

THE RELATIONSHIP AMONG FAN-BASED LEAGUE BRAND ASSOCIATIONS, BRAND EQUITY, AND BEHAVIORAL INTENTIONS

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This research draws on the brand architecture and the brand associations literature to examine the relationship among league brand associations, league brand equity, and behavioral intentions and to develop a multi-item scale for the fan-based brand association (FBBA) model. The study tests a model where league brand equity plays a mediating role between league brand associations and behavioral intentions, such as attending and/or watching games on TV or online. The data from 600 National Football League (NFL) fans are analyzed using the partial least square structural equation modeling. The results suggest that all brand association dimensions used in this study are valid measures of the FBBA model. In addition, the league brand equity is a significant mediator between league brand associations and behavioral intentions. This suggests that the league managers, in collaboration with team managers, head coaches, and players, can build a strong league (brand equity) that can influence fans' behavior.

INTRODUCTION

Brand associations have been widely investigated in the prior literature (e.g., Cheng-Hsui Chen, 2001; Faircloth, Capella, & Alford, 2001). Aaker (1991) defines brand association as anything that is linked in memory to a brand. Brand associations play a critical role in developing brand equity (Ross, Russell, & Bang, 2008). Brand equity refers to 'the differential effect of brand knowledge on consumer response to the marketing of brand' (Keller, 1993, p. 2). Brand equity has received a significant amount of attention from the sport management literature because building strong brands is crucial to distinguish leagues and teams from their competitors (Couvelaere & Richelieu, 2005; Kaynak et al., 2008). Brand equity is associated with positive financial and behavioral outcomes (Keller, 1993), which ultimately creates value for customers (Tong & Hawley, 2009). This is particularly important in the context of sport management, as fans develop an emotional connection with their teams or the sport they are interested in (Biscaia, Correia, Ross, Rosado, & Maroco 2013). The estimated size of the sport industry was \$539.7 billion in the U.S.

and \$1.3 trillion globally in 2018 (Plunkett Research, 2019). Considering the value of the sports industry and the level of competition, teams and leagues need to build strong brands supported by fans.

Brand equity has been studied in various ways. Some studies have operationalized it as a multi-dimensional construct and used an indirect measurement approach by measuring constructs such as brand associations, brand awareness, perceived quality, and brand loyalty as dimensions of brand equity (e.g., Cifci et al., 2016; Pappu, Quester, & Cooksey, 2005). Other studies have used a multi-item scale to directly measure brand equity and proposed a causal relationship between brand equity and its dimensions (e.g., Faircloth et al., 2001; Girard, Trapp, Pinar, Gulsoy, & Boyt, 2017). While indirect measures intend to identify the sources of brand equity, direct measures focus on customers' responses to the marketing efforts of brands (Tong & Hawley, 2009). However, studies that focus on the brand equity of sport teams (e.g., Bauer, Sauer, & Schmitt, 2005; Bauer, Stokburger-Sauer, & Exler, 2008; Biscaia et al., 2013; Gladden & Funk, 2002; Ross, 2006; Ross, James, & Vargas, 2006; Ross et al., 2008) and leagues (e.g., Kunkel, Funk, & King, 2014; Kunkel, Funk, & Lock, 2017) used an indirect approach to measure brand equity and did not investigate the causal relationship

between brand associations and brand equity. Therefore, this study contributes to the brand equity theory by identifying the conceptual relationship between brand associations and brand equity in the sport management context.

Despite the intangible and unpredictable nature of professional sports, teams have been successful in building strong brands and loyal fan-bases (Kunkel et al., 2017). A strong brand refers that consumers associate certain positive attributes specifically with that brand (Kunkel et al., 2014), and it is key in creating positive perceptions among consumers and gaining a competitive advantage against rival brands (Kaynak, Salman, & Tatoglu, 2008; Kunkel et al., 2014). In sport brand architecture, a league (franchisor) serves as an umbrella brand over its individual teams (franchisees) and provides a platform for teams to compete (Kunkel et al., 2014; Aaker & Joachimsthaler, 2000). Also, the league provides support for teams' success by coordinating marketing activities that help to build a strong team brand (Pitt, Napoli, & Van Der Merwe, 2003). In turn, fans' perceptions of individual teams positively influence their perceptions of the league (Kunkel et al. 2017). This type of brand structure indicates an interdependence between the league and team brands, such that each one is impacted by other's actions (Kunkel, Funk, & Hill, 2013; Kunkel et al., 2017). For example, teams affiliated with a strong league brand can benefit from positive brand associations towards the league because a strong league can influence fans' behavioral intentions, such as attending or watching games (e.g., Biscaia et al., 2013; Kunkel et al., 2017), and brand associations play an integral role in attitude development (Gladden & Funk, 2002).

The first objective of this study is to provide a deeper understanding of the value of brand equity in the sport league context by examining the mediating role of league brand equity on the relationship between the brand associations and the behavioral intentions from the fans' perspective. To the best of our knowledge, this study is the first to investigate such a relationship in the sport league context. Second, this study provides a valid and reliable multi-item scale for the Fan-Based Brand Associations (FBBA) model based on the brand associations and brand architecture literature. A

multi-item scale for league brand associations contributes to the sport league branding literature by providing a tool for future studies to investigate the multiple dimensions of each brand association (Kunkel et al., 2014). In addition, this research contributes to the theoretical understanding of brand associations of sport leagues and helps league managers in developing strong and successful brands.

The National Football League (NFL) is used in this study for three reasons. First, most of the prior studies on the impact of the sport brand equity focus on soccer teams or leagues (e.g., Bauer et al., 2005; Biscaia et al., 2013; Kunkel et al., 2014; Kunkel et al., 2017), and the generalizability of the scales developed on these studies across different sports is questioned (Biscaia et al., 2013). Second, Kunkel et al. (2017) suggest using fans of established and open competition leagues for future studies. Founded in 1920, the NFL is one of the oldest and most popular sport leagues in the U.S. In 2017, 57% of adults identified themselves as NFL fans (Jones, 2017). However, there is still a big competition for attracting fans among the four major professional sport leagues (NFL, NBA, MBL, NH) in the U.S. Lastly, the NFL's annual revenue increased from about \$6 billion in 2004 to \$14 billion in 2017 (Kaplan, 2017), which indicates that the NFL is still growing. Therefore, the NFL provides a good context to develop measures for brand associations and brand equity to examine their relationships and their influence on fans' behavioral intentions.

BACKGROUND AND CONCEPTUAL FRAMEWORK

Consumer-based Brand Equity

Brand equity has received a significant attention from the academics and practitioners as it positively influences success of a brand (Cifci et al., 2016), consumers' commitment and brand choices (Cobb-Walgreen, Ruble, & Donthu, 1995), and consumers' purchase intentions and loyalty (Aaker & Jacobson, 1994). The power of the brand lies within what customers learn, feel, hear about the brand, and how they respond over time (Keller, 2013). Brand equity, as a key indicator of a brand's health, is built through the effective

management of the brand promise and brand experience (Aaker, 1991). Aaker (1991) initially conceptualized brand equity as a multidimensional concept, consisting of brand awareness, brand association, perceived quality, and brand loyalty. Keller introduced the consumer-based brand equity (CBBE) model based on two vital dimensions – brand awareness and brand (image) associations (Keller, 1993). He further categorized brand associations as attributes, benefits, and attitudes. CBBE focuses on relative psychological and behavioral values of a brand name from the customer's perspective and refers to the value that consumers associate with a brand (Aaker 1991; Keller, 1993). Consistent with these two conceptualizations, several studies used an indirect measurement approach to operationalize brand equity. The indirect approach measures brand equity through its dimensions (Baalbaki & Guzmán, 2016), such as brand awareness, perceived quality, brand loyalty, brand association and brand personality, organizational association, and trust (e.g., Aaker, 1996; Pappu et al., 2005). However, these studies have failed to investigate the causal relationships among drivers of brand equity and overall brand equity (Girard et al., 2017), and mainly focused on identifying the sources of brand equity rather than measuring customers' responses to brands' marketing efforts (Tong & Hawley, 2009).

