THE SPORTS ECOSYSTEMS OF FOOTBALL CLUBS FROM SÃO PAULO: FANS' PERCEPTIONS CONCERNING SPORTS BUSINESS AND MARKETING

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1. Introduction

A sports ecosystem is acclaimed as a presumption for assisting sports managers and vendors to tackle new business and marketing opportunities to reach more financial funds and revenues to a sports club through a range of goods and services in the form of experience and entertainment in a result and experience format to sports fans (Maltese & Danglade, 2014; Rundh & Gottfridsson, 2015). Sports managers and marketers use business and marketing principles for producing and offering benefits to customer fans. Even so, a sports club has no skills, expertise and competence to deal with a range of resources by itself with efficiency and efficacy (Bradbury & O'Boyle, 2017; Shilbury, 2009). Then, inviting and involving competent and experienced stakeholders to assist and manage some activities of the value chain process is an option to design and prepare a value offer in an efficient and effective manner to ensure a sports event and experience to meet the sports fans' expectations (Chadwick & Thwaites, 2005). Thus, a sports ecosystem reveals a set of actors' networks which sports managers and marketers require to mobilise in order to fit an offer to a target demand of fans. Under these circumstances, the role of the sports ecosystem aims to organise a complex set of actors that must interact and intervene with each other, sharing and combining resources to create new opportunities to deliver value to fans by means a sports entertainment offer (Collignon & Sultan, 2014; KPMG Report, 2014).

Thus, a sports ecosystem reveals the actors' network that can help sports managers and sports marketers to implement activities and processes to organise a sports event. In summary, the sports ecosystem components correspond to the resources required to design the sports business and sports marketing plans (Storm, Wagner & Nielsen, 2017). Taking all that into consideration, a sports ecosystem was designed by the authors of this article to analyse the results of this study. Given these points, how are the sports ecosystem of the Sport Club Corinthians, Sociedade Esportiva Palmeiras (Palmeiras Sports Society), and São Paulo Futebol Clube (São Paulo Football Club) understood and perceived, according to their fans' attributes? This paper aims to understand and analyse which fans' attribute most interferes with their point of view regarding the sports ecosystem of the said football clubs from the city of São Paulo, Brazil – as well as, to observe the similarities and differences among them. These three sports football clubs were chosen, because: (i) they are the biggest sports clubs from São Paulo, (ii) the authors live in this city, (iii) and there are few studies regarding the sports ecosystem of these clubs. These three sports clubs are known as the 'Triad of São Paulo' since they are the three sports clubs which have had the most achievements of the city and of the State of São Paulo.

2. Literature Review
2.1 Sports Business and Marketing

Sports managers have been required to coordinate actors' networks which should be composed of four groups of organisations or individuals, for instance: suppliers - athletes, coaches, etc.; competitors - other sports and leisure activities; customers - spectators, fans and companies; and infrastructure - stadium, sponsors and other clubs (Chadwick & Thwaites, 2005; Clemes, Brush & Collins, 2011). Thus, sports marketing is relevant for coordinating a set of activities to meet needs and wants of fans (as consumers) through exchange processes. In effect, the sports marketing has been continuously evolving and undergoing profound changes with a view to deal with new expertise as design thinking, design sprint, business innovation and user experience to respond to competitive challenges as well as fans who demand an elevated level of goods and services (Bradbury & O'Boyle, 2017; Foster, O'Reilly & Dávila, 2016; Shilbury, 2009). At large, two aspects draw attention. First, analysing the sport as an event, experience, entertainment offer and the sports ecosystem to better understand the marketing potential associated to stakeholders – events, clubs, partners, media, athletes, fans, public and private organisations, etc.) (KPMG Report, 2014; McHugh, Bronson &

Watters, 2015) Second, looking at the sports marketing as an application with specific particularities. These include the relevance and quality of stakeholders which are critical for designing and producing the sports offer, and the emotional and captivating nature of the sporting performances (Amorim & Almeida, 2015; Chadwick & Thwaites, 2005; Leopkey & Parent, 2009).

Bearing in mind the business context, the professional needs to know three different dimensions of sports marketing. One is the advertising about sport and sports association as seen in the Olympics, (and in) Sports Leagues, like the British Premier League, French Ligue 1, Spanish La Liga, Germany Bundesliga, etc.; which can be labelled 'marketing of sports'. The other is the promotion of sport aiming to increase the public participation in sports events, e.g., having talented athletes, having a comfortable arena, providing facilities, i.e., the product that is created by sports managers in order to meet the fans' expectations (Collignon & Sultan 2014; KPMG Report, 2014; McHugh, Bronson & Watters, 2015). Finally, the promotion of products for sports events, such as 'marketing of sports', when a company creates a product and/or service driven to sports events, for instance, t-shirts, shoes, caps, etc, in order to promote the sponsorships' brands, products and services in a recognisable sports club by means Integrated Marketing Communication (IMC) tools and strategies (Giroux, Pons & Maltese, 2017; McHugh, Bronson & Watters, 2015).

To propose a marketing strategies model is important to overhaul the existing business model of a non-profit sports club organisation and transform this into a business marketing-oriented model of a sports ecosystem capable of delivering results against the following five axes (Collignon & Sultan, 2014; Collignon, Sultan & Santander, 2011; Leopkey & Parent, 2009): structuring marketing channels networks (members and actors); professionalising the sports club (business managers); establishing good relationship with stakeholders; dealing with actors to get resources; and managing sports brand reputation, targeting audiences through the use of various media. In summary, as Foster, O'Reilly & Dávila (2016), Shilbury (2009) and Storm, Wagner & Nielsen (2017) explain, sports clubs are using five sources of revenue to finance their organisation: (i) players, acquired from South American, Asian or African clubs, as an investment that can be sold later; (ii) ticketing, which means all tickets available for watching a live match on the stadium a sporting venue; (iii) partners, who control all rights for naming the arena; who produce sporting clothing, and other products or services; (iv) media rights, where the media and, in special, tv broadcasters pay for broadcasting rights around the world; (v) club membership, where fans are encouraged to invest in and help to finance clubs in exchange benefits, for example, discounted in tickets, best seats at the sporting venues, etc.

2.2 Sports Ecosystem: Some Proposals

Four sports ecosystems were analysed to design our sports ecosystem model. The first sports ecosystem was designed by Collignon and Sultan (2014), aiming at a good cash flow management for a sports club. Their inspirations and references came from American sports, European football leagues and Grand Slam tennis championships, as Wimbledon in London, England. A sports club plays a relevant role in the sports ecosystem because clubs understand the need to pay special attention to five elements: (i) fans expectations: spending their money, (ii) the media: buying rights to broadcast matches for an audience of fans, (iii) brands in the sports area: selecting the right partner clubs, leagues and athletes, (iv) leagues: organising the seasons and playing an intermediary role in flowing revenues to clubs, (v) clubs: getting revenues and profits from ticketing, selling licensed products, sponsorships and media rights.

The second sports ecosystem was presented in a report published by KPMG. The sports ecosystem created by KPMG (2014) focuses on two aspects: sports transparency and professionalism coupled with growing awareness of all stakeholders within and across various segments; and producing a winning sports team. Bearing in mind the transparency, professionalism and a winning team, as the three key objectives of KPMG's sports ecosystem, seven axes were designed for achieving these goals: sports governance; talent scouting & training of players; sports infrastructures; training of trainers; sports equipment (goods); leagues and tournaments; and performance incentives.

