Influence of Sporting Event Factors on Football K League 1 Spectators' Satisfaction

스포츠 경기요소가 축구-K리그1 관중 만족도에
미치는 영향

2023년 08월

서울대학교 대학원

체육교육과 글로벌스포츠매니지먼트

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Submitting a master's thesis of Global Sport Management

August 2023

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August 2023

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Acknowledgements

I would like to express my gratitude, first and foremost, to the Dream Together Master Program for providing me with the opportunity to study at this university and grow professionally. I am thankful for the chance to meet invaluable individuals and learn more about South Korea. I extend my appreciation to the staff of DTM for their support throughout our stay. I would like to give a special thanks to Director Jong Ho Kang for believing in me and wholeheartedly supporting the program. I admire his dedication and passion for this program. Lastly, I would like to express my gratitude to my thesis advisor, Kim Yukyoum, and tutor, Jiho, for their guidance in the completion of this thesis.

I also want to thank my family, especially my parents Enrique and Amparo and my sister Camila, who supported me from afar to complete my studies and provided me with emotional support. They are my greatest motivation and the key to my success.

On this journey, I have encountered many people who have helped me with their feedback, assistance, debates, information, and more. I would like to thank Susie, Jisub, Cassie, Marta, Angie, Claudia, Laura and other friends for their assistance and support during my thesis. The award for the best thesis is also a part of your contribution.

Abstract

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Customer retention is a key focus for many organizations due to its cost-effectiveness compared to customer acquisition. High levels of customer satisfaction have been associated with various benefits, including brand loyalty, repeat attendance or repurchase, positive word-of-mouth promotion, increased market share, and revenue growth. Consequently, consumer satisfaction emerges as a dependable component of effective marketing strategies. However, the sport management field presents unique challenges in this regard. The unpredictable nature of sports performance poses difficulties for sports managers seeking to satisfy customers. The

inherent uncertainty surrounding a team's on-field performance adds complexity to the task of sports managers in meeting customer expectations.

In the Korean context, there is a lack of research on football spectators' satisfaction. Existing literature primarily examines satisfaction related to service quality, servicescape, and game experience in different sports and regions. However, a specific investigation focusing on soccer and Korean spectators is needed to advance studies in sports marketing and consumer satisfaction. Furthermore, the local football league in Korea has not garnered sufficient fan interest compared to the popular baseball league, resulting in a significant disparity in revenue and attendance. To address this issue, team owners must prioritize improving the quality of service and understanding their customers' preferences to enhance spectator satisfaction.

The present study identifies and analyzes the spectators' preferences about sporting event factors and their impact on the satisfaction and intention to re-attend the South Korean professional football league: K League 1. The purpose of this research is to 1) explore the attributes that satisfied the most to the Korean football match spectator; 2) identify and analyze the main factors that satisfied Korean spectators in K League; and 3) analyze how the satisfaction influences the intention to re-attend a match in the stadium.

A quantitative study is carried out on the spectators of the K League 1. Data was collected in a survey from a sample of 218 respondents. The analysis of how their preferences have an impact on satisfaction and intention to re-attend is performed through Confirmatory Factor Analysis (CFA) in SPSS 26.0 and Structural Equation Modelling (SEM) in AMOS 26. Based on Chen et al. (2013) and Slavich et al. (2018) the factors analyzed were Facility, Electronics, Team Traditions, Team Competitions, and Concessions.

The findings conclude that among all the factors, on a scale from 1 (least satisfied) to 7 (most satisfied), Team Traditions is the highest score (5.62) by spectators, while Concession got the lowest (4.31). Concerning the factors that influence satisfaction, three of them were statistically significant: Team Traditions, Facility, and Concessions, results were in line with previous research. On the other hand, Electronics and Team Competition have not shown an influence on satisfaction. Finally, the findings suggest that satisfaction can lead to re-attend a K League match.

The impact of Team Traditions, Facility, and Concessions on spectators can be attributed to several factors. First, the league's efforts have aimed to rekindle fans' interest in the clubs after years of disinterest. Second, the stadium's high quality is a result of the World Cup 2002 legacy

and state ownership. Third, there is an increased demand for healthier, higher quality, and more varied concessions. In contrast, previous research has noted that satisfaction derived from Team Competition may vary depending on the sport and region analyzed, as this study confirms. This research contributes to the theory that satisfaction leads to regular service usage. Quality, satisfaction, and behavioral intentions are vital for the satisfaction, attendance, and revenue benefits of football clubs. The study also discusses academic and managerial implications.

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Chapter 1. Introduction

1.1. Context of K League

The Korean Professional Football League, named as K League, is the official competition for football in South Korea and regulated by the Korean Football Association. Since 1983, when the Korean Football Association decided to launch the professional Super League, it has been the main championship to promote and develop football in Korea.

Currently, it has two official leagues, K League 1 and K League 2, which are the first and second honor division of the Korean professional football. K League 1 has 12 teams in its division distributed in eleven cities and K League has 11 teams distributed in eleven different cities. The most successful team in K League history is Jeonbuk Hyundai Motors with 11 titles, followed by Seongnam FC and FC Seoul with 7 and 6 titles respectively.

Figure 1.

Cities of the 2022 K League 1 Teams

The first division has a relegation system introduced since 2012 to give competiveness to the league. However, since 2013, due to the reduce of number of teams, the relegation system was structured in this way: the 12th team of the final positions is automatically relegated, while the 11th team has to face a relegation match against the team who obtained the promotion playoff in K League 2.

Different from European systems league, the K League season starts on February and run until October or November and consists of 38 rounds. The 2022 league consists as follows:

Table 1

K League 1 Competition Structure

Division		Calendar 2022	Method	Number of Teams	Number of Games	Place
Regular round		Feb 19th - Sep 18th	3 round robin	12 teams	198 games (33 per team)	Home club stadium
Final round	Group A	Oct 1st – Oct 23rd	1 round robin	Top 6 teams	15 games (5 per team)	Home club stadium
	Group B			Bottom 6 teams	15 games (5 per team)	

Note. Adapted from (K League, 2022)

Is important to mention that South Korean football clubs, as well as many clubs in Asia, has a particularity in their governance structure, they are usually governed by large corporations like Samsung, Hyundai, POSCO, etc. As Woo et al., quoted:

> Professional sports are predominantly controlled by the large industrial corporations, such as business groups (e.g., chaebols), rather than by wealthy individuals or the general public as in Western countries. Chaebols substantially contribute to the wealth of Korean economy, with approximately 40 percent of the total output in Korea coming from the top 30 chaebols. (2020, p. 2)

In contrast to European football leagues or North American sports leagues, the clubs in Korea are connected to significant businesses, and a professional football team's primary duty is to promote for its parent firm. In fact, the parent company is frequently prepared to make up any financial losses as long as the team improves the parent's reputation. Since direct financial backing from the parent corporation is sometimes considered as a marketing expenditure, many professional football teams have chronic deficits on their balance sheets (Jang & Lee, 2015).

Regarding the sponsors and broadcasters of the competition, K League 1 has made agreement with most of the principal companies in Korea. For 2022, the official naming sponsor is Hana Bank changing the name of the competition to Hana OneQ K League 1. Also, brands as Adidas, Hyundai Oilbank, EA Sports, Gatorade and Fitotogether are official sponsors of the league. On the other hand, several broadcasters have the rights to transmit the football matches in their networks, for instance, JTBC, Sky Sports, IB Sports, KBS and Coupang Play (only OTT) are the official broadcasters in South Korea.

All the stadiums of the K League 1 teams are run by the government. According to Korean laws, is not possible to have a private stadium. Hence, most of the teams depends on the infrastructure provide by the city

government and Korea Sport Promotion Foundation (KSPO). In that sense, many of the venues are legacy of the 2002 World Cup such as Seoul World Cup Stadium (capacity 66,704), Ulsan Munsu Football Stadium (capacity 44,102), Suwon World Cup Stadium (capacity 44,031) or Jeonju World Cup Stadium (capacity of 42,477). However, others teams like Daegu FC or Incheon FC have chosen to move their home stadium to a different one in order to build a stronger supporter's culture, create more expectations about the match and offer a better service on the match day.

The attendance to the stadiums before the pandemic of COVID-19, was roughly 5000 people per match reaching in 2019 a peak of 2.38 million of spectators. In 2022, with the latest ravages of the pandemic, the Korean government released some of the restrictions against the coronavirus, which has allowed more fans to enter the stadiums.

Figure 2

Total Number of spectators of Korean Football League 1
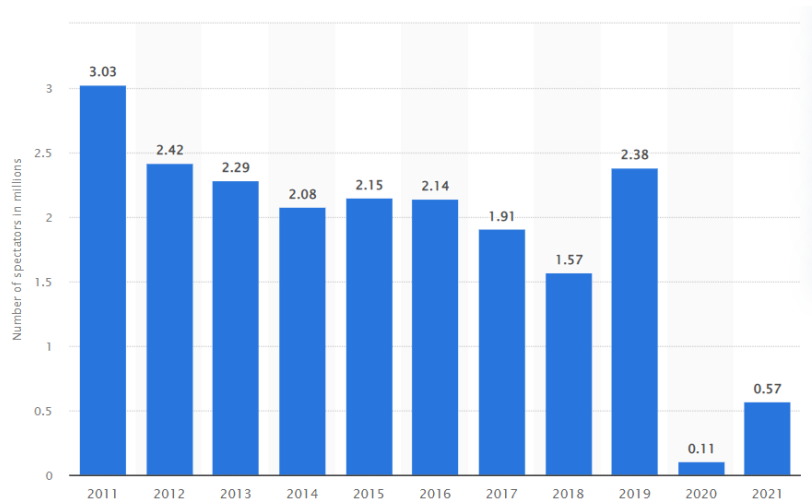
Note. (In millions). Adapted from Ministry of Culture, Sports and Tourism (2022, February 24) *Status of Professional Sports Operations.* Korea e-country Indicators. Retrieved August 4, 2022, from
http://www.index.go.kr/potal/main/EachDtlPageDetail.do?idx_cd=1662

1.2. Problem Identification

Despite the popularity of football around the world, there is much to do to become Korean football the most popular sport in Korea. According to the Ministry of Culture, Sports and Tourism (2022), there is a difference in the numbers of spectators of the most popular professional sport league in Korea which is the Korean Baseball Organization League (KBO League) versus the Korean Professional Football League (K-League).

6

Figure 3

Total number of spectators at professional sporting events in South Korea in 2021
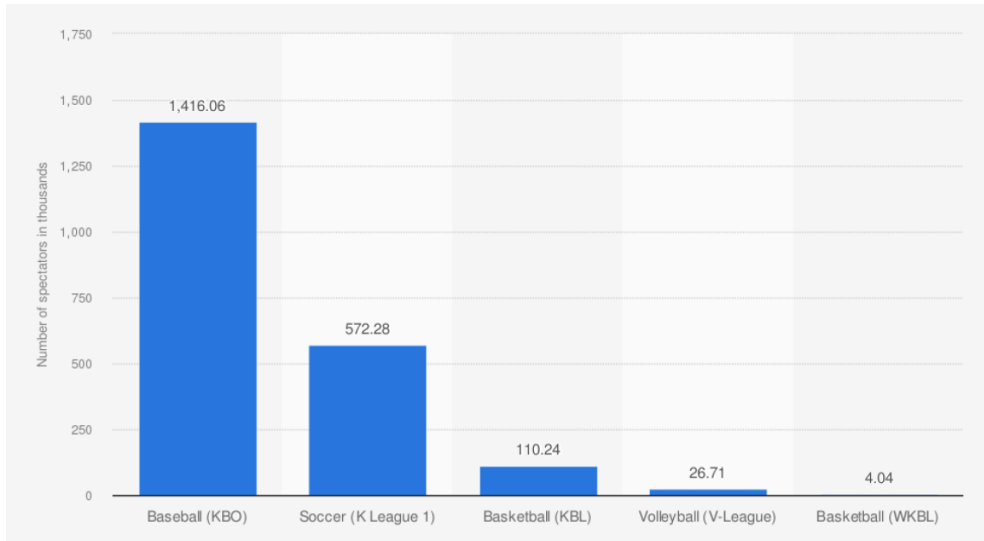
Note: (In thousands) Ministry of Culture, Sports and Tourism (2022), Retrieved August 4, 2022, from http://www.index.go.kr/potal/main/EachDtlPageDetail.do?idx_cd=1662

As shown in the previous figure, there is a big difference in the professional baseball spectators in comparison with the professional football spectators. There is a gap to be closed by the sports managers of the football clubs that despite the fact that football is very popular worldwide, that Korea has qualified for numerous World Cups and that even many Korean teams such as Ulsan Hyundai in 2020 and 2012, or Jeonbuk Hyundai Motors in 2016 have won the AFC Champions League, even football is not attractive enough for the South Korean public.

International football tournaments in Asia have not risen much interest in Koreans, according to (Jang & Lee, 2015) the average attendance of AFC Champions League games (in Group Stage games) held in Korea was only 7145 in 2013 and the local league has faced lack of attendance and popularity (Park & Ok, 2017). In addition, due to the fact that the parent corporations are primarily national or multinational, corporate-owned K-League teams have historically been hesitant to embrace a localization approach that focuses on marketing to home-city supporters. The accumulation of fan loyalty and, ultimately, attendance, suffered as a result of the previous unwillingness to target a local fan base. (Jang & Lee, 2015).

However, this is not the only issue, in terms of revenue, there is a huge disparity between KBO League and K League incomes. For instance, in 2019, Korean Baseball Professional League generated 85.84 billion won or 65 million USD Dollars approximately in ticket revenue in contrast with the 16.23 billion won or 12 million USD Dollars earned by K League in ticket revenues.