On the other hand, other studies treated constructs like brand association, brand awareness, and perceived quality as antecedents of the brand equity and included an overall brand equity measure to examine the direct relationship between brand equity and its antecedents (e.g., Broyles, Schumann, & Leingpibul, 2009; Cheng-Hsui Chen, 2001; Faircloth, et al., 2001; Girard et al., 2017; Yoo, Donthu, & Lee, 2000). Despite the differences between the operationalization of brand equity, previous literature concluded that brand equity influences consumers' purchase decisions, satisfaction, and loyalty (Broyles et al., 2009; Ross, 2006) by establishing a strong emotional bond between consumers and the brand (Aaker, 1996; Couvelaere & Richelieu, 2005). Such a bond becomes more apparent in the sport context, as the emotional bond between fans and their favorite sport tends to be strong (Biscaia et al., 2013).

The Importance of League Brand Associations as an Antecedent of League Brand Equity

Researchers developed frameworks to examine sport brand equity and empirically investigated the relationship between brand equity and its drivers (e.g., Gladden & Funk, 2002; Ross et al., 2006; Biscaia et al., 2013). Brand associations have been used as one of the main drivers of sport brand equity. However, these studies mainly focused on team brand associations and equity rather than the league. Relevant sport branding research and the brand associations dimensions used are summarized in Table 1.

One of the conceptual frameworks to present the multidimensional nature of sport brand equity was offered by Gladden, Milne, and Sutton (1998). The model includes four brand equity dimensions: brand awareness, brand associations, perceived quality, and brand loyalty. The authors also included three groups of brand equity antecedents (team-related, university-related, and market-related attributes). The team-related attributes consisted of [team] success, head coach, and star player. Gladden et al. (1998) stated that team-related attributes play a critical role in the creation of team brand equity. In a related article, Gladden and Funk (2002) introduced the team association model (TAM) to enhance the understanding of team brand associations. The TAM included product-related and non-product-related attributes, benefits, and attitudes as dimensions of team brand associations, where attitudes were hypothesized to mediate the formation of strong attributes- and benefits-based brand associations. Following a four-step procedure, they determined 16 brand associations and offered a measurement scale.

Bauer et al. (2005) modified the TAM and offered consumer-based brand equity in a team sport (BETS). They used brand awareness and brand associations as measures of brand equity and operationalized sport brand associations with attributes and benefits but did not integrate attitudes. In addition, Bauer et al. (2008) offered a measurement scale for BETS. It was argued that brand awareness would be high for the teams in popular sports like soccer, as the

TABLE 1:
Summary of Prior Research on Sport Brand Associations

Authors	Model	Brand Associations	Dimensions to Measure Brand Associations
Gladden and Funk (2002)	Team Association Model; Sport Team	Product-related	Success, Star Players, Head coach, Management
		Non-product-related	Logo design, Stadium, Product delivery, Tradition
		Brand Benefits	Pride in place, Fan identification, Peer-group acceptance, Nostalgia, Escape
		Brand Attitudes	Importance, Knowledge, Affect
Bauer et al. (2005)	Brand Equity in Team Sports; Sport Team	Product-related	Athletic success, Star player(s), Coach, Management
		Non-product-related	Logo, Stadium, Stadium atmosphere, Regional importance
		Brand Benefits	Fan identification, Interest of family and friends, Nostalgia, Escape
Ross et al. (2006)	Spectator-Based Brand Equity: Sport Team	Brand Associations	Brand mark, Rivalry, Concessions, Social interaction, Team play, Commitment, Organizational attributes, Non-player personnel, Team success, Team play
Bauer et al. (2008)	Brand Image and Fan Loyalty: Sport Team	Product-related	Team, Head coach, Success, Star player, Team performance
		Non-product-related	Logo and club colors, Stadium, Club history and tradition, Stadium, Fans
		Brand Benefits	Identification, Peer-group acceptance, Escape from it all, Socialization, Emotions, Nostalgia, Entertainment
		Brand Attitudes	Unique, Trustworthy, Positive, Likeable
Ross et al. (2008)	Spectator-Based Brand Equity: Sport Team	Brand Associations	Commitment, Team history, Logo, Organizational attributes, Rivalry, Nonplayer personnel, Stadium, Socialization, Success, Team characteristics
Biscaia et al. (2013)	Spectator-Based Brand Equity: Sport Team	Brand Associations	Brand mark, Concessions, Social interaction, Commitment, Team play, Organizational attributes, team success, Stadium
Kunkel et al. (2017)	Consumer-based League Brand Associations: Sport League	Brand Associations	Atmosphere, Community pride, Competition, Diversion, Education, Excitement, Game representation, Logo design, Management, Nostalgia, Performance, Player development, Rivalry, Socialization, Star player, Specific team, Tradition

fans were highly involved with that team. Thus, brand awareness may not have a significant effect on brand equity. Hence, the authors focused on brand associations and measured the favorability, uniqueness, and strength of each brand association. They examined the importance of brand associations for fan loyalty in the sport team industry in Germany and found that team brand associations play a significant role in fostering loyal fan behavior.

Ross et al. (2006) criticized previous models (TAM and BETS) for being derived from a manufactured good perspective rather than a spectator perspective and introduced the team brand association scale (TBAS). Furthermore, Ross et al. (2008) proposed and tested the spectator-based brand equity (SBBE) model using a sample of the National Basketball Association fans. They showed that the team brand associations and team brand awareness were relevant constructs of the SBBE model. Later, Biscaia et al. (2013) tested the SBBE model in the Portuguese Soccer League and showed that it was a valid tool for assessing the

brand equity of professional soccer teams. The results indicated a significant relationship between the brand associations dimensions and the second-order construct of brand association, as well as a positive effect of brand associations on satisfaction and fans' behavioral intentions. Then, they modified the brand awareness construct and renamed it as internalization and claimed this was conceptually more appropriate. Based on the results of Bauer et al. (2008) and Biscaia et al. (2013), this study focusses on brand associations.

Prior studies on team branding provided a good understanding of team brand associations; however, only a few studies focused on identifying brand associations in the league context and investigating their impact on fans' behaviors. For example, Kunkel et al. (2014) modified and integrated previous team brand association models (e.g., Gladden & Funk, 2002; Ross et al., 2008) to measure league brand associations. They identified 17 brand associations for leagues, each measured with a single item. Kunkel et al. (2017) used the

league brand associations and their measures developed by Kunkel et al. (2014) to investigate the role of league brand [associations] on the relationship between the team brand [associations] and team-related behavior. The results revealed that the league brand associations can influence team-related behavior; therefore, teams affiliated with a strong league brand benefit from the positive brand associations that consumers form towards the league.

Previously stated findings highlight the importance of leagues and their potential benefits for the teams. A strong league brand can serve as a quality signal and offer competitive advantage and benefits for both leagues and teams (Erdem, Swait, & Valenzuela, 2006). In addition, teams are a part of leagues; as such, the teams and leagues are interconnected and mutually dependent on each other (Kunkel et al., 2014). The Women's United Soccer Association (WUSA) is a good example of the co-dependence architecture of the league and its associated teams, where the team brands of WUSA suffered from the failure of the league brand (Southall, Nagel, & LeGrande, 2005). The failure of the WUSA has led to the suspension of its operations, leaving the WUSA teams without a league to compete in (King, 2009). Despite the emphasized value of the league in the sport branding literature, to our knowledge, no study has investigated the role of league brand equity on the relationship between league brand associations and league-related fan behaviors. Therefore, this study focuses on the league brand associations, not the team-related associations and fan behaviors, because we aim to investigate the role of the umbrella brand on fans' behaviors toward that brand.

