

Satisfaction in sports: a meta-analytic study

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Abstract

Purpose – This article aims to perform a meta-analysis through a systematic review that will identify the main antecedents and consequents of the satisfaction of sports spectators.

Design/methodology/approach – This study used a total of 927 papers that studied satisfaction in the context of sports and directly analyzed 51 papers that presented quantitative data. This review of the existing literature resulted in 18 antecedent constructs and identified four constructs consequent to the satisfaction of sports spectators.

Findings – The results showed 21 positive relations and 1 negative relation with the satisfaction of sports spectators. A significant moderating effect of some cultural orientations and levels of human development are identified. The results demonstrate that the effect between interaction quality and satisfaction on the one hand, and satisfaction and behavioral intention on the other, is stronger for Eastern countries and those with a higher level of economic development.

Originality/value – This meta-analytic study advances the understanding of biases present in primary studies with various limitations. Using the proposed approach, it is possible to generate accurate estimates of the effect size in each analyzed relationship, as the meta-analytic method jointly evaluates the results produced by a great variety of studies performed in different contexts, making it possible to draw more accurate conclusions.

Keywords Satisfaction of sports spectators, Effect size, Meta-analysis and moderating variable

Paper type Research paper

1. Introduction

Satisfaction has been studied extensively in the traditional business and marketing environment (Oliver, 1981). This is because the concept of satisfaction is associated with different consumer behaviors that interfere with the purchase of products and services as loyalty (Bearden and Teel, 1983), trust (Sirdeshmukh *et al.*, 2002), word-of-mouth (Trusov *et al.*, 2009), among others. In the context of spectator sports, the path toward an understanding of this construct is highly similar. This similarity is evidenced by several studies that seek to understand the factors responsible for the formation of satisfaction (Chung *et al.*, 2016). In this way, spectator satisfaction has been studied in baseball (Lee *et al.*, 2012), basketball (Chen *et al.*, 2013), in golf (Lee *et al.*, 2011) and soccer (Greenwell *et al.*, 2013). These papers from the field of sports marketing are focused on a great variety of aspects: ticket holders' satisfaction (Beccarini and Ferrand, 2006), fan attendance (Laverie and Arnett, 2000) and service quality and satisfaction of professional sports spectators (Theodorakis *et al.*, 2013).

The increased number of publications on spectator satisfaction in sports has led to the appearance of conflicting results. An example of such a conflict can be observed in one of the most-researched consequences of spectator satisfaction: behavioral intention. It is possible to



detect positive (Yoshida and James, 2010) and neutral (Yoshida *et al.*, 2015) relationships between these two constructs. One might surmise that the divergences found in these studies may be related to fragmentation of the satisfaction construct, since there are several scales used in terms of data sources, as well as a variation in the number of potentially influential factors like aspects associated with the respondents' cultural backgrounds and sport modalities (Mann *et al.*, 2007).

In order to better understand the satisfaction construct in a sports context, Kim *et al.* (2014) made a critical review of the proposed issue and recommendations for future sports marketing research. This study promoted an excellent understanding of the satisfaction construct in the context of sports and provided a guide for future agendas. However, the results found were not generalizable (Fern and Monroe, 1996) and did not focus on a specific contextual area. In this sense, meta-analytical research could make a significant contribution to better stratify satisfaction because this method offers the possibility of integrating findings, thus producing a generalizable understanding of the phenomenon (Lipsey and Wilson, 2001). Because of this, meta-analytic research is vital for grouping results and consolidating understanding of a phenomenon (Lipsey and Wilson, 2001).

For example, meta-analysis was performed to understand the satisfaction construct in a general consumer context by Szymanski and Henard' (2001), and in the organizational environment by Brown and Peterson (1993). However, this general perspective is not enough to understand specific contexts, such as the satisfaction of a sports spectator. This occurs because specific environments tend to present specific constructs and moderators that are related to one main construct (e.g. satisfaction). In this vein, satisfaction meta-analyses were performed in specific contexts, such as the Ladeira *et al.* (2016a, b) study that was applied to the hospitality, tourism and consumer banking contexts, the meta-analysis conducted by Santini *et al.* (2017) to investigate student satisfaction in the education sector, the Brown and Peterson (1993) meta-analysis applied to investigate salesperson job satisfaction or the study of Blegen (1993) that investigates nurses' job satisfaction from a meta-analytic perspective.

In this context, the present study has the objective of analyzing the antecedents, consequents and moderators of satisfaction, with respect to sports spectators, based on meta-analytical research. Thus, in this article, we provide insights guided by the following three research questions. (1) What are the antecedent and consequent effects satisfaction sport spectators construct? (2) What is the strength of antecedent and consequent relationships to the satisfaction of sport spectators? (3) What moderators affect the direct relationship of satisfaction and sport spectators?

By doing this study, we intend to advance knowledge about sports spectator satisfaction in the following ways: (1) draw definitive conclusions about sports spectator satisfaction because the meta-analysis has the capacity to synthesize and generalize the findings of a phenomenon (Dickersin, 2002); (2) identify avenues for future research because the systematic review carried out can indicate relationships that are still tentative and could be investigated in the future; and (3) offer assistance to managers in their decision-making processes, because our findings are more consistent than those of traditional primary surveys (Hunter and Schmidt, 2004).

2. Theoretical model

Based on systematic review, we identified similar constructs that are named in different ways. In this case, we did a content analysis to advance single definitions that can be used as antecedents or consequents of the satisfaction of sports spectators. In this case, we incorporated the construct into the theoretical model if at least three relationships with the

satisfaction construct were found. This minimum number of relationships was recommended by [Hunter and Schmidt \(2004\)](#). After this, we classify some groups of constructs along similar dimensions. This procedure is commonly used in other meta-analyses (e.g. [Kim and Peterson, 2017](#)).

[Table 1](#) presents the concept of each construct divided into five dimensions. These dimensions are formed by a content analysis performed by two research studies. In this case the researches categorized through qualitative approach based on the theoretical foundation of each construct. This procedure has been used in other meta-analyses (e.g. [Santini et al., 2017](#)).

