The impact of brand equity on satisfaction of football fans in Brazil

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Abstract. Although the literature points to the influence of brand equity on the satisfaction of football fans, the analysis of new realities can help managers’ decision-making as a whole. The purpose was to analyze the impact of brand equity on the satisfaction of football fans in Brazil. The study was conducted in two phases. The first one consisted of the adaptation and pre-test of the instrument. The second one was composed by the measurement model of the scale and analysis of the structural model, from the online data collection of 217 fans. The data was analyzed through Structural Equation Modeling in Amos 26.0. The results indicated that the internalization, team success, and head coach had a statistically significant positive impact on satisfaction. The results point to the teams’ needs to manage in a qualified way the hiring of coaches and players. In addition, marketing actions should highlight the team’s values.

Keywords: marketing, consumer behavior, organization and administration.

Introduction

Currently, due to the high complexity acquired by the sport industry, sport organizations cannot be considered just as simple entities, but as true businesses and brands that need to be managed by well-qualified professionals (Bodet & Séguin, 2021; Rozo, Ramírez, Silva, Castro, & Liévano, 2022). This idea can be understood through a growing number of investigations that consider different brands in the sport brand ecosystem and their important influence on consumer behavior and attitudes over marketing strategies (Baker et al., 2022; Kunkel & Biscia, 2020). Understanding how perceptions of an organization’s brand can influence loyalty-related aspects is essential, particularly because these perceptions can be modified by the marketing efforts of these organizations (Alguacil, García-Fernández, Calabuig, & Valcarce-Torrente, 2023).

Brand management is an important aspect related to the sport brand ecosystem, given the advantages of having a strong brand in the long term (Baker et al., 2022; Gladden & Milne, 1999). Recent studies have focused on analyzing the management of different brands in the sports ecosystem, seeking to understand the need to establish a brand portfolio, as well as qualified brand image management, for example (Doyle et al., 2022; Kunkel et al., 2017; Manoli, 2020). Behind all this discussion lies the importance of having a strong brand equity. In this way, brand equity has been considered a fundamental asset for them, for their long-term success. Simply considered as the added value that a brand provides to a product or service, the discussion around the brand equity has taken place due to the advantages of having a strong brand, such as a better perception of performance product, greater effectiveness in marketing communication, greater loyalty, among others (Kotler & Keller, 2012). The beginning of the discussions about this construct has been made from the financial perspective, considering the incremental cash flow results from the brand in comparison with a product without a brand. On the other hand, many investigations have been carried out from the point of view of the sport consumers and the strength of the brand in his mind (Kapferer, 2008). The understanding of brand equity from the consumer perspective is grounded in the seminal works of Aaker (1991) and Keller (1993), which, along with the contribution of Berry (2000), have been extensively utilized to facilitate comprehension of this field in the sports industry (Miranda et al., 2021). It is through this perspective that the brand equity in the sport can be reinforced, due to the strong relationship of the fans with the names and symbols of the teams for which they support (Biscia et al., 2013). In football, strong brand equity has been identified as a factor of success, both on and off the field, as well as a determinant of fan loyalty and satisfaction (Hattula, 2018; Miranda et al., 2023; Zeithaml et al., 2017). In general, the topic of satisfaction has been widely investigated in studies addressing brand equity in various sectors in recent years (Rojas-Lamorena et al., 2022). However, despite this current importance, few investigations have been concerned with specifically studying the influence of brand equity on satisfaction in sport context.

In the sport industry, having satisfied consumers is an important goal to organizations, due to its benefits (Slavich, Dwyer & Rufer, 2017). For Oliver (2015, p. 8) “satisfaction is the consumer’s fulfillment response. It is a judgment
that a product/service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, including levels of under- or over fulfillment”. In this sense, it is understood that satisfaction includes consumer expectations. In the sports context, the spectator’s satisfaction is understood as the pleasure in response to the realization of the sports event itself and/or auxiliary services provided during the game (Yoshida & James, 2010). Studies have suggested that satisfied fans tend to behave positively towards teams, for example, by attending more games and recommending to others (Theodorakis et al., 2013). Based on the importance of obtaining satisfied fans, some studies have identified that brand equity can be considered an important predictor of satisfaction. For example, Biscaia et al. (2013) observed that the brand equity of football teams in Portugal was responsible for explaining 74% of the satisfaction variance of the fans. Despite these investigations, there is a gap in the literature when we observe the study of this relationship in some relevant contexts in the world football scenario. Studies on the topic in the sport environment have been strongly based on specific contexts, such as the United States and Europe, which does not allow to clearly perceive the applicability of this knowledge in other contexts.