The third sports ecosystem was schemed by Maltese and Danglade (2014). The sports ecosystem designed by them aims to analyse sports as entertainment to introduce business and marketing perspectives required for planning sports event. They transposed to the business environment the ecological notion of an ecosystem, which is formed by two elements interacting with the environment (biotope) and the living beings that occupy it (biocenosis). They attempted to operationalise the concepts of networks, alliance, and virtual enterprise. On the one hand, biotope may be characterised by an event venue, i.e., stadium, arena, natural spaces and fans; and on the other hand, biocenosis means stakeholders, i.e., athletes, sports institutions, sponsor of a stadium – naming rights –, partners, suppliers and media.

Finally, Rundh and Gottfridsson (2015) created a sports ecosystem which aims to deliver a sports event using actors for intervening and interacting with each other to produce an expected offer based on entertainment, leisure and experience concepts. They understand that the actors' network is the key, the challenge and the opportunity to create a value proposition for a sports event, because sports clubs have no skills to deal with business, marketing and consumers, as sports and non-sports companies do. Thus, they structured their sports ecosystem from ten axes: sports fans, partners & sponsors, business suppliers, the communities (managing the external infrastructure around the stadium), tv broadcasting and media, federation and confederation, the volunteers, sports club, the stadium, and athletes.

Table 1: Sports Ecosystem Dimensions

Dimensions	Descriptions
Leagues (Confederations or Federations)	Responsible for organising the seasons, leagues and tournaments. However, in most cases they also play an intermediary role in flowing revenues to clubs, particularly the media rights money; then, the leagues perform three relevant functions: organising competitions, creating valuable events, and structuring media rights tenders (Bradbury & O'Boyle, 2017; Shilbury, 2009; Storm, Wagner & Nielsen, 2017);
Goods Suppliers	On the one hand, they are investors who put money into the business for promoting their brand, images or products and services through a sports club. On the other hand, they may, also, associate their brands with a sports club and provide uniforms and sports goods for them, as t-shirts, shorts, shoes, cap, jacket, etc, and non-sports goods: foods, drinks, toys, etc (Fullerton & Merz, 2008; Giroux, Pons & Maltese, 2017);
Fans' Engagement	Sports clubs should create a customer-oriented strategy to transfer their excitations and passions for spending their money to buy packages of pay-tv, tickets for games, products and services associated with sports club, and to become a member (Norris, Wann & Zapalac, 2014; Piipponen, 2011; Yoshida & James, 2010; Yoshida, 2017);
Stadium (or Arena)	It involves facilities, naming rights, architecture, advertising inside the stadium, etc., The sports clubs can make money using several sorts of events (Leopkey & Parent, 2009);
Club Management	Responsible for: (i) designing its offers and benefits (embedding its value proposition and experience) articulated to the expectations of different targets, as fans, supporters, enthusiasts and followers, (ii) managing their flow of money from ticketing, selling licensed products, sponsorships, and media rights, as well as ensuring the quality of the event value chain, pre, during and post-game, (iii) and purchasing and selling athletes, ensuring infrastructure and staff, executing governance strategies and managing its brands (Ratten, 2016; Foster, O'Reilly, Dávila, 2016);
Partnerships & Sponsorships	It aims to support fans in sports events (paying for private and public transportation), guide and provide safety for the fans inside the stadium, restaurants, parking, etc. In other words, partners are co-creators of the value chain offering facilities inside and outside the venue (Amorim & Almeida, 2015; Chadwick & Thwaites, 2005);
Media & TV Broadcasting	Responsible for buying rights of matches for television for an audience of fans, and offering to passionate fans an alternative platform, as cable tv, pay-tv, websites, social networks and apps (Burden & Li, 2009; McHugh, Bronson & Watters, 2015).

Sources: Authors

For us, a sports ecosystem should have business and marketing concepts embedded into it to ensure fan satisfaction, revenues, and profits to a sports club. Capturing the essence of understanding

sport as an event, introduced by Maltese and Danglade (2014); the sense of professionalism showed by KPMG Reports (2014) related to organisation standard; the concerns about actors' network depicted by Rundth and Gottfridsson (2015); observing the sport as an opportunity for a sports club to make money, as presented by Collignon and Sultan (2014); and, still, analysing the Brazilian context regarding the football culture, sports club organisation, fans and media, we have decided to line up a sports ecosystem in which it was possible to take advantage of each value proposition showed by every author above. Therefore, our sports ecosystem aims to encourage a sports professional to design a sports event in synergy with stakeholders to offer an enjoyable sports experience taking into consideration the customer orientation principles to provide revenues and profit for the sports club. Thus, seven axes were designed to achieve these goals, see Table 1.

2.3 Issues that Influence a Sports Ecosystem

According to Maltese & Danglade (2014) and Rundh & Gottfridsson (2015) state that some groups of variables may interfere with a sports ecosystem. For Shilbury (2009), the first group is comprised of the external environment as demography and social trends, economic issues, technology trends, political legislation, natural and sustainable concerns, etc. According to Bradbury & O'Boyle (2017), the second group is composed of the internal environment such as resources, competencies, capacity of providing services, consumer-oriented culture of the club, departments' performance, suppliers and outsourcing, sponsorships, marketing mix (product, price, place and promotion) and public. For Rundh & Gottfridsson (2015) and Yoshida (2017), the third group approaches the fans (as consumer) to answer the issues such as "Who are the fans?", "Why do they buy a specific sport product?", "When and where do they buy the product or service?", "What does the consumption entail in terms of pre- and post- event activities?", and "How do fans use the product so that a complete specification of them can be lined up to their expectation?" These variables may infer in the performance as well as in the fans' perceptions regarding a sports ecosystem. Thus, we chose four variables to carry out this research:

- Monthly salary (or incomes): fans may be encouraged to or discouraged from the consumption of goods and services offered by a sports club due to their wages (e.g., a demographic detail);
- Gender: men and women have different consumption habits and preferences. Men tend to be more fanatic than women (in theory). Thus, understanding their profile may assist marketers to fit an offer for each group (another demographic detail);
- Form of transport: the transportation system is a relevant information that impacts in the negative and positive way in the sports ecosystem since a sports club depends on the stakeholders and partners from the public (bus, train, and subway) and the private (taxi, Uber and car parking facilities) sectors to carry out a sports event in its stadium (e.g., internal environment detail);
- Monthly attendance: understanding when and how many times the fans buy tickets and consume, goods and services can help the sports marketers know their habits and consumption behaviour (e.g., a consumer behaviour detail).

Therefore, the monthly salary, monthly attendance, form of transport and gender may provide a sports marketer distinct views concerning the sports ecosystem. On the one hand, a fan who has a high income can value or criticise an ecosystem's dimension more than others. On the other hand, a fan who has a regular attendance in the stadium may think in a different way in relation to those who go to the arena once a month. Our proposal describes these contents in this study in order to discover what is the attribute which more interferes in the fans' opinion. By and large, each attribute can change the fans' perceptions of the ecosystem's dimensions.

3. Research Method

This research has the purpose of approaching the sports ecosystem in three of the most prominent sports clubs in the State of São Paulo, Brazil. Thus, this exploratory study aims to

understand and analyse which fans' attributes most interferes with their point of view regarding the sports ecosystem of the Corinthians, Palmeiras, and São Paulo, from the city of São Paulo, Brazil. Four hypotheses were described to infer the results: (h1) the Corinthians is the most different compared to Palmeiras and São Paulo regarding the fans' perspective on the sports ecosystem; (h2) monthly salary is the fans' attribute which most interferes; (h3) transportation is the second one; (h4), and the stadium is the sports ecosystem's axis most critical, according to the fans.