In our systematic review, we also coded a possible moderation effect by some variables that could modify the strength of the direct relationships of sport satisfaction ([Fern and](#)

Factors associated with event management and operations

Core service includes numerous characteristics that can affect perception of spectator sports (e.g. game schedule, special series of league games such as play-offs, interclub competitiveness) [Yoshida and James \(2010\)](#)

Effective communication refers to the interaction between sellers and buyers that aims at the formal and informal integration of information and provision of feedback [Hong \(2011\)](#)

Facilities access group items that increase the quality of services (e.g. parking, stadium employees, facility layout, accessibility) information signs [Yoshida and James \(2010\)](#)

Function attribute is the cognitive and utility value perception of the elements that comprise the crowd by the sports team [Koo et al. \(2008\)](#)

Interaction quality refers to the interactions between the service environment and the customer [Theodorakis et al. \(2013\)](#)

Secondary service refers to the set of services that are not directly associated with the core service and can influence the club image and the relationship with the spectators [Beccarini and Ferrand \(2006\)](#)

Factors associated with entertainment and recreation

Arousal is considered an emotional response of a stimulus emitted by the environment [Bagozzi et al. \(1999\)](#)

Game atmosphere is related to the stadium environment (e.g. atmosphere of the game, perceived rivalry, attractiveness of team colors and logos) [Yoshida and James \(2010\)](#)

Hedonic perception in sports is associated with emotional aspects such as entertainment, stimulus and aesthetic value [Beccarini and Ferrand \(2006\)](#)

Perceived crowding is an aesthetic quality that generates the sensation of human or spatial crowding in the sporting environment [Biscaia et al. \(2013\)](#)

Physical environment are elements of stadium aesthetics that contribute to a customer's overall feeling [Greenwell et al. \(2002\)](#)

Social interaction reflects the level of interaction among the fans occasioned by the sharing of interest and excitement about a sporting event [Lee and Kang \(2015\)](#)

Visual stimulus are visual evaluations of elements that make up the sport [Chung et al. \(2016\)](#)

Factors associated with projection of fan expectations

Feeling about waiting is linked to the feelings of expectation of a sporting event, such as a championship final or a confrontation with the rival [Baker and Jones \(2011\)](#)

Team identification is the oneness with or belongingness with an entity where the individual defines him or herself in terms of the entity to which he or she is a member [Lee and Kang \(2015\)](#)

Factors associated with competition performance

Competition Success comprises the level of competitiveness of a team against the championship/leagues dispute [Greenwell et al. \(2013\)](#)

Team disappointment is the frustration over the performance of a club or athlete [Beccarini and Ferrand \(2006\)](#)

Player performance is understood as a customer's perceptions of the player's physical and technical superiority to perform well, play hard, and make exciting plays [Yoshida and James \(2010\)](#)

Factors associated with positive behavioral attitudes

Affective response is the set of behavioral responders that derive emotions, pleasure and joy [Biscaia et al. \(2013\)](#)

Behavioral intention linked to go or consumption in a sporting event [Yoshida and James \(2010\)](#)

Revisit intention refers to intentions and behavior that point to a repetition of sports consumption or sporting event [Shonk and Chelladurai \(2009\)](#)

Trust is explained by sport fans' perceived credibility in the benevolence of their sport property [Hong \(2011\)](#)

Table 1.
Constructs antecedents
and consequents of
satisfaction of sport
spectators

Moroe, 1996). These analyses identify four main groups that are present in Table 2, along with the moderation concept and the coding.

3. Methodological design of a meta-analysis

We used multiple sources to identify published and unpublished studies that report empirical results available on or before November 1, 2018. This research also followed the procedures suggested by Moher *et al.* (2009) and described in the PRISMA protocol. In the first step, the data search was performed using the following databases/publishers: EBSCO, Elsevier Science Direct, Emerald, JSTOR, Scopus and Taylor and Francis. We also accessed articles using the search engine Google Scholar. Theses and dissertations were available on Google Scholar and the Proquest platform.

During the second stage, the data collection process, each article was downloaded from the search results of publications in English, obtained using the terms “satisfaction” and “sport” in the document title field, abstract or keywords. We also conducted a manual search of the main sports marketing and management journals. In order to reduce the risk of publication bias, we extended our search to the Researchgate network, and checked for relevant dissertations whose results had not been published in journals or in the Proquest or Google Scholar electronic databases. We also conducted a cross-reference search to find other important studies and, finally, contacted some authors that did not report all relevant values

Methodological moderators

Sample size

We defined the sample size as: small and large. This classification was based on the sample number declared in each study. After this, the median of the sample sizes was carried out

Satisfaction scale size

We classify the scale size by the number of items used in each study to measure satisfaction of sports spectators. The information was collected in the methodological section of each study. We used the median to classify two groups: (1) small scale; (2) large scale

Cultural moderators

Cultural orientations

The origin of the countries of study was separated into two respective cultural orientations. This separation was based on the parameters of Hofstede (2011)

Continent

We classify the continent of origin of the study investigation as: Asia, Europe, America, Oceania and Africa. This information was obtained from the information provided in the study method chapter

Level of distance power; Level of individualism; Level of masculinity; and Level of uncertainty avoidance

We classify the Hofstede cultural dimensions by low vs high. This separation occurred from the origin of the study application and was based on the parameters established by Hofstede (2011) obtained from the median of the indices of each country

Economic moderators

The human development index

The human development index was classified into two groups: low and high. This classification was based on the origin of the collection of the works and the median value assigned by the United Nations (UN)

Context moderators

The sport modality

We classify two sports: collective and individual. This grouping was carried out taking as base the sport object of investigation of the study

Sport type

The sport type investigated was identified through the information provided in the methodology of the studies

The type of sports league

The leagues were classified as: professional and amateur. This separation was possible from the identification of the context of application of the study

Table 2.
Moderators analyzed
in the meta-analysis

in their published or unpublished studies. This procedure is also commonly used in meta-analysis studies (e.g. [Kim and Peterson, 2017](#)).

In the initial search, using the procedures cited before (published or unpublished studies that used the terms “satisfaction” and “sport” in the document title field, abstract or keywords) we found 927 valid studies. Of this total, 390 papers were excluded from the analysis due to the nature of qualitative research they presented. Another 466 studies were not analyzed since they did not observe the data to be quantitatively associated with the satisfaction construct in a sports context. We also excluded 16 studies that measured satisfaction in the sports context from the point of view of the satisfaction of the participants (our study examined only articles focused on the satisfaction of sport spectators). In addition, four studies were not included because they presented only descriptive statistics. Based on the mentioned criteria, a total of 51 papers were selected for detailed analysis. From this total, 283 effect sizes were generated, which were analyzed in this study.

For the last step, we processed the data coding and analysis. At the data coding stage, a spreadsheet containing various data for each study was created, e.g. including the article identifier (or number), the origin of the work and the author(s), the country of data collection, the sample size, the sample type (e.g. real sample, student sample), the type of collection (e.g. survey, experiment), the application context (e.g. sport modality: soccer, tennis, basketball), the scale names used, the number of scale items, the scale alpha index, the variance index extracted from the scale, the relationship presented with the sports fan satisfaction construct and the statistics presented for the relationships. Using this worksheet, it was possible to perform content analysis to identify satisfaction-related constructs. At this stage, a total of 22 constructs were identified that fell into four antecedent dimensions and one consequent dimension.

The coding process followed a procedure suggested by [Rust and Cooil \(1994\)](#). In this case, two research assistants carried out the studies’ codification independently. Before they started the codification activity, the criteria were discussed between them. Once the coding activity was finished, the codification was compared and an agreement index of 92% was obtained. For those cases of disagreement, a third person analyzed the differences.

