

# Fan Community Identification: An Empirical Examination of Its Outcomes in Japanese Professional Sport

Masayuki Yoshida, Brian Gordon, Bob Heere, and Jeffrey D. James

Masayuki Yoshida, PhD, is an associate professor in the Department of Sport Science at Biwako Seikei Sport College. His research interests include consumer satisfaction, fan loyalty, and engagement behavior in the sport context.

Brian Gordon, PhD, is an assistant professor in the Department of Health, Sport, and Exercise Sciences at the University of Kansas. His research interests include consumer behavior, brand management, and fan loyalty.

Bob Heere, PhD, is an associate professor and PhD program director in the Department of Sport and Entertainment at the University of South Carolina. His research interests include social identity theory and community development.

Jeffrey D. James, PhD, is a professor and chair of the Sport Management Department at Florida State University. His research interests include sport consumer psychology, sport consumer behavior, and sport sponsorship.

## Abstract

Understanding why sport fans socially interact with other fans, participate in team-related discussions, recruit new members, and retain membership in sport fan communities is an important issue for sport marketers. In this study, we tested a model of fan community identification that included outcome and moderator variables in the contexts of two major professional sport leagues (soccer and baseball) in Japan. Based on the results, in both settings, fan community identification had positive effects on team brand equity and four fan community-related consequences: fan community engagement, customized product use, member responsibility, and positive word-of-mouth. Furthermore, the impact of team brand equity on positive word-of-mouth was strengthened by consumers' participation in fan loyalty programs. The theoretical model and results add new insights that advance our understanding of fans' collective feelings of friendship and camaraderie in sport fan communities.

## Introduction

Many sport fans come together at stadiums in order to enrich their social ties with others by sharing communal fan experiences such as talking, clapping, singing, or yelling (Melnick, 1993). Researchers have suggested sport fans do not only develop vertical ties to their team (team identification), but also horizontal ties to other team fans (Katz & Heere, 2013). The importance of these horizontal relationships between consumers was emphasized by Yoshida, Heere, and Gordon (in press). They found attachment to the fan community, instead of the identification with the team itself, as the only significant predictor of actual live attendance over time. This indicates the importance of strengthening fan communities, as gate receipts represent one of the most significant sources of revenue for teams. By developing fan communities around a sport team, the team may also potentially improve the stadium atmos-

phere at sporting events (Melnick, 1993). Therefore, sport teams routinely encourage fan communities—for example, the Green Bay Packers “Cheeseheads” in the United States, Newcastle United “Magpies” in England, FC Barcelona “Blue Elephant” in Spain, and the Hanshin Tigers “Hanshin Fans” in Japan—where sport fans come together, co-create social experiences, and build camaraderie and friendship with other fans (Hunt, Bristol, & Bashaw, 1999; Oliver, 1999).

Although both academicians and practitioners have recognized the potential benefits associated with interpersonal relationships in sport fan communities, at least three important concerns in previous research limit our understanding. First, there is still much to learn about how one conceptualizes and measures sport fans' feelings of friendship and camaraderie in sport fan communities. Researchers in the marketing field have conceptualized consumers' sense of brand

community as brand community identification (Algesheimer, Dholakia, & Herrmann, 2005; Keller, 2003). However, investigations of brand community identification have not focused on its potential applicability to the construct of fan community identification in the sport context. Within sport marketing, important issues in relation to sport fan communities have been examined primarily in qualitative research (Grant, Heere, & Dickson, 2011; Katz & Heere, 2013). Due to the nature of qualitative inquiry, the collective feelings of those involved with sport fan communities have not been evaluated using the same criteria across different sport contexts.