These authors designed and prepared a sports ecosystem (as shown in Table 1) to perform this study, since the four models analysed do not reflect the sports club reality in Brazil. Also, a pre-test was carried out with 30 sports fans some weeks before collecting process to see the fans' reactions. The question proposed to the fans was: 'Which sports ecosystem was most appropriate to understand the Brazilian sports clubs?". 18 out of 30 chose the sports ecosystem prepared by us, 5 chose Collignon & Sultan's ecosystem, 4 Maltase & Danglade's ecosystem, and 3 Rundh & Gottfridsson's ecosystem. None of them chose KPMG's ecosystem. They argued that the model using seven dimensions designed by us made sense the purpose of each axis for the sports business and marketing. The fans' opinions assisted us in organising a questionnaire to collect data taking into consideration a significant number of fans.

Table 2: Topics of the Questionnaire

Leagues & Tournaments	Stadium (or Arena)	Goods Suppliers
01. Clear rules	11. Point of sale (ticketing)	23. Fans buy illegal goods
02. Calendars for matches	12. Comfortable seats and toilets	24. Discount to fan-members
03. Calendars for tv	13. Car parking structure	25. Assortment of models and sizes
04. Quality of games	14. Snack bar or restaurants	26. 3 goods per year
05. Balanced teams	15. Prioritising fan-members	27. Licensed club stores
06. Media coverage	16. Space (or area) for the disabled	28. Sports stores
07. Tv broadcasting to Europe	17. Partnership with public sector	29. Few options of goods
08. 15,000 fans on average	18. Safety for fans	30. Vintage uniforms
09. Fan's regular audience	19. Guides to help fans	31. Sponsor stamped on club goods
10. Cash prizes similar to Europe	20. Expensive tickets	32. Stores in stadium
Fans' Engagement	21. Kiosks to sell products	33. Celebration uniforms
36. Reading books and newspapers	22. Kiosks to become members	34. Gifting family and friends
37. Collecting photos and posters	**Club Management**	35. Customising goods
38. Pay-tv subscription	56. Business management concepts	**Partnerships & Sponsorships**
39. Visiting the trophy room	57. Transparent management	68. Making investments in the club
40. Main athletes and starting line-up	58. Monetarily responsible concepts	69. Adding value to club brand
41. Visiting club website every week	59. Customer-oriented principles	70. Having few incentive policies
42. Attending training	60. Paying the bills	71. Risk for company's brand
43. Following social networks	61. Dealing with partners	72. Improving quality of products
44. Visiting club stores	62. Positive image for investors	73. Enhancing relationship with fans
45. Having historical T-shirts	63. Producing own athletes	**Media**
46. Attending opponent's stadium	64. Receiving criticisms	74. Valuing the national league
47. Encouraging relatives	65. Social responsibility plan	75. Paying well to cover games
48. Encouraging co-workers	66. Relationship with fans	76. Prioritising clubs on media
49. Wearing T-shirts on match day	67. Using marketing strategies	77. Promoting naming rights on media
50. Seeing T-shirt in another State		78. Interfering on league calendars.
51. Seeing T-shirt in another country		
52. Mock friends		
53. Watching sports tv programmes		
54. Choosing the team in FIFA video game		
55. Accessing YouTube to watch the goals		

Sources: Authors

Apropos the data and results reports, a questionnaire with 78 topics/statements – related to the sports ecosystem perspective was designed by these researchers considering five Likert levels (1) totally disagree; (2) partly disagree; (3) I cannot answer; (4) agree; (5) totally agree. Besides, four fan's personal details were demanded by the fans in order to know their attributes, for instance, gender, monthly salary (with base on the minimum monthly wages in Brazil), monthly attendance to the stadium (1, 2-3, 4-6) and transportation they use to go to the stadium (own vehicle, public transport or private transportation, as uber, taxi, etc.). These questions were included on the top of the instrument. In general, 78 topics were presented in questionnaires and fans should select one of the five levels in the rating scale for each statement, spread in seven dimensions: (i) league: 10 statements; (ii) stadium: 12 statements; (iii) goods suppliers: 13 statements; (iv) fans' engagement: 20 statements;

(v) club management: 12 statements; (vi) partnerships and sponsorships: 6 statements; and (vii) media & tv broadcasting: 5 statements.

Overall, 704 questionnaires were administered to sports fans between February and March 2017. To use the instrument, these researchers selected three matches of each football sports club, in which, three criteria were relevant: (i) administered to ordinary fans; (ii) carried out only inside the club stadium; and (iii) all 78 statements should be answered. Table 3 presents the Who, Where, When, and What, related to the administration process. The data collection took place inside and around the stadium before the games and took roughly 3 hours per match. However, not the same amount of questionnaires was obtained from the three clubs: 180 instruments were administered to Corinthians' fans, 309 to Palmeiras' fans and 215 to São Paulo's fans. The limitation in obtaining all questionnaires answered is because, on the one hand, Palmeiras' fans demonstrated more engagement to answer the questions; on the other hand, Corinthians' and São Paulo's fans did not want to help us answering them. The administration process was the same in all sports clubs. In other words, 360 instruments were printed to be administered on the day of the three matches for each sports club. Unfortunately, Corinthians and São Paulo had the fewest instruments answered, according to expectation.

Table 3: Matches, Places, Dates and Tournaments

Corinthians' Games	Place	Date	League or Tournament
Corinthians vs Palmeiras	Corinthians Arena	22nd February 2017	São Paulo Tournament.
Corinthians vs Santos	Corinthians Arena	4th March 2017	São Paulo Tournament
Corinthians vs Red Bull Brazil	Corinthians Arena	23rd March 2017	São Paulo Tournament
Palmeiras' Games	**Place**	**Date**	**League or Tournament**
Palmeiras vs São Paulo	Allianz Parque	11th March 2017	São Paulo Tournament.
Palmeiras vs. Jorge Wilstermann (Bolivia)	Allianz Parque	15th March 2017	Libertadores Cup
Palmeiras vs. Mirassol	Allianz Parque	22nd March 2017	São Paulo Tournament
São Paulo's Games	**Place**	**Date**	**League or Tournament**
São Paulo vs. Santo André	Morumbi Stadium	5th March 2017	São Paulo Tournament.
São Paulo vs. Ituano	Morumbi Stadium	18th March 2017	São Paulo Tournament.
São Paulo vs Corinthians	Morumbi Stadium	26th March 2017	São Paulo Tournament

Sources: Authors

The software Statistical Package for Social Science (SPSS) was used to perform the analysis of the results in three steps: first, a general report applying chi-square tests from cross tables between the four groups of fans' attributes and sports ecosystem topics; then, the selecting process of the issues which achieved the significance <= 0,05 (5%); and finally, observing and settling on which profile of each group of fans' attributes that agreed or disagreed with other profiles on a given topic have reached more than 95% of statistical significance, The analysis and explanation of the results will be introduced in four tables, see Tables 4 to 7 below which were designed respecting the analysis procedure. Throughout the report of the r findings, relevant fans' attributes are pointed out to indicate the fans' characteristics and their implications for fans' choices.