Figure 4

Ticket revenue of the KBO League vs K League from 2017 to 2019
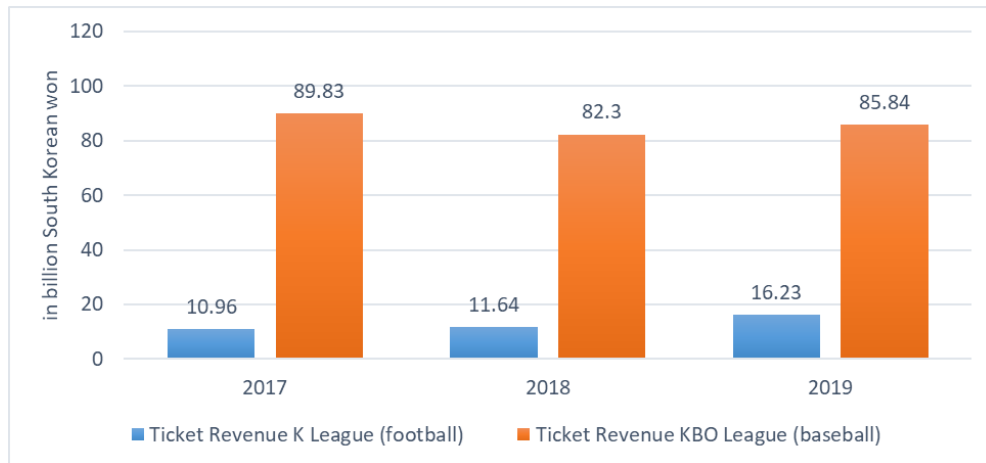
Note: (in billion South Korean won). Adapted from (K League, 2019). and (KBO, 2021)

      Finally, despite being the second most popular sport, there have been few studies addressing K League and football spectators' satisfaction. Although there are some investigations such as that of Cho and Ha (2020) about the marketing mix's influence on Spectating Satisfaction, Team Loyalty, and Revisit Intention for Professional Football Clubs or the Jang and Lee (2015) study regarding the attendance determinants of the Korean professional football league. Also, the studies from (Kim S. H., 2014) concerning the effect of professional football teams' service quality on viewing satisfaction, team loyalty, and re-viewing intentions and (Kim et al.,

2007) research about the Market segmentation in the K-League and its spectators. Nonetheless, factors comprising spectators' experiences of sporting events, specifically Korean Professional Football and satisfaction have not been addressed yet.

1.3. Research Questions

The research aims to investigate and analyze the customer preferences and experience perceptions about the sport event factors when they attend football matches in the South Korea professional league: K League 1. Specifically, is addressed the following questions:

RQ1. What are the most satisfying features for K-League spectators?

RQ2. What are the main factors that satisfy south Korean spectators in K-League 1?

RQ3. How does satisfaction impact the intention to re-attend the stadium?

1.4. Research Hypotheses

H1A. Customers prefer comfortable seats in the venue.

H1B. Customers prefer a coordinated behavior among fans.

H1C. Customers prefer good competitiveness in the match.

H2A. For Korean spectators, the factor facility of the stadium has a significant impact on the satisfaction.

H2B. For Korean spectators, the factor electronic has a significant impact on the satisfaction.

H2C. For Korean spectators, the factor team competition of the game has a significant impact on the satisfaction.

H2D. For Korean spectators, the factor team tradition has a significant impact on the satisfaction.

H2E. For Korean spectators, the factor concessions of the game have a significant impact on the satisfaction.

H3. Satisfaction impact positively in the intention of re-attend a match.

1.5. Research Significance

Fans satisfaction is an essential way to retain consumers, as in every business, acquiring new customers cost a lot of resources, money, and time. Problems like the one described in K League can be addressed or partially solved with high satisfactions standards as mentioned by investigations of Paciello Silveira, Vinicius Cardoso and Quevedo-Silva (2019) and Hawkins and Mothersbaugh (2010).

Then, the satisfaction of the spectators is important because increases the opportunities for a fan returning to the stadium to continue supporting the team, even despite the result of the team. As Mark Cuban, CEO of the Dallas Mavericks basketball team quotes:

"I know I can't control what happens on the court every game, but I can do my very best to make sure that no matter what the score, we have done all we can to make the fan experience like a great wedding". (Cuban as cited in Slavich, Dwyer, & Rufer, 2018, p. 80)

This is needed especially in sports with long seasons and several matches like Football, where having loyal supporters helps team morale and contributes financially to the club. Also, is relevant due to the fact that satisfaction has been identified as an important driver of stock returns (Raithel et al., 2012). For that reason, the managerial significance of this study is to provide recommendations that can guide club owners and marketing managers in the effective management of the experience on matchday to maximize spectator satisfaction. Also, a framework about how to measure fan satisfaction in Asian football will be provided. This model will be a tool for sports managers from Korea and other countries looking to determine the satisfaction levels of their game spectators and to seek methods for effective marketing strategies. In this way, sports managers will be able to know the strengths and weaknesses of their club and take action to change, improve or continue with their marketing strategy.

The principal contribution to the sports management academia is the research about fans satisfaction in South Korea Professional Football and

helping scholars on the field of sport management, sport marketing or customer experience. Most of the information provided by the Korean academy is focused on baseball rather than on other sports. This study offers a measuring model and a structural model that academics may use to compare with their own models or further their research. Also, providing research made totally in English is another solution that reduces the access to information due to language barriers.

Chapter 2. Review of Literature

2.1. Customer Satisfaction

Many businesses focus on maintain customers due to the less costs compared in trying to gain new clients. A dissatisfied customer cannot be a customer for so long. For those reasons, organizations should aim, as well as actively pursue, for high standards of customer satisfaction. Before explaining the reason why, we need to maintain satisfaction in our customers, is important to discuss the term "Customer Satisfaction" *per se*.

According to Kotler and Keller (2012), satisfaction in a person is described as the feelings of pleasure or disappointment that comes from comparing a product's perceived performance (or outcome) to expectations. If the operation fails to meet of the customer's expectations, they are not satisfied. If it fulfills expectations, the client is happy. If it surpasses expectations, the client is absolutely delighted or satisfied. These authors provided a definition more oriented to the perspective of the consumer.

An opinion focused on the achievement of satisfaction is provided by Oliver who argued that customer satisfaction is "a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfilment" (1997, as cited in Van Leeuwen, Quick, & Daniel, 2008, p. 100).

For its part, Jones and Suh (2000) believe that satisfaction is an overall evaluation based on all previous encounters between the service and the customer which can influence repurchase intentions. In this sense, the authors affirm that satisfaction is a comprehensive and complex process to be studied.

Even international standards like the ISO 9001:2000 mention that quality management systems must focus on satisfying the customers' needs. In that sense the authors quote: "The International Standard promotes the adoption of a process approach when developing, implementing and improving the effectiveness of a quality management system, to enhance customer satisfaction by meeting customer requirements" (Hill et al., 2002).

Then, according to the literature we can offer a definition that customer satisfaction is the achievement of different standards in the comparison between expectations of the customer and outcomes of the service.

2.1.1. Importance of Customer Satisfaction

Customer satisfaction is an important matter for marketers and managers. According to (Hawkins & Mothersbaugh, 2010) it is generally more profitable to maintain existing customers than to replace them with new customers. Retaining current customers requires that they are satisfied with their purchase and use of the product having long term benefits for the

organization. In that sense, different reasons why customer satisfaction is beneficial are provided:

<u>Repurchase behavior</u>

Authors like Seiders et al. (2005). examine the relationship between customer satisfaction and repurchase behaviors. They found that involved customers spend more money and time than do less involved customers, the data suggest that the more satisfied the customers are, the more money is spent. However, the authors highlight that "Delivering superior satisfaction does not lead to increased repurchase frequency (i.e., customers continue to shop around), but it does lead to significantly higher spending". This is important to quote due that spending and number of visits are two different concepts in marketing service.

In addition, Srivastava and Sharma (2013) found that service quality and corporate image have an impact on satisfaction, which can influence repurchase intention. In their article, they concluded that customers will be more satisfied with the service, which improves their intention to repurchase, which has the effect of reducing switching behavior, if a service provider provides high quality service and has a reputable image in the minds of consumers. This concept is relevant due that higher levels of customer satisfaction help companies against competitors that offer lower prices in

order to steal customers. In words of Lopez, Redondo and Olivan (2006, as cited in Srivastava & Sharma, 2013) consumers' switching cost perception might vary according to their satisfaction level.

In sport related studies, (Kim et al., 2013) found that achievement seeking and salubrious effects have an impact on repurchase intentions. Achievement seeking is proposed as feeling part of the team, sense of personal victory when the favorite team wins, excitement for watching the event and wearing official clothes of the team. On the other hand, salubrious effect was defined was as defined as a factor in which consumers use the service to be able to escape from their daily routine and be able to socialize with their friends, family or other people. Also, a study found that satisfaction have a high impact on the fan decision to buy tickets in the context of soccer clubs in Brazil (Paciello Silveira et al., 2019). Additionally, their findings indicate that fans who are happier are more likely to plan to acquire tickets for upcoming games. Along with the obvious correlation between satisfaction and willingness to purchase tickets, there is a significant connection between satisfaction as an antecedent of team loyalty.

Loyalty

In the literature of marketing, customer satisfaction is mentioned as an important precedent to loyalty. According to different researchers, loyalty

have a positive impact on attendance, team motivation and ticket repurchase of sports clubs. Nonetheless, is important to define the term loyalty in a marketing context. Kotler and Keller (2012) mentioned that customer satisfaction and loyalty is not proportional. For instance, assume customer satisfaction is evaluated on a scale from one to five. At a very low level of satisfaction (level one), customers are likely to abandon the company and even bad-mouth it. At levels two to four, customers are fairly satisfied but still find it easy to switch when a better offer comes along. At level five, the customer is very likely to repurchase and even spread good word of mouth about the company. High satisfaction or delight creates an emotional bond with the brand or company, not just a rational preference. And this emotional link is what can help brands and companies to continue selling products or services regardless of the price or conditions. Since such retained and loyal customers are thought to be less expensive to service (and less price sensitive), the expected result should be lower costs and higher profits (Yeung & Ennew, 2000).

For the sports customer, based on the findings of (Paciello Silveira et al., 2019) in the intention to purchase a ticket for a soccer match, loyalty is a crucial concept. Through the regular attendance of fans who are more devoted and are not impacted by poor outcomes or high ticket prices, among other

factors, it appears that having loyal customers has a significant influence on the turnover of sports organizations.

Bodet and Bernache-Assollan mentioned that consumer satisfaction is a stronger direct predictor of consumer loyalty in the context of French Ice Hockey Division, this means that customers are more willing to attend a future game of the game. Also they highlighted that is important for sport managers to " identify which service elements strongly influence spectators and fan satisfaction, and, second, identify marketing actions to enhance both home and away game attendance, probably playing on either the service offer or the price policy" (2011, p. 796)

<u>Post purchase attitude</u>

An important issue in the role of Customer Satisfaction is attitude change. Depending on the product or service's experience and attitude may change since consumers learn from experience. After all, Customer satisfaction is a psychological state resulting from the experience of a product or service, and it decays into one's attitude towards products or services (Yi, 1990)

In addition, according to Sözer and Civelek (2018) contemporary markets have been characterized with extreme competition due to the high propensity of customers to switch their brands unless they have emotional

bounds with the brands they prefer. The emotional aspect of the relationship is the most important factor of creating a loyal customer base which eventually leads both behavioral as well as attitudinal loyalty (Blattberg & Sen, 1974 as cited in Sözer & Civelek, 2018). Based on that, we can assume that customer satisfaction made strong bonds between the brand and the person leading to a special attitude.

Word of mouth

Word of mouth (WOM) is one of the actions that involves minimal economic investment but that have a huge impact in the recognition of a brand. Is a term developed for the business industry that can be defined as "communications that involves individuals sharing information with other individuals in a verbal form, including face-to-face, phone, and the Internet" (Hawkins & Mothersbaugh, 2010). And can be perceived as an evaluation of products and services between customers (Kim et al., 2013).

Consumers usually place more faith in personal sources (family, friends, and acquaintances) than in marketing because, in contrast to marketing communications, these personal sources have no incentive to hide their honest ideas and feelings. As a result, WOM from personal sources like friends and family may have a significant impact on consumer choices and company performance. And the impact of this action can be huge, as Severt,

Wang, Chen and Breiter (2007) quoted "positive word-of-mouth was 700% more effective than newspaper advertising, 400% more effective than personal selling, and 200% more effective than radio advertising in getting consumers to change brands".

Word of Mouth is really important for organizations, especially in sports, as (Wakefield & Bennett, 2018) mention is a consuming experience, henceforth referred to as a fan experience, includes attitudes about the environment, such as the stadium and the team's performance. These experiences vary, though, since even typically successful teams occasionally provide inferior performance and services. However, given the lack of control over team performance, it is crucial to provide supporters a great experience in order to foster favorable word-of-mouth (Wakefield & Bennett, 2018).

Market Share and Firm Profitability

Finally, is relevant to recognize the effects of customer satisfaction on the financial performances of organizations. Both in the academic field and the business field, the interest in obtaining high levels of satisfaction lies in the fact that this can improve business performance (Yeung & Ennew, 2000). A firm's future profitability depends on how customer are being satisfied at the moment, then a continuous level of high satisfaction leads to more repurchase intentions which increase the revenue sales. If we consider that

the acquisition costs for new consumers are higher, eventually general satisfaction made an impact in the firms (Anderson & Sullivan, 1993). These customers have also higher propensity to engage into the positive word-of-mouth and facilitate the acquisition of new customers for the brand which eventually leads to increasing market share (Heskett et al., 1997 as cited in Sözer & Civelek, 2018).

On the other hand, authors like Yeung and Ennew (2000) founded that consumer satisfaction has an effect on financial performance across a range of measures, both internal and external. The data in the study reveals that customer satisfaction has a large and favorable influence on all those performance measures for internal financial performance, including sales, operating income, net income, and retained profit.

The rising popularity of Balanced Score Cards (Kaplan & Norton, 1991 as quoted in Yeung & Enner, 2000) and other similar systems suggests that there is broad interest in mixing financial and non-financial criteria for performance assessment. Customer satisfaction can be measured, and this may have an influence on performance, therefore it seems more possible that this will be a strategic goal in the future with measurable performance benefits.

In general, when clients' expectations and service results are contrasted, the satisfaction is the achievement of several standards. This

expectation achieved can lead to different benefits for the organization like repurchase behavior, loyalty, post-purchase attitude, word-of-mouth, market share and firm profitability.

To resume, organizations must modify consumer-centric strategies to fit the new market dynamics and requirements because of the changing competitive environment. One of the most significant goals of customer-centric business practices has been the management of customer happiness, which has become a critical strategic requirement for the corporation (Sözer & Civelek, 2018).

2.2. Spectator satisfaction in sports

Having discussed the main concepts about consumer satisfaction, is time to discuss satisfaction in the field of sports management. Numerous studies have analyzed the satisfaction of the fan, supporter or consumer in their attendance at a sporting event. In the following lines, this topic will be explained in greater detail.

Research made by Slavich et al. (2018) showed how the contribution of the physical facility, facility electronics (including music and lighting), team traditions, and facility concessions impact to sports' spectator satisfaction in Asia and United States. This study provides a valuable argument about the importance of studying customer service in sports.