Previous branding studies showed that brand associations are key for building brand equity (Cheng-Hsui Chen, 2001), and brand equity is at least partially driven by brand associations (Faircloth, et al., 2001). This suggests that positive brand associations should lead to stronger brand equity. However, the sport branding literature has not investigated the relationship between brand associations and brand equity as separate constructs. Thus, we hypothesize that:

H₁: League brand associations positively influence league brand equity.

Outcomes of the League Brand Equity

Brand equity influences consumers' behavioral outcomes, such as purchase decisions, satisfaction with the brand, and brand loyalty (Broyles et al., 2009; Girard et al., 2017). In the sport team context, Gladden et al. (1998) offered five team brand equity outcomes (national media exposure, corporate sponsorship, individual donations, atmosphere, and merchandise sales) that would affect the perception of a team. Ross (2006) modified the Gladden et al. (1998)'s framework and suggested excluding atmosphere as an outcome of brand equity, replacing corporate support and individual donations with revenue solicitation, and including team loyalty and [brand] extension opportunities as possible brand equity outcomes. Further, Bauer et al. (2005) confirmed that brand equity has a positive effect on purchase intentions, price sensitivity, and loyalty.

Prior literature on sport branding showed that brand associations also play an integral role in the development of attitudinal and behavioral actions, such that positive associations are formed if the sport brand satisfies consumers' personal and social needs and these associations influence team allegiance and behavior (Funk & James, 2006). However, unique team brand associations are mostly linked to better performance and higher team loyalty (Bauer et al., 2008; Funk & James, 2006; Ross et al., 2006; Ross et al., 2008). Biscaia et al. (2013) are one of the first studies to investigate the influence of team brand associations on fans' behavioral intentions. Behavioral intentions in the sport context refer to the team-related behavior that fans show, such as spending on merchandise, watching and/or attending the games (Biscaia et al., 2013; Kunkel et al., 2017). Following Biscaia et al. (2013)'s call for testing the reliability of their results about the positive relationship between the brand associations and fans' behavioral intentions, Kunkel et al. (2017) explored the impact of team and league brand associations on team behavioral intentions. However, they operationalized each behavioral intention as a single-item construct and measured the

behavioral intentions in terms of quantity (e.g., how many games you intend to attend), while Biscaia et al. (2013) grouped all behavioral intentions under one multi-item construct and measured the likelihood of the behavioral intentions (e.g., how likely are you going to attend future games). Therefore, Kunkel et al. (2017) did not confirm the reliability of the Biscaia et al. (2013) findings. Furthermore, Kunkel et al. (2017) investigated how the role of league brand associations influence fans' team-related behavioral intentions rather than intentions towards the league. Their findings show that team brand associations influence team-related behavioral intentions. The league brand associations are also expected to influence the behavioral intentions of the fans towards the league, considering the co-dependent brand architecture between a league and its associated teams. Therefore, to support the previous findings and extend the literature to a new context, we hypothesize that:

H₂: League brand associations positively influence fans' behavioral intentions.

For reasons discussed herein, brand associations help consumers to make a purchase decision by signaling quality, as they are positively related to brand equity (Erdem et al., 2006; Yoo et al., 2000), which in turn contributes to fans' behavioral intentions, such

as attending games. Although the impact of brand associations on fans' behavioral intentions is examined in the sport branding literature (e.g., Biscaia et al., 2013; Kunkel et al., 2017), the mediating role of brand equity by using direct measures on the relationship between league brand associations and fans' behavioral intentions has not been investigated. Exploring this relationship is very important because direct measures of league brand equity assess fans' responses to leagues marketing efforts (Tong & Hawley, 2009). Therefore, we hypothesize that:

H₃: The influence of league brand associations on fans' behavioral intentions is mediated by league brand equity.

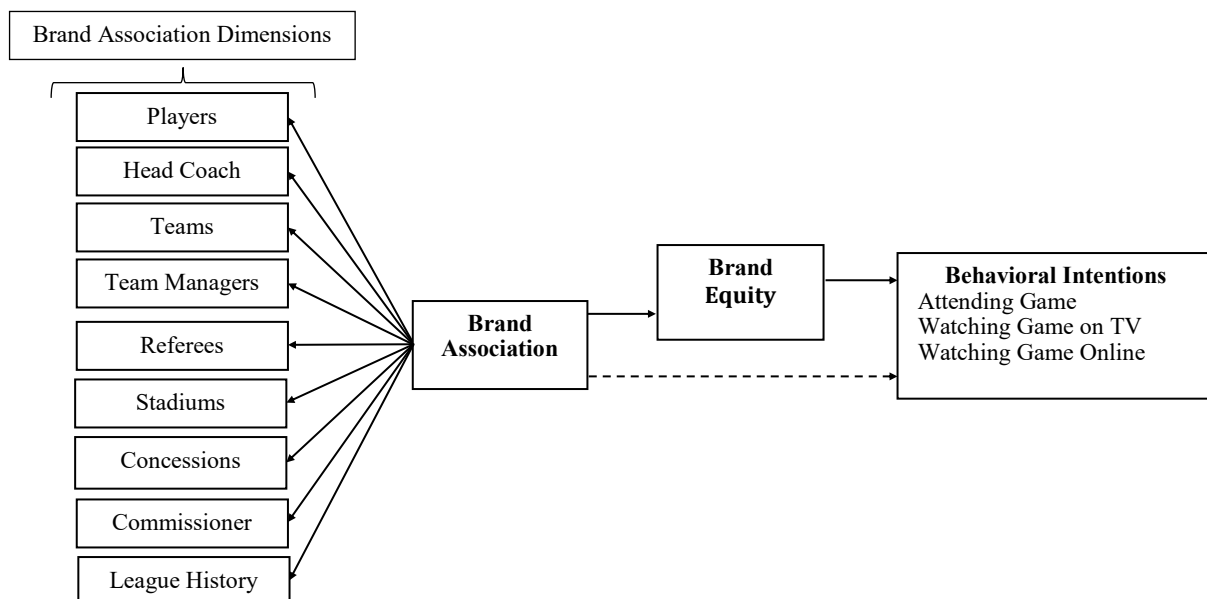
The proposed model is illustrated in Figure 1.

METHODOLOGY

Scale Development

We developed a survey by using Malhotra and Groves (1998)'s framework to provide valid and reliable multi-item measures for the FBBA dimensions based on the brand associations and brand architecture literature. While single-item measures may be adequate for assessing tangible constructs such as age, gender, and

FIGURE 1:
Proposed Model for Fan-Based Brand Associations for NFL



ethnicity, multi-item measures are better for capturing the essence of more complex constructs with a degree of precision that single-item measures cannot attain (DeVellis, 2016). In terms of predictive validity, multi-item scales perform better than single-item scales under most conditions (Diamantopoulos et al., 2012). Furthermore, in the absence of multiple items, it is not possible to measure content validity and reliability for internal consistency of constructs, unless multiple measures from the same participants are gathered for test-retest reliability (Churchill, 1979). Churchill (1979) advised that “marketers are much better served with multi-item than single-item measures of their constructs, and they should take the time to develop them” (p.66). Therefore, single-item measures should be used with caution and limited to special circumstances in empirical research (Diamantopoulos et al., 2012). Kunkel et al. (2014) also suggested the use of multi-item measures for future research.

We initiated the scale development by identifying the main constructs of the study. In line with the previous literature (e.g., Bauer et al., 2008; Biscaia et al., 2013; Kunkel et al., 2017), only the attributes of league brand associations were used as the independent variable and the effect of league brand awareness was controlled by surveying the existing NFL fans only. Behavioral intentions, such as game attendance, watching the games on TV and online, were used as the dependent variable. Finally, (overall) league brand equity construct was added to investigate its mediating role between the independent and the dependent variables.