4. Findings
4.1 Monthly Salary vs Sports Ecosystem

Looking at the 78 statements of the questionnaire carried out to 704 fans, 73 statements have more than 95% of statistical significance regarding the monthly salary, by at least a category of sports fans. Three groups were noticed related to monthly salary: the group that earns zero (students who depend economically on their relatives), the one that earns between $1 - 4$ minimum salaries and the one that earns between $5 - 8$, see column ($) MS; as a reference, a monthly minimum salary in Brazil is roughly US$ 280,00. The group mentioned in the column ($) MS represents the one which has a different point of view from the other teams, see Table 4. It is noticed that Corinthians' fans have a different point of view in 66 out of 78 statements, overall. To clarify (i) the group who earns between 5 and 8 salaries tend to agree on the leagues, (ii) the group who earns between 1 and 4 salaries tend to agree on the goods suppliers, club management and partnerships, and sponsorships, (iii) while the group who earns Zero tends to disagree on the media, the one that earns $5 - 8$ tends to agree. The group of fans who agree (or disagree) the most is the one who earns between 5 and 8 monthly

minimum salaries, 27 out of 66, and they have a distinct point of view in two specific axes: goods suppliers and interaction with fans.

Table 4: Monthly Salary (or Income) vs. Sports Ecosystem

Sports Ecosystem Dimensions	Corinthians			Palmeiras			São Paulo		
	Sig <= 0,05	($) MS	A | D	Sig <= 0,05	($) MS	A | D	Sig <= 0,05	($) MS	A | D
Leagues & Tournaments									
01. Clear rules	0,000	5 – 8	A						
02. Calendars for matches	0,000	5 – 8	A						
03. Calendars for tv	0,002	5 – 8	A	0,020	1 – 4	D			
04. Quality of games	0,000	1 – 4	D	0,027	5 – 8	A			
05. Balanced teams	0,001	1 – 4	A	0,003	5 – 8	A			
06. Media coverage	0,001	1 – 4	D	0,047	5 – 8	A	0,007	Zero	D
07. Tv broadcasting to Europe	0,000	Zero	D						
09. Fan's regular audience	0,000	1 – 4	A						
10. Cash prizes similar to Europe	0,000	1 – 4	A						
Stadium									
11. Point of sale (ticketing)	0,000	1 – 4	D	0,004	5 – 8	A	0,011	5 – 8	A
12. Comfortable seats and toilets	0,001	Zero	A						
13. Car parking structure	0,002	5 – 8	D						
14. Snack bar or restaurants	0,001	5 – 8	D						
15. Prioritising fan-members	0,002	Zero	D	0,005	1 – 4	D			
16. Space (or area) for the disabled	0,000	Zero	A	0,002	5 – 8	D			
17. Partnership with public sector	0,000	Zero	D	0,031	1 – 4	D	0,029	Zero	A
18. Safety for fans	0,000	5 – 8	D	0,001	5 – 8	A	0,017	1 – 4	D
19. Guides to help fans	0,001	Zero	D				0,002	Zero	D
20. Expensive tickets	0,000	5 – 8	A						
21. Kiosks to sell products	0,005	5 – 8	D	0,000	5 – 8	A			
22. Kiosks to become members				0,000	5 – 8	A			
Goods Suppliers									
23. Fans buy illegal goods	0,000	1 – 4	A	0,001	Zero	A			
24. Discount to fan-members	0,000	5 – 8	D	0,002	Zero	D			
25. Assortment of models and sizes	0,000	1 – 4	A	0,026	Zero	D			
26. 3 goods per year	0,000	Zero	A						
27. Licensed club stores	0,001	Zero	A						
28. Sports stores	0,000	1 – 4	A						
29. Few options of goods	0,011	5 – 8	D						
30. Vintage uniforms	0,018	5 – 8	A						
32. Stores in stadium	0,000	5 – 8	A						
33. Celebration uniforms	0,001	Zero	A	0,006	1 – 4	D			
34 Gifting family and friends	0,006	1 – 4	A	0,000	5 – 8	A			
35. Customising goods	0,012	1 – 4	A	0,001	Zero	D			
Fans' Engagement									
36. Reading books and newspapers				0,044	5 – 8	A			
37. Collecting photos and posters				0,008	5 – 8	A			
38. Pay-tv subscription	0,001	5 – 8	A	0,000	1 – 4	D			
39. Visiting the trophy room	0,004	1 – 4	D	0,017	1 – 4	A			
40. Main athletes and starting line-up	0,000	5 – 8	A						
41. Visiting club website every week	0,004	5 – 8	D				0,026	1 – 4	D
42. Attending training	0,028	Zero	A						
43. Following social networks	0,001	1 – 4	A						
44. Visiting club stores	0,000	5 – 8	D						
45. Having historical T-shirts	0,000	1 – 4	D						
48. Encouraging co-workers	0,000	5 – 8	A	0,008	1 – 4	A			
49. Wearing T-shirts on match day	0,000	5 – 8	A						
50. Seeing T-shirt in another State	0,000	5 – 8	A						
51. Seeing T-shirt in another country	0,024	5 – 8	D	0,000	5 – 8	A			
52. Mock friends	0,047	1 – 4	D				0,043	1 – 4	D
53. Watching sports tv programmes	0,015	5 – 8	D	0,002	Zero	A			
54. Choosing the team in FIFA video game				0,000	5 – 8	D	0,048	Zero	A
55. Accessing YouTube to watch the goals	0,005	Zero	A	0,003	5 – 8	D	0,037	Zero	A
Club Management									
56. Business management concepts				0,000	5 – 8	A			
57. Transparent management	0,000	1 – 4	A	0,001	1 – 4	D			
58. Monetarily responsible concepts	0,001	Zero	D	0,009	5 – 8	A			
59. Customer-oriented principles	0,000	Zero	D						
60. Paying the bills	0,000	1 – 4	A						
61. Dealing with partners	0,000	1 – 4	A	0,005	1 – 4	D			
62. Positive image for investors	0,000	1 – 4	A	0,003	1 – 4	D			
63. Producing own athletes	0,000	5 – 8	A						
64. Receiving criticisms	0,000	Zero	D						
65. Social responsibility plan	0,000	1 – 4	A						
66. Relationship with fans	0,024	Zero	A	0,000	1 – 4	D			
67. Using marketing strategies	0,014	5 – 8	D						
Partnerships & Sponsorships									

	Sig.	MS	A/D	Sig.	MS	A/D	Sig.	MS	A/D
68. Making investments in the club	0,005	1 – 4	A				0,027	1 - 4	A
69. Adding value to club brand	0,001	5 – 8	A						
70. Having few incentive policies				0,009	1 – 4	D	0,013	Zero	A
71. Risk for company's brand				0,026	Zero	A			
72. Improving quality of products	0,004	1 – 4	A	0,008	Zero	D			
73. Enhancing relationship with fans	0,030	5 – 8	D	0,020	5 – 8	A			
Media									
74. Valuing the national league	0,000	Zero	D	0,025	5 – 8	A	0,015	1 – 4	D
75. Paying well to cover games	0,000	Zero	D				0,042	5 – 8	D
76. Prioritising clubs on media	0,000	5 – 8	A	0,037	1 – 4	D			
78. Interfering on league calendars.	0,000	5 – 8	A						

Caption 1: ($) MS = Monthly Salary with 3 options: Zero (0), 1 – 4, and 5 – 8 Minimum Salary = US$ 280,00 (roughly).
Caption 2: A = Tending to agree regarding other 2 groups, and D = Tending to disagree regarding other 2 groups.
Source: Authors

Concerning Palmeiras, only 39 statements show a distinct opinion from the others regarding the sports ecosystem. The group of fans who earns between 5 and 8 monthly salaries can be highlighted in relation to the other two: (Zero and 1 – 4), and they tend to disagree only in the axes stadium and fans' engagement. Thus, as can be seen in Corinthians, the group of fans who earns between 5 and 8 monthly salaries has a different stance than others. Apropos of São Paulo, only 13 subjects reached a statistical significance of <= 0,05, in other words, São Paulo's fans have an equal judgment about the sports ecosystem, either to agree and disagree regarding their axes. The stadium is the axis which has the most different point of view (4 out of 12 topics), according to São Paulo's fans. The fans who depend economically on their relatives are the ones who most agree or disagree. In general, São Paulo's fans tend to have the same point of view on the sports ecosystem, regardless their monthly salary.