According to the authors the significance of customer satisfaction studies relies on the unpredictability and profitability of the game. After analyzing 255 samples with a hierarchical multiple regression, the finding showed that consumer satisfaction, specifically factors like facility and electronic, is a direct antecedent to repeat consumption. Thus, understanding how the stadium experience impacts a fan's satisfaction should be a key performance indicator for sport managers.

In 1992, (Bitner) addressed the notion of servicescapes as the relationship between the physical ambience and place and its impact on service delivery and perception. She mentioned that because the consumer is "in the factory" experiencing the full service is necessary an empirical and theoretically based framework that address the role of physical surroundings. Later, based on that research, (Wakefield & Blodgett, 1996) provide a model using confirmatory factor analysis to determine how spectators perceive their sport facility in 8 constructs (facility parking, facility aesthetics, scoreboards, seat comfort, layout accessibility, space allocation, and signage). The stadium's physical surroundings could have a big impact on how much visitors want to remain in there and return again. This lead to specific characteristics of the stadium environment that may directly contribute to the enjoyment of the venue by spectators, whilst other variables may contribute

to unfavorable sensations that may reduce enjoyment. The satisfaction derived from the sportscape atmosphere was shown to strongly influence spectators desire to stay and re-patronize games at the stadium.

Lee (2018), found the effect on Servicescape in Professional Baseball Stadium on satisfaction of the spectators. The scholar highlighted that to enhance team performance and gather more women fan to the stadium, team owners have considered about stadium atmosphere and make their effort for make it better. Consumer satisfaction and willingness to return are significantly and fairly consistently impacted by the servicescape in Korea's professional baseball. In that sense, four environmental dimensions: layout accessibility, facility aesthetics, electronic equipment and cheering culture have positive impact on consumer's satisfaction. Korean baseball's consumers are likely to evaluate the attractiveness of the exterior and interior of the facility as well as the colors and those have an impact on their satisfaction. Additionally, cheering in a welcoming environment is viewed favorably by customers, and cheerleaders encourage active participation in games. On the other hand, seating comfort and ambient condition (roar of the crowd, applause and atmospheric music) on the stadium have not impact on baseball's spectators. Lastly, consumer's satisfaction with servicescape have strongly positive impact on repatronage intention.

Authors like Ioannou and Bakirtzoglou (2016) investigated the relationship between stadium factors (sportscape) on spectators' satisfaction in Greek Soccer Super League. Correlation and regression analysis were used to identify the relationship and predictive variables of spectators' satisfaction. Results indicated from the five variables of sportscape model, stadium security and cleanliness were the most predictive variables of spectators' satisfaction. According to the author professional soccer clubs are basically service organizations. For that reason, the concept of quality plays a critical role in the success of service organizations. Van Leeuwen et al. agree that satisfaction as a meaning refers to any judgments about qualification of products and services which completes the enjoyable level of consuming (2008). Based on that, fan satisfaction and services are key factors in the sports industry, especially in football industry.

On research made by Greenwell et al. (2002) the role of the physical facility of the sport venue is analyzed, along with the principal product and services in order to know how satisfaction and profitability is affected in the United States Ice Hockey League. Using a multiple regression analysis is revealed that the core product (consist of the quality of the team, the opponent's level and the event quality itself), the physical facility (elements of the physical environment such as ambient conditions, spatial layout and

signage) and the service personnel (In the context of spectator sporting events, service personnel take the roles of ticket sellers, concessionaires, merchandisers, ushers, and customer representatives) have an impact on the customer satisfaction. However, customers' opinions of the physical facilities were only moderately correlated with customer satisfaction when considered separately, this lead that customers did not make their satisfaction judgments based on individual attributes, but looked at the facility as a whole. The authors asserted that while a good facility (or any other part of the customer experience) may not be sufficient to increase customer happiness, it can have a significant impact when combined with a good core product and competent customer service staff. Managers need to focus on all three factors if they want to fully please their clients. Also, this satisfaction was correlated with the frequency of attendance and profitability of the team.

2.2.1. Customer Satisfaction in Football

In relation to football oriented studies, (Theodorakis et al., 2013) discussed the effects of outcome quality and functional quality on spectators' satisfaction of the Greek Professional Football League. This outcome refers to spectator's experience of consuming the core product (game itself related attributes) and the peripheral or supportive element (stadium and supportive services). According to the authors outcome quality is categorized as the

customer receives, that is what is left for the customer, after the production–consumption process is over, this means the dimensions of game quality and team performance. On the other hand, functional quality is defined as the surroundings of the building or stadium, ancillary services (such parking or snacks), and interactions between spectators and staff. The environment of a sports facility includes things like aesthetics (i.e., design), accessibility, security, and space/functions, whereas the quality of an employee pertains to their competence, attitude, and behavior. Among the findings of the research, both dimensions of service quality (outcome and functional) contributed to customer satisfaction, however outcome quality have a bigger influence.

In the American and Japanese football league (Yoshida & James, 2010) found that the relationship between game atmosphere and game satisfaction have an influence on behavioral intentions. These findings demonstrate that fostering an engaging game environment will please spectators and increase their propensity to attend subsequent matches. In addition, service satisfaction results from felt convenience and ease of facility access, as indicated by information signs and facility layout in the stadium as well as by the attitude of stadium employees. The authors mentioned that the customer satisfaction from service satisfaction and game satisfaction can be viewed as antecedents of satisfaction. Service quality like stadium employees

and service environment can be an antecedent to customer satisfaction whereas core product quality, this is the team characteristics and player performance, has an influence on game satisfaction. Finally, in the Japanese league game satisfaction and service satisfaction are major predictors of intentions to re-attend sporting events.

Regarding the effect of price in the satisfaction of the consumer (Biscaia et al., 2013) assess service quality in professional football and to examine the effects of service quality and ticket pricing on satisfaction and behavioral intention. Player performance, opponent characteristics, referees, game atmosphere and crowd experience have a direct influence on satisfaction. That study provided empirical evidence to support the claim that player performance is by far the best predictor of spectator satisfaction, which in turn influences behavioral intention favorably. The establishment of an inviting ambiance, an exciting experience in the crowd, and affordable ticket pricing are complementing characteristics linked to the service delivery that help in smaller amounts to assure favorable post-purchase reactions.

In the Asian context, a study analyzed the effect of marketing mix (product, place, price and promotion) in a South Korean football professional club (Cho & Ha, 2020). Among the marketing mix factors of professional football clubs, product was found to have a positive effect on viewer

satisfaction and re-attendance intent. Also, promotion had a positive effect on viewer satisfaction, team loyalty and intention to watch again. This is a factor that a professional football club should consider and focus on when establishing a marketing strategy to attract and increase viewers. In contrast, the location of the stadium and the price of the ticket has not a significant relevance on spectator's satisfaction.

In a professional football league in Iran, (Foroughi et al., 2014), analyzed how the quality service (Game quality, Augment service, Interaction, Outcome, Environment) impact on Fan Satisfaction and the influence on Game Attendance. The findings proved that the impact of game quality on fan satisfaction is stronger than other independent variables. Finally, the results showed that fan satisfaction is positively related to fan attendance.

As shown, there was ample studies about satisfaction, service quality and consumer behavioral regarding sports. For a better understanding, in the following Table 2, a comparison of the different frameworks for spectators' sports events is provided.

Table 2

Comparison of Customer Satisfaction Frameworks for Spectator Sports Events

Author(s) and year	Context	Instrument and Analysis	Domain	Dimensions or factors
Cho and Ha (2020)	Professional Club in South Korea	CFA and SEM	Spectator Satisfaction, Revisit Intention and Loyalty	Marketing Mix • Product • Price • Promotion • Place
Slavich, Dwyer and Rufer (2018)	USA and Asia Sport Spectators	Hierarchical Multiple Regression	Spectator Satisfaction	• Facility • Electronic • Team Competition • Team Traditions • Concessions
Chen , Lin and Chui (2013)	Super Basketball League in China	EFA in study I and II. CFA in study III and SEM	Sport Stadium Atmosphere	• Entertainment • Electronic device • Facility • Team traditions • Team performance

				Spectators' passion
				• Professional staff
				• Spectators' irrational behavior
				• Team competition
				• Cheering groups
Yoshida and James (2010)	Baseball in Japan and American Football in the United States	EFA, MANOVA	Behavioral Intentions	Service Satisfaction • Stadium Employees • Facility Access • Facility Space Game Satisfaction • Team characteristics • Player performance • Game atmosphere
Theodorakis, Alexandris, Tsigilis and Karvounis (2013)	Football Super League in Greece	CFA and SEM	Satisfaction and Behavioral Intentions	Outcome Quality • Game Quality • Team Performance Functional Quality • Tangibles • Responsiveness • Access

				• Reliability
				• Security
Biscaia, Correia, Yoshida, Rosado and Marôco (2013)	Professional Football League in Portugal	CFA and SEM	Satisfaction and Behavioral Intentions	• Player Performance • Opponent Characteristics • Referees • Frontline Employees • Facility Access • Seat Space • Security • Facility Design • Game Atmosphere • Crowd Experience • Ticket Price
Wakefield, Blodgett, and Sloan (1996)	College American Football Games in United States	(Hypothesized Sportscape Model) CFA	Behavioral Intentions	Sportscape Factors • Stadium Accessibility • Facility Aesthetics • Scoreboard Quality • Seating Comfort • Layout Accessibility • Space Allocation

2.3. Determinants of satisfaction

Having discussed the notion and studies about customers' satisfaction in the sport field, is important to explain the principal factors or determinants that drives satisfaction to the fan or sport spectators. In that sense, we will show the most relevant for the present study.

According to Hawkins and Mothersbaugh (2010) is necessary to comprehend the aspects of product and service performance because both expectations and actual performance play significant roles in the satisfaction's review process. A major study of the reasons customers switch service providers found competitor actions to be a relatively minor cause. The majority of clients didn't change from a good provider to a better one. Instead, they decided to change because they thought there were issues with their present service provider. The nature of these problems can be described as follow.

- Core service failure. Mistakes (booking an aisle rather than the requested window seat), billing errors, and service catastrophes that harm the customer (the dry cleaners ruined my wedding dress).

- Service encounter failures. Service employees were uncaring, impolite, unresponsive, or unknowledgeable.

- Pricing. High prices, price increases, unfair pricing practices, and deceptive pricing.

- Inconvenience. Inconvenient location, hours of operation, waiting time for service or appointments.

- Responses to service failures. Reluctant responses, failure to respond, and negative responses (it's your fault).

- Attraction by competitors. More personable, more reliable, higher quality, and better value.

- Ethical problems. Dishonest behavior, intimidating behavior, unsafe or unhealthy practices, or conflicts of interest.

- Involuntary switching. Service provider or customer moves, or a third-party payer such as an insurance company requires a change.

In a football-related field, some authors analyze this problem in depth and change some factors. For instance, (Yoshida & James, 2010) proposed two main dimensions or antecedents of customer satisfaction at sporting events: Game Satisfaction and Service Satisfaction. As mentioned paragraphs above, the first is related to the events that occurs on the field of play by the team, coach and player. The second, is referred to everything that happen outside the court, this can be the facility, food, lights, personnel, security, etc.

In order to reach this satisfaction is important the provision of a quality service and a quality core product:

Quality core product: Is related to the outcome valence (i.e., feelings about the outcome of a game), home team characteristics (i.e., team standings, win/loss record, the number of star players, and team history), opponent characteristics (i.e., both conference and national rankings), game attributes (i.e., aggressive plays, speed of a game, and player appeal), a sense of enjoyment, and basking in reflected glory (BIRG) as direct or indirect predictors of game satisfaction and attendance intentions (Yoshida & James, 2010).

Quality service: Refers to how well services are delivered to the customer, it can be service environment, stadium employees, facility layout, accessibility, seating comfort and information signs. Is also known as ancillary services which are under managerial control and are predictable. (Yoshida & James, 2010)

When we discussed about quality service is important to mention (Parasuraman et al., 1988), SERVQUAL and its 5 dimensions' reliability, assurance, empathy, responsiveness, and tangibles. This research contributes, totally, to the current studies of customer's satisfaction and in part to the quality service research. However, for this study, we are not measuring

satisfaction with quality, we are measuring satisfaction with the customer experience of a service.

Due to this study want to measure the satisfaction in a sporting event, is important to highlight the study of Chen et al. (2013) Sport Stadium Atmosphere (SSA). Atmosphere is referred to describe the surroundings of a sport event and have been identified as a key value to motivate potential spectators to attend events. In other terms is defined as a preferred emotional state that spectators associate to the unique environmental characteristics of a sporting venue. Moreover, in contrast with the Yoshida and James 2010 study, "the distinction between SSA and service quality at sporting events is that SSA includes social factors such as other spectators' behaviors while service quality focuses more on employees, facility access, and space. The unique aspects of the SSA include the stimuli from other spectators and commentators" (Chen et al. 2013, p.210). Then, a clear division between service quality and satisfaction is proposed.

The factors proposed by Chen et al. (2013) research are the following:

- Entertainment: Related to the emotions and joy in the stadium provided by the club. Half-time shows, giveaways, interaction between players and spectators, mascot and promotional activities are part of this factor.

- Electronic device: It refers to the lightning and big screens on the stadium. Also, the music and acoustics encouraging are part of this dimension.

- Facility: Involves the constructions and distribution of the stadium like the seating, architecture and overall quality of the facility

- Team Traditions: This part is related to the customs of the local club. Involves the color of team jersey, team chanting, and win/loss records.

- Team performance: It is oriented towards performance on the field of play and its interaction with the public. The items are: excitement of the fans when the favorite team scores, perceived team morale and overall performance of fans favorite team.

- Spectators' passion: Is about the attendance perceived by the spectators, the intensity on the support by fans, and passion of the spectators.

- Professional staff: It is about the people that are involve with the match but do not play in the field. For instance, umpires or referees' professionalism, commentators' words or coach's behavior are part of this factor.

- Spectator behavior: Is about the manners of the attendance. Is measure if the spectators shout at judges, throw objects into the court or if the get emotional about a players' fight.

- Team competition: This factors consist on the level of rivalry between the teams, perceived competitiveness and the importance of the game (finals, play-off, relegation, etc)

- Cheering groups: Refers to the incentives provided by club personnel. Involves cheer leaders' performance, set maneuvers performed by fans and use of cheering sticks.