In Brazil, football is considered the biggest social phenomenon in the country (Guterman, 2009), where fans develop a strong connection with their teams from an early age. The Brazilian context has some elements that differentiate it from European and North American contexts (Gasparedo et al., 2018), which can be considered an important reality for investigations on brand equity, because of the lack of studies in this perspective in Brazil. Also, investigations in new contexts can analyze whether a result can be generalized beyond a particular context, as well as enhance the ability of managers to make strategic decisions concerning the brand (Koçak et al., 2007). Thus, the purpose of this study was to analyze the impact of brand equity on the satisfaction of football fans in Brazil. More specifically, the study aimed to analyze an internationally validated scale on brand equity, composed of brand associations and internalization, and how these dimensions are considered valid in the analyzed context and may influence the satisfaction of football fans in a state football championship in Brazil. The results of this investigation can help marketing managers understand how aspects related to the brand can help make fans more satisfied with the clubs.

Methodology

The study is characterized as a survey design, frequently used in research on Sport Management, and allows the researcher to obtain desired information about a characteristic, attitude, or behavior in a chosen sample or population. The Brazilian context was chosen to carry out the investigation, with fans of the Campeonato Pernambucano of football in 2019, one of the 27 state championships held in Brazil. The characteristics of these competitions are seen only in Brazil and are held at the beginning of each year (Gasparedo et al., 2018), as well as being responsible for the popularization of football in Brazil and the connection of fans with their teams. Brazil is divided into 26 states plus a federal district. In-state championships, teams from each state compete in the tournament with each other. In these competitions, clubs in the first division of national football often face opponents who are not competing in any national division. Winning these tournaments provides local hegemony and, for the richest clubs, it also acts as a time to test new players, and for the poorest, it may be the only competition of the year.

For data collection, the adaptation of the Spectator-Based Brand Equity (SBBE) (Biscaia et al., 2013) for the Brazilian context was used. The scale consists of 11 dimensions, divided into ten associations (brand mark, concessions, social interaction, commitment, team history, organizational attributes, team success, head coach, management, and stadium) and Internalization, central elements in the discussion about the brand equity. Besides, the dimension of satisfaction was added according to what was established by Vilares and Coelho (2011). Each dimension was operationalized by three items (total = 36) and measured on a seven-point Likert scale (1 = Strongly disagree; 7 = Strongly agree). Finally, sociodemographic questions (for example, age, sex, monthly income) were added. To achieve the established objective, the study was developed in two phases: 1. Adaptation and Pre-test of the SBBE; and 2. Analysis of the measurement and predictive models. It is important to know that before all procedures, in both phases, all participants were informed about the research objectives through the Informed Consent Form. Furthermore, this study was approved within a larger project, approved by the Research Ethics Committee of University of Pernambuco, a Brazilian public university, with CAAE number 01757118.3.0000.5192 and protocol number 3.064.330.

**Adaptation and Pre-test of the SBBE**

To adapt the SBGE to Brazilian Portuguese, four researchers in Sport Management and Marketing in Brazil adapted the content of Portuguese from Portugal to Brazilian. After that, a pre-test was carried out with 170 university students, in person, chosen in a non-probabilistic way for convenience. The majority of the participants were men (70%), aged between 17 and 45 years (M = 22.06 ± 5,175). The normality and reliability of the data were analyzed using absolute values of skewness (≤ 3) and kurtosis (≤ 10) (Kline, 2016), and the Composite Reliability (CR) (> 0.60) (Bagozzi & Yi, 1988), respectively. The factorial validity was observed assuming factor loadings > 0.50 (Hair et al., 2018), and the data were analyzed in Amos 26.0.