However, what are the common points of view of these fans concerning the axes and topics, in general? Bearing in mind the leagues, Palmeiras' fans believe that the media cover a substantial number of matches on tv, radio, etc., but Corinthians' and São Paulo's fans do not think like them. Regarding the stadium, the Palmeiras' and São Paulo's fans, who earn between 1 and 4 salaries agree that there is a sufficient number of points of sale to buy tickets, while Corinthians' fans disagree. São Paulo's fans state that the club has a partnership with the public sector to provide public transportation, e.g., bus. Corinthians' and Palmeiras' fans disagree. Palmeiras' fans argue that the club offers safety inside and outside the stadium for fans, but, Corinthians' and São Paulo's fans have a distinct perspective. Apropos of the fans' engagement axis, Corinthians' and São Paulo's fans who have a zero-monthly salary tend to access YouTube to follow their clubs, differently from those who support Palmeiras. Concerning the media, Corinthians' and São Paulo's fans believe that Brazilian media does not help the national league, whereas Palmeiras' fans have a different opinion.

When these three football sports clubs are analysed together, it is observed that when Corinthians' fans agree or disagree, they are always supported by Palmeiras' either São Paulo's fans, as can be seen in Table 4. It seems that the critical axis of the sports ecosystem for these three football sports clubs is the stadium; however, when analysing only Corinthians and Palmeiras, the partnerships and sponsorships axis may be, also, considered. All groups of São Paulo's fans have the same opinion about goods suppliers and club management, i.e., everyone tends to agree or disagree on these topics. On the other hand, Corinthians' and Palmeiras' fans see these axes as critical for the management process of their sports clubs. To conclude this topic, a curiosity aspect: Corinthians agree or disagree in some issues with Palmeiras, and Corinthians also agree or disagree on plenty of topics with São Paulo (more than Palmeiras, e.g.); however, Palmeiras and São Paulo have only one issue where their fans have the same point of view.

4.2 Transportation vs Sports Ecosystem

Concerning transportation Corinthians had 22 statements with more than 95% of significance, while Palmeiras 25 and São Paulo 17, see Table 5. To examine the types of transportation, three groups were built: public transportation (PuT), private transportation (PrT) and own vehicle (OwV), see column Trans. The league axis depicts a curious aspect: except for an appropriate calendar to

watch the games on television, which Corinthians and Palmeiras have a sort of disagreement on, the other axes have no coincidence among them. However, this unique point in common between Corinthians and Palmeiras was marked by distinct categories of fans, in which, the former disagrees and the latter agrees. The stadium is shown one more time as a critical axis in the sports ecosystem, according to fans. The drawback of having few points of sale and expensive tickets were highlighted by all these clubs. For instance, the PrT group of Corinthians' fans and the OwV group of Palmeiras' fans agree that the clubs provide enough number of box offices to buy a ticket, but the OwV group of São Paulo's fans disagree. Also, the three groups of fans believe that the tickets are much more expensive than they expect. However, these fans use a different type of transport, e.g., Corinthians' and São Paulo's fans take public transportation of thus it can be deduced that they earn less money than the other groups like, for example, the OwV of Palmeiras. São Paulo's fans pointed out different concerns about some topics in relation to Corinthians and Palmeiras, for instance, only one group has a favourable view concerning comfortable seats and toilets and space for disabled people. In other words, most of São Paulo's fans believe that these relevant topics are not given due consideration by the club.

Table 5: Transportation vs. Sports Ecosystem

Sports Ecosystem Dimensions	Corinthians			Palmeiras			São Paulo		
	Sig <= 0,05	Trans.	A | D	Sig <= 0,05	Trans.	A | D	Sig <= 0,05	Trans.	A | D
Leagues & Tournaments									
01. Clear rules	0,048	PuT	D						
03. Calendars for tv	0,011	OwV	D	0,014	PrT	A			
06. Media coverage	0,037	PuT	D						
07. Tv broadcasting to Europe				0,003	PuT	A			
08. 15,000 fans on average	0,042	PrT	D						
09. Fan's regular audience				0,002	PrT	D			
10. Cash prizes similar to Europe							0,031	OwV	D
Stadium									
11. Point of sale (ticketing)	0,020	PrT	A	0,000	OwV	A	0,020	OwV	D
12. Comfortable seats and toilets							0,005	PuT	A
13. Car parking structure	0,009	PrT	D				0,005	OwV	D
15. Prioritising fan-members	0,009	OwV	A	0,029	OwV	A			
16. Space (or area) for the disabled							0,001	OwV	A
19. Guides to help fans				0,006	PuT	D			
20. Expensive tickets	0,007	PuT	A	0,007	OwV	A	0,044	PuT	A
21. Kiosks to sell products	0,029	PuT	D						
Goods Suppliers									
25. Assortment of models and sizes				0,001	OwV	A	0,000	PuT	A
26. 3 goods per year	0,004	OwV	D						
27. Licensed club stores							0,049	OwV	A
28. Sports stores	0,009	PuT	A	0,001	PrT	A			
34 Gifting family and friends				0,038	OwV	A			
Fans' Engagement									
36. Reading books and newspapers				0,016	PrT	A			
38. Pay-tv subscription	0,008	OwV	D	0,006	PuT	D			
42. Attending training	0,048	PrT	A						
43. Following social networks				0,020	OwV	A			
44. Visiting club stores							0,000	PuT	A
45. Having historical T-shirts	0,047	PrT	A						
49. Wearing T-shirts on match day	0,41	PuT	A				0,015	OwV	D
50. Seeing T-shirt in another State									
51. Seeing T-shirt in another country				0,035	OwV	A			
53. Watching sports tv programmes							0,020	PrT	D
Club Management									
56. Business management concepts				0,001	PuT	D			
57. Transparent management				0,047	PuT	D			
58. Monetarily responsible concepts				0,001	OwV	A	0,005	OwV	D
60. Paying the bills				0,001	PuT	D	0,001	PuT	A
61. Dealing with partners				0,007	OwV	A			
62. Positive image for investors				0,007	OwV	A	0,030	PuT	A
63. Producing own athletes							0,025	PuT	D
65. Social responsibility plan				0,013	PuT	D			
66. Relationship with fans	0,042	OwV	D						
Partnerships & Sponsorships									
68. Making investments in the club	0,007	PuT	D				0,003	OwV	D
71. Risk for company's brand	0,031	PuT	A	0,019	PuT	A			
72. Improving quality of products	0,001	PuT	D						
73. Enhancing relationship with fans	0,024	PrT	D						

Media									
74. Valuing the national league	0,009	PrT	D						
75. Paying well to cover games							0,025	OwV	D
76. Prioritising clubs on media	0,022	OwV	A						
78. Interfering on league calendars.				0,039	OwV	A			

Caption 1: Trans. = Transportation with 3 options: PuT = Public Transportation; PrT = Private Transportation; OwV = Own Vehicle.