The analysis of direct relationships was based on Pearson’s correlation (r). This index characterizes the effect size found between satisfaction and the investigated constructs (both antecedent and consequent). For studies that did not present a correlation index (e.g. standard regressions, F or T -test), the index was generated based on the conversion of other correlated statistics available in each study ([Hunter and Schmidt, 2004](#)). The effect sizes of each relation were corrected in relation to the reliability of the scales and sample size ([Hunter and Schmidt, 2004](#)). We apply the random effect of the effect size, as suggested by [Hunter and Schmidt \(2004\)](#). The random effect model’s control was chosen because this method proved more generalizable to studies with heterogeneous sample sizes ([Rosenthal, 1979](#)). We also transform the correlations regarding Fisher’s Z -distribution. The upper and lower confidence interval index was also analyzed at the 95% level.

We investigated the level of heterogeneity among the studies by the Q and I^2 tests. The Cochran’s Q calculates the weighted sum of squared differences between the individual effects of the study and the combined effect of the studies ([Lau et al., 1998](#)). It is also worth noting that for meaningful relationships, the failsafe number was calculated to estimate the number of non-significant or unpublished studies that would have been necessary to refute the findings of this study ([Rosenthal, 1979](#)). In this case we used two failsafe parameters: (1) Rosenthal and (2) Orwin. The moderating relationships were analyzed using meta-regressions. In this case, we used raw effect sizes from primary studies as a dependent variable in weighted regression analysis. The moderators coded were used as independent variables ([Combs et al., 2019](#)). All analyses were conducted using the metafor R package ([Viechtbauer, 2010](#)).

4. Results

Table 3 presents the results of the direct relationships tested in this meta-analysis.

4.1 *The relationships between factors associated with event management and satisfaction of sports spectators*

The dimension analyzed was formed by six constructs. We suspected that these elements were essential to maintain sports consumers' feelings of satisfaction (Greenwell *et al.*, 2013) through the experience for fans that they curate (Bitner, 1990); the results confirmed this suspicion. The construct that promotes the strongest effect-sizes is interaction of quality ($r = 0.62$; $p < 0.001$; $FSN_{Rosenthal} = 3783$; $FSN_{Orwin} = 187$). It is important to note that according to the failsafe index, the findings were very consistent.

We also find a significant relationship between facilities access and satisfaction. The results show a relationship that is positive ($r = 0.38$), statistically significant ($p < 0.001$) and consistent ($FSN_{Rosenthal} = 1543$; $FSN_{Orwin} = 91$). This finding corroborates the assumption that information regarding the location and the conditions of physical facilities where sporting events occur is essential to the satisfaction of sports spectators (Yoshida and James, 2010). In the same way, we observe a positive relationship between core service and satisfaction. The core service involves such elements as the quality of opponents and players and the rivalry between competitors (Greenwell *et al.*, 2013). The data presented in the meta-analysis demonstrates that this construct is a significant and consistent antecedent element of satisfaction ($r = 0.35$; $p < 0.001$; $FSN_{Rosenthal} = 1019$; $FSN_{Orwin} = 48$).

The effective communication construct is a strategic process for establishing a relationship with spectators, as it is linked to the effectiveness of formal or informal sharing of team information (Hong, 2011). Thus, it would be reasonable to assume a positive relationship with satisfaction. This assumption was supported by the results obtained, as the strength of the relationship was positive ($r = 0.25$), significant ($p < 0.001$) and consistent ($FS_{Rosenthal} = 2096$; $FS_{Orwin} = 52$). We also find that the relationship between the function attribute and satisfaction presented a force of $r = 0.39$. The finding is notably consistent, as the failsafe numbers were 731 and 61 respectively, according to parameters set by Rosenthal (1979) and Orwin (1983). This positive relationship confirmed theoretical speculation that consumers tend to evaluate their purchases from rational and utilitarian (e.g. price) perspectives (Babin *et al.*, 1994). Finally, we also identified a significant and positive relationship between secondary service and satisfaction of sport spectators ($r = 0.25$; $p < 0.001$; $FSN_{Rosenthal} = 5090$; $FSN_{Orwin} = 89$). The core service in this context consists of a set of items that influence the spectators' perception of a game's quality.

4.2 *The relationships between factors associated with the perception of entertainment and recreation and satisfaction of sports spectator*

The factors associated with perceptions of entertainment and recreation had seven dimensions. In this case, we expected a positive relationship between these constructs and the satisfaction of sports spectators. This suspicion is based on the S-O-R theory perspective that point out the stimuli evoked by the environment generate positive feeling and consequently, positive sports fan responses (Donovan and Rossiter, 1982). The results showed that all constructs present positive and significant relationships with satisfaction. The strongest relationship with satisfaction was hedonic perception followed by arousal, game atmosphere, perceived crowding, physical environment, visual stimulus and social interaction.

The hedonic perception is related to affective/hedonic (e.g. quality, fantasy) evaluation by consumption (Babin *et al.*, 1994). In this case, we detected a positive ($r = 0.53$; $p < 0.001$) and consistent relationship ($FSN_{Rosenthal} = 1342$; $FSN_{Orwin} = 66$) between hedonic perception and satisfaction. The arousal construct corresponds to the response – e.g. being excited or

Table 3.
The direct effects of the satisfaction construct on sport

	<i>k</i>	<i>o</i>	<i>N</i>	ES	ICI	ICS	<i>Z</i>	<i>p</i>	<i>Q</i>	<i>f</i> ²	FSN ¹	FSN ²
<i>Factors associated with event management</i>												
Core service → Satisfaction	3	10	2761	0.35	0.27	0.43	7.55	***	72.22	87.54	1019	48
Effective commun. → Satisfaction	12	13	12023	0.25	0.22	0.28	15.87	***	27.41	56.35	2096	52
Facilities access → Satisfaction	4	11	773	0.38	0.30	0.46	8.71	***	467.49	95.52	1543	91
Function attribute → Satisfaction	6	14	1637	0.39	0.28	0.49	6.47	***	639.72	96.70	731	61
Interaction quality → Satisfaction	9	35	8899	0.62	0.55	0.67	14.24	***	4376.81	99.20	3783	187
Secondary service → Satisfaction	17	19	16314	0.25	0.19	0.31	7.56	***	329.10	94.53	5090	89
<i>Factors associated with perception of entertainment and recreation</i>												
Arousal → Satisfaction	4	8	1683	0.50	0.19	0.72	3.03	**	847.22	99.17	2401	84
Game atmosphere → Satisfaction	15	27	7982	0.47	0.31	0.60	5.29	***	4319.43	99.29	9079	141
Hedonic perception → Satisfaction	4	6	1533	0.53	0.35	0.67	5.26	***	154.31	96.76	1342	66
Perceived crowding → Satisfaction	3	5	3337	0.26	0.08	0.42	2.911	**	137.71	97.09	285	14
Physical environment → Satisfaction	4	8	900	0.21	0.08	0.33	3.23	**	54.63	87.20	165	28
Social interaction → Satisfaction	7	9	7204	0.18	0.07	0.29	3.30	**	149.31	94.62	246	15
Visual stimulus → Satisfaction	3	14	1193	0.20	0.10	0.30	4.05	***	187.33	93.06	843	46
<i>Factors associated with projection of fan expectations</i>												
Feeling about waiting → Satisfaction	4	8	1618	0.29	0.05	0.49	2.44	**	257.61	97.28	480	44
Team identification → Satisfaction	14	21	19968	0.33	0.23	0.43	6.03	***	1149.00	98.35	1783	65
<i>Factors associated with competition performance</i>												
Competition success → Satisfaction	5	12	3462	0.14	0.06	0.22	3.57	**	119.89	90.82	185	7
Team disappointment → Satisfaction	5	8	5929	-0.29	-0.43	-0.14	-3.68	***	380.42	98.16	2593	29
Player performance → Satisfaction	17	21	20368	0.34	0.25	0.43	6.83	***	1304.36	98.46	2636	116
<i>Factors associated with positive behavioral attitudes</i>												
Satisfaction → Affective response	9	13	3398	0.35	0.22	0.48	4.91	***	313.87	96.26	1251	73
Satisfaction → Behavioral intention	34	54	25865	0.51	0.43	0.59	10.60	***	6218.07	99.13	37412	277
Satisfaction → Revisit intention	11	16	6334	0.55	0.37	0.68	5.44	***	1787.15	99.16	5343	221
Satisfaction → Trust	6	8	1975	0.44	0.15	0.65	2.94	**	479.62	98.54	1340	80