This factors have an influence on the sport stadium atmosphere which has an impact on the satisfaction of the spectators. For the study subject analyzed by Chen (2013), the most relevant factors were electronic device, team performance, professional staff and team competition. Depending on the sport, context and subject the relevance or impact of the factors may change.

Finally, considering the previous studies, Slavich et al. (2018) and based on the fact that unpredictability is what makes the duties of a sport manager so challenging and, that sport managers are forced to focus on other elements of the stadium experience to create an experience that consistently satisfies fans, they cover the dimensions or factors related to the sport spectator experience. In order to analyze potential variations in these elements

between sports and geographical locations, the Slavich et al. (2018) study looked into these sporting event factors all around the world using an international sample of sport viewers. As a result, 5 dimensions involving experience in sporting events that lead to satisfaction are presented:

- TEAM COMPETITION: Involves the role of rivalries contributing to fan satisfaction, according to the authors, fans derive more satisfaction from their favorite team defeating a rival than a non-rival, and experienced joy and excitement when their favorite team defeated a rival. However, having a rival can be hard to control for sport managers but it should be considered. Another factor that plays a role in the competitive environment of sporting events is the number of games played in a team's season. For example, some leagues have more than 100 games per season which make it extremely difficult to emphasize the importance of each game. Finally, the perceived competitiveness of the teams is important.

- PHYSICAL FACILITY: The physical environment can impact consumer behavior such as length of stay and unplanned purchasing as mentioned by studies like the one from Bitner (1992) about the Servicescape. In the sports context, Wakefield et al. (1996) constructed the Sportscape which inspected facility attributes' effect

on spectator desire to stay at the facility and return in the future. Then, facility is described as the comfort that the spectators who come to the sports venue feel with the seats, as well as how they like the architecture and design of the place and how they perceive the quality of the sports facilities.

- ELECTRONIC: It refers to how electronic or energy-dependent devices influence consumer satisfaction. Based on previous studies, Slavich et al. (2018) categorizes the light of the place, the quality of the music in the stadium and the screens as key elements for this factor. They highlighted that the aspects of the physical facility and electronic devices including music, lighting, and scoreboards may differ according to sport type.

- TEAM TRADITIONS: The ritual behaviors and traditions of the sports fans differs according to sports, geographic region and team history. In order to foster closer bonds and a sense of commitment between fans and sport organizations, scholars recommended that sport organizations emphasize their history and traditions. In that sense, the authors defined as past traditions and history of the home team, colors of the team's jersey, and the coordinated behavior among fans. In addition, Koenig-Lewis et al. (2017) stated that early research

on sports team identification tended to emphasize the sports team as an institution where on-pitch athletic activities (including successes and prestige) drive identification with the team. In the same line, Thorlindsson and Halldorsson (2019) mentioned rather than the individual part, sports can create a community and enhance the collective part of the sport. A team's internal social dynamics that shape its development typically characterize team tradition. This has been augmented by a growing body of literature that views sport teams as tools for socialization from an early age and for reinforcing people's identities based on class, race, or religion.

- CONCESSIONS: Sports' fans from various parts of the world may differ in their satisfaction of concessions based upon the differences in food and beverages offered at each facility. The factor involves everything related to the food and drinks that are provided in the sports venue. This service is important for fans since they usually eat as a complement to the game they are going to watch. The items of this factor are the high quality and options of food and drinks, a wide variety and the impression or taste that these foods generate.

2.4. Research Model

In the previous subchapters we discussed about the different models of satisfaction in sport as well as their main factors. As part of the relevance of this research, it is proposed to investigate the preferences of the spectator when attending a sporting event as well as to know their level of satisfaction and the impact that this generates on the intention of returning to attend the stadium.

The model taken for this study is the one proposed by Slavich et al. (2018), who collected previous research by (Yoshida & James, 2010) and (Chen et al., 2013) and analyze the factors that influence consumer satisfaction. The reason why this model was chosen is because it was the most comprehensive, represents an evolution of the studies of Yoshida and James (2010) and Chen et al. (2013), and because it is based on the Asian context.

The proposed research model for the influence of sporting event factors on Football K League Spectators Satisfaction suggested that Facility, Electronics, Team Traditions, Team Competition and Concessions have an influence on satisfaction, and this has an impact on the intention to re-attend a football match.

Figure 5

Factors of Spectators Satisfaction
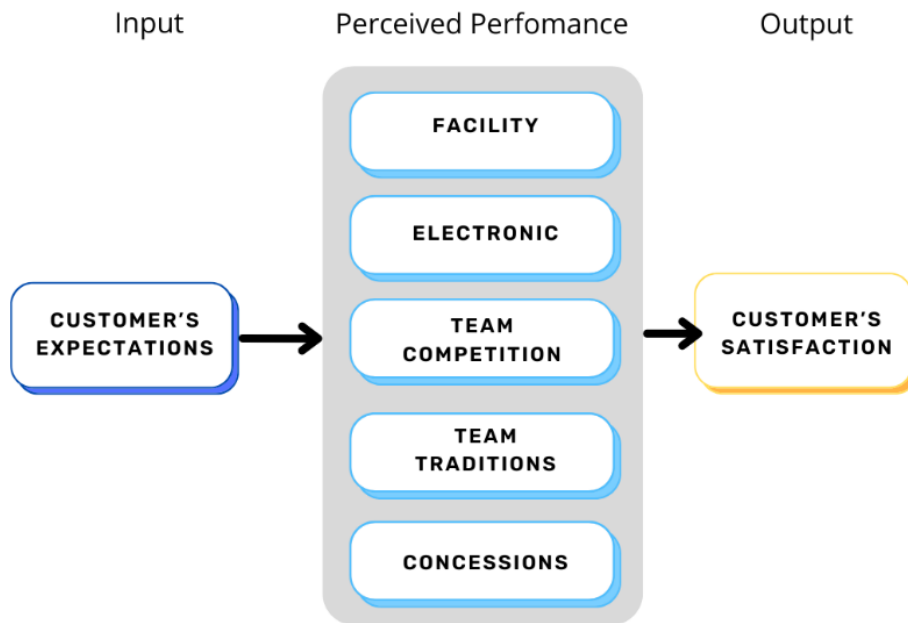
Based on our research questions, these are the hypothesis described and a diagram of the proposed structural model is shown (figure 6).

Figure 6

The Proposed Structural Model of Sporting Event Factors in K League Spectators
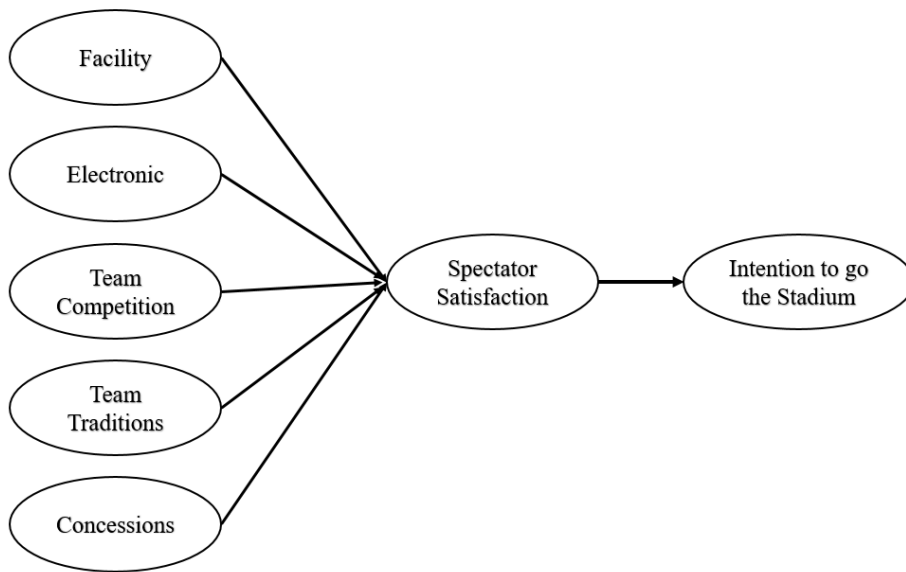
Chapter 3. Method

This chapter seeks to explain the methodology used to develop the research in order to meet the proposed objectives. The chapter details the scope, design, instruments, participants, data collection and data analysis of the research.

3.1. Research Type

The research type for this study is quantitative, according to Malhotra, is a research methodology that seeks to quantify the data and, typically, applies some form of statistical analysis (2019, p.127). Also, as Gross and Burrell (2017) mentioned, quantitative research is a way to gain knowledge about a specific population (football fans). Quantitative research uses scientific inquiry to examine questions about the sample population using data that are observed or measured. In this way, the findings of quantitative research offer clarification and an explanation of what factors (related to sporting events) are and are not significant in influencing a specific population, in this study satisfaction and intention to visit the stadium. As part of the research, a self-administrative questionnaire was developed to the participants, then the collected data were analyzed with statistical resources and techniques.

3.2. Participants Characteristics

The participants of the study included 218 spectators of the K League 1 who attended more than one match during the season 2022. The population can be drawn from the information of the Korea Ministry of Culture, Sports and Tourism, stating that in 2019 approximately 2,376,923 people attended a professional football match, and 412 matches were disputed.

The data collection was focused on the spectators who satisfied the below criteria:

- The spectator should have attended a game of the team in the past 6 months.

- The spectator should have attended more than one game of the team in the same venue.

- The spectator should be 18 years of age or older.

As similar as the studies of Chen et al. (2013) and Slavich et al. (2018) data gathering proceeded over a three-week period until the sample size was deemed enough by the researcher.

3.3. Instrument

The survey used the five factors described in the model by Slavich et al. (2018) measuring the sporting event factors of the spectators' experience and two sections assessing spectator satisfaction and intention to re-visit the

stadium. In relation to the Likert Scale, following the studies of Slavich et al (2018), Chen et al. (2013) and Yoshida and James (2010) a 7-point Likert scale is proposed were 1 is strongly disagree and 7 is strongly agree. This instrument was previously validated in Asia (Chen, 2013) demonstrating its usefulness. As the Slavich et al. (2018) study did not analyze the intention to re-attend due to satisfaction, the questionnaire of this study include the items related to intention to re-attend. In the following lines, the instrument will be explained.

3.3.1. Questionnaire

Twenty-one items related to facility, electronic, team competition, team traditions, concessions, satisfaction and intention to re-attend the stadium were including in the first part of the questionnaire. The participants were asked to rate the items in a 7 point Likert Scale which ranges from strongly disagree (=1) to strongly agree (= 7). Each item was named with a code, with letter, and a number is follow in a chronological order.

FACILITY

- The seating was comfortable (FAC1)

- The architecture of the facility was unique. (FAC2)

- The quality of the facility was great. (FAC3)

ELECTRONIC

- The lighting was great. (ELE1)

- The music was exciting. (ELE2)

- The big screen was great. (ELE3)

  TEAM COMPETITION

- The degree of rivalry between the two teams was enticing. (COMP1)

- The perceived competitiveness of the teams was intense. (COMP2)

- The importance of the game/event was intriguing. (COMP3)

  TEAM TRADITIONS

- The colors of the team's jerseys were motivating. (TRA1)

- Past traditions and history of the home team were appealing. (TRA2)

- The coordinated behavior among fans was exciting. (TRA3)

  CONCESSIONS

- The facility provided high-quality food and beverage options. (CONC1)

- The concessions offered a wide variety of food and beverage options. (CONC2)

- The quality of food and beverage options impressed me. (CONC3)

  SATISFACTION

- I was satisfied with the experience. (SAT1)

- I was happy with the experience. (SAT2)

- I was delighted with the experience. (SAT3)

  INTENTION TO GO THE STADIUM

- The probability that you will attend another sporting event of your team is (INT1)

- The likelihood that you would recommend (team name) game to a friend is (INT2)

- If you had to attend this game again, the probability you would make the same choice is (INT3)

In the second part of the questionnaire demographic questions were asked. Topics like age, gender, favorite club, education level and social media preference were asked.

Finally, since most survey items were adapted from researches written in English and translated into Korean, survey questions were reviewed by experts in sport management and communication who are English speakers and native Korean Speakers to ensure that the original meaning was maintained and effectively conveyed across all survey questions.

3.3.2. Pilot Surveys

Pilot surveys were developed, aimed at a sample similar to the one that would be surveyed, in order to obtain a prior evaluation of the final survey, according to Malhotra (2019) this covers a small sample of

respondents, to identify and eliminate potential problems, so it is necessary that the respondents of the pilot test and final survey be drawn from the same population. Then, in order to know if the surveys were understood by the people at the time they were completed, a total of 20 surveys were carried out, being within the number of pilot surveys to be carried out, which according to Malhotra (2019) suggests 15 to 30 respondents. After collecting the opinions of the people, we proceeded to reformulate some questions that were also validated by experts in sports methodology and management.

3.4. Data collection

The data was collected randomly in the sporting venues of teams of K League 1, where participants were able to answer the questionnaire through a QR code or through a hardcopy questionnaire. Following the studies from Yoshida and James (2010) and Chen et al. (2013) the survey were distributed before the match start to avoid bias or any change in attitude due to the outcome of the match. They were first asked whether they have attended a previous game on that team to meet the criteria presented in the subchapter 3.2. On the other hand, an online survey was also distributed to those who have attended at least 2 games in the season and the criteria established before was also accomplished.

3.4.1. Participants

For the study, 150 to 280 surveys were aimed according to previous researches (Yoshida and James, 2010; Chen et al. 2013; Slavich et al., 2018). With a minimum of 84 based on Hinkin (1995) who reviewed a large body of organizational behavior research and noted that an item-to-response ratio ranging from 1:4–1:10, indicating that four subjects per item is the minimum for factor analysis. On this research, 230 responses were collected of which 12 invalid responses were eliminated, resulting in a total of 218 responses. The chart below resumes the data collection.

Table 3

Data Collection Summary

Number of participants	218 participants
Where	Six K League Stadiums and Google Forms • Incheon - Incheon Football Stadium • Seoul – Seoul World Cup Stadium • Daegu - DGB Daegu Bank Park • Gangwon - Chuncheon Civic Stadium • Suwon – Suwon Sport Complex • Jeonbuk - Jeonju World Cup Stadium
How	Randomly, before the match starts. QR code to solve the questionnaire will be offered Or written questionnaire.
Data Analysis	1. Demographic analysis

2.	Confirmatory Factor Analysis
3.	Structural Equation Model (SEM) in Amos

3.5. Data analysis

The most recent version of the Statistical Package for the Social Sciences (SPSS 26.0) was used to perform descriptive statistics, save, and code the data, and analyze the acquired data. Confirmatory Factor Analysis (CFA), which identifies the underlying components and evaluates the suggested measurement model, was utilized to discover the factors that would best answer the study objectives. To evaluate the structural relationships, structural modeling was employed. The CFA and structural model were conducted using the most recent version of Analysis of Moment Structure (AMOS 26.0).