**Analysis of the measurement and predictive models**

In the second phase, after the adaptation of the SBGE, a new data collection was carried out, between January and April 2019, now online and with the addition of the
satisfaction dimension. After the conclusion of the collection, it was observed that 634 individuals complete the questionnaire, but only 217 were considered eligible to compose the sample, a rate of 34.2% of the participants. Exclusion criteria were considered: a) individuals under 18 years of age; b) incomplete questionnaires; c) questionnaires with ten or more items marked with the same number in the sequence; d) not having gone to any games in the investigated season. The sample size is above of recommendation (n > 200) (Hair et al., 2018), and we achieved the minimum ratio proposed by Hinkin (1995), that range from 1:4 to 1:10.

Thus, of these 217 fans, 80.2% were men, aged between 18 and 64 years old (M = 29.38 ± 10.380), 41.5% with completed high school, and 18.9% with income above USD 2,732.00 (1 USD = R$3.94; 2019). Also, 47% were team members and 16.1% had gone to watch a team game at the stadium in the season at the time of collection, while 24.9% had watched over five times. For data analysis, a two-step Structural Equation Modeling (SEM) was used. In the first step, a Confirmatory Factor Analysis (CFA) was performed, using Maximum Likelihood for the estimation, to analyze the quality of the adjustment of the proposed model. For this, the following indices were considered: Chi-square ($\chi^2$) and its division by degrees of freedom ($\chi^2$/df), Goodness of Fit Index (GFI), Comparative Fit Index (CFI), Tacker-Lewis Index (TLI), and Root Mean Square Error of Approximation (RMSEA). The internal consistency of each dimension was analyzed using composite reliability (> 0.70) (Hair et al., 2018). Regarding the validity of the scale, the factorial validity by the standardized factor loadings was observed, as well as the convergent validity by the average variance extracted (AVE) and the discriminant validity established when the AVE of the factors was equal or higher than the square of the correlation among these factors (Fornell & Larcker, 1981; Marôco, 2014). In the second step, the structural model was analyzed to respond to the proposed objective, considering the same indices previously mentioned.

### Results

**Adaptation and Pre-test of the SBBE**

Based on the experts’ analysis, 22 items on the scale were adapted to Brazilian Portuguese before the pre-test, by substituting words with the same meaning. After that moment, the pre-test was performed and one more item was modified based on feedback from the sample. Consequently, the analysis of the sample of university students (n = 170) showed multivariate normality of the data, with skewness values ranging from -2.99 to 0.76 and kurtosis from -1.20 to 9.36 (Kline, 2016). Moreover, the data showed internal consistency with composite reliability values ranging from 0.63 (social interaction, organizational attributes) to 0.86 (management), and all factor loadings were above 0.50 (Hair et al., 2018). Finally, the adaptations made to the SBBE were considered sufficient.

**Analysis of the measurement and predictive models**

The CFA for the sample of fans (n = 217) showed the normality of the data, with skewness ranging from -1.82 to 0.25 and kurtosis from -1.10 to 9.76. However, there were problems with factorial validity in the brand mark dimension, with an item with a value below 0.50. This dimension also showed values below the cutoff for CR (0.41) and AVE (0.20). Consequently, the brand mark dimension was removed from the model due to these issues. Subsequently, in the revised model comprising ten dimensions for brand equity, the CFA showed the normality of the data (skewness: -1.82 to 0.25; kurtosis: -1.10 to 3.25). All items exhibited factor loadings above 0.50, and AVE values exceeding the cutoff point (> 0.50) indicated the presence of convergent validity (Table 1). Discriminant validity was also confirmed, as the AVE for each factor was greater than the square multiple correlations between the factors (Table 2).

Finally, the scale presented an appropriate model fit ($\chi^2$(360) = 662.94 ($p < 0.001$), $\chi^2$/df = 1.84, TLI = 0.91, CFI = 0.93, GFI = 0.84, RMSEA = 0.06).