Second, team identification and fan identification have often been used interchangeably in the literature (Gwinner & Swanson, 2003; Sutton, McDonald, Milne, & Cimperman, 1997). However, Mahony and colleagues (2002) posited that an individual can be devoted to multiple points of attachment revolving a sport team brand. One perspective on different types of fan identification can be derived from the distinction between self- and communal-brand connections (Rindfleisch, Burroughs, & Wong, 2008). Self-brand connection is defined as the extent to which a consumer incorporates a brand into his or her self-concept (Rindfleisch et al., 2008). Team identification is similar to the idea of self-brand connection and refers to a sport fan's perceived connectedness to a sport team and the tendency to experience the team's successes and failures as one's own (Gwinner & Swanson, 2003). In contrast, communal-brand connection is a consumer's sense of belonging to a brand community (Keller, 2003). In spectator sport, fans derive positive psychological benefits (i.e., friendship and camaraderie) from membership in fan communities. By conceptualizing the brand community as a triangle, Muniz and O'Guinn (2001) referred to the self-brand connection as the vertical tie between consumer and organization, and the communal-brand connection as the horizontal tie between consumers. While the self-brand connection has received considerable attention in the field of sport marketing, a clear understanding of the communal-brand connection has yet to be achieved. Therefore, the conceptual focus of this study is centered on fan community identification, which distinguished between perceived oneness with a fan community and perceived oneness with a sport team. By conceptualizing fan community identification and examining its consequences, we attempted to extend previous sport marketing research that is based mainly on team identification.

Third, limited attention has been devoted to a moderator analysis that identifies which fans are more or less influenced by the management of sport fan com-

munities. From a managerial standpoint, it is important to understand what variables highlight the influence of a sport fan community on its members' communal behavior (Algesheimer et al., 2005; Carlson, Suter, & Brown, 2008). While marketing strategies characterized by brand and relationship marketing efforts are thought to be effective in the development of brand communities (Keller, 2003; Rust, Zeithaml, & Lemon, 2000), little is known about the roles of team brand equity and relationship-building programs (e.g., fan loyalty programs) in the context of sport fan communities.

Given the limitations of previous research, the purposes of this study were to (1) develop a model of fan community identification that included outcome and moderator variables, and (2) examine the relationships between the proposed constructs at professional sporting events. In order to achieve our objectives, the setting we chose was Japanese professional sport. In Japan, there are two major professional sport leagues: the Japan Professional Football League (J. League) and Nippon Professional Baseball (NPB). We attempted to examine fan communities among those attending sporting events of both leagues. We selected the Japanese professional sport context because (1) J. League and NPB teams were excellent illustrations of fan communities with a strong presence of rituals, traditions, and history; (2) fans of the two leagues had a rich cultural world with their own fight songs, ceremonies, and group movements; and (3) all study constructs were readily identified and assessed in both settings.

## Conceptual Background

### *Defining a Sport Fan*

A sport fan is defined as "an enthusiastic devotee of some particular sport consumptive object" (Hunt et al., 1999, p. 440). Because the object of devotion underlying fan behavior can vary from fan to fan (Mahony et al., 2002), there is a growing interest in an extensive understanding of enthusiastic sport fans. One important perspective on a typology of sport fans is to classify individuals into the following five segments: temporary, local, devoted, fanatical, and dysfunctional (Hunt et al., 1999). While temporary and local fans use being a sport fan as a peripheral object for self-definition, devoted, fanatical, and dysfunctional fans see sport-related objects as more central to their self-concept (Hunt et al., 1999). Furthermore, fanatical fans are different from the other types. Fanatical fans engage in a number of behaviors such as body paint, costumes, signs, fight songs, and group movement (Decrop & Derbaix, 2010; Hunt et al., 1999). Because

fanatical fans tend to exhibit these behaviors that are supportive of particular sport-related objects (e.g., sport, team, or player), their behaviors are likely to be accepted by others (e.g., family, friends, and other fans; Hunt et al., 1999). Therefore, the source of fanatical fans' engagement in the aforementioned behaviors is not only self-identification with a particular sport-related object, but also communal identification with others who also support the same sport consumptive object. In this study, our conceptual focus was on the degree to which sport fans were fanatical on the basis of their psychological connection to the focal sport team (i.e., team brand equity), sense of camaraderie formed with other fans (i.e., fan community identification), and fan-like behavior (i.e., fan behavior that supports sport-related objects).