3.5.1. Descriptive analysis

Based on the information collected through the surveys, a descriptive analysis of the profile of the respondents and the variables observed was carried out. Basic descriptive methods were used for qualitative variables such as gender, favorite team or age, while mean and frequency graphs were used for quantitative variables to explain in greater detail the behavior of each item according to the proposed Likert scale.

3.5.2. Factor Analysis

In marketing research, "there are a large number of variables, most of which are correlated and must be reduced to a manageable level. Relationship among sets of many interrelated variables are examined and represented in terms of a few underlying factors" (Malhotra, 2019). Then, factor analysis is a structural or interdependence technique that aims to summarize information so that it can be easily described. The technique indicates that although there is a large number of simultaneous variables, they all have the same importance, so it is sought that they are more related and are united by factors or dimensions (De la Garza et al., 2013).

The present study uses the Confirmatory Factor Analysis to confirm the variables and factors proposed by the model of Slavich et al. (2018) in the context of South Korean football professional league. In contrast to exploratory factor analysis, CFA explicitly tests a priori hypotheses about relations between observed variables (e.g., test scores or ratings) and latent variables or factors. In many cases, CFA is the analytical approach of choice for creating and improving measuring tools, assessing construct validity, finding method effects, and testing factor invariance through time and groups as Jackson et al. (2009) mentioned.

According to Malhotra (2019), the main statistics associated with factor analysis that will be used in this analysis are the following:

- Bartlett's Test of Sphericity: It is used to test the hypothesis that the variables are not correlated in the population.

- Correlation matrix: Shows the simple correlations between all the possible pairs of variables included in the analysis. Diagonal elements that are all equal to 1 are usually omitted.

- Anti-Image Correlation Matrix: The negative value of the partial correlations between the variables is the anti-image correlation matrix. It shows statistically significant correlations between at least some of the variables in the correlation matrix (De la Garza et al., 2013)

- Eigenvalue: Represents the total variance explained by each factor.

- Factor loadings: These are simple correlations between variables and factors.

- Factorial matrix: Contains the factor loadings of all the variables in all the extracted factors.

- Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy: It serves to examine whether the factor analysis is adequate. Values between 0.5 and 1 are recommended.

The steps for conducting a Confirmatory Factor Analysis are explained by Malhotra (2019) and Jackson et al. (2009). The figure 7 explains the steps involve and used in the present study.

Figure 7

Steps for Confirmatory Factor Analysis
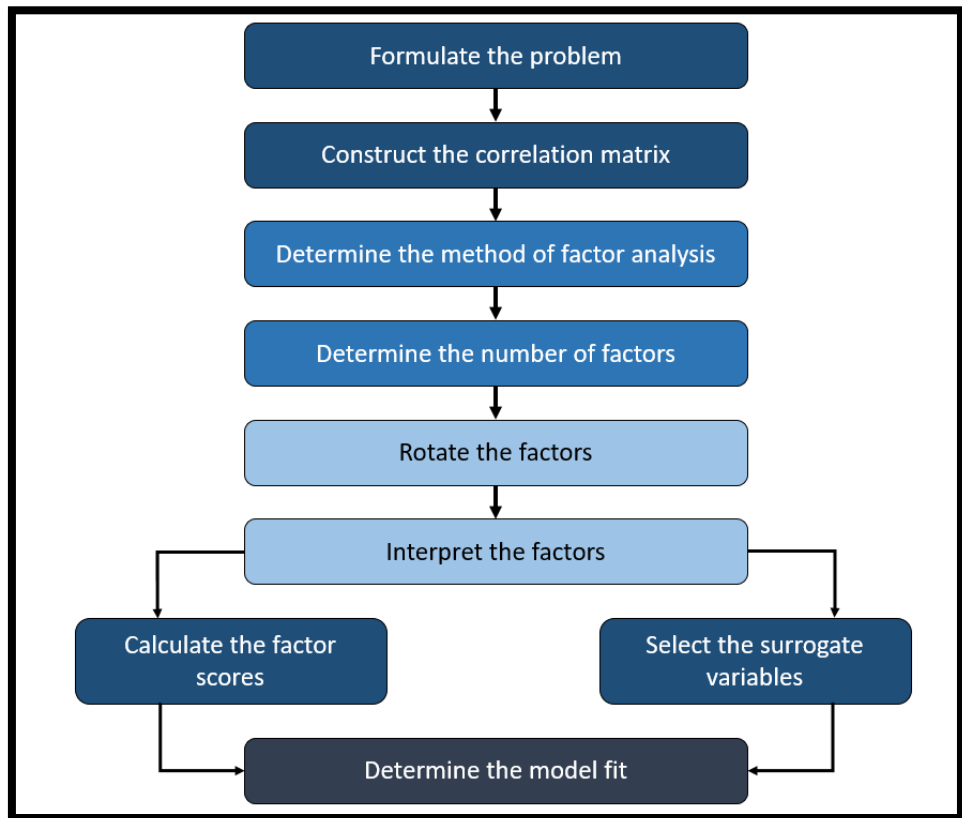
3.5.3. Cronbach's Alpha

The internal consistency method based on Cronbach's alpha reliability coefficient allows estimating the reliability of an instrument (in this case the survey) through a set of items or questions that are expected to measure the same construct. Then, Cronbach's alpha is a measure of internal consistency, that is, how closely related a set of items are as a group. It is considered to be

a measure of scale reliability. A "high" value for alpha does not imply that the measure is unidimensional. If, in addition to measuring internal consistency, you wish to provide evidence that the scale in question is unidimensional, additional analyses can be performed (UCLA, n.d), like the Confirmatory Factor Analysis explained lines above.

3.5.4. Structural Equation Modeling (SEM)

The analysis tool for the second part of the quantitative analysis is the Structural Equation Modeling. SEM which is widely used to explore and test relationships between different constructs. A construct or factor is defined as a latent or unobservable concept that can be defined conceptually but cannot be measured (Malhotra, 2019).

A structural equation model includes observed variables and latent variables that are hard to observe directly due to their abstract character and are represented by using several observed variables (Xia et al., 2016). This tool allows us to detect the factors or dimensions that have the greatest effect on the construct. That is, capture those that most influence the total satisfaction of the service in the spectators and in the intention to go to the stadium again.

This research aims to investigate the relationships between the factors found in the Confirmatory Factor Analysis described above with the general

satisfaction of K League spectators. Through the SEM analysis, the factors that have the most effect on viewer satisfaction will be found. Subsequently, the relationship between satisfaction and the intention to return to the stadium will be analyzed. With the results obtained from this analysis, we will proceed to contrast with the hypotheses formulated in Chapter 1.

Assessing Goodness of Fit

There are important indicators that must be analyzed to verify if a structural equation model is appropriate or not. The most popular statistics associated with SEM are the following:

- Chi squared test: It is the value of the discrepancy function divided by the degrees of freedom that determines whether a model is acceptable or not. Values less than 3 are recommended. (Kline, 1998 as cited in Biscaia et al., 2013).

- Comparative Fit Index (CFI): Indicate the improvement of the fit of the proposed model in relation to a contrast base model, it always ranges between 0 and 1. It is assumed that a value from 0.90 is recommended. (Malhotra, 2019).

- Root Mean Square Error of Approximation (RMSEA): Examines the difference between the actual and the predicted covariance. Lower

RMSEA values indicate a better model fit. A RMSEA value of less than 0.08 is appropriate (Malhotra, 2019).

- Goodness of fit index (GFI): Is as a measure of discrepancy between the fitted model and the base model. Values greater than 0.9 are acceptable (Malhotra, 2019).

<u>Assessing Measurement Model Reliability and Validity</u>

Reliability: An unreliable construct cannot be valid. For that, as mentioned before, the coefficient alpha will be measure to the constructs. This coefficient varies between 0 and 1, and 0.6 is the minimum acceptable (Malhotra, 2019).

Dimensionality: Determine the number of factors and the loadings of each variable on the factor using factor analysis to make an empirical estimate of the dimensionality of a set of items (s). The standardized loading estimations must be at least 0.50, ideally 0.70 as recommended by Hair et al. (2010).

Chapter 4. Results

4.1. Respondents Characteristics

The results of the 218 respondents are explained in the following table:

Table 4

Respondents Demographics

Variable	Category	Frequency	Percentage (%)
Gender	Male	142	65.1
	Female	76	34.9
Age	18-24	72	33.0
	25-31	88	40.4
	32-38	40	18.3
	39-45	14	6.4
	+46	4	1.8
Education Level	High School or less	48	22.0
	Undergraduate Student	38	17.4
	Undergraduate Degree	80	36.7
	Master Student	18	8.3
	Master Degree	18	8.3
	Doctoral Student	15	6.9
	Doctoral Degree	1	0.5
Social Media Most Preferred	Instagram	138	63.3
	KakaoTalk	51	23.4
	Facebook	26	11.9
	Tiktok	2	0.9
	Twitter	1	0.5

	Daegu FC	28	12.8
	FC Seoul	50	22.9
	Gangwon FC	29	13.3
	Incheon United	32	14.7
Favorite Club	Jeju United	2	0.9
	Jeonbuk Hyundai Motors	16	7.3
	Samsung Bluewings	18	8.3
	Suwon FC	26	11.9
	Ulsan Hyundai FC	6	2.8

In order to address the basic demographics of the participants, five questions were asked, including gender, age, education level, most preferred social media, and favorite K League 1 Club. The results showed that the responses comprised 142 (65.1%) male participants and 76 (34.9%) female participants. Most participants were 25-31 years old (40.4%), and over 60% had an undergraduate level or higher. Among the respondents, the favorite social media was Instagram (63.3%), followed by KakaoTalk (23.4%). Regarding club preferences, 22.9% of the participants were followers of FC Seoul, 14.7% were Incheon United fans and 13.3% of Gangwon FC.

4.2. Descriptive Analysis

The questionnaire items and factors performed the descriptive analysis. All items were measured using a 7-point Likert scale, with one being the lowest and seven being the highest.

Regarding the individual items, the participants scored over the average of all the data elements. The mean score for the item "The colors of the team's jerseys were motivating" was 5.67, "The coordinated behavior among fans was exciting" had a mean of 5.66, and "The lighting was great" got a mean of 5.65. On the other hand, the lowest scores were attributed to the Concessions, "The facility provided high-quality food and beverage options," with a mean of 4.44, and the mean score for "The concessions offered a wide variety of food and beverage options" was 4.22.

Regarding the factors, the descriptive analysis showed that Intention to re-attend the stadium had the highest mean score of 5.80, and Satisfaction had a mean score of 5.76. Among the lowest mean scores, Concessions got a not high qualification with a 4.33 mean score.

Table 5

Descriptive statistics by variables

Construct	Item	Min	Max	Average	Std. Deviation
Facility	Fac1	3	7	5.24	1.17
	Fac2	3	7	5.37	1.19
	Fac3	3	7	5.50	1.24
Electronic	Ele1	2	7	5.65	1.29
	Ele2	2	7	5.62	1.34
	Ele3	2	7	5.49	1.45
	Comp1	2	7	5.36	1.42

Team	Comp2	1	7	5.37	1.47
Competition	Comp3	2	7	5.37	1.37
Team	Trad1	2	7	5.67	1.41
Traditions	Trad2	2	7	5.54	1.52
	Trad3	2	7	5.65	1.33
	Conc1	1	7	4.44	1.32
Concessions	Conc2	1	7	4.22	1.46
	Conc3	1	7	4.28	1.45
	Sat1	2	7	5.66	1.28
Satisfaction	Sat2	2	7	5.72	1.26
	Sat3	2	7	5.76	1.19
Intention to re-attend	Int1	2	7	5.75	1.29
	Int2	2	7	5.78	1.30
	Int3	2	7	5.80	1.30

4.3. Reliability Test

One of the general methods to measure internal consistency is through Cronbach's Alpha test. Is the average of all possible split-half coefficients from different ways of splitting the scale items, where usually, a minimum of 0.6 is acceptable to the measurement scale (Malhotra, 2019). In table 6, the constructs showed sufficient internal consistency.

Table 6

Results of reliability test

Construct	N items	Cronbach's Alpha
Facility	3	0.913
Electronic	3	0.896

Team Competition	3	0.943
Team Traditions	3	0.911
Concessions	3	0.941
Satisfaction	3	0.959
Intention to Re-Attend	3	0.966

4.4. Confirmatory Factor Analysis

A Confirmatory Factor Analysis was needed to confirm the variables and factors proposed by the model in SPSS 26.0. In order to examine the hypothesis that the variables are interrelated and apply a factor analysis technique, a Kaiser-Meyer-Olkin (KMO) and Barlett's sphericity test were used. The values of the KMO obtained were above 0.7, which is recommended (De la Garza, Morales, & González, 2013), and Barlett's test was under 0.05, which explained that the variables showed are significantly correlated.

Table 7

KMO and Barlett's Test

Test	Indicator
Kaiser-Meyer-Olkin (KMO)	0.932
Barlett's Test of Sphericity	0.000

Concerning the model fit, the values obtained for the CFI and TLI are over 0.90, the RMSEA indices are below 0.09, and the CMIN/df is under 3.0,

suggesting that the model is acceptable (Sun, 2005; Hair, 2010). In addition, all the factors loadings in the model are more than 0.05, which is recommended and used. On the other hand, Composite Reliability (CR) was measured to address internal consistency. It can be considered equal to the total amount of actual score variance relative to the total scale score variance with recommended and suggested values above 0.70 (Brunner & SÜβ, 2005). Also, convergent validity was addressed, which refers to the cohesiveness of a set of indicators in measuring their underlying factor rather than something else; in this case, Average Extracted Variance (EVA) values above 0.5 are suitable (Sun, 2005) which are the recommended by researchers.