Note(s): (*β*) number of studies used; (*o*) number of observations taken from the analysis; (*N*) number of accumulated samples; (FS) weighted average effect size and corrected from the sample and the alpha; (ICI) confidence interval lower; (ICS) confidence interval higher; (Z) Fisher Z Standardized; (*p*) Significance level of effect-size; (*Q*) Individual heterogeneity test; (*f*²) Level of heterogeneity; (FSN¹) Rosenthal parameters (1979); (FSN²); Orwin parameters (1983)

calm – of an individual to a stimulus (Russell *et al.*, 1989). Sports research has identified this excitement as an antecedent of satisfaction (Chung *et al.*, 2016). Our meta-analysis corroborated these findings, as the relationship found in eight effect sizes was positive ($r = 0.50$), significant ($p < 0.05$) and consistent ($FSN_{Rosenthal} = 2401$; $FSN_{Orwin} = 84$). The relationship between the game atmosphere and satisfaction are also significant ($r = 0.47$; $p < 0.001$; $FSN_{Rosenthal} = 9079$; $FSN_{Orwin} = 141$). Thus, the theoretical assumption that the features of the stadium environment that evoke strong feelings in fans also lead to the perception of satisfaction (Yoshida and James, 2010) is reinforced. The results also showed a positive and significant relationship between perceived crowding and satisfaction of sport spectators ($r = 0.26$; $p < 0.05$; $FSN_{Rosenthal} = 285$; $FSN_{Orwin} = 14$). This finding reinforces the idea that crowd experience can influence aesthetic quality at sporting events, thus bringing greater satisfaction to sports spectators (Yoshida and James, 2010). Therefore, the perception of crowding tends to generate more excitement and enduring involvement during the sporting event (Beccarini and Ferrand, 2006).

In the same vein, we find a positive ($r = 0.21$), significant ($p < 0.05$) and moderate ($FSN_{Rosenthal} = 165$; $FSN_{Orwin} = 28$) relationship between physical environment and satisfaction. In this case, data were obtained from four studies that identified eight effects within the sample of a total of 900 sports consumers. So, the results pointed out that various background characteristics related to the physical environment, contribute to a customer's overall feeling in the stadium (Yoshida and James, 2010). The visual stimulus concerns visual elements related to the environment such as colors, lighting, special features, and layout and design (Chung *et al.*, 2016). The results indicated a positive and significant relationship ($r = 0.20$; $p < 0.001$; $FSN_{Rosenthal} = 843$; $FSN_{Orwin} = 46$). Finally, we found a positive and significant relationship between social interaction and satisfaction ($r = 0.18$; $p < 0.05$; $FSN_{Rosenthal} = 246$; $FSN_{Orwin} = 15$). This finding reinforces the theoretical perspective that pointed to social interaction as one of the main reasons for consuming the sport (McDonald and Karg, 2014). These interactions generate spectators' behavioral intentions by indirectly providing satisfaction (Theodorakis *et al.*, 2013). Thus, sports marketers should also provide outlets for social interaction with other fans and players (Harrolle *et al.*, 2010).

4.3 *The relationships between factors associated with projection of fan expectations and satisfaction of sports spectators*

The factors associated with projections of fan expectation were analyzed by two constructs. The construct team identification presents a stronger relationship to the satisfaction of sports spectators. The results present a positive and significant relationship between team identification and satisfaction ($r = 0.33$; $p < 0.001$). The failsafe figures presented are observed to be consistent ($FSN_{Rosenthal} = 1783$; $FSN_{Orwin} = 65$). This finding reinforces the proposal that fan identification with a team has a strong impact on effect and enjoyment, which in turn leads to satisfaction (Beccarini and Ferrand, 2006). We also find a positive and significant relationship between feelings about waiting and satisfaction ($r = 0.29$; $p < 0.05$; $FSN_{Rosenthal} = 480$; $FSN_{Orwin} = 44$). The results were obtained by examining four studies that produced eight effects within a cumulative sample of 1618 respondents. This finding supports the assumption that the stimulus of interest toward a specific event may directly influence satisfaction (Yoshida and James, 2010; Chen *et al.*, 2013).

4.4 *The relationships between factors associated with competition performance and satisfaction of sports spectators*

The factors associated with competition performance were composed by three constructs. In this case, we expect positive relationships between competition success and player performance and satisfaction and negative effects between the relationship with team disappointment and player performance.

The positive relationships were confirmed. We find a stronger effect-size in the relationship between player performance and satisfaction ($r = 0.34$; $p < 0.001$; $FSN_{\text{Rosenthal}} = 2636$; $FSN_{\text{Orwin}} = 116$). This construct comprises the evaluation of the performance of a club or athlete in relation to results in championships (Biscaia *et al.*, 2013). Thus, higher levels of player performance enhance the probability of winning a contest and then this impacts the fans' satisfaction perception. In the same way, those successful in competitions had a significant relationship with satisfaction. The strength of this relationship was $r = 0.14$ ($p < 0.05$; $FSN_{\text{Rosenthal}} = 185$; $FSN_{\text{Orwin}} = 7$). This finding confirms that results attained by athletes or teams are a significant mechanism for generating satisfaction in spectators of the respective sport (Luna-Arocas and Tang, 2005). Finally, we found the opposite results, as we expected, for the relationship between team disappointment and player performance ($r = -0.29$; $p < 0.001$; $FSN_{\text{Rosenthal}} = 2593$; $FSN_{\text{Orwin}} = 29$). These results are linked to the negative performance of clubs and players in the season or championship (Beccarini and Ferrand, 2006). So, this finding reinforces the positive relationship between satisfaction and player and club success.