Caption 2: A = Tending to agree regarding other 2 groups, and D = Tending to disagree regarding other 2 groups.

Source: Authors

Apropos the goods suppliers, only one group of Palmeiras' and São Paulo's fans agree about the assortments of models and sizes. It means, two groups of these clubs see that these sports clubs do not provide different models and sizes for fans. One group of Palmeiras' fans Corinthians' and Palmeiras' fans usually buy the clubs' goods in sports stores, instead of buying at the club's licensed stores. These groups are losing their money for sports stores. Also, the Palmeiras' fans who have their own vehicle are the only ones who admit giving Palmeiras goods as a gift for relatives and friends. Regarding fans engagement, Corinthians and Palmeiras have only one group who usually do not sign a cable tv. Curiously, the Corinthians' fans who disagree are the ones who have their own vehicle. It means that they are willing to buy a car, but they are not willing to sign up for pay-tv. With regard to wearing a T-shirt on the match day, only one group of Corinthians' fans agree, while just one of São Paulo's fans disagree. In general, the fans engagement had? less conflict than these authors expected, bearing in mind that this axis has more topics than the other six axes.

The club management is the axis which depicted more conflicts between Palmeiras' and São Paulo's fans. On the one hand, Palmeiras' and São Paulo's OwV groups have a different opinion concerning monetarily responsible concepts for managing both clubs, i.e., while Palmeiras' fans agree, São Paulo's fans disagree. The inverse situation can be found on the topic paying the bills, but the PuT groups are those who have a distinct viewpoint. On the other hand, Palmeiras' PuT group disagrees regarding paying the bills, while São Paulo agrees. Besides, one group of Palmeiras' and São Paulo's fans agree as to improving the positive image for investors. Coincidentally, it was possible to observe two curious aspects apropos of Palmeiras fans: those fans who have their own vehicle tend to agree, and those who take public transportation tend to disagree about this axis. Concerning the partnerships and sponsorships, one group of Corinthians' and São Paulo's fans opposes as to making investments in the sports clubs; likewise, only one group of Corinthians and Palmeiras believe that making investments in the sports clubs might be a risk for a private as well as a public company. As to the media, Corinthians PrT group is the only one who disagrees about the media valuing the national league, and Palmeiras OwV group is the only one who agrees that media are interfering on the league calendars.

These authors noticed that the partnership and sponsorship is an axis which has more divergent opinions, while the club management has less conflict, according to Corinthians' fans. Likewise, the club management axis is the most distinct, as well as partnerships and sponsorships and media axes which? are more homogeneous, as stated by Palmeiras' fans. For São Paulo's fans, the axis which provokes most disagreement is the stadium and the one that causes less controversy is the league axis. Thus, a dimension which might be critical, conflicted and distinct for a sports team, might not necessarily be for another, since the sports clubs are different from each other. Also, we can notice that a group of fans that disagree most in a sports team may not be the same group in the other two sports teams or, still, may be the same group, but they have distinct opinions. Moreover, the OwV is the group of fans who have an unfamiliar view in relation to the seven dimensions, according to Palmeiras' and São Paulo's fans. Therefore, Corinthians is the most different sports club in comparison to Palmeiras and São Paulo, taking into consideration transportation versus sports ecosystem.

4.3 Monthly Attendance vs Sports Ecosystem

As regards the monthly attendance and sports ecosystem, Corinthians got 27 topics with less than 5% of statistical significance, Palmeiras a little less with 25 topics, and São Paulo reached 13

topics, only. Three groups of monthly attendance were created to understand and analyse the fans' opinion about the sports ecosystem of their sports clubs: 1, 2 − 3 and 4 − 6, see table 7. The column MA introduces this information, see Table 6. Immediately, it is possible to notice that three dimensions were not marked by São Paulo's fans: the stadium, club management and partnerships & sponsorships. On the other hand, Corinthians and Palmeiras had at least one statement marked on each axis. On the league axis, Corinthians and Palmeiras do not diverge on any topics, i.e., the topic which produces a conflict of opinion for a group of Corinthians' fans is not the same for Palmeiras' fans. Nevertheless, Palmeiras' and São Paulo's fans have a divergent view on two topics. The group of Palmeiras' fans who go to the stadium once a month disagrees about their regular audience every week (on tv or in the stadium) on a league, while the group of São Paulo's fans who go to the stadium between 2 and 3 times, agrees. Also, the group of these two sports clubs who has a monthly attendance between 4 and 6 times, do not share the same opinion about cash prizes for a winning sports team in Brazil being equivalent to Europe's.

Table 6: Monthly Attendance vs. Sports Ecosystem

Sports Ecosystem Dimensions	Corinthians			Palmeiras			São Paulo		
	Sig <= 0,05	M.A.	A | D	Sig <= 0,05	M.A.	A | D	Sig <= 0,05	M.A.	A | D
Leagues & Tournaments									
01. Clear rules				0,000	2 − 3	A			
03. Calendars for tv	0,021	2 − 3	A						
04. Quality of games				0,016	2 − 3	A			
05. Balanced teams	0,002	1	D						
07. Tv broadcasting to Europe				0,001	2 − 3	D			
08. 15,000 fans on average	0,034	4 − 6	A						
09. Fan's regular audience				0,000	1	D	0,013	2 − 3	A
10. Cash prizes similar to Europe				0,004	4 − 6	D	0,023	4 − 6	A
Stadium									
11. Point of sale (ticketing)	0,007	2 − 3	D	0,000	1	D			
14. Snack bar or restaurants	0,012	1	D						
16. Space (or area) for the disabled	0,018	1	A	0,024	2 − 3	A			
17. Partnership with public sector	0,047	4 − 6	D						
18. Safety for fans	0,002	1	A	0,016	2 − 3	A			
19. Guides to help fans	0,041	1	D						
Goods Suppliers									
24. Discount to fan-members	0,004	1	D	0,036	4 − 6	D			
26. 3 goods per year	0,000	4 − 6	A						
27. Licensed club stores							0,042	2 − 3	A
28. Sports stores							0,031	1	D
32. Stores in stadium	0,010	2 − 3	A						
34 Gifting family and friends	0,001	1	A	0,034	2 − 3	A			
Fans' Engagement									
36. Reading books and newspapers							0,032	1	D
37. Collecting photos and posters							0,001	1	D
38. Pay-tv subscription				0,000	1	D	0,000	4 − 6	A
40. Main athletes and starting line-up				0,002	2 − 3	A			
41. Visiting club website every week	0,029	4 − 6	A						
42. Attending training	0,000	4 − 6	A	0,006	4 − 6	A			
43. Following social networks	0,007	4 − 6	A	0,030	1	D			
44. Visiting club stores	0,000	1	D				0,002	1	A
45. Having historical T-shirts				0,046	1	D	0,019	1	D
46. Attending opponent's stadium							0,007	1	D
47. Encouraging relatives							0,025	1	A
49. Wearing T-shirts on match day				0,000	1	D			
50. Seeing T-shirt in another State	0,016	2 − 3	A						
51. Seeing T-shirt in another country	0,022	2 − 3	A						
52. Mock friends				0,043	2 − 3	A			
53. Watching sports tv programmes							0,023	4 − 6	D
54. Choosing the team in FIFA video game				0,028	4 − 6	D			
Club Management									
56. Business management concepts	0,001	2 − 3	A	0,001	2 − 3	A			
57. Transparent management	0,028	2 − 3	A						
58. Monetarily responsible concepts				0,006	2 − 3	A			
61. Dealing with partners				0,042	1	A			
62. Positive image for investors	0,005	1	D						
65. Social responsibility plan				0,048	4 − 6	D			
67. Using marketing strategies	0,030	4 − 6	A						
Partnerships & Sponsorships									
69. Adding value to club brand				0,025	1	A			
72. Improving quality of products	0,001	2 − 3	D						