Table 8

Confirmatory Factor Analysis Model Fit

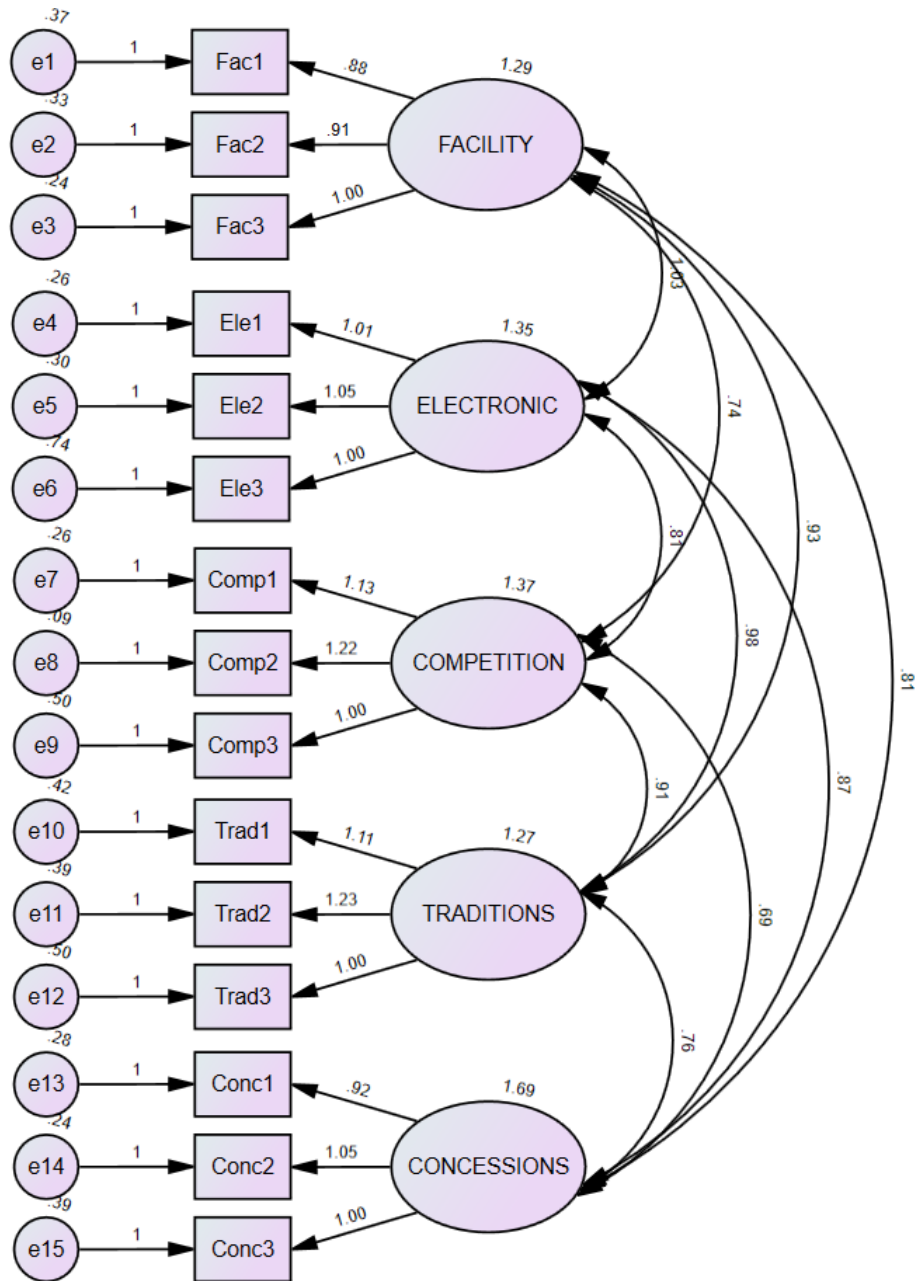| Indices	Recommended Criteria	Values Obtained
CMIN/df	≤ 3.0	2.284
Comparative Fit Index (CFI)	> 0.90	0.968
Tucker-Lewis Index (TLI)	> 0.90	0.958
Root Mean Square Error of Approximation (RMSEA)	≤ 0.08	0.077

Table 9

Reliability and Validity Test of Constructs.

Construct	Item	Factor Loading > 0.5	Composite Reliability > 0.7	Average Extracted Variance > 0.5
Facility	Fac1	0.736		
	Fac2	0.821	0.82	0.60
	Fac3	0.762		
Electronic	Ele1	0.734		
	Ele2	0.762	0.80	0.57
	Ele3	0.767		
Team Competition	Comp1	0.869		
	Comp2	0.877	0.87	0.70
	Comp3	0.761		
Team Traditions	Trad1	0.655		
	Trad2	0.719	0.73	0.49
	Trad3	0.681		
Concessions	Conc1	0.836		
	Conc2	0.895	0.90	0.75
	Conc3	0.873		
Satisfaction	Sat1	0.695		
	Sat2	0.722	0.75	0.50
	Sat3	0.702		
Intention to re-attend	Int1	0.752		
	Int2	0.789	0.80	0.58
	Int3	0.739		

Figure 8

Measurement Model CFA

The correlations among all factors were also tested; table 10 offers good construct validity. As previous studies found (Slavich et al., 2018) and (Chen et al., 2013), the factors Facility and Electronics have a high correlation due that are factors related to the stadium quality. Also, Team Tradition and Team Competition offer similar numbers since they are related to the first team.

Table 10

Correlations among Factors

	1	2	3	4	5	6	7
Facility	**1**						
Electronic	0.728	**1**					
Team Competition	0.600	0.617	**1**				
Team Traditions	0.636	0.704	0.718	**1**			
Concessions	0.513	0.607	0.504	0.483	**1**		
Satisfaction	0.654	0.693	0.631	0.695	0.552	**1**	
Intention to re-attend	0.626	0.623	0.680	0.759	0.513	0.800	**1**

4.5. Structural Equation Modeling

In order to identify how Satisfaction is impacted by Facility, Electronic, Team Competitions, Team Traditions, and Concession, the statistical technique of Structural Equation Modeling (SEM) was used. The results obtained in AMOS 26.0 are shown in figure 9.

Figure 9

Result of Model SEM
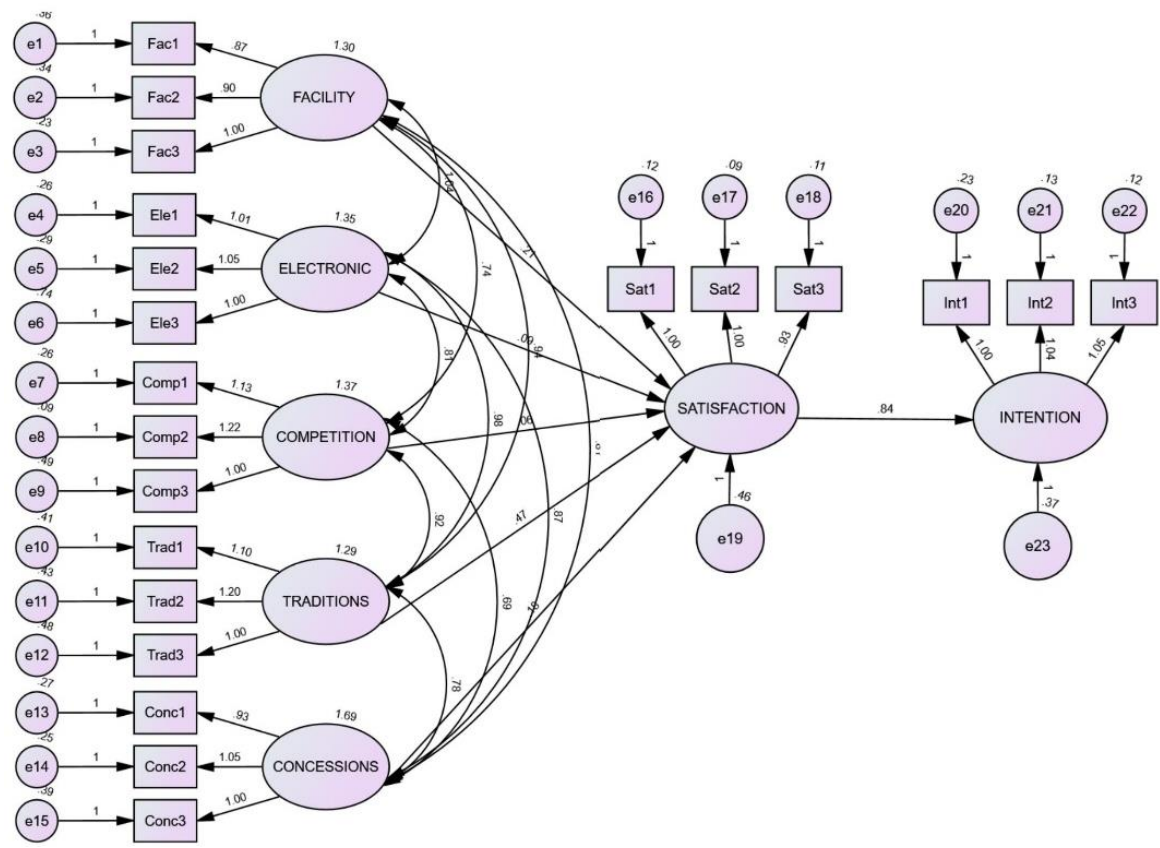
We proceeded to estimate the model's goodness of fit since it validates the final regression model. Therefore, the leading proposed indicators (see Table 24) confirmed the model's fit. The CMIN/DF was 2.391. When scores below 3 are recommended (Xia et al., 2016), the CFI and TLI were also over 0.90, which is a relatively good fit (Sun, 2005; De la Garza et al., 2013) and the RMSEA was close to or below 0.08 which is acceptable (Brunner & SÜβ, 2005; Malhotra, 2019).

Table 11

Goodness of Fit for the Research Model

Indices	Recommended Criteria	Values Obtained
CMIN/df	≤ 3.0	2.391
Comparative Fit Index (CFI)	> 0.90	0.957
Tucker-Lewis Index (TLI)	> 0.90	0.948
Root Mean Square Error of Approximation (RMSEA)	≤ 0.08	0.080

Once we ensured the data adequately fit the proposed model, a path analysis was carried out. In this way, we can identify the significance and impact of each factor with the Satisfaction and Intention to Re-attend.

In the model, a significant relationship can be seen between the observable variables and some of the latent variables. It should be noted that, in the present investigation, a "P" value of 0.05 or less is considered to reach

a level of statistical significance. Therefore, Competition (p = 0.365) and Electronic (p = 0.299) are not statistically significant, meaning there is no impact or influence on Satisfaction. On the other hand, three variables: Facility (p=0.016), Traditions (p<0.001), and Concessions (p<0.001), showed positive significance on Satisfaction with coefficients of 0.210 for Facility, 0.472 for Traditions and 0.184 for Concessions. Finally, Satisfaction strongly influences (0.836) the Intention to Re-Attend. Table 12 shows the results.

Table 12

Summary of Path Coefficients for Structural Model

	Structural Path	Stand. Coef.	SE	P-Value	Hypothesis testing
H2A	Facility → Satisfaction	0.210	0.087	0.016	Supported
H2B	Electronic → Satisfaction	0.094	0.90	0.299	Not Supported
H2C	Team Competition → Satisfaction	0.057	0.63	0.365	Not Supported
H2D	Team Traditions → Satisfaction	0.472	0.93	***	Supported
H2E	Concessions → Satisfaction	0.184	0.51	***	Supported
H3	Satisfaction → Intention to Re-Attend	0.836	0.45	***	Supported

Note: *** p<0.001

4.5.1. Hypothesis testing

H2A. Facility

According to the results ($p<0.05$), it can be concluded that the physical environment exposed to the customers is positively correlated with the K League 1 spectators' satisfaction. The hypothesis was being supported. It influences 0.210, which means that the increase in the Satisfaction of this variable increases the overall Satisfaction by 0.210.

H2B. Electronic

The HQ2 suggested that the Electronic (energy-dependent devices like screens, music, and lights) impact K League 1 spectators' Satisfaction. Since the statistical findings in Table 12 rejected the null hypothesis ($p>0.05$), it may be inferred that the Electronic does not affect Satisfaction.

H2C. Team Competition

The HQ3 suggested that the Team Competition (team rivalry, competitiveness, importance of the game) impacts K League 1 spectators' Satisfaction. Since the statistical findings in Table 12 rejected the null hypothesis ($p>0.05$), it may be inferred that Team Competition does not affect Satisfaction.

H2D. Team Traditions

According to the results (p<0.05), it can be concluded that the Team Traditions of the clubs are positively related to the K League 1 spectators' Satisfaction. The hypothesis was being supported. It has an influence of 0.472, which means that the increase in the Satisfaction of this variable increases the overall Satisfaction by 0.472.

H2E. Concessions

According to the results (p<0.05), it can be concluded that the Concessions of beverages and food in the stadium are positively related to the K League 1 spectators' Satisfaction. The hypothesis was being supported. It influences 0.184, which means the increase in the Satisfaction of this variable, increases the overall Satisfaction by 0.184.

H3. Satisfaction to Intention to Re-Attend

According to the results (p<0.05), it can be concluded that the overall satisfaction of K League 1 spectators with the experience provided are positively related to the Intention to re-attend a K League match. The hypothesis was being supported. It influences 0.836, which means the increase in the Satisfaction of this variable, increases the overall Satisfaction by 0.836.

Chapter 5. Discussion

5.1. Summarize of findings

The results evidence that the K League 1 spectators are satisfied with the services provided of the match experience in the stadiums. On a 7-point Likert scale, where seven was most satisfied and one least satisfied, the satisfaction factor got a rated mean score of 5.71, showing reasonable satisfaction of the Korean consumer. Among the factors influencing satisfaction, Team Traditions got a rated mean score of 5.62. In other words, the team's cheering culture, colors, culture, and coordinated behavior are the most valuable items by the K League 1 spectators. The factor that got the lowest rated mean score was Concessions, with a 4.31 score, manifesting a less favorable opinion of the spectators about the level, quality, and variety of food and drinks in the stadium. Nonetheless, this result is almost on the line between satisfaction and dissatisfaction, an issue that K League 1 Sport Managers should consider improving to provide better service to the customer.

The analysis supports the theory that Satisfaction can lead to the Intention to re-attend the next game. For this study, the influence of Satisfaction on re-attending a game has a coefficient of 0.836, which is high. In other words, stronger satisfaction leads to a higher intention to re-attend. This finding is in accordance with the studies of Chen et al. (2010), Yoshida

and James (2010), Biscaia et al. (2013), and Lee (2018), who discussed that having satisfied spectators can lead to repatronage intentions and attendance attitudes. In that sense, the participants scored their intentions of re-attend a K League 1 game with a mean of 5.77.

Finally, the profile of the respondents was primarily men (65.1%) with an average age between 25 to 31 years (40.4%), an educational level mostly with a college degree (36.7%), and their preferred social network is Instagram (63.3%). These data could help managers make decisions and know the buyer persona of those attending football stadiums in the K League 1.