After identifying the constructs, we compiled the measurement scales from the relevant literature. The measurement items for brand associations were adapted from the sports team branding literature (Bauer et al., 2008; Biscaia et al., 2013; Gladden & Funk, 2002; Ross, 2006; Ross et al., 2008). We modified these scales to construct valid measures for the league brand associations. Since prior league brand associations used single-item scales to measure constructs, they were not included. We used seven of the eight main attributes (players, head coaches, team success, team management, stadium, concessions, and league history)

which are identified in the literature as the attributes of the FBBA model. We did not include the logo in our study because the NFL logo is well known among the fans, and Kunkel et al. (2017) found that logo had no significant effect on fans’ perception of the league brand. League commissioner and referees were included as additional dimensions of the league brand associations. These dimensions are relevant because, as a governing body, league (NFL) commissioner develops the game rules and promotes the league brand (Kunkel et al., 2017). Further, referees oversee the implementation of the game rules to assure the improvement of the game quality. Thus, fans’ perceptions of the referees and league commissioner should be considered in the development of a comprehensive FBBA model.

The overall brand equity measures were adapted from branding literature (Girard et al., 2017; Yoo & Donthu, 2001; Yoo et al., 2000) and items were modified to reflect league brand equity. The behavioral intentions scale was adapted from Biscaia et al. (2013) and the items were modified to include NFL games in the wording, as Biscaia et al. (2013) focused on team-level intentions. The questions were developed to clearly state that NFL games represent any game in the league and not the games of a particular team to reflect the league level intentions. Further, options for watching games on TV and/or following online were added as fans’ behavioral intentions to represent the audience that might not attend games in stadiums. All scale items, except behavioral intentions, were measured on a seven-point scale ranging from 1 = strongly disagree to 7 = strongly agree. Behavioral intentions were measured on a seven-point scale ranging from 1 = not likely at all to 7 = extremely likely. In addition, data on gender, age, education, income, and type of media used to follow games were collected as control variables.

We conducted a pretest during scale development to test and refine the measurement items. First, we asked college football coaches and players to respond to each item and provide comments, revisions, and suggestions on the questionnaire. Second, a panel of 3 academics, who were experts on branding and scale development, were asked to provide feedback for the initial scale. Third, we asked a group of

NFL fans to review the survey and provide feedback. Based on the feedback provided by the experts and the fans, some items were removed, and the wording of some items was edited to clarify the statements. The final scale included 7 items for players; 5 items for the stadium, league history, referees, team success, and commissioner; 4 items for head coach, team management, concessions; and 3 items for brand equity and behavioral intentions (See Appendix A for the final scale).

Sampling Procedure and Data Collection

The final survey was administered online to U.S residents that were NFL fans via Amazon Mechanical Turk (MTurk). MTurk rates (payment to the participant without the fees) are determined based on how much time the survey is expected to take. It is shown that higher payment increases the performance of MTurk workers on the tasks asked (Paolacci & Chandler, 2014). Therefore, we paid a relatively higher rate (\$0.40) to MTurk workers for the survey that was expected to take less than 10 minutes and did not involve complicated cognitive tasks. We limited our sample to high reputation workers to recruit better quality of respondents by paying extra fees to MTurk. The survey participation was limited to the U.S. residents only. Previous research showed that data collected from MTurk are as reliable as consumer panels (e.g., Paolacci, Chandler & Ipeirotis, 2010). Identifying an adequate sample size is important to ensure the statistical power of the test for the proposed model. Prior literature offers using power analysis for determining the sample size (Cohen, 1988). Using the recommended criteria, power analysis determined a minimum sample of 184. Therefore, we believed that a sample of 600 respondents would be sufficient for this research.

Two questions (one screening and one identification) were asked at the beginning of the survey. The first (screening) question aimed to screen out respondents that were not NFL fans and the second one identified the respondents that have attended at least one NFL game in a stadium. Biscaia et al. (2013) show that stadium and concessions are significant

predictors of brand association. Given the intangible, experiential, and entertainment nature of sports (Underwood, Bond, & Baer, 2001), examining fans' perception of stadium-related brand associations could provide a more holistic understanding of league brand equity. However, fans that never attended an NFL game would not be able to answer the stadium and concessions-related questions. Therefore, stadium and concession questions were asked only to those respondents that indicated that they attended at least one NFL game. Demographic questions and questions about which media fans use to follow NFL games were included at the end of the survey.

We did not force response in any the survey questions to avoid random selection of answers from the respondents as much as possible. As a result, out of 600 surveys, 41 were deemed unusable because respondents skipped more than half of the questions. Therefore, the final sample size was 559 (effective response rate of 93.17%). There were 314 (56.3%) male and 245 (43.7%) female respondents, where 21.7% had an associate or junior college degree, 14.3% had a graduate degree, 21.5% had a high school degree, and 42.4% had a bachelor's degree. Moreover, 93.4% watch the games on TV, and 44.9% follow the games online. While 268 (47.9%) respondents have never attended an NFL game, 291(52.1%) have attended at least one NFL game. Specifically, 47.1% of these respondents attended 1-3 games, 5.5% attended 4-6 games and 1.4% attended 7 or more games, regularly. Table 2 shows a summary of the descriptive statistics.

RESULTS

The analysis was conducted using Smart-PLS 3.2.1. In line with the literature (Bauer et al., 2008; Biscaia et al., 2013; Ross et al., 2008), we modeled brand association as a second-order construct (SOC) with the reflective-reflective measurement approach, since first-order constructs (FOCs) (players, head coaches, referees, team success, [team] managers, stadiums, concessions, commissioners, and league history constructs) were used as the dimensions of the SOC. Additionally, brand equity was used as a mediator and behavioral intentions were used as the dependent variable in the master model. Finally, the media used for

TABLE 2:
Selective Demographic Profiles of Respondents

Gender	n	%	Age	n	%	Ever Attended a Game	n	%
Female	245	43.8	≤30	192	34.4	Yes	291	52.1
Male	314	56.2	31-50	282	50.4	No	268	47.9
Total	559	100	51-70	77	13.8	Total	559	100
			>70	8	1.4			
			Total	559	100			
Income	n	%	Education	n	%	Average Attendance	n	%
≤ \$20,000	68	12.2	≤ High School	121	21.7	0 Games	134	46.0
\$20,001-40,000	137	24.5	Associate/Junior	121	21.7	1-3 Games	137	47.1
\$40,001-60,000	122	21.8	Bachelors	237	42.3	4-6 Games	16	5.5
\$60,001-80,000	99	17.7	Graduate	80	14.3	7-10 Games	1	0.4
\$80,001-100,000	63	11.3	Total	559	100	More than 10 games	3	1.0
>100,000	70	12.5				Total	291	100
Total	559	100						

following games, attendance, gender, age, education, and income were used as control variables for behavioral intentions. We split the sample into two sub-samples based on their attendance to an NFL game to capture the difference between these fans. Out of 559, 291 of respondents attended an NFL game, and 268 respondents never attended an NFL game and follow the league via other channels, such as online and TV. To make the differentiation clear, we name fans who attend games as “stadium fans” and fans who do not attend the games as “screen-only fans.” The model for the stadium fans included stadiums and concessions dimensions of brand association. These two dimensions were excluded from the second model.

Model 1: Testing the FBBA model and hypotheses using Attendance Dataset

The reliability and validity of each construct and measures were assessed before testing the hypothesized relationships in Figure 1. Outer loadings were examined to check indicator reliability. All 44 items for nine FOCs were above the threshold (0.40) recommended by Hair, Hult, Ringle, and Sarstedt (2014), which suggests sufficient levels of indicator reliability. In addition, brand equity and behavioral

intentions with three items were used in the first model.