4.5 The relationships between factors associated with positive behavioral attitudes and satisfaction of sports spectators

The consequent satisfaction constructs (affective response, behavioral intention, revisit intention and trust) are associated with positive behavioral attitudes. This assumption is based on the theoretical perspective that points to the satisfaction construct as essential to promote value in the consumer's behavioral intentions (Oliver, 1981).

In this dimension, we highlighted the relationship between satisfaction and behavior intention, and satisfaction and revisit intention. The first relationship is confirmed by 54 effect-sizes observed in a sample with a total of 25,865 respondents. In this case, the strength of the relationship was $r = 0.51$ ($p < 0.001$; $FSN_{\text{Rosenthal}} = 37412$; $FSN_{\text{Orwin}} = 277$). These results reinforce the importance of satisfaction in influencing the future intentions of spectators (Theodorakis *et al.*, 2013). In the same way, the results found in the relationship between satisfaction and revisit intention ($r = 0.55$; $p = 0.001$; $FSN_{\text{Rosenthal}} = 5343$; $FSN_{\text{Orwin}} = 221$) demonstrate that satisfaction evokes a repetition of sports consumption or sporting events (Shonk and Chelladurai, 2009).

We also find a positive and significant relationship between satisfaction and trust ($r = 0.44$; $p < 0.05$; $FSN_{\text{Rosenthal}} = 1340$; $FSN_{\text{Orwin}} = 80$). So, this result suggests that greater optimism about championship results exists when fans are satisfied with their respective teams (Hong, 2011). Finally, we also found a positive and significant relationship between satisfaction and affective response ($r = 0.35$; $p < 0.001$; $FSN_{\text{Rosenthal}} = 1251$; $FSN_{\text{Orwin}} = 73$), confirming that after spectators or fans have their expectations fulfilled about the quality and/or outcome of the game, they have either a positive affective response and a certain level of satisfaction with the quality and/or outcome of the game (Harrolle *et al.*, 2010).

4.6 Moderating relations

Heterogeneity in indirect relationships is one of the major concerns of meta-analytic studies (Rosenthal, 1979). The bias associated with heterogeneity can be better understood through meta-regressions (Lipsey and Wilson, 2001). The analysis of the moderating effect was performed only on two direct relationships: (1) interaction quality and satisfaction and (2) satisfaction and behavior intention. These choices were based on several factors, including the number of papers analyzed, which was higher than 30. Lower numbers would be insufficient to analyze effect size changes through moderators (Hunter and Schmidt, 2004). Another factor was that the direct effects between the relationships mentioned were significant and, finally, the Q and I^2 statistics demonstrate a high level of heterogeneity,

indicating the need for moderators to interpret the direct relationship (Geyskens *et al.*, 2009) (see Table 4).

First, we analyzed the methodological moderators. Regarding sample size, we expected that studies with small samples would show stronger effect-sizes than large samples. These expectations are based on Hedges and Olkin's (1985) assumption that small sample research tends to overestimate the effect because these kinds of samples present more homogeneity (Hedges and Olkin, 1985). The results obtained by meta-regression did not support Hedges and Olkin's (1985) assumption since the relationships between interaction quality and satisfaction, and satisfaction and behavioral intention did not change under small- and large-sample study conditions (*interaction quality and satisfaction*: $\beta = -0.22$; $r_{small} = 0.62$; $r_{large} = 0.50$; $p = 0.212$; *satisfaction and behavioral intention*: $\beta = -0.270$; $r_{small} = 0.43$; $r_{large} = 0.54$; $p = 0.063$). In the same way, we did not confirm the moderation effect of satisfaction scale size. Concerning both relationships, the effect-size differences were not significant (*interaction quality and satisfaction*: $\beta = -0.12$; $r_{small} = 0.53$; $r_{large} = 0.52$; $p = 0.511$; *satisfaction and behavioral intention*: $\beta = 0.18$; $r_{small} = 0.48$; $r_{large} = 0.50$; $p = 0.757$).

We also investigated seven possible moderators about cultural contexts that could affect the direct relationships tested. This information was obtained by each study sample's country of origin (see Table 2 for more details). These analyses are important because we noted different investments between the two different cultural hemispheres, Eastern and Western orientation.

Of the seven moderators previewed, we identified three significant moderation effects on the relationship between interactive quality and satisfaction and six significant moderation effects on the relationship between satisfaction and behavioral intention. Concerning the moderator cultural orientation, we only find a significant effect on the relationship between satisfaction and behavioral intention ($\beta = 0.30$; $p < 0.05$). In this case, we detected stronger effects in the relationship between satisfaction and behavioral intention for Eastern ($r_{Eastern} = 0.68$) rather than Western fans ($r_{Western} = 0.43$). For the second moderator we analyzed, we found significant effects for both the relationships tested. The effects of interactive quality and satisfaction, and satisfaction and behavioral intention were weaker

	Interaction quality			Behavior intention		
	B	S.E.	Power	B	S.E.	Power
<i>Methodological moderator</i>						
Sample size: <i>small vs large</i>	-0.22	0.09	0.23	-0.27	0.07	0.46
Satisfaction scale size: <i>small vs large</i>	-0.12	0.05	0.08	0.18	0.05	0.05
<i>Cultural moderator</i>						
Cultural orientation: <i>Western vs Eastern</i>	0.00	0.12	0.05	0.30*	0.07	0.56
Continent: <i>America; Europe; Asia; Oceania</i>	-0.37*	0.03	0.47	-0.33*	0.03	0.87
Power distance: <i>low vs high</i>	0.37*	0.10	0.44	0.40**	0.07	0.82
Individualism: <i>low vs high</i>	0.07	0.10	0.06	-0.36*	0.07	0.72
U. Avoidance: <i>low vs high</i>	0.07	0.10	0.06	-0.11	0.07	0.12
Masculinity: <i>low vs high</i>	-0.09	0.10	0.07	-0.31*	0.08	0.59
Indulgence: <i>low vs high</i>	-0.37*	0.10	0.44	-0.35*	0.06	0.70
<i>Economic moderator</i>						
HDI: <i>low vs high</i>	-0.37*	0.10	0.44	-0.47**	0.06	0.92
<i>Contextual moderator</i>						
Sport type (professional vs amateur)	-0.15	0.08	0.12	0.03	0.08	0.05
Note(s): * $p < 0.05$; ** $p < 0.01$						

Table 4.
Moderating effect

for fans located in Oceania (*interaction quality and satisfaction*: $\beta = -0.37$; $r_{Oceania} = 0.40$; $r_{Europe} = 0.62$; $r_{America} = 0.63$; $r_{Asia} = 0.56$; $p < 0.05$; *satisfaction and behavioral intention*: $\beta = -0.334$; $r_{Oceania} = 0.174$; $r_{Europe} = 0.510$; $r_{America} = 0.53$; $r_{Asia} = 0.68$; $p < 0.05$). This result may be linked to a tendency for the leagues in other continents to have more fans, as illustrated by North American (e.g. NBA and NFL) and European (e.g. the Champions League) leagues that attract worldwide audiences. In addition, Asian (e.g. Chinese) leagues have very large numbers of domestic fans due to population sizes.