Media									
74. Valuing the national league							0,047	2 – 3	D
75. Paying well to cover games	0,000	2 – 3	D						
77. Promoting naming rights on media				0,004	2 – 3	D			
78. Interfering on league calendars.	0,001	1	A						

Caption 1: A.M. = Monthly Attendance at Stadium with 3 options: 1 time per month; 2 – 3 times per month; and 4 – 6 times per month.

Caption 2: A = Tending to agree regarding other 2 groups, and D = Tending to disagree regarding other 2 groups.

Source: Authors

Apropos of the stadium, three topics produce the same sort of divergence for Corinthians' and Palmeiras' fans in particular. Concerning the number of point of sales to buy tickets, both sports clubs have a group that disagrees. As to an area for the disabled and safety for fans inside the stadium, only one group agrees. A comparable situation happens on the goods suppliers axis since one group of Corinthians, and one of Palmeiras' fans disagree about selling a product with a discount to fan-members, and they agree about giving sports club' products to relatives and friends on a celebration day, like birthday, Christmas Day, etc. It is convenient to point out two pieces of information regarding the goods suppliers: first, only the group of Corinthians' fans who go to the stadium between 4 and 6 times a month agree that they buy more than 3 Corinthians' products per year, i.e., the fanaticism awakes the desire of consuming even more club's goods; and second, the group with monthly attendance between 2 and 3 times is the only one who agrees about buying products in licenced club stores, probably, the others buy-in sports stores.

The fans engagement has some topics which were marked by all sports fans, but only a few of them produced any conflict for 2 or 3 sports clubs, simultaneously. For instance, Corinthians and Palmeiras have two topics which share the same conflict; Palmeiras and São Paulo has two, as well; however, Corinthians and São Paulo have none. The group of Palmeiras' fans Corinthians' and Palmeiras' fans who go to the stadium between 4 and 6 times usually go to watch the training session. This same group of the Corinthians' fans follow the club on social networks, but the group of Palmeiras' fans who less often monitors the club is the one who has a monthly attendance equal to one. Between Palmeiras and São Paulo, the group of São Paulo's fans who is more fanatic is the one that tends to get the pay-subscription, and Palmeiras' fans are those who have less attendance in the stadium, and they do not watch sports channel on cable tv. Besides, those Palmeiras' and São Paulo's fans who have one monthly audience do not usually buy old fashioned t-shirts from these clubs. Concerning the management of the sports clubs, the same group of Corinthians' and Palmeiras' fans is the one who goes to the stadium between 2 and 3 times a month, and tends to agree on the implementation of business concepts to manage these sports clubs. The partnerships & sponsorships, as well as media, have no sharing of conflict of opinion among the sports fans.

The analysis also shows that the groups of fans who go to the stadium once a month are the ones who have a more divergent opinion compared to the other groups. This was observed among Corinthians' and São Paulo's fans. However, the monthly attendance between 2 and 3 times is the most critical one for Palmeiras. On the one hand, Corinthians and São Paulo are very distinct about the monthly attendance. Palmeiras shares a common conflict in some topics with Corinthians and São Paulo, even though the opinion of the groups of fans is different than expected by these authors. Above all, the fanaticism of fans depicted some relevant aspects which a sports manager should analyse and consider in the sports ecosystem of these sports clubs: the stadium, goods suppliers and interactions with fans dimensions. Thus, a fanatic fan seems to be a source of revenue for a sports club.

4.4 Gender vs Sports Ecosystem

Considering the gender and sports ecosystem, Palmeiras is the sports team which has the most topics with more than 95% of statistical significance, this sports club achieved that in 27 topics, followed by São Paulo in 16 and Corinthians in only 8 (column GE). According to Palmeiras' fans, the goods suppliers dimensions did not indicate a conflict of opinions; São Paulo had two dimensions, i.e., the stadium as well as partnerships and sponsorships; the same as Corinthians, which had no

divergent view about stadium and media. As to leagues, Palmeiras and São Paulo have certain similarities; for instance, the women's opinion about the quality of the games is not so good because the most talented players are performing in Europe leagues, they are not in Brazil. The men of these same sports clubs have a distinctive point of view. Palmeiras' male supporters state that the cash prizes paid for a winning team in Brazil are not similar to Europe's unlike São Paulo' supporters who do not think the same way. For Palmeiras' female fans, the rules of the leagues are not clear, but São Paulo male supporters see this from another perspective. Nevertheless, as to the audience of fans, the women who support these three sports clubs, usually, do not watch the games every week.

Table 7: Gender vs. Sports Ecosystem

Sports Ecosystem Dimensions	Corinthians			Palmeiras			São Paulo		
	Sig <= 0,05	GE	A|D	Sig <= 0,05	GE	A|D	Sig <= 0,05	GE	A|D
Leagues & Tournaments									
01. Clear rules				0,009	F	D	0,001	M	A
03. Calendars for tv				0,010	M	A			
04. Quality of games				0,000	F	D	0,024	F	D
05. Balanced teams	0,003	M	A				0,005	M	A
07. Tv broadcasting to Europe				0,004	F	A			
08. 15,000 fans on average				0,029	F	A			
09. Fan's regular audience	0,009	F	D	0,000	F	D	0,024	F	D
10. Cash prizes similar to Europe				0,013	M	D	0,005	M	A
Stadium									
11. Point of sale (ticketing)				0,014	F	D			
12. Comfortable seats and toilets				0,041	M	D			
15. Prioritising fan-members				0,009	M	A			
17. Partnership with public sector				0,047	M	D			
20. Expensive tickets				0,025	F	A			
Goods Suppliers									
25. Assortment of models and sizes							0,006	M	D
26. 3 goods per year	0,010	F	D						
30. Vintage uniforms							0,016	F	D
35. Customising goods							0,038	M	A
Fans' Engagement									
36. Reading books and newspapers							0,039	F	D
38. Pay-tv subscription	0,000	F	D						
39. Visiting the trophy room				0,041	F	A			
40. Main athletes and starting line-up	0,005	F	D	0,000	M	A	0,000	F	D
44. Visiting club stores				0,036	F	A			
48. Encouraging co-workers				0,018	F	A			
52. Mock friends							0,009	M	A
53. Watching sports tv programmes				0,006	M	A	0,001	M	A
54. Choosing the team in FIFA video game				0,015	M	A			
55. Accessing YouTube to watch the goals							0,018	F	D
Club Management									
57. Transparent management				0,009	M	D			
58. Monetarily responsible concepts				0,027	M	D			
59. Customer-oriented principles				0,046	F	A			
63. Producing own athletes							0,014	F	D
65. Social responsibility plan				0,023	F	A			
66. Relationship with fans	0,030	M	D						
Partnerships & Sponsorships									
71. Risk for company's brand				0,020	M	A			
72. Improving quality of products	0,016	M	D						
73. Enhancing relationship with fans	0,026	F	A						
Media									
76. Prioritising clubs on media				0,027	M	A	0,012	M	A
78. Interfering on league calendars.				0,001	M	D	0,011	M	A