Measurement reliability was tested using the composite reliability scores. All composite reliability scores were above the recommended threshold (0.70), indicating no reliability issues (Hair et al., 2014). Analysis of average variance extracted (AVE) was used to test the convergent validity. The results indicated that all AVE values, but team success (0.40), were higher than 0.50, which confirmed the convergent validity of all constructs except team success (see Table 3 for composite reliability and AVE values). We dropped two items (team success 3 and 4) from the model to fix the convergent validity issue of team success construct, which resolved the issue by increasing the AVE to 0.545. Following that, Heterotrait-Monotrait Ratio (HTMT) was used to test the discriminant validity. The results provided support for the discriminant validity between FOCs and latent variables, and among all FOCs except team success (see Table 4). This result led to the omission of team success construct and its measures (team success1, 2, 3, 4, and 5) from the model.

The direct and indirect (through brand equity) effects of brand association on fans' behavioral

TABLE 3:
Construct Reliability and Validity Scores (Model 1)

Construct	Composite Reliability	Average Variance Extracted (AVE)	Construct	Composite Reliability	Average Variance Extracted (AVE)
Brand Association	0.943	0.674	League History	0.882	0.601
Brand Equity	0.879	0.708	Players	0.905	0.580
Behavioral Intentions	0.770	0.531	Referees	0.919	0.694
Commissioner	0.908	0.665	Stadiums	0.898	0.639
Concessions	0.883	0.741	Team Management	0.917	0.735
Head Coaches	0.884	0.656	Team Success	0.764	0.400

TABLE 4:
Heterotrait-Monotrait Ratio (HTMT) (Model 1)

		1	2	3	4	5	6	7	8	9	10
1	Brand Equity										
2	Behavioral Intentions	0.912									
3	Commissioner	0.510	0.414								
4	Concessions	0.629	0.613	0.525							
5	Head Coaches	0.610	0.641	0.738	0.604						
6	League History	0.623	0.614	0.619	0.616	0.862					
7	Players	0.520	0.707	0.486	0.476	0.825	0.889				
8	Referees	0.404	0.506	0.746	0.52	0.802	0.673	0.662			
9	Stadiums	0.717	0.688	0.669	0.812	0.817	0.826	0.759	0.672		
10	Team Management	0.588	0.585	0.844	0.561	0.898	0.779	0.745	0.768	0.776	
11	Team Success	0.731	0.782	0.766	0.592	0.991	1.012	1.053	0.846	0.911	0.973

intentions were tested. The adjusted R^2 value was analyzed for evaluating the explained variance of an endogenous variable (behavioral intentions) by all the exogenous variables (brand association and brand equity) with a path to it. The R^2 value of 0.25 for an endogenous variable was considered weak, while 0.50 was considered moderate and 0.75 was considered substantial (Hair et al., 2014). The R^2 value for fans' behavioral intentions was moderate ($R^2 = 0.582$). In addition, effect sizes of the significant path coefficients were used to assess the relative importance of each exogenous variable as a predictor of its related endogenous variables. First, f^2 was assessed and recommended thresholds to assess f^2 values were 0.02 for a small effect, 0.15 for medium effect, and 0.35 for large effect (Hair et al.,

2014). Based on these thresholds, the results indicated that the effect of brand association on brand equity was large ($f^2 = 0.511$), whereas the effect of brand association on fans' behavioral intentions was small ($f^2 = 0.113$), and the effect brand equity on fans' behavioral intentions was medium ($f^2 = 0.191$).

Subsequently, the significance level of the path coefficients in the structural model was evaluated through running the bootstrapping (Hair et al., 2014). The results suggest that the direct effects of brand association on brand equity, brand equity on fans' behavioral intentions, and brand association on fans' behavioral intentions ($b = 0.582, p = 0.000$; $b = 0.374, p = 0.000$; $b = 0.274, p = 0.001$, respectively), and the indirect effects of brand

association on fans' behavioral intentions ($b = 0.217, p = 0.000$) were all positive and significant, supporting $H_1, H_2,$ and H_3 respectively. Since both the direct and the indirect effects of brand association on fans' behavioral intentions were significant, we conclude that brand equity partially mediates the relationship between these variables. The results also revealed that players, head coaches, referees, team management, stadiums, commissioner, league history, and concessions ($b = 0.825, p = 0.000; b = 0.876, p = 0.000; b = 0.809, p = 0.000; b = 0.873, p = 0.000; b = 0.862, p = 0.000; b = 0.772, p = 0.000; b = 0.849, p = 0.000; b = 0.685, p = 0.000,$ respectively) were subcategories of brand association (Figure 2). The analysis of control variables showed that media used for watching games and attendance ($b = 0.302, p = 0.000; b = 0.118, p = 0.006,$ respectively) had significant impact on NFL fans' behavioral intentions, but gender, age, education level, and income ($b = -0.016, p = 0.711; b = -0.023, p = 0.593; b = 0.062, p = 0.190; b = 0.061, p = 0.199,$ respectively) had no significant impact on fans' behavioral intentions.

Model 2: Testing FBBA model and hypotheses using No Attendance Dataset

In the second model, two attendance related dimensions – stadiums and concessions – and attendance variable as a control variable were excluded because they were not relevant for the screen-only fans. The reliability and validity tests were conducted. All 35 items for seven FOCs were above the threshold (0.40), which suggested sufficient levels of indicator reliability. In addition, brand equity and behavioral intentions were measured with three items in the model. Similar to Model 1, composite reliability scores, AVE, and HTMT confirmed the reliability, convergent validity, and discriminant validity of all constructs except team success (Table 5 and 6). Hence, team success construct and its measures (team success1, 2, 3, 4, and 5) were omitted from the model.

The adjusted R^2 for behavioral intentions was significant but weak ($R^2 = 0.444$). The effect of brand association on brand equity was medium ($f^2 = 0.193$), yet it had no effect on behavioral intentions ($f^2 = 0.000$). On the other hand, the

effect of brand equity on behavioral intentions was large ($f^2 = 0.400$).

The results also showed that the direct effects of brand association on brand equity and brand equity on behavioral intentions, as well as the indirect effects of brand association on behavioral intentions, were positive and significant; however the direct effect of brand association on behavioral intentions ($b = 0.402, p = 0.000; b = 0.527, p = 0.000; b = 0.212, p = 0.000; b = -0.011, p = 0.895,$ respectively) was not significant. These results provided support for H_1 and H_3 , but not for H_2 . Since the indirect effect of brand association on behavioral intentions was significant but the direct effect was not, we conclude that brand equity fully mediates the relationship between these variables. Table 7 provides a summary of the hypotheses and their associated findings for both models. The results also revealed that players, head coaches, referees, team management, commissioner, and league history ($b = 0.877, p = 0.000; b = 0.877, p = 0.000; b = 0.773, p = 0.000; b = 0.892, p = 0.000; b = 0.732, p = 0.000; b = 0.868, p = 0.000,$ respectively) were the subcategories of brand association (Figure 3). Analysis of control variables showed that gender and used media to follow games had significant and positive impact, but age had negative impact on behavioral intentions ($b = 0.122, p = 0.012; b = 0.252, p = 0.000; b = -0.112, p = 0.039,$ respectively). Education level and income ($b = 0.019, p = 0.731; b = 0.016, p = 0.722,$ respectively) had no significant impact on behavioral intentions.