### *Defining a Sport Fan Community*

A sport fan community is a specific form of brand community in the sport context. A brand community is defined as a specialized, non-geographically bound community based on the relationships among consumers of a brand (Muñiz & O'Guinn, 2001). In the contemporary marketplace, one can witness brand communities in multiple product categories due to a rich variety of self-expressive products, including cars (Algesheimer et al., 2005), motorcycles (McAlexander, Schouten, & Koenig, 2002), computers (Muñiz & O'Guinn, 2001), and spectator sport teams (Grant et al., 2011; Katz & Heere, 2013; Yoshida et al., in press). Focusing on the communal aspect of sport fans, Oliver (1999) considered the social bonding of a sport fan community as a blend of personal identity with the cultural milieu surrounding the focal sport team. Given this implication, a sport fan community can be defined as a specialized, non-geographically bound community based on sport fans' personal identity with the cultural milieu surrounding a specific sport team.

In addition to three markers of brand community (consciousness of kind, moral responsibility, and rituals and traditions), Muñiz and O'Guinn (2001) further contend that "brand communities can be relatively stable groupings, with relatively strong (but rarely extreme) degrees of commitment" (p. 415). On the contrary, we see fan communities as more diverse groups of people who are high and low in team commitment. Muniz and O'Guinn discuss brand communities based on vertical relationships (consumer – organization) and horizontal relationships (consumer – consumer). We contend that for some consumers the vertical relationships are more important (e.g., team identification) while for others the horizontal relationships are more important (e.g., the other fans). Schouten and McAlexander (1995) noted the diversity