5.2. Satisfaction of K League 1 Spectators in football matches

Previous studies suggested that recurring purchases are directly related to customer satisfaction. Therefore, a significant performance metric for sports management should be addressed to know how the stadium experience affects a fan's Satisfaction (Greenwell, 2002; Chen et al., 2013; Slavich et al., 2018).

That being the case, based on the previous literature, it was hypothesized that the stadium experience factors would have a positive relation with Satisfaction. Among the factors, only three were demonstrated to be significantly related to Satisfaction (Team Traditions, Concession, and Facility). This aligns with other studies exploring how the behavior between

fans and culture, food and beverage options, and the stadium's quality, aesthetics, comfort, and cleanliness positively impact spectator satisfaction (Greenwell et al., 2002; Ko et al., 2011; Lee, 2018).

The findings evidenced that the Team Tradition factor almost doubled the contribution to general Satisfaction than the Facility factor. In this way, sports managers should pay more attention to the traditions, rituals, coordinated behavior among the fans, and the team's colors due to this outweighing compared with the importance of the design and overall quality of the stadium.

These results build on existing evidence of Traditions and their impact on sports, as Thorlindsson and Halldorsson (2019) acknowledged that traditions could highlight the collective part of the sport rather than the individual. A team's internal social dynamics that shape its development typically characterize team tradition. Also, as these traditions can make "sports teams as vehicles for reinforcing individuals' and the identity based on religious, ethnic or class differences can be an instrument for socialization from childhood" (Koenig-Lewis et al., 2017). On some occasions, these cultural values, attitudes, and traditions can contribute to international success in the sport, like the findings of an Iceland Handball Club (Thorlindsson & Halldorsson, 2019).

This is a remarkable finding for the Korean context due to the problems that K League 1 teams faced years ago. Especially if we investigate history, as Park and Ok (2017) stated, "Korean professional soccer started without a cultural base big enough for a professional league, as determined under the sports promotion policies implemented by Jeon's military regime." Later, the club's governance structure made by large conglomerates or local governments did not strengthen the bounds between fans and teams. That made K League clubs try for years to engage with the fans and create a loyal community with tradition and culture (Park and Ok, 2017). In recent years, cheerleaders and fans have also encouraged people to engage more fully in the game by creating a positive atmosphere where they can cheer with others (Lee, 2018). The results of this investigation provide a new insight into the relationship between Korean football and team traditions to show that Korean fans are changing and becoming closer to their clubs, which can have a beneficial effect in the long term for the K League.

In relation to Facility, the results evidenced a statistically significant influence on the spectators' Satisfaction. In line with the findings of (Yoshida & James, 2010) about football satisfaction in Asia, the results of this study have the same characteristics regarding spectators' satisfaction with the Facility. It can be assumed that for spectators, the physical surroundings still

play an essential role in their perception. The accessibility, comfort of the seats, quality of the stadium, and aesthetic greatly influence when customers receive services. As Wakefield and Blodgett (1996), Chen et al. (2013), and Lee (2018) mentioned, the stadium's physical environment might significantly influence how many fans want to stay there and come back again. While some parts of the stadium experience may directly contribute to fans' pleasure with the location, other elements may be responsible for unfavorable sensations that could reduce satisfaction. As with any service, more customers are looking for better experiences with the environment and physical surroundings where the service is provided.

The change in K League 1 experience with the Facility is related to the latest customer experience trends where the uniqueness of customer experience can lead to differentiation and competitive advantage (Grønholdt & Martensen, 2015). Two reasons can explain that change: one is having a sports industry as competitive as the Korean one, where soccer is not the most popular sport. This makes clubs invest more in improving the quality of their facilities to attract more fans and be competitive. The other reason could be that many of the K League 1 stadiums, as discussed in chapter 1, are State-owned, and some are legacies from the 2002 World Cup. Therefore, they have state-of-the-art quality, and the investment made by the clubs to build or

remodel a sports venue does not fall on them. That particularity allows sports managers to improve other aspects of minimal investment in the stadium that significantly affect the Korean spectator.

The findings showed that Concessions could have been better for the K League 1 spectators. Even though this factor statistically impacts Satisfaction, among all the factors, it has been one factor with the lowest mean score (4.33), even lower than other studies (Ko et al, 2011; Lee, 2018; Slavich et al., 2018). An explanation can be due to the lack of proper food courts in many of the K League 1 stadiums visited. Also, the pandemic restrictions (Yoo, 2021) forced many clubs to reduce their investment in concessions and prioritize other areas. As consumer experience and sensory marketing studies grow, scholars should be aware of the multi-sensory nature of food and beverages (Slavich et al., 2018). Another reason can be that spectators need more time to buy products at the stadium due to the nature of the sport. Big franchises with standard quality and more effective delivery are becoming more popular than small businesses. Finally, more profound studies regarding foods and drinks in a football stadium (Ireland & Watkins, 2009) revealed a higher demand for healthy and wider food and beverages in the stadium. In other words, the issues raised on concessions are not only a local problem, but many football leagues around the world also face the same problems, and

the new times have made the spectators more demanding concerning the health, quality, and variety of the concessions.

Regarding Team Competition, the results contradict the findings of Chen et al. (2013) and Slavich et al. (2018). However, is in line with the results of Yoshida and James (2010) who noted that opponent characteristics and player performance were not significant predictors of game satisfaction in a Japanese professional sport league. As the researchers argued Team Competition's satisfaction can change according to the sports and region where is analyzed. The results of this investigation showed that the competition of the teams and rivalry are not statistically significant in influencing the Satisfaction of Korean spectators. One of the reasons is that, as Jang & Lee (2015) observed, Korean football has recently not raised much interest in the population. Also, according to figures from Korean Government (Ministry of Culture, 2022), baseball is the most popular sport in the country. Indeed, the Korean Baseball League is considered one of the world's most influential and competitive leagues.

On the other hand, K League is considered the 22 most competitive football league in the world (IFFHS, 2022), which can affect customer expectations. In other words, even if Korean spectators are satisfied with the Team Competition factor (mean rated score of 5.40), this does not influence

their overall satisfaction. This is something essential to consider for the labor of sports managers and can be beneficial, thus as Yoshida and James (2010) suggested, the core product or the competition between the teams can be the most challenging factor to handle by the sport managers.

In general, the findings of this research are very similar to the findings of Lee (2018) about Spectators' Satisfaction in the Korean Baseball League, where Korean KBO spectators were influenced by four environmental dimensions: layout accessibility, facility aesthetics, electronic equipment, and cheering culture. Although the scope of this study was on football, the results were very similar, providing new knowledge and confirming some insights about football spectators in South Korea. The only difference was in the electronic equipment, because for K League 1 spectators, electronic do not have a relevant influence on Satisfaction. This difference can be assumed due to the nature of the sports. A football match has only one break time between the halves, and most of the time, the spectators focus on the game itself. In addition, the screen in most of the K League stadiums is only used for showing the teams' lineups and as a scoreboard. For that reason, in Korean football, the electronic (big screens, lights, and music) does not play an important role in the spectators' perceptions. In contrast, a baseball match usually has many break times with music and activities provided by

cheerleaders and videos played on the screen during those gaps, which makes it more important the electronic for baseball fans.

Finally, this study confirms the findings obtained by authors like Yoshida and James (2010), Chen et al. (2013), Foroughi et al. (2014), and Lee (2018) regarding the positive effect that satisfaction has on attendance. This can be explained by the fact that being satisfied makes the consumer repeat the service regularly (Kotler & Keller, 2012). Besides, the theory of the quality-satisfaction-behavioral intentions chain is based on the core premise that offering high-quality products and services will allow businesses to satisfy and retain their customers, to produce long-term benefits, and to thrive in a competitive market (Yoshida and James, 2010). As explained before, Satisfaction can drive the Intention to re-attend a game and therefore increase the attendance and revenue of the club. Numerous studies have addressed the effects of satisfaction on re-purchase behavior, however, this relationship had not been thoroughly examined in football in the context of a Korean professional league as this study did.

5.3. Academic and Managerial Implications

This research explores how the Facility, Electronic, Team Traditions, Team Competition, and Concessions factors influence K League 1 Spectator Satisfaction. In that sense, Structural Equation Modelling (SEM) analysis was

applied to identify the factors correlations and influence. The data contribute to a clearer understanding of customer satisfaction in sports, especially football. Many studies have focused on the service quality or attendance of spectators. However, only some have addressed the customer experience as the achievement of standards in comparing customer expectations and service outcomes, as this research did.

Also, this study continues with the previous spectators' satisfaction research of Chen et al. (2013) about the Sport Stadium Atmosphere in Taiwan Basketball and its evolution to the Sporting Event Factors in Asian Football proposed by Slavich et al. (2018). This research takes the most relevant insights from both kinds of research. It is applied to a specific study subject, Korean fans, under a particular sport, football, which are precisely the limitations of the other studies.

Likewise, the work represents an improvement in the relationship between satisfaction and attendance. Previous studies focused on satisfaction as the ultimate goal and used control variables such as gender, age, or region to give other results. This research seeks to contribute to the academic literature on attendance at Korean football matches from the point of view of satisfaction. Although other exogenous variables can explain attendance, like

purchase intention or repurchase, this study contributes from the field of consumer experience to a better understanding of stadium attendance.

Lastly, the present study can be a reference for investigations about Satisfaction in Korean sports and further studies in K League 1, a relatively young league with much potential. As a result, a significant finding was discovered that the team traditions factor is vitally important for satisfaction. These results can be a basis for future qualitative studies on cheering culture, fan traditions, and loyalty in Korean sports spectators.

The model's strength in team traditions leads to the conclusion that sports organizations should emphasize the importance of fan and club traditions. As Thorlindsson and Halldorsson (2019) state, instead of focusing only on an individual's success, which is out of the scope of sports managers, tradition helps us to study local differences in sports as a phenomenon with roots in the past. Therefore, creating fan meetings, celebrating the historical days of the club, and enhancing the cheering culture inside the culture can be beneficial. Having a deep understanding of the team traditions of the K League 1 can contribute to the growth of new fans and satisfaction and, in the long term, affect loyalty.

The findings provided new insight into the relationship between Concessions and Spectators' satisfaction. As mentioned in Chapter 2,

customer satisfaction can lead to more revenue and market share; therefore, improving the quality and services of food and beverage in the stadium has to be taken into consideration by K League 1 managers. As a valuable source of income, marketers should be more aware of the fans and provide more options and efficient services. For instance, Stadiums in the United States are now employing executive chefs and pastry artisans, leveraging new technologies to provide in-seat delivery by creating environments that drive comfort and social interaction; and serving locally inspired cuisine more often associated with luxurious restaurants (Smith, 2018). In addition, some concessions are designed now to bring a whole experience from early to late, like Tottenham Stadium provides (Brooksbank, 2022). These results should be considered when delivering food and beverage strategies for the spectators.

Thus, findings from this study can provide groundwork and guidance for sports marketers in the future about which activities to prioritize and how to improve the match day experience for spectators. It should be noted that it is not intended to omit the other elements. However, it seeks to strategically prioritize the resources the football club has over the elements that generate a more significant impact on the viewer.

5.4. Limitations

As with any study, this research presents some limitations to be considered. Due to the time of the investigation, it was impossible to conduct a deeper evaluation of the effect that each of the variables has on the satisfaction of the spectators. A qualitative study in this regard could give us further guidelines to better understand this subject.

Also, it is beyond the scope of the study to analyze the impact that price has on satisfaction. Generally, customer satisfaction regarding price is measured by the perceived quality of the service. Due to the nature of this study based on customer experience and following the models presented, the variable price was not considered. Although, it is relevant to mention that studies like Paciello Silveira et al. (2019) addressed this issue combined with service quality and attendance.

Finally, for the Intention to re-attend the stadium, only satisfaction has been measured as an independent variable; nonetheless, other latent variables like Price, Accessibility, or Match Schedule can be included in the further analysis on attendance. This research could broaden its scope by considering other study dimensions; this analysis only considers a look at the customer experience. It is not intended that with the present investigation, only one causal relationship between stadium attendance and Satisfaction in people is

established but is an initial step in the analysis of attendance for K League 1 games.

5.5. Recommendations and Future Research

Further research is needed to identify the amount of money the consumers are willing to pay for food and drinks on the stadium concessions. Since it represents an alternative income to the clubs, further investigation into consumer behavior and purchase intention should be explored. Also, a study of delivery management and service quality in the concessions can be beneficial, especially because, as part of the observation of the stadium visited, it was found that many of the spectators waited long to order food. In sports like football, this can be detrimental.

Also, future studies should consider the principal insights that satisfied the most fans about the club's traditions. A further exploratory study with interviews and focus groups could be addressed in order to determine why the fans are satisfied with the culture of the team. In this way, K League 1 club's managers can increase the and increase the number of fans and popularity and build a community through the team.

Finally, studies regarding the attendance of K League 1 and a comparison with the Korean Baseball League should be researched to obtain benchmarks. This study provided an initial step to understanding better

attendance in Korean professional soccer, however, more investigation in this area should be included.

Chapter 6. Conclusion

This study analyzed the customer preferences and experience perceptions in relation to sporting event factors when they attend football matches in K League 1 stadiums. For that reason, first, it was necessary to identify the attributes that K League 1 spectators have when they attend a football match. In the second place, these attributes were grouped into factors or constructs through a Confirmatory Factor Analysis to provide a clearer explanation and deep analysis. Then, these factors were analyzed in Structural Equation Modelling (SEM) to identify the ones that influence satisfaction. Finally, the relationship between satisfaction and re-attendance was explored.

This study was relevant because to retain consumers, fan satisfaction is one of the efficient ways to achieve it. Also, as in every business, acquiring new customers cost a lot of resources, money, and time. Moreover, a highly satisfied fan can lead to brand loyalty, intention to re-attend, more market share, and revenues. In chapter 2 we discussed the different opinions and findings of research about those benefits.

On the other hand, there is a major challenge in marketing for sports managers. Due to the nature of sports, they are unpredictable, there is no control over the core product, is expensive to invest in facilities or stadium remodeling and there is a higher demand for better fan experiences. As several

authors agreed, this makes the job of a sports manager challenging. For this reason, a study based on discovering customer satisfaction, which factors influence the most, and how this impact the intention to re-attend was needed to help sport managers and marketing areas to make better business strategies.