Comparison of the Stadium Fans vs. Screen-only Fans Models

Both models presented in this study reveal similar results, even though they use a different subset of the sample. The main difference between the results of the two models is the mediation effect of the league brand equity. While Model 1 (stadium fans) shows a partial mediation effect of league brand equity, in Model 2 (screen-only fans) league brand equity fully mediates the relationship between league brand associations and fans' behavioral intentions. This finding indicates that brand associations will not lead to a significant change in behavioral intentions for screen-only

FIGURE 2:
Results of the PLS Structure Model for FBBA – Attended the Game (Model 1)

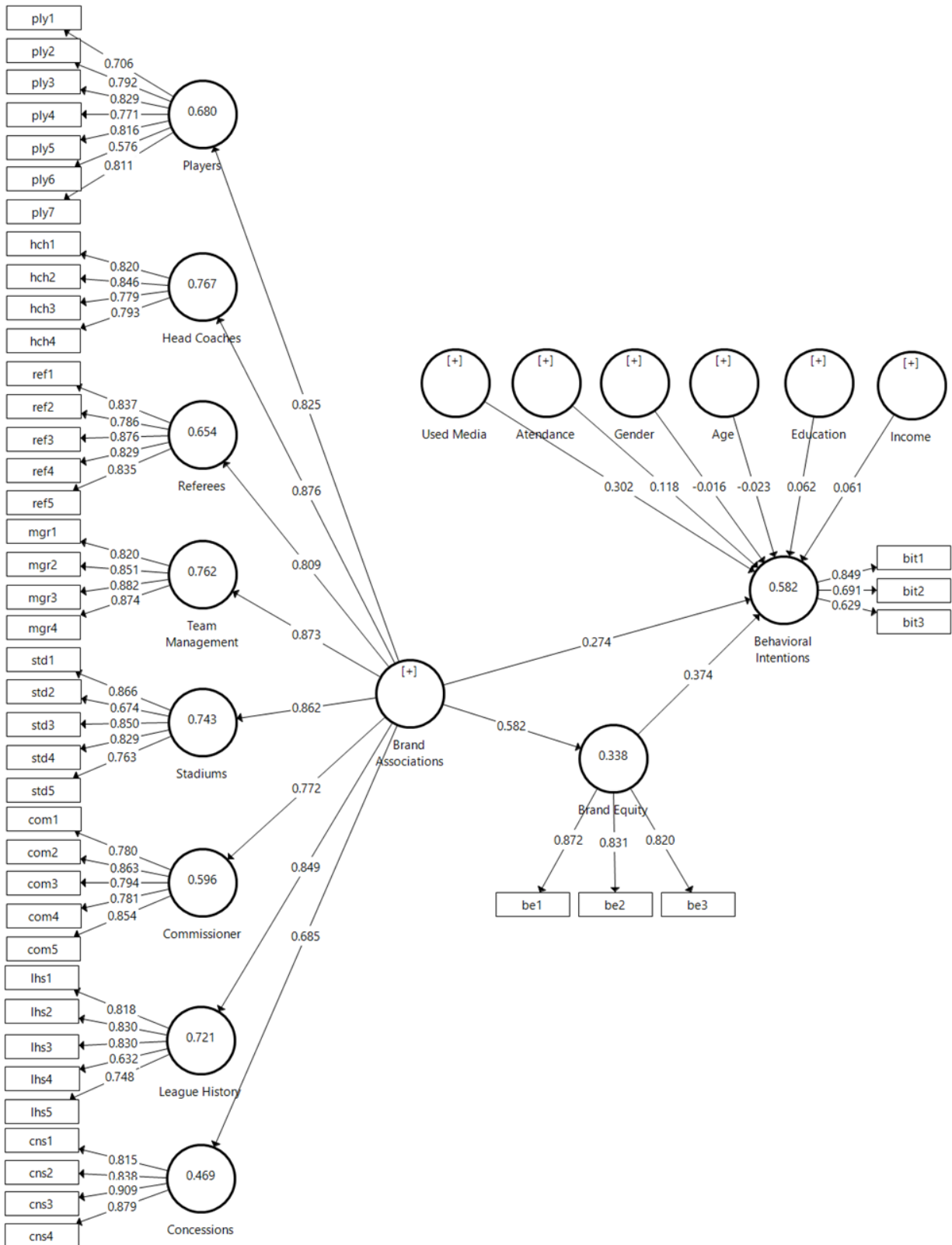


TABLE 5:
Construct Reliability and Validity Scores (Model 2)

Construct	Composite Reliability	Average Variance Extracted (AVE)	Construct	Composite Reliability	Average Variance Extracted (AVE)
Brand Association	0.963	0.505	League History	0.880	0.597
Brand Equity	0.856	0.664	Players	0.924	0.637
Behavioral Intentions	0.742	0.504	Referees	0.913	0.677
Commissioner	0.926	0.714	Team Management	0.902	0.697
Head Coaches	0.870	0.628	Team Success	0.795	0.446

TABLE 6:
Heterotrait-Monotrait Ratio (HTMT) (Model 2)

		1	2	3	4	5	6	7	8
1	Brand Equity								
2	Behavioral Intentions	0.963							
3	Commissioner	0.514	0.339						
4	Head Coaches	0.531	0.487	0.63					
5	League History	0.398	0.356	0.596	0.894				
6	Players	0.329	0.451	0.463	0.898	0.954			
7	Referees	0.261	0.286	0.62	0.743	0.641	0.619		
8	Team Management	0.506	0.424	0.817	0.926	0.824	0.800	0.705	
9	Team Success	0.557	0.634	0.695	1.007	0.98	0.996	0.768	0.976

TABLE 7:
Summary of Hypothesis and Findings

Hypothesis	Model 1	Model 2
H ₁ : Brand associations positively influence brand equity	Supported	Supported
H ₂ : Brand associations positively influence behavioral intentions	Supported	Not supported
H ₃ : The positive influence of brand associations on behavioral intentions is mediated by brand equity	Supported	Supported

fans without strong brand equity. Considering that 48% of the respondents were screen-only fans, we can argue that for league brands, building league brand equity is a key factor on fans' behavioral intentions towards the league. To investigate other differences, if any, between the screen-only and stadium fans, we conducted a post hoc analysis by performing a series of independent-samples t-test. Results of the post hoc analysis showed that the two types of fans display differences in terms of behavioral intentions, level of agreement about the brand associations dimensions and control variables. Table 8 illustrates the mean scores of

three behavioral intentions, six common league brand associations dimensions, and four common control variables in two models for screen-only and stadium fans and the results of the independent-sample t-test.

Based on the mean differences in behavioral intentions of the stadium and screen-only fans, stadium fans have higher intentions to attend future games ($p = 0.000$) and watch games online ($p = 0.046$). However, there is no difference between the stadium and screen-only fans regarding intentions to watch games on TV ($p = 0.181$). Further, the results indicate

FIGURE 3:
Results of the PLS Structure Model for FBBA – Never Attended the game (Model 2)