<table>
<thead>
<tr>
<th>Item</th>
<th>M (SD)</th>
<th>$\lambda$</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concessions (C)</td>
<td>3.74 (1.67)</td>
<td>0.86</td>
<td>0.67</td>
<td></td>
</tr>
<tr>
<td>There are specific foods at the arena that I like to eat</td>
<td>0.77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I enjoy eating at the arena</td>
<td>0.78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eating and drinking at the arena are things that I like to do</td>
<td>0.90</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Interaction (SI)</td>
<td>5.54 (1.26)</td>
<td>0.81</td>
<td>0.62</td>
<td></td>
</tr>
<tr>
<td>Being a fan of the team is a good way to meet other people</td>
<td>0.71</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am able to see friends because of the team</td>
<td>0.79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The team provides a good place to see friends</td>
<td>0.85</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment (COM)</td>
<td>5.86 (1.04)</td>
<td>0.76</td>
<td>0.52</td>
<td></td>
</tr>
<tr>
<td>Many fans regularly follow the team</td>
<td>0.69</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The loyalty of the fans is very noticeable</td>
<td>0.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fans have followed the team for a long time</td>
<td>0.79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team History (TH)</td>
<td>5.64 (1.31)</td>
<td>0.89</td>
<td>0.74</td>
<td></td>
</tr>
<tr>
<td>The team has a history of winning</td>
<td>0.81</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The team has a rich history</td>
<td>0.87</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is a successful history behind the team</td>
<td>0.89</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The measurement model and the causal model presented the same adjustment $\chi^2(440) = 770.13$ $(p < 0.001)$, $\chi^2/df = 1.75$, TLI = 0.91, CFI = 0.92, GFI = 0.83, RMSEA = 0.06, considered acceptable. Although the GFI was below the ideal minimum (> 0.90), it was considered acceptable due to other indices showed values above the cutoff point (Hair et al., 2018). All items demonstrated high factor loadings (> 0.50), confirming factorial validity. The CR for satisfaction (0.85) indicated good internal consistency and the convergent validity (AVE = 0.66) was considered acceptable.

As shown in Table 3, we can conclude that only the trajectories of team success, head coach and internalization were significant. In addition, it is important to note that the model presented was responsible for the variance of 70% of satisfaction.

### Table 3.
Path coefficients ($\beta$), standard errors (S.E.), critical ratios (C.R.), and explained variance ($R^2$) of the structural model

<table>
<thead>
<tr>
<th>Path</th>
<th>$\beta$</th>
<th>S.E.</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concessions $\rightarrow$ Satisfaction</td>
<td>0.11</td>
<td>0.05</td>
<td>1.64</td>
</tr>
<tr>
<td>Social Interaction $\rightarrow$ Satisfaction</td>
<td>-0.14</td>
<td>0.08</td>
<td>-1.50</td>
</tr>
<tr>
<td>Commitment $\rightarrow$ Satisfaction</td>
<td>0.09</td>
<td>0.15</td>
<td>0.86</td>
</tr>
<tr>
<td>Team History $\rightarrow$ Satisfaction</td>
<td>-0.15</td>
<td>0.08</td>
<td>-1.64</td>
</tr>
<tr>
<td>Organizational Attributes $\rightarrow$ Satisfaction</td>
<td>0.01</td>
<td>0.12</td>
<td>0.11</td>
</tr>
<tr>
<td>Team Success $\rightarrow$ Satisfaction</td>
<td>0.56**</td>
<td>0.15</td>
<td>4.59</td>
</tr>
<tr>
<td>Head Coach $\rightarrow$ Satisfaction</td>
<td>0.26**</td>
<td>0.03</td>
<td>3.86</td>
</tr>
<tr>
<td>Management $\rightarrow$ Satisfaction</td>
<td>0.01</td>
<td>0.08</td>
<td>0.10</td>
</tr>
<tr>
<td>Stadium $\rightarrow$ Satisfaction</td>
<td>0.14</td>
<td>0.08</td>
<td>1.31</td>
</tr>
<tr>
<td>Internalization $\rightarrow$ Satisfaction</td>
<td>0.17*</td>
<td>0.07</td>
<td>2.12</td>
</tr>
</tbody>
</table>

Note: * $p < 0.05$; ** $p < 0.01$.

Although they did not exhibit significance in the analysis, it is important to highlight some dimensions that
presented the highest means. The dimensions of commitment (M = 5.86), team history (M = 5.64), and social interaction (M = 5.54) are brand associations that showed high and positive values, demonstrating their relevance for clubs in terms of brand management. Additionally, the dimension of internalization (M = 5.63), which refers to aspects related to fans’ psychological commitment to the club, was used to operationalize brand awareness and also proved to be an important factor in enhancing brand strength in the consumer’s mind.

