with a short life cycle is more bound to be replaced more often by customers, generating a greater amount of purchases, with an increased probability of demand volatility (they are also associated to fashion products, which present high demand fluctuations). This criterion's assessment was derived from the answers of questions 9 and 10 of the survey, which inquired about the amount of time since last purchase, and the perceived amount of time that the product will be useful, respectively.

The last dimension, Supply Characteristics, is sub-divided into two criteria related to the topic of Supplier Relationship Dynamic: Replenishment lead-times and Bargaining power of the clubs against suppliers. Both of these criteria's assessment were collected from the answers of the interviewees, most concretely the club's representatives when inquired about the relationship with their different suppliers. The assessment of each criteria was categorized in a scale of High, Medium-High, Medium, Medium-Low and Low (substituting Low by Short on the Product life-cycle criterion) according to the information retrieved from the data sources mentioned previously (interviews and survey).