Caption 1: Gender = M: Male; and F = Female.
Caption 2: A = Tending to agree regarding the other group, and D = Tending to disagree regarding the other group.
Source: Authors

The stadium is a conflict axis only for Palmeiras' fans, while the goods suppliers axis has no indication of conflict by them. Regarding interaction with fans, when asked if they recognise the main athletes of their teams and know the ones who start playing every match, the female fans who support Corinthians and São Paulo do not know, but the male fans who support Palmeiras do. Both Palmeiras' and São Paulo's male fans tend to watch sport tv programmes to get updated on the news related to their sports clubs. Looking into this axis, it is possible to observe that all Corinthians' and São Paulo's

female fans tend to disagree. However, Palmeiras' fans, whether they are men or women, tend to agree. Apropos of São Paulo's fans, all men tended to agree and women to disagree.

Regarding the management of the sports club, one aspect draws attention. According to Palmeiras' male fans, they do not recognise in the sports club the transparent management process and the implementation of financially responsible principles. As to partnerships & sponsorships, two points can be? highlighted regarding Corinthians: one, men do not agree that partners and sponsors have improved the quality of the goods; and women tend to agree concerning enhancing the relationship between sports club and fans. Bearing in mind the media, the men who support Palmeiras and São Paulo agree that the media are prioritising some clubs when a tv company broadcasts news or matches on tv or on the radio. Often, Corinthians has more matches broadcast on tv than Palmeiras and São Paulo, the number of fans and their audience on tv are relevant to this decision by tv companies. But the fans tend to have a distinct opinion about the interference of the media in the league since Palmeiras' male fans tend to disagree and São Paulo's fans agree. Of course, it was expected, as a whole, that gender could be less polemic than the other (three attributes), but sports managers should not neglect and ignore this information because it is pertinent knowledge which might be relevant to enhance business and marketing plans.

5. Final Considerations

This paper had the purpose to understand and analyse which fans' attributes most interfere in their point of view regarding the sports ecosystem of three sports football clubs from the city of São Paulo, in Brazil: The Sport Club Corinthians Paulista, Sociedade Esportiva Palmeiras (Palmeiras Sports Society) and São Paulo Futebol Clube (Sao Paulo Football Club). Hence, the authors of this article designed and lined-up a sports ecosystem to perform the study, because (i) the models examined were not viable to analyse the perspectives of the sports clubs; and (ii) sports fans had difficulties to express their point of view following all the four models depicted here, according to a pre-test performed weeks before the collecting process, since some axis did not reflect the sports clubs' reality and culture. The sports fans felt - somewhat comfortable answering the sports ecosystem model which we proposed, therefore this new revised model was administered to sports fans. Nonetheless, there was a study limitation as the researchers were not able to reach an equal number of questionnaires responded in all three sports clubs. It is worth mentioning that these authors expected to get around 280 and 300 questionnaires per sports club, but we achieved this number only with Palmeiras fans. Corinthians' and São Paulo's fans were not interested and encouraged to take part in the research. Due to the collecting procedure predefined, which involved collecting the data in 3 matches of each sports team, we decided to process the data that were available for us.

Besides the objective above, these authors settled on four hypotheses to be met by the end of this study. The first hypothesis was reached since Corinthians is the most different when compared to Palmeiras and São Paulo. For instance, Corinthians had 130 topics with more than 95% statistical significance, while Palmeiras got 116 and São Paulo 59. It was noticed that in 36 out of 130 issues, Corinthians and Palmeiras have a group of fans who do not share the same point of view of others. In only 7 out of 130, Corinthians and São Paulo share a distinct point of view. 9 out of 130 aspects/topics? of these three sports clubs have a group of fans who think differently from the others. Then, Corinthians is a sports club which has more disagreement about the sports ecosystem, according to its fans. Concerning the second hypothesis, these authors admit that it was partially achieved in two of the three sports clubs. For the most part, the monthly salary had a relevant impact on: (i) Corinthians 66 out of 78 topics, i.e., 77% of the entire issues with 95% statistical significance were marked; (ii) and Palmeiras, e.g. 39 out of 78 items (55 % of the total). For São Paulo, transportation is the most significant attribute. The third hypothesis was observed only in Corinthians since public transport is the second most pertinent fan attribute. As regards Palmeiras and São Paulo, the second fan attribute which produces more divergence among the fans is gender. Finally, the fourth hypothesis was not met, since the stadium is the sports ecosystem's axis most critical only for Corinthians. This axis is tied with partnership & sponsorship (46%) on the first position, followed by leagues (45%) axis. For

Palmeiras' fans the most critical is leagues (48%), followed by club management (44%); and for São Paulo it is the media (30%), and on the second position leagues (23%). Therefore, the first hypothesis (h1) was achieved, the h2 was partially reached and hypotheses h3 and h4 were not met.

Usually the media and ordinary people who support or not São Paulo Football Club tend to complain about two aspects of the Morumbi Stadium: the distance from downtown (15 kilometres), where there is no appropriate public transportation service available for fans, such as trains or underground around the neighbourhood; and the comfort of the stadium, as well as the toilets since Morumbi is the oldest stadium (opened in1960s), compared to Corinthians and Palmeiras Stadiums, However, the stadium was the fourth most critical sports ecosystem's dimension, according to São Paulo's fans (19%), and, also, this dimension was not marked on the monthly attendance and gender attributes. On the whole, this study showed that: (i) the attendance at the stadium is once per month on average for all sports clubs; (ii) they monthly income is around US $ 780,00. Besides, 70% of fans were male; (iii) Corinthians' fans, usually, take public transportation (bus, train and underground), Palmeiras' fans take private transportation (taxi or Uber) and São Paulo's fans use their vehicles to go to the stadium to watch the matches.

Hence, why is it relevant to be acquainted with the fans' point of view on a sports ecosystem? To whom will it matter? Firstly, because knowing the sports ecosystem dimension increases the chances of developing a sports business and marketing plan suitable for the creation of a customer-fan orientation philosophy. Besides, it is up to both sports managers and marketers to understand these fans as customers in order to better plan, implement and monitor a value chain, supported by the sports ecosystem dimensions – which approach the customer-fans' perspectives -, and to design a good or a service lined-up with their expectations. Then, it is up to sports marketers to build a benefits package which encourages a process of exchange and relationship between a sports club and their fans. Then, a sports ecosystem is an assumption to guide sports marketers to do a better job. Unfortunately, concepts related to sports business and marketing are, still, an emerging area in sports clubs in Brazil. Business professionals, the media and ordinary fans see sports marketing, again, as a promotion instead of a utility tool or a set of market techniques which focus on the fans while customer. Therefore, this is the role a sports ecosystem performs, i.e., supporting sports business as well as marketing strategies in a sports club.

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