The findings of this research showed that the Intention to re-attend was the most valuable item, in a scale from 1 (less favorable) to 7 (most favorable), this category received a mean score of 5.78. Also, overall the K League 1 spectators are satisfied with the service provided (5.71 mean score). Concerning the independent variables, Team Traditions scored 5.62, in other words, spectators are satisfied with the culture, historical team traditions, the color of the team jerseys, and the coordinated cheering of fans. On contrary, Concessions, which include the variety and quality of facility food and beverages were rated with the lowest score (4.31) among all the factors.

Regarding the demographic statistics, the majority of respondents were in the age range of 25-31 years old, primarily with an undergraduate degree, mostly men (65%), and with Instagram as the most preferred social media.

SEM Analysis (CMIN/df: 2.391, CFI: 0.957, TLI: 0.948, RMSEA: 0.080) identified the factors or constructs that affect spectators' satisfaction in football K League 1 and their impact on re-attendance. It was demonstrated

that Team Traditions, Facility, and Concession had an impact on the overall satisfaction of the spectators. These results are consistent with the findings of Yoshida and James (2010), Chen et al. (2013), Lee (2018), and Slavich et al. (2018). A reason for these can be attributed to: first, the league's effort to bring the fan closer to the clubs after many years of lack of interest in the local league; second, the high quality of the stadium due to the World Cup 2002 legacy and state-owned property; third, a higher demand concerning the health, quality, and variety of the concessions.

In opposition, Electronics and Team Competition did not show a statistically significant influence. An interpretation is that Team Competition satisfaction can change according to the sports and region where is analyzed and electronic devices including music, lighting, and scoreboards may differ according to sport type.

The SEM Analysis determined that satisfaction has a high influence on the intention to re-attend, recommend and make the same choice. This aligns with previous studies of Yoshida and James (2010), Chen et al. (2013), and Kim et al. (2013).

Also, further studies were provided. One of the studies recommended is to discover how much are the consumers willing to pay for food and drinks on the stadium concessions since it represents an important income for the

clubs. Secondly, further qualitative research could be addressed to determine why the fans are satisfied with the culture and traditions of the team. Finally, to establish benchmarks, research should be done on K League 1's attendance and a comparison with the Korean Baseball League.

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Apprendix I: Questionnaire (English)

Questionnaire

The questions below are about your overall satisfaction with the sporting event factors in the football game that you attended. Please use the rating scale below to describe how accurately each statement describes you by marking 1 as Strongly Disagree and 7 as Strongly Agree.

Part 1

FACILITY	Strongly Disagree						Strongly Agree
1. The seating was comfortable	1	2	3	4	5	6	7
2. The architecture of the facility was unique.	1	2	3	4	5	6	7
3. The quality of the facility was great.	1	2	3	4	5	6	7

ELECTRONIC	Strongly Disagree						Strongly Agree
4. The lighting was great.	1	2	3	4	5	6	7
5. The music was exciting.	1	2	3	4	5	6	7
6. The big screen was great.	1	2	3	4	5	6	7

TEAM COMPETITION	Strongly Disagree						Strongly Agree
7. The degree of rivalry between the two teams was enticing.	1	2	3	4	5	6	7
8. The perceived competitiveness of the teams was intense.	1	2	3	4	5	6	7
9. The importance of the game/event was intriguing.	1	2	3	4	5	6	7

TEAM TRADITIONS	Strongly Disagree						Strongly Agree

10. The colors of the team's jerseys were motivating	1	2	3	4	5	6	7
11. Past traditions and history of the home team were appealing.	1	2	3	4	5	6	7
12. The coordinated behavior among fans was exciting.	1	2	3	4	5	6	7

CONCESSIONS	Strongly Disagree						Strongly Agree
13. The facility provided high-quality food and beverage options.	1	2	3	4	5	6	7
14. The concessions offered a wide variety of food and beverage options	1	2	3	4	5	6	7
15. The quality of food and beverage options impressed me.	1	2	3	4	5	6	7

SATISFACTION	Strongly Disagree						Strongly Agree
16. I was satisfied with the experience.	1	2	3	4	5	6	7
17. I was happy with the experience	1	2	3	4	5	6	7
18. I was delighted with the experience.	1	2	3	4	5	6	7

INTENTION TO GO THE STADIUM	Strongly Disagree						Strongly Agree
19. The probability that you will attend another sporting event of your team is	1	2	3	4	5	6	7
20. The likelihood that you would recommend (team name) game to a friend is	1	2	3	4	5	6	7
21. If you had to attend this game again, the probability you would make the same choice is	1	2	3	4	5	6	7

Part 2

22. What is your **Age** range? 18-24 / 25-31 / 32-38 / 39-45 / +46

23. What is your **Gender**? Male / Female

24. What is your Favorite K League **Club**? _____

25. Which **Social Media** do you use the most? Instagram / Facebook / KakaoTalk / Twitter / TikTok / Others

26. What is your **Education** Level?: Less than high school / High school / College (in curse) / College degree / Master (in curse) / Master's degree / Doctor (in curse) / Doctoral degree.

Thank you for completing this survey!

Apprendix II: Questionnaire (Korean)

K 리그 설문지

안녕하십니까?

이 설문은 **K 리그** 관중들의 만족도와 경기 재참석 의향을 알아보기 위한 것입니다. 이 연구는 서울대학교 석사 학위 논문을 위한 것입니다. 각각의 문항에는 맞고 틀림이 없습니다. 따라서 귀하의 느낌과 생각에 따라 각 문항에 답해주시면 됩니다. 귀하께서 응답해 주신 내용은 철저하게 비밀이 보장되며, 연구 목적 이외의 다른 어떠한 용도로도 사용되지 않습니다.

귀한 시간 내주셔서 대단히 감사합니다.

서울대학교 체육교육과 대학원 글로벌스포츠매니지먼트 전공.
학생: 장 폴 체로

Part 1

FACILITY 시설	매우 불만족스럽다			만족스럽다		매우
1.경기장의 좌석은 편안했다.	1	2	3	4	5	6	7
2. 경기장 건축물은 전체적으로 특별했다.	1	2	3	4	5	6	7
3. 경기장 시설은 훌륭했다.	1	2	3	4	5	6	7

ELECTRONIC 경기장 장비관련	매우 불만족스럽다			만족스럽다		매우
4.경기장의 조명은 훌륭했다.	1	2	3	4	5	6	7
5. 경기장의 음악이 적절했다/흥미로웠다.	1	2	3	4	5	6	7

6. 경기장의 큰 화면(전광판)은 훌륭했다.	1	2	3	4	5	6	7

TEAM COMPETITION 경쟁력	매우 불만족스럽다					매우 만족스럽다	
7.두 팀 간의 라이벌 관계는 흥미를 유발시켰다.	1	2	3	4	5	6	7
8. 두 팀간의 경쟁구도는 치열했다.	1	2	3	4	5	6	7
9. 그 경기/이벤트의 중요성은 흥미를 불러일으켰다.	1	2	3	4	5	6	7

TEAM TRADITIONS 팀 전통	매우 불만족스럽다					매우 만족스럽다	
10. 그 팀의 유니폼 색깔은 매력적이었다.	1	2	3	4	5	6	7
11. 팀의 과거 전통과 역사는 매력적이었다.	1	2	3	4	5	6	7
12. 팬들의 조직문화는 흥미진진했다.	1	2	3	4	5	6	7

CONCESSIONS 서비스	매우 불만족스럽다					매우 만족스럽다	
13.이 경기장은 품질 좋은 식음료 옵션을 제공했다.	1	2	3	4	5	6	7
14.할인 혜택은 다양한 음식과 음료 선택할 수 있게 만들었다.	1	2	3	4	5	6	7

15.다양한 옵션의 음식과 음료의 품질은 나에게 깊은 인상을 주었다.	1	2	3	4	5	6	7

SATISFACTION 만족도	매우 불만족스럽다					매우 만족스럽다	
16. 나는 오늘 한 경험에 만족했다.	1	2	3	4	5	6	7
17. 나는 그 경험에 행복했다.	1	2	3	4	5	6	7
18. 나는 그 경험에 기뻤다.	1	2	3	4	5	6	7

INTENTION TO GO THE STADIUM 저는 경기장에 참석할 예정입니다.	거의 그렇지 않다					많이 그럴 것이다	
19. 나는 우리 팀의 다른 경기에 참석할 것입니다.	1	2	3	4	5	6	7
20. 나는 내 친구들에게(팀명) 우리 팀의 경기을 추천합니다.	1	2	3	4	5	6	7
21.만약 내가 이 게임에 다시 참가해야 한다면, 나는 같은 선택을 할 것입니다.	1	2	3	4	5	6	7

Part 2

22. What is your **Age** range? 당신의 나이는 어떻게 되나요?

18-24	25-31	32-38	39-45	+46

23. What is your **Gender**? 성별은 무엇인가요? | 여자 (Female) | 남자 (Male) |

24. What is your **Favorite** K League **Club**? 당신이 가장 좋아하는 K 리그 클럽은 무엇인가요?

25. Which **Social Media** do you use the most? 당신은 어떤 소셜 미디어를 가장 많이 사용하나요?

인스타그램 Instagram	페이스북 Facebook	카카오톡 KakaoTalk	트위터 Twitter	틱톡 TikTok	기타 Others

26. What is your **Education** Level? 당신의 학력은 어느 정도입니까?

고등학생 (Less than high school)	고졸 (High school)	대학생 College (in curse)	대졸 (College degree)	석사생 Master (in curse)	석사 Master's degree	박사생 Doctor (in curse)	박사 (Doctoral degree)

*추첨에 참여하시려면 이메일(선택사항)을 남겨주세요. 이메일:

발표일: 10 월 28 일.

설문조사를 완료해 주셔서 감사합니다!

스포츠 경기요소가 축구-K리그1 관중 만족도에 미치는 영향

Jean Paul Enrique Chero Huamani

글로벌스포츠매니지먼트 전공

체육교육과

서울대학교 대학원

고객 유지는 신규 고객 확보에 비해 비용 효율성이 높기 때문에 많은 조직에서 핵심적인 사항입니다. 높은 수준의 고객 만족도는 브랜드 충성도, 반복적인 참석 또는 재구매, 긍정적인 입소문 홍보, 시장 점유율 증가 및 수익 증가를 포함한 다양한 이점과 관련 있습니다. 결과적으로, 소비자 만족도는 효과적인 마케팅 전략의 신뢰할 수 있는 요소로 부상합니다. 그러나 스포츠 관리 분야는 이와 관련하여 독특한 과제를 제시하고 있습니다. 스포츠 경기력의 예측 불가능한 특성은 고객을 만족시키려는 스포츠 매니저들에게 어려움을 야기합니다.

팀의 현장 성과를 둘러싼 본질적인 불확실성은 고객의 기대를 충족시키는 데 있어 스포츠 관리자의 업무에 복잡성을 가중시킵니다.

한국에서는 축구 관중의 만족도에 대한 연구가 부족합니다. 기존 문헌은 주로 다양한 스포츠와 지역의 서비스 품질, 서비스 환경 및 게임 경험과 관련된 만족도를 조사합니다. 하지만 스포츠 마케팅과 소비자 만족도 연구를 진전시키기 위해서는 축구와 한국 관중에 초점을 맞춘 구체적인 조사가 필요합니다. 게다가, 한국의 지역 축구 리그는 인기 있는 야구 리그에 비해 팬들의 충분한 관심을 얻지 못했고, 그 결과 수익과 관중 수에서 상당한 차이를 보였습니다. 이 문제를 해결하기 위해 구단주는 서비스 품질을 개선하고 고객의 선호를 이해하여 관람객 만족도를 높여야 합니다.

본 연구는 스포츠 이벤트 요소에 대한 관중의 선호도와, 그것이 관중 만족도 및 한국 프로축구 리그인 K 리그 1 를 재관람할 의향에 미치는 영향을 파악하고 분석합니다. 본 연구의 목적은 1) 한국 축구경기 관중이 가장 만족한 속성을 탐색하고, 2) K 리그에서 한국 관중을 만족시킨 주요 요인을 파악 및 분석하며, 3) 만족도가 경기장 재방문 의향에 어떤 영향을 미치는지 분석하는 것입니다.

K 리그 1 관중을 대상으로 한 정량적 연구가 진행됩니다. 데이터는 218 명의 응답자 표본에서 수집되었습니다. SPSS 26.0 의 CFA(Confirmatory Factor Analysis)와 AMOS 26 의 SEM(Structural Equation Modeling)을 통해 이들의 선호도가 만족도와 재관람 의향에 어떤 영향을 미치는지 분석합니다. Chen et al.(2013)과 Slavich et al.(2018)을 바탕으로, 분석된 요인은 시설, 전자장비, 팀 전통, 팀 간 경쟁 및 티켓 옵션이었습니다.

결과적으로, 1(가장 만족하지 않음)에서 7(가장 만족함)까지의 척도에서 모든 요인 중 팀 전통이 관중에 의해 가장 높은 점수(5.62 점)를 받은 반면, 티켓 옵션은 가장 낮은 점수(4.31 점)를 받았습니다. 만족도에 영향을 미치는 요인과 관련하여, 팀 전통, 시설 및 티켓 옵션이라는 세 가지 요인은 통계적으로 유의했으며, 선행 연구 결과와 일치합니다. 반면 전자장비와 팀 간 경쟁은 만족도에 영향을 미치지 않았습니다. 마지막으로, 관중 만족도는 K 리그 경기 재관람을 이끌어낼 수 있습니다.

팀 전통, 시설 및 티켓 옵션이 관중에게 미치는 영향은 몇 가지 요인에 기인할 수 있습니다. 우선, 리그의 노력은 수년간의 무관심

끝에 클럽에 대한 팬들의 관심을 다시 불러일으키는 것을 목표로 하고 있습니다. 둘째, 경기장의 높은 품질은 2002 월드컵의 유산과 국가 소유의 결과입니다. 셋째, 더 건강하고 높은 품질과 다양한 티켓 옵션에 대한 수요가 증가하고 있습니다. 이와 대조적으로, 이전 연구에서는 팀 경기에 대한 만족도가 분석의 대상이 되는 스포츠의 종류와 지역에 따라 달라질 수 있다고 지적했습니다. 본 연구는 만족이 정기적인 서비스 이용으로 이어진다는 이론에 기여합니다. 관중의 만족, 참석 및 구단의 수익을 위해서는 품질, 만족 및 행동 의향이 필수적입니다. 이 연구는 또한 학문적, 경영적 함의에 대해서 논의합니다.

주요어: 고객만족, 관중, 스포츠마케팅, 축구, 고객경험, K 리그

학번: 2021−24181