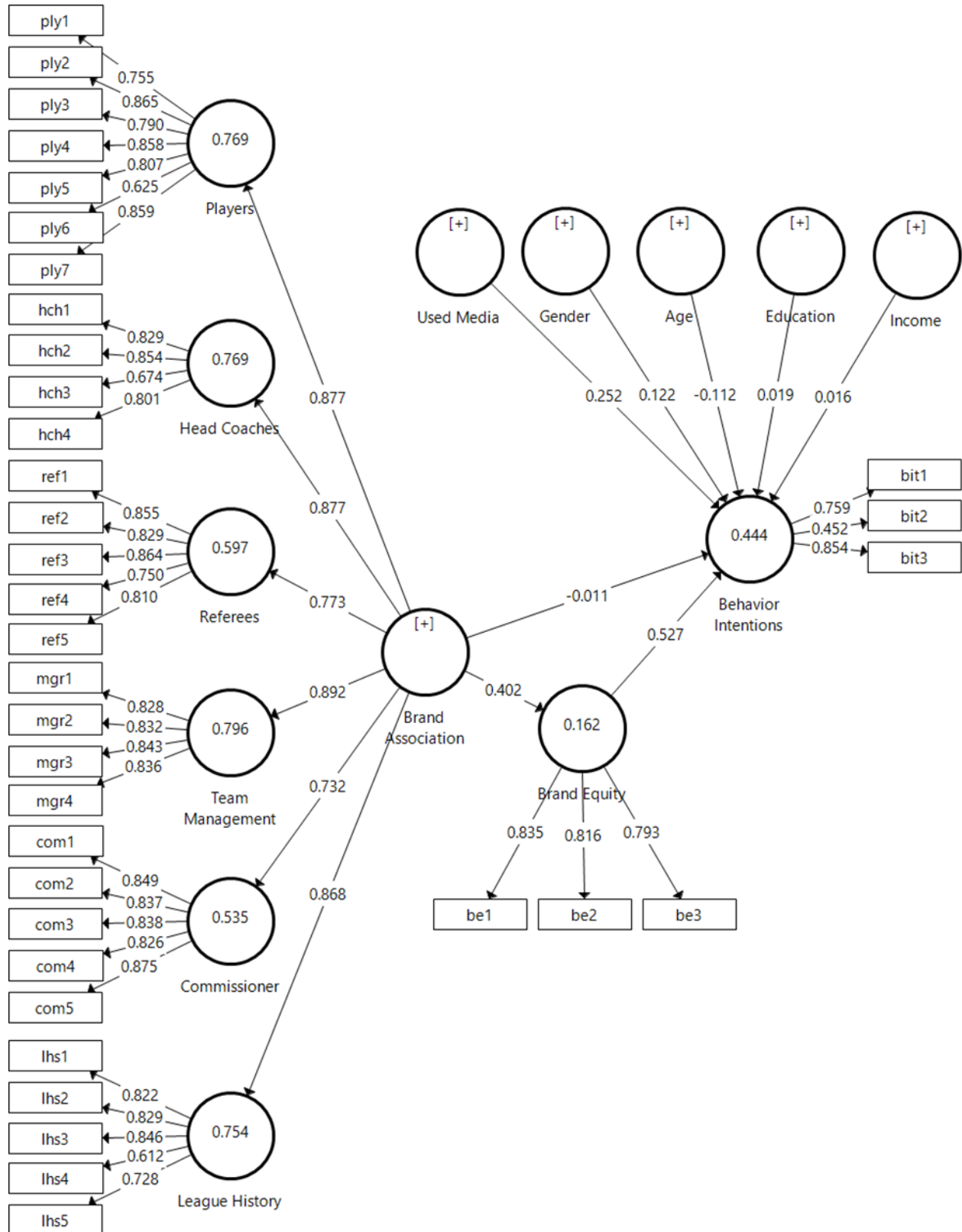


TABLE 8:
Independent-samples T-test Results

Behavioral Intention	Attendance	Mean	Std. Dev.	t-value	p-value
Attend games	No	3.60	2.01	-9.190	0.000
	Yes	5.09	1.80		
Watch games on TV	No	6.24	1.31	-1.340	0.181
	Yes	6.37	1.15		
Watch games online	No	4.58	2.11	-2.000	0.046
	Yes	4.92	1.90		
Brand Associations	Attendance	Mean	Std. Dev.	t-value	p-value
Players	No	6.02	1.02	-3.068	0.002
	Yes	6.26	0.79		
Head Coaches	No	5.40	1.02	-2.491	0.013
	Yes	5.61	0.91		
Referees	No	5.26	1.19	-2.382	0.018
	Yes	5.48	1.05		
Team Management	No	5.38	1.12	-2.699	0.007
	Yes	5.62	1.01		
Commissioner	No	4.88	1.36	-2.787	0.006
	Yes	5.17	1.09		
League History	No	5.81	1.07	-2.361	0.019
	Yes	6.01	0.92		
Control Variables	Attendance	Mean	Std. Dev.	t-value	p-value
Gender	No	0.47	0.50	-4.371	0.000
	Yes	0.65	0.48		
Age	No	36.05	11.57	-1.898	0.058
	Yes	37.96	12.11		
Education	No	3.35	1.03	-3.342	0.001
	Yes	3.63	0.93		
Income	No	2.90	1.46	- 5.941	0.000
	Yes	3.65	1.55		

that stadium fans show a higher level of agreement with all six dimensions of the league brand associations, compared to screen-only fans. Finally, comparison of control variables indicates that males attend games more than females ($p = 0.000$), and the education and income levels of stadium fans are higher than screen-only fans ($p = 0.001$ and 0.000 , respectively). However, there is no difference between stadium fans and screen-only fans in terms of age ($p = 0.058$) (please see Table 8 for details).

DISCUSSION

This research investigates the effect of the fan-based league brand association on fans' behavioral intentions, as well as the mediating role of league brand equity on the relationship

between league brand associations and fans' behavioral intentions. The findings reveal that stronger league brand associations lead to stronger league brand equity, which in turn increases fans' tendency to watch and/or attend the games.

Research Implications

This study contributes to the sport branding literature in several ways. First, the positive relationship between league brand associations and league brand equity indicates that league brand associations are antecedents of league brand equity. This result confirms that positive league brand association leads to stronger league brand equity. Second, while Model 1 indicates a partial mediation effect of league brand equity on the relationship between league brand

associations and behavioral intentions, Model 2 shows a full mediation. As a result, we can argue that league brand equity is a significant mediator between league brand associations and fans' behavioral intentions. Hence, when brand equity measures are included in sport brand equity research, it can lead to a better understanding and a holistic perspective of the league and team branding. As a result, this research supports and extends the existing sport branding literature by emphasizing the importance of the mediating role of league brand equity on the relationship between league brand associations and fans' behavioral intentions.

Third, we analyzed the same model using two different types of fans: fans attend games (stadium fans) and not attend games (screen-only fans). Although both models using different types of fans show similar results, stadium fans have higher brand associations, behavioral intentions, as well as education and income level, compared to screen-only fans. This implies that stadium fans are more involved with the sport than screen-only fans, given that income was also controlled as a potential variable. Fourth, this study also widens our understanding of league brand associations by providing a valid and reliable multi-item scale for the FBBA dimensions. Although there are several team brand associations frameworks and measurement scales available in the extant literature, there is a need for a robust framework and multi-item scale for league brand associations. The multi-item scale developed for the FBBA contributes to the theoretical understanding of sport leagues' brand associations and helps to test the relationship between league brand associations, league brand equity, and fans' behavioral intentions. Hence, the results of each specific dimension of the league brand association should be evaluated carefully. For example, although the stadium and concessions are not one of the strongest predictors in the team brand association research (e.g., Biscaia et al., 2013), our results indicate that they are one of the strongest predictors of league brand association for the stadium fans. This finding is consistent with Kunkel et al. (2017) and emphasizes the value of stadiums and concessions for a strong league brand association. Although fans might not

particularly care for the stadiums or concessions in terms of team brand associations, they put more value into them if league brand associations are evaluated. This could be due to the fact that fans' experience with stadiums and concessions is more associated with the "league experience" rather than the experience with the particular team, considering fans are attending games in different venues when they are attending away games. Further, the significant differences between the level of brand associations of stadium fans and screen-only fans provide further support for the validity of the developed multi-item scale, since it is expected that those investing the time and effort to attend the games in the stadium would have a higher level of involvement with the sport/league than those who only watch on TV or online. Moreover, all other brand association dimensions derived from team brand association studies were significant predictors of league brand association in both models. These results suggest that team brand associations and league brand associations are consistent with each other.

Finally, we developed two additional brand association dimensions (league commissioner and referee). The results show that these two dimensions are significant predictors of the second-order league brand associations. These results indicate that the league commissioner, who serves as the governing authority of the league and is responsible for developing the game rules that make the games exciting and having fair outcomes, is an important measure of league brand associations. In other words, the better the league commissioner can govern the league, the higher the league brand associations will be. Similarly, referees, who oversee implementation of the game rules developed by the commissioner, fairly and consistently for all games, are also another important measure of the league brand associations. This indicates that a league that has better referees will have higher league brand associations compared to other leagues. These findings are consistent with the purpose of the commissioner and referees, as they should work together to assure the improvement of the overall quality of the games, which in turn will increase the overall quality of the league. When the games are

perceived high quality and fair by the fans, they could increase the positive associations related to that league.