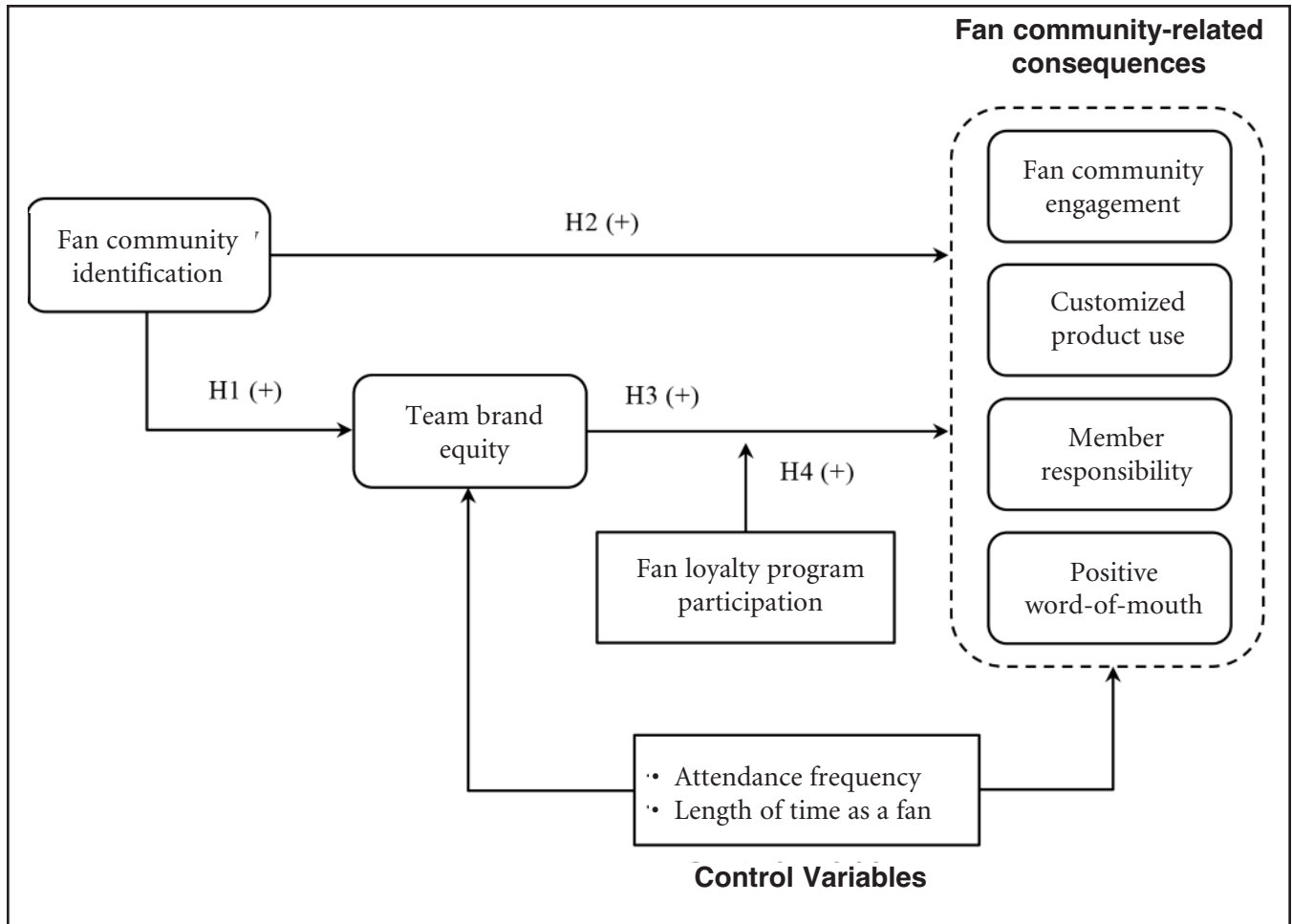
in commitment to a brand community and discussed the hierarchical structure within brand communities. The inner circle of the brand community are devoted fans of the organization, yet at the periphery of the community there are many members who are at the event for a multitude of reasons. For example, while the hardcore fans are strongly committed to their favorite team, other fans' primary attachment points might be a particular player, sport, and local city (Hunt et al., 1999; Mahony et al., 2002). Moreover, some individuals, such as college football fans who enjoy tailgating parties, do not necessarily identify with their team or related sport attachment points, but they have a commitment to the university and other fans (Katz & Heere, 2013). Thus, our argument is that in order to understand fan communities, we not only need to understand their vertical ties to the organization (e.g., team identification), but also their horizontal ties to the other fans (e.g., fan community identification).

### *Defining Fan Community Identification*

There is a commonly acknowledged conceptualization of consumer-brand community connection. Muñiz and O'Guinn (2001) considered the consumer-brand community connection as an intrinsic connection that brand community members feel toward one another and the collective sense of difference from others that are not in the community. Similarly, Keller (2003) contended identification with a brand community may help consumers feel a kinship with others associated with the brand. Other researchers have reached a similar conclusion that a consumer's emotional and social bonds with a brand community can be conceptualized as brand community identification (Algesheimer et al., 2005; Füller, Matzler, & Hoppe, 2008). Given this perspective, fan community identification is defined as the intrinsic connection that fan community members feel toward one another and the collective sense of difference from others not in the fan community (Keller, 2003; Muñiz & O'Guinn, 2001).