Discussion

The purpose of the present study was to analyze the impact of brand equity on the satisfaction of football fans in Brazil. The investigation in the Brazilian context sheds light on a reality that has been little investigated and the results presented demonstrated the influence of certain dimensions on consumer satisfaction. From the findings of the structural model, the analysis of each dimension of the brand equity provided a more detailed perception of the impact of this construct on satisfaction. It was found that only three dimensions had a positive and significant impact on satisfaction. The team success association was the dimension that presented the greatest path on satisfaction (β = 0.56; p < 0.001), followed by the head coach (β = 0.26; p < 0.001). Many studies on the quality of football club services have considered the importance of elements of the main service (i.e. the game) as an antecedent of satisfaction (Barros Filho et al., 2021; Theodorakis et al., 2013). From the perspective of the present study, it was observed that the mental associations related to the success of the team in the field, which also involves the performance of the head coach, are very important factors to satisfy the fan. As much as the sport result is one of the most difficult elements to control by the managers of football teams, the results presented confirm the importance of good hiring of players and coaches on the part of organizations.

The third dimension that impacted satisfaction was internalization (β = 0.17; p < 0.05). This dimension refers to the extent to which the fans incorporate the team in their own identity (Ross et al., 2008). Considering that internalization can be considered an important dimension in terms of awareness, it is important to emphasize that the teams’ marketing department must think about actions that value the relationship with fans to enhance the values of these organizations, and the team in the fans’ mind. Bearing in mind that satisfaction is a relationship between expectations and the perception of service performance (Kim et al., 2014), fans with a greater connection with the team have a more consistent evaluative response (Funk & James, 2001), which can result in higher satisfaction rates too. Finally, the brand equity model was able to explain 70% of the satisfaction variance, which demonstrates the relevance of all dimensions in general when thinking about strategic brand management for greater fan satisfaction.

Moreover, in the analysis of the measurement model, the brand mark dimension presented problems with its statistical values and therefore had to be removed. From a theoretical point of view, this shows a novelty for the literature, as some studies highlight the importance of this dimension within the analysis of the associations (e.g. Wear & Heere, 2020). The reason for this finding may be related to the fact that the fans do not consider the teams’ logo and colors as a strong association present in the mind when they think about the team. In this way, a rebranding strategy can be devised by teams. Bearing in mind that many clubs in Brazil are long-established entities, some over 100 years old, a process of modernizing the brand, without losing its historical components, can be a good strategy to enhance the team-fan relationship (Williams et al., 2021). Another reason can be the level of identification that the fan has with the team. In a study by Ahn et al. (2013), the authors observed that fans with higher levels of identification are less tolerant to changes in the club’s logo, which demonstrates the greater attachment to the organization’s brand mark. However, the level of identification was not assessed in our research.

As limitations of the present study, we highlight the inability to generalize the results for the whole of Brazil due to the lack of a representative sample. Further investigations in the Brazilian context must be carried out to realize the existence or not of differences in the perception of the brand equity according to the region of the country, with the use of the brand mark dimension and also others already conceptualized in the literature (e.g., rivalry). Studies in other contexts already finding new associations and could be used as an example (Doyle et al., 2021). Another limitation refers to the lack of analysis of the relationship between brands on the perception of the teams’ brand and the impact on satisfaction. Considering that the sport ecosystem is composed of different brands, new investigations that analyze the relationship between them are necessary for the development of strategic brand management (Baker et al., 2022; Kunkel & Biscaia, 2020).

Conclusions

Nowadays, the qualified management of the brand is a differential factor for the long-term management of any organization and in the case of sport, this is no different. However, not all teams realized the importance of considering the brand an asset of the organization. In a country in love with football like Brazil and without investigations on the theme, the present study demonstrated the relevance that brand equity has on satisfaction, a fundamental antecedent of loyalty. Specifically, associations in the consumers’ minds about the teams’ success and the head coach, as well as the internalization of the team values, play a fundamental role in the fans’ satisfaction. Even if the sporting result is something uncontrollable by the managers, it is relevant to realize the need for a constant concern in the choice of players and coaches. In Brazil, football teams are constantly changing head coaches, which can somehow decrease fans’
satisfaction. On the other hand, the departments must constantly emphasize the values of the team and its connection with the fans, to make them internalize the team on their own self.

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