Managerial Implications

The findings of this study have several managerial implications for both league and team brands. First, the FBBA model can help the league managers to develop brand associations that will attract new fans and retain existing fans. For example, players are among the most important factors that both types of fans associate with the league brand. Therefore, the league managers can adjust the policies, such as the drafting process and salary cap, to allow teams to hire more star players. Second, brand associations affect fans' behavioral intentions via brand equity. Specifically, brand equity is more important for screen-only fans. Considering stadium fans have higher behavioral intentions than screen-only fans, attracting screen-only fans is very important for both league and team success. Thus, league managers should collaborate with the players, team management, and head coaches to create positive associations, which will help to improve the league's brand equity. In addition, the league managers can place a high standard for consistency with referee decisions, and the quality of stadiums and concessions.

Third, the league brand associations identified in this study, except commissioner and referees, are similar to those identified in team branding literature (e.g., Biscaia et al., 2013; Ross et al., 2008, Gladden & Funk, 2002), indicating that both leagues and teams have common brand associations. Given brand architecture of master brand and sub-brand relationship of sport leagues and the teams (Aaker & Joachimsthaler, 2000; Kunkel et al., 2014; Kunkel et al., 2017), and their co-dependence (Kunkel et al., 2013), improving these brand associations can lead to stronger team and league brand equity, which ultimately influence fans' behavioral intentions. Therefore, team and league managers should work together to develop strategies to build positive brand associations that would benefit the teams and the league as a whole.

Limitations and Future Research

While the findings of this study provide some insights about the relationships among the FBBA model in creating a strong league brand and brand equity, the findings must be interpreted with some caution due to some limitations of the study. First, the FBBA model was developed for the NFL and the study was conducted in the U.S. with the NFL fans. Future studies using different sport leagues and fans from other countries are needed for validation of the measurement scale, as well as further testing of the proposed model. Second, although the FBBA model has explained a significant amount of the variability in the league brand equity ($R^2=0.314$), only attribute-based brand associations were used in this study. Future research can explore and identify the benefit-based dimension(s) of brand associations, such as pride and nostalgia. Third, although the focus of the FBBA model was the league level brand associations and equity, it did not include team-based constructs as control variables. Future studies can include team-based constructs to control the variance explained by teams. Lastly, future studies can use an agreement scale (i.e., beliefs) instead of importance scale to determine the league brand association dimensions, as well as to compare the results with the corresponding importance measures (i.e., value curve analysis or gap analysis). Despite these limitations, the influence and interrelationships among the brand association, brand equity, and behavioral intention constructs can provide valuable insights for any sport league in developing more successful marketing and branding strategies to create a strong league brand.

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APPENDIX A: Measurement Scale

Measurement of Research Constructs, Means and Standard Deviations
(Items in *italic* were dropped to improve discriminant validity in the final model.)

Item Code	Item Description	Mean	Std. Dev.
	Players		
ply1	Players' behavior on the field contributes to the NFL's image.	6.14	1.18
ply2	Players in the NFL contribute to the quality of games.	6.23	1.10
ply3	I like to watch star players in the NFL.	6.03	1.19
ply4	Players are an important part of the NFL's success.	6.38	1.12
ply5	The NFL has high-quality players.	6.10	1.14
ply6	Player behavior off the field affects the NFL's image.	5.99	1.34
ply7	NFL players are exciting to watch.	6.16	1.14
	Head Coaches		
hch1	NFL head coaches are able to motivate their players for maximum success on the field.	6.14	1.18
hch2	The NFL has excellent head coaches.	5.62	1.19
hch3	NFL head coaches are well known by fans.	5.53	1.17
hch4	I like NFL head coaches.	5.63	1.24
	Referees		
ref1	NFL referees are consistent in their calls during games.	5.22	1.37
ref2	NFL referees are fair/impartial in their calls.	5.24	1.38
ref3	NFL referees' calls are consistent with the game rules.	5.31	1.33
ref4	NFL referees have a good knowledge of the game rules.	5.98	1.29
ref5	The NFL has a reputation for good officiating.	5.12	1.40
	Team Success		
tms1	<i>NFL teams play enjoyable football.</i>	6.08	1.14
tms2	<i>NFL teams have star players that help win games.</i>	6.18	1.10
tms3	<i>Every NFL team can beat any other NFL team.</i>	4.53	1.84
tms4	<i>Every NFL team can win the Super Bowl.</i>	4.29	1.99
tms5	<i>NFL teams are evenly matched.</i>	4.40	1.62
	Team Management		
mgr1	The management of NFL teams does a good job running successful teams.	5.50	1.19
mgr2	The management of NFL teams works together to create a successful league.	5.60	1.27
mgr3	The management of NFL teams shows great respect for their league.	5.47	1.29
mgr4	The management of NFL teams works together to protect the league's image.	5.47	1.30
	League History		
lhs1	The NFL has a rich history of memorable games.	6.21	1.16
lhs2	NFL Super Bowl games have many memorable advertisements.	5.92	1.34
lhs3	The NFL is known for great Super Bowl games.	6.02	1.22
lhs4	The NFL is known for great tailgate parties.	5.76	1.34
lhs5	The NFL is full of memorable Super Bowl half-time shows.	5.68	1.42
	Commissioner		
com1	The NFL commissioner treats every NFL team the same.	4.79	1.57
com2	The NFL commissioner works with teams to improve the quality of NFL games.	5.26	1.37
com3	The NFL commissioner develops strategies to create a strong league.	5.13	1.41
com4	The NFL commissioner does not discriminate among teams.	4.90	1.60
com5	The NFL commissioner does a good job of maintaining the integrity of the league.	5.07	1.46
	Stadium		
*std1	NFL stadiums are designed for fans to enjoy the game.	5.83	1.18
*std2	NFL stadiums have convenient parking.	4.74	1.54
*std3	The architecture of NFL stadiums is attractive.	5.78	1.25
*std4	NFL stadiums have unique character	5.72	1.32
*std5	NFL stadiums have convenient access for public transportation.	5.14	1.47

Concessions			
*cns1	There are specific foods at NFL games I like to eat.	5.18	1.56
*cns2	Concessions at NFL games are excellent.	5.12	1.41
*cns3	I enjoy eating at the stadiums.	5.33	1.45
*cns4	Eating and drinking at the games is something I like to do.	5.59	1.37
Brand Equity			
be1	NFL games are more than just a game for me.	4.69	1.76
be2	Even though there are other fun sports to watch, I prefer NFL games.	5.38	1.63
be3	Attending NFL games are worth the price.	4.72	1.75
Behavioral Intentions			
bit1	I intend to attend NFL games.	4.37	2.04
bit2	I intend to watch NFL games on TV.	6.31	1.23
bit3	I intend to watch NFL games online.	4.76	2.00

*Items dropped from model 2 due to irrelevance.

Measurement of control variables.

Item Code	Item Description
Used Media	How do you watch NFL games? (Select all that apply)
	*Attend games
	Watch games on television
	Watch games online
*Attendance	How many NFL games do you usually attend during the season?
	None
	1-3 games
	4-6 games
	7-10 Game
	More than 11 games
Gender	What is your gender?
	Male
	Female
Age	What is your age?
Education	What is your highest level of education?
	Less than high school
	High school graduate
	Associate or junior college degree
	Bachelor’s degree
	Graduate degree
Income	What is your total annual household income?
	Less than \$20,000
	\$20,001 to 40,000
	\$40,001 to 60,000
	\$60,001 to 80,000
	\$80,001 to 100,000
	More than \$100,000

*Items dropped from model 2 due to irrelevance.