The other significant moderators were linked to Hofstede's cultural dimensions. In these cases, the results showed that the relationships between interaction quality and satisfaction, and satisfaction and behavior intention were stronger at high levels of power distancing (*interaction quality and satisfaction*: $\beta = 0.37$; $r_{low} = 0.40$; $r_{high} = 0.59$; $p < 0.05$; *satisfaction and behavioral intention*: $\beta = 0.40$; $r_{low} = 0.39$; $r_{high} = 0.63$; $p < 0.001$) and low levels of indulgence (*interaction quality and satisfaction*: $\beta = -0.37$; $r_{low} = 0.59$; $r_{high} = 0.40$; $p < 0.05$; *satisfaction and behavioral intention*: $\beta = -0.35$; $r_{low} = 0.54$; $r_{high} = 0.36$; $p < 0.05$). We also found a significant moderation effect in the relationship between satisfaction and behavioral intention in individualism and masculinity culture dimensions. The results demonstrated stronger effects at low levels of individualism ($\beta = -0.36$; $r_{low} = 0.63$; $r_{high} = 0.39$; $p < 0.05$) and low levels of masculinity ($\beta = -0.31$; $r_{low} = 0.63$; $r_{high} = 0.39$; $p < 0.05$).

It is important to note that almost all Hofstede dimensions that present significant moderations were aligned to the Eastern orientation – e.g. China, Japan (Hofstede, 2011). These results may be linked to substantial investments made in recent years in the Eastern leagues in order to attract the interest of local fans. For example, of the 12 highest-paid soccer players in the world, two were playing in the Japanese and Chinese Soccer League: Oscar from Shanghai SIPG and Andres Iniesta from Vissel Kobe (Business Insider, 2019).

We also investigated the Human Development Index (HDI) as a possible economic moderator. In this case the results showed that studies with samples located in low HDI economies present stronger effects than those in high HDI economies regarding the relationships between interactive quality and sports fan satisfaction, and sports fan satisfaction and behavioral intention (*interaction quality and satisfaction*: $\beta = -0.37$; $r_{low} = 0.59$; $r_{high} = 0.40$; $p < 0.05$; *satisfaction and behavioral intention*: $\beta = -0.47$; $r_{low} = 0.54$; $r_{high} = 0.26$; $p < 0.001$). This result further supports the idea that elements such as fantasy and escape from reality are among the variables driving the perception of sports. Thus, fans from countries with lower HDI can use activities related to sports to create a sense of escapism and distract from undesirable real-world events (Wann, 1995).

Finally, we analyzed contextual moderators. In this case, we investigated the possible moderation of sports leagues. For this investigation we did not find significant effects on both direct relationships tested (*interaction quality and satisfaction*: $\beta = -0.15$; $r_{professional} = 0.58$; $r_{amateur} = 0.51$; $p = 0.410$; *satisfaction and behavioral intention*: $\beta = 0.03$; $r_{professional} = 0.42$; $r_{amateur} = 0.44$; $p = 0.834$).

5. General discussion and academic implications

A meta-analysis was carried out to analyze antecedents, consequents and moderators of the satisfaction of sports spectators. Thus, we contributed in the theoretical field by clarifying these relationships because the meta-analysis allowed for the grouping of the quantitative results of different studies about this topic and found generalizable results, unlike a traditional review (Lipsev and Wilson, 2001). Thus, with this meta-analysis approach, we can consolidate understanding (Hunter and Schmidt, 2004) of conflicting results in the satisfaction of sports spectators that are analyzed via different sports satisfaction measurements, sports modalities, cultural backgrounds or sample characteristics.

We noted that all construct-linked factors associated with event management and operations are positively related to the satisfaction of sports spectators. This result reinforces the findings that factors of interaction with the supporting organization are important in generating lasting experiences (Kim *et al.*, 2008). So, from the managerial perspective, it is clear from the findings that an evaluation of the services offered to the fans should be prioritized. This is because operational aspects significantly interfere with the spectators' perception of satisfaction. In this case, managers could prioritize their efforts to promote adequate access to events, clear communication, employee resources and the quality of general service offers.

We also detected that factors associated with environmental perception, such as arousal, atmosphere, crowding, hedonic perception, physical environment, visual stimulus and social interaction, interfere in the formation of satisfaction. These results are interesting because, at the same time, we could find that these seven constructs, when they evoke feelings, also contribute to sports fan satisfaction. So, for the managerial field, actions associated with the generation of sensations in the game environment (such as improving sound and images) must be improved so that they will foster greater satisfaction.

The results also showed that constructs that form the specific expectations of sport spectators (feeling about waiting and team identification) are essential to build satisfaction. To promote more sensations about waiting for the game, managers could think about pre-match ad campaigns, in social or traditional media. For example, in Brazil, a traditional soccer team created a slogan to manage fan expectations about a game: "Today is the day of Grêmio!" The enhancement of team identification could be promoted by partner membership programs, royalties for products that fans could use in their daily routines, and special news that could promote customized service experiences (e.g. blog; social media; apps).

The results also present significant relationships between constructs linked to competition success and satisfaction. In this case, we noted a stronger relationship between player performance and satisfaction than competition success and sport spectator satisfaction. These results, in the theoretical context, are especially interesting for collective sports modalities. This underlines the importance of sports idols. Some examples can be observed these days; for example, Cristiano Ronaldo and Lionel Messi, have more followers on their personal *Instagram*® accounts than their respective soccer teams, Juventus and Barcelona. Therefore, managers have the challenge of reinforcing the link between player and team.

We further identify that traditional consequences of conventional consumer satisfaction literature (Oliver, 1981) can also be observed in the case of spectators: affective response, behavioral intention, revisit intention and trust. These results highlight the importance for managers to monitor sports fan satisfaction from the antecedents identified, because this would lead to effective long-term feelings, such as intention, affection, revisit intention and trust.

Finally, the results confirmed by moderation analysis lead to new insights for sports management since they have never been investigated. The findings suggest that Eastern fans inserted in countries bridge more strong the relationship between interaction quality and satisfaction, and satisfaction and behavioral intentions. In this case, for example, soccer managers of traditional Western teams seem to already be aware of the exploitation of the Western market through friendly matches with Eastern teams or pre-seasons occurring in important cities in Eastern countries. It is also interesting to note that countries with lower HDI indices present higher effect-sizes between interaction quality and satisfaction, and satisfaction and behavioral intentions. These findings affirm the perception that sports can be used by consumers as way to forget about their problems. In this case, sports spectators tend to be more connected with their favorite team or athlete.