### *Behavioral Consequences in Sport Fan Communities*

Loyal sport fans engage not only in self-interested tasks (e.g., attending, watching, reading, and purchasing), but also in tasks that benefit their favorite sport teams (e.g., supportive displays of sport fandom, positive word-of-mouth, and collaborative event attendance) and other fans (e.g., sharing knowledge about a team with other fans, cooperative communications in the stands, and consumer-to-consumer helping behaviors in fan communities; Decrop & Derbaix, 2010; Hunt et al., 1999; Yoshida, Gordon, Nakazawa, & Biscaia, 2014). Such team- and others-oriented behaviors are



**Figure 1. Theoretical framework and research hypotheses**

referred to as extra-role behaviors (Ahearne, Bhattacharya, & Gruen, 2005; Yoshida et al., 2014). A review of the brand community literature reveals four important extra-role behaviors pertaining to behavioral consequences in sport fan communities: fan community engagement, customized product use, member responsibility, and positive word-of-mouth (Schau, Muñiz, & Arnold, 2009; Woolf, Heere, & Walker, 2013).

Fan community engagement refers to consumers' escalating behavioral involvement in a fan community that includes socially committed behaviors such as self-expression, story-telling, and fan community participation (Schau et al., 2009). In sport fan communities, the key levels of community engagement include (1) staking a social space, (2) participating in seminal events, (3) badging the milestones for symbolic representation, and (4) documenting personal stories in a narrative format. Customized product use is defined as consumers' improved use of team-related products in sport fan communities. Such behaviors include customizing (e.g., designing products to fit one's self-concept) and commoditizing (e.g., the extensive use of products to influence other fans to follow their favorite team). Member

responsibility refers to a felt sense of duty and obligation to a fan community as a whole and to its individual members in order to create, enhance, and sustain the ties among the fan community members. The key components of member responsibility are welcoming, empathizing, and governing. Positive word-of-mouth is defined as consumers' external, outward focus on creating favorable impressions of a sport team, enthusiastic fans, and the fan community in the social universe beyond the fan community.

### Hypothesis Development

Figure 1 is an illustration of the proposed fan community identification model. Building on social identity theory (SIT; Tajfel & Turner, 1985) and the literature on brand community identification (Algesheimer et al., 2005; Bagozzi & Dholakia, 2006; Füller et al., 2008), fan community identification is hypothesized to influence team brand equity and fan community-related consequences in the spectator sport context. Furthermore, drawing on the consumer prosocial behavior literature (Ahearne et al., 2005; Bettencourt, 1997), team brand equity is supposed to foster fan community-related consequences because a con-



sumer's commitment to and identification with a brand is the foundation for prosocial behavior. The framework also includes fan loyalty program participation by examining its moderating impact on the relationship between team brand equity and fan community-related consequences. In the following section, we develop hypotheses within this framework.

### *The Impact of Fan Community Identification*

SIT (Tajfel & Turner, 1985) forms the theoretical base of the framework and suggests that fan community identification fosters team brand equity and fan community-related consequences. We begin by considering the impact of fan community identification on team brand equity that is the value added to a sport team by the brand name (Farquhar, 1989). According to Tajfel and Turner (1985), an individual's identification with a social group creates a social identity that shapes the person's self-image deriving from the social category to which he or she perceives himself or herself as a member of the social group. This psychological state is "the perception of oneness with or belongingness to some human aggregate" (Ashforth & Mael, 1989, p. 21) and forms a collective representation of who one is (Ellemers, Kortekaas, & Ouwerkerk, 1999). Besides other fields of consumer behavior (e.g., consumer-company identification, Ahearne et al., 2005; team identification, Wann & Branscombe, 1993), social identification has also been studied in the context of brand communities (Bagozzi & Dholakia, 2006; Füller et al., 2008). In general, these studies provide support for the impact of brand community identification on brand-related outcomes such as brand commitment (Carlson et al., 2008), brand trust (Füller et al., 2008), and brand identification (Bagozzi & Dholakia, 2006). Bagozzi and Dholakia (2006) suggest as a consumer's identification with a brand community increases, greater involvement with the brand occurs and promotes the assimilation of the brand's image into one's self-concept. Oliver (1999) provides additional support by suggesting consumers can be placed in self-sustaining social environments (e.g., fan community) that reinforce their brand commitment. These studies indicate that sport fans can be devoted