In view of this study's findings, it is expected to contribute to this research field through its theoretical and managerial implications. Its chief achievement consists of creating a

quantitative summary of the primary satisfaction-related constructs in sport. As a consequence, the present study adds empirical evidence and assists in improving the understanding of relationships that involve the satisfaction of sport spectators.

Future research might include an analysis of qualitative articles because those techniques have not been considered in the analysis in this study. In addition, it is expected that with access to an even greater range of studies related to satisfaction in the future, it will be possible to investigate other methodological and contextual moderators (e.g. comparing sport spectator behaviors relative to culture, economy and modality). Furthermore, the current approach could be expanded to perform a meta-analysis by repeating the tests performed on the constructs not confirmed in this study. Another limitation was linked to meta-regression analysis. There is evidence that accurate coefficients can be prejudiced with less than 20 and 40 effects. (Lopes-Lopes *et al.*, 2014). In some cases, we had limited effects on sub-group analysis (e.g. satisfaction scale items). Future research could use more effects to retest the meta regression. Another important limitation stemming from this kind of analysis is the reduction of adverse concepts existing in the secondary data used. Therefore, since these data are empirical data from different authors, they may be adverse.

References

- Babin, B.J., Darden, W.R. and Griffin, M. (1994), "Work and/or fun: measuring hedonic and utilitarian shopping value", *Journal of Consumer Research*, Vol. 20 No. 4, pp. 644-656.
- Bagozzi, R.P., Gopinath, M. and Nyer, P.U. (1999), "The role of emotions in marketing", *Journal of the Academy of Marketing Science*, Vol. 27 No. 2, pp. 184-206.
- Baker, T. and Jones, S.A. (2011), "The inevitable queue: exploring the impact of wait time at sporting events", *International Journal of Sports Marketing and Sponsorship*, Vol. 13 No. 1, pp. 44-54.
- Bearden, W.O. and Teel, J.E. (1983), "Selected determinants of consumer satisfaction and complaint reports", *Journal of Marketing Research*, Vol. 20 No. 1, pp. 21-28.
- Beccarini, C. and Ferrand, A. (2006), "Factors affecting soccer club season ticket holders' satisfaction: the influence of club image and fans' motives", *European Sport Management Quarterly*, Vol. 6 No. 1, pp. 1-22.
- Biscaia, R., Correia, A., Ross, S., Rosado, A. and Maroco, J. (2013), "Spectator-based brand equity in professional soccer", *Sport Marketing Quarterly*, Vol. 22 No. 1, pp. 20-32.
- Bitner, M.J. (1990), "Evaluating service encounters: the effects of physical surroundings and employee responses", *Journal of Marketing*, Vol. 54 No. 2, pp. 69-82.
- Blegen, M.A. (1993), "Nurses' job satisfaction: a meta-analysis of related variables", *Nursing Research*, Vol. 42 No. 1, pp. 36-41.
- Brown, S.P. and Peterson, R.A. (1993), "Antecedents and consequences of salesperson job satisfaction: meta-analysis and assessment of causal effects", *Journal of Marketing Research*, Vol. 30 No. 1, p. 63.
- Business Insider (2019), "The 12 highest-paid soccer players in the world", available at: <https://www.businessinsider.com/highest-paid-soccer-players-footballers-world-2019-6>.
- Chen, C.Y., Lin, Y.H. and Chiu, H.T. (2013), "Development and psychometric evaluation of sport stadium atmosphere scale in spectator sport events", *European Sport Management Quarterly*, Vol. 13 No. 2, pp. 200-215.
- Chung, K.S., Ryu, D.S. and Lee, S. (2016), "The effects of prior affect and sensory stimuli on motorsport spectators' in-the-moment experiences", *International Journal of Sports Marketing and Sponsorship*, Vol. 17 No. 4, pp. 302-319.
- Combs, J.G., Crook, T.R. and Rauch, A. (2019), "Meta-analytic research in management: contemporary approaches, unresolved controversies, and rising standards", *Journal of Management Studies*, Vol. 56 No. 1, pp. 1-18.

-
- Dickersin, K. (2002), "Systematic reviews in epidemiology: why are we so far behind?", *International Journal of Epidemiology*, Vol. 31 No. 1, pp. 6-12.
- Donovan, R. and Rossiter, J. (1982), "Store atmosphere: an environmental psychology approach", *Journal of Retailing*, Vol. 58 No. 1, pp. 34-57.
- Fern, E.F. and Monroe, K.B. (1996), "Effect-size estimates: issues and problems in interpretation", *Journal of Consumer Research*, Vol. 23 No. 2, pp. 89-105.
- Geyskens, I., Krishnan, R., Steenkamp, J.B.E. and Cunha, P.V. (2009), "A review and evaluation of meta-analysis practices in management research", *Journal of Management*, Vol. 35 No. 2, pp. 393-419.
- Greenwell, T.C., Fink, J.S. and Pastore, D.L. (2002), "Assessing the influence of the physical sports facility on customer satisfaction within the context of the service experience", *Sport Management Review*, Vol. 5 No. 2, pp. 129-148.
- Greenwell, T.C., Greenhalgh, G. and Stover, N. (2013), "Understanding spectator expectations: an analysis of niche sports", *International Journal of Sport Management and Marketing*, Vol. 13 Nos 3-4, pp. 144-157.
- Harrolle, M., Trail, G., Rodriguez, A. and Jordan, J. (2010), "Conative loyalty of Latino and Non-Latino professional baseball fans", *Journal of Sport Management*, Vol. 24 No. 4, pp. 456-471.
- Hedges, L.V. and Olkin, I. (1985), *Statistical Methods for Meta-Analysis*, Academic Press, Orlando, FL.
- Hofstede, G. (2011), "Dimensionalizing cultures: the Hofstede model in context", *Online Readings in Psychology and Culture*, Vol. 2 No. 1, p. 8.
- Hong, J. (2011), "Sport fans' sponsorship evaluation based on their perceived relationship value with a sport property", *International Journal of Sport Management and Marketing*, Vol. 9 No. 1, pp. 116-131.
- Hunter, J.E. and Schmidt, F.L. (2004), *Methods of Meta-Analysis: Correcting Error and Bias in Research Findings*, 2nd ed., Sage, Newbury Park, CA.
- Kim, Y. and Peterson, R.A. (2017), "A meta-analysis of online trust relationships in E-commerce", *Journal of Interactive Marketing*, Vol. 38, pp. 44-54.
- Kim, J.W., Magnusen, M. and Kim, Y.K. (2014), "A critical review of theoretical and methodological issues in consumer satisfaction research and recommendations for future sport marketing scholarship", *Journal of Sport Management*, Vol. 28 No. 3, pp. 338-355.
- Kim, S., Greenwell, T.C., Andrew, D.P., Lee, J. and Mahony, D.F. (2008), "An analysis of spectator motives in an individual combat sport: a study of mixed martial arts fans", *Sport Marketing Quarterly*, Vol. 17 No. 2.
- Koo, G.Y., Andrew, D.P. and Kim, S. (2008), "Mediated relationships between the constituents of service quality and behavioural intentions: a study of women's college basketball fans", *International Journal of Sport Management and Marketing*, Vol. 4 No. 4, pp. 390-411.
- Ladeira, W.J., Santini, F.D.O., Araujo, C.F. and Sampaio, C.H. (2016a), "A meta-analysis of the antecedents and consequences of satisfaction in tourism and hospitality", *Journal of Hospitality Marketing and Management*, Vol. 25 No. 8, pp. 975-1009.
- Ladeira, W.J., Santini, F.D.O., Sampaio, C.H., Perin, M.G. and Araujo, C.F. (2016b), "A meta-analysis of satisfaction in the banking sector", *International Journal of Bank Marketing*, Vol. 34 No. 6, pp. 798-820.
- Lau, J., Ioannidis, J.P. and Schmid, C.H. (1998), "Summing up evidence: one answer is not always enough", *The Lancet*, Vol. 351 No. 9096, pp. 123-127.
- Laverie, D.A. and Arnett, D.B. (2000), "Factors affecting fan attendance: the influence of identity salience and satisfaction", *Journal of Leisure Research*, Vol. 32 No. 2, pp. 225-246.
- Lee, J.S. and Kang, J.H. (2015), "Effects of sport event satisfaction on team identification and revisit intent", *Sport Marketing Quarterly*, Vol. 24 No. 4, p. 225.
- Lee, J.H., Kim, H.D., Ko, Y.J. and Sagas, M. (2011), "The influence of service quality on satisfaction and intention: a gender segmentation strategy", *Sport Management Review*, Vol. 14 No. 1, pp. 54-63.

- Lee, S., Lee, H.J., Seo, W.J. and Green, C. (2012), "A new approach to stadium experience: the dynamics of the sensoryscape, social interaction, and sense of home", *Journal of Sport Management*, Vol. 26 No. 6, pp. 490-505.
- Lipsey, M.W. and Wilson, D.B. (2001), *Applied Social Research Methods Series; Vol. 49. Practical Meta-Analysis*, Sage Publications, Thousand Oaks, CA.
- Luna-Arocas, R. and Tang, T.L.P. (2005), "The use of cluster analysis to segment clients of a sport center in Spain", *European Sport Management Quarterly*, Vol. 5 No. 4, pp. 381-413.
- Mann, D.T., Williams, A.M., Ward, P. and Janelle, C.M. (2007), "Perceptual-cognitive expertise in sport: a meta-analysis", *Journal of Sport and Exercise Psychology*, Vol. 29 No. 4, pp. 457-478.
- McDonald, H. and Karg, A.J. (2014), "Managing co-creation in professional sports: the antecedents and consequences of ritualized spectator behavior", *Sport Management Review*, Vol. 17 No. 3, pp. 292-309.
- Moher, D., Liberati, A., Tetzlaff, J. and Altman, D.G. (2009), "Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement", *Annals of Internal Medicine*, Vol. 151 No. 4, pp. 264-269.
- Oliver, R.L. (1981), "Measurement and evaluation of satisfaction processes in retail settings", *Journal of Retailing*, Vol. 57 No. 3, pp. 25-48.
- Orwin, R.G. (1983), "A fail-safe N for effect size in meta-analysis", *Journal of Educational Statistics*, Vol. 8 No. 2, pp. 157-159.
- Rosenthal, R. (1979), "The file drawer problem and tolerance for null results", *Psychological Bulletin*, Vol. 86 No. 3, pp. 638-644.
- Russell, J.A., Weiss, A. and Mendelsohn, G.A. (1989), "Affect grid: a single-item scale of pleasure and arousal", *Journal of Personality and Social Psychology*, Vol. 57 No. 3, pp. 493-502.
- Rust, R.T. and Cooil, B. (1994), "Reliability measures for qualitative data: theory and implications", *Journal of Marketing Research*, Vol. 31 No. 1, pp. 1-14.
- Santini, F.D.O., Ladeira, W.J., Sampaio, C.H. and Da Silva Costa, G. (2017), "Student satisfaction in higher education: a meta-analytic study", *Journal of Marketing for Higher Education*, Vol. 27 No. 1, pp. 1-18.
- Shonk, D.J. and Chelladurai, P. (2009), "Model of service quality in event sport tourism: development of a scale", *International Journal of Sport Management and Marketing*, Vol. 6 No. 3, pp. 292-307.
- Sirdeshmukh, D., Singh, J. and Sabol, B. (2002), "Consumer trust, value, and loyalty in relational exchanges", *Journal of Marketing*, Vol. 66 No. 1, pp. 15-37.
- Szymanski, D.M. and Henard, D.H. (2001), "Customer satisfaction: a meta-analysis of the empirical evidence", *Journal of the Academy of Marketing Science*, Vol. 29 No. 1, pp. 16-35.
- Theodorakis, N.D., Alexandris, K., Tsigilis, N. and Karvounis, S. (2013), "Predicting spectators' behavioural intentions in professional football: the role of satisfaction and service quality", *Sport Management Review*, Vol. 16 No. 1, pp. 85-96.
- Trusov, M., Bucklin, R.E. and Pauwels, K. (2009), "Effects of word-of-mouth vs traditional marketing: findings from an Internet social networking site", *Journal of Marketing*, Vol. 73 No. 5, pp. 90-102.
- Viechtbauer, W. (2010), "Conducting meta-analyses in R with the metafor package", *Journal of Statistical Software*, Vol. 36 No. 3, pp. 1-48.
- Wann, D.L. (1995), "Preliminary validation of the sport fan motivation scale", *Journal of Sport and Social Issues*, Vol. 19, pp. 377-396.
- Yoshida, M. and James, J.D. (2010), "Customer satisfaction with game and service experiences: antecedents and consequences", *Journal of Sport Management*, Vol. 24 No. 3, pp. 338-361.
- Yoshida, M., Heere, B. and Gordon, B. (2015), "Predicting behavioral loyalty through community: why other fans are more important than our own intentions, our satisfaction, and the team itself", *Journal of Sport Management*, Vol. 29 No. 3, pp. 318-333.

Further reading

McDonald, H. and Shaw, R.N. (2005), "Satisfaction as a predictor of football club members' intentions", *International Journal of Sports Marketing and Sponsorship*, Vol. 7 No. 1, pp. 75-81.

Minkov, M., Blagoev, V. and Hofstede, G. (2013), "The boundaries of culture: do questions about societal norms reveal cultural differences?", *Journal of Cross-Cultural Psychology*, Vol. 44 No. 7, pp. 1094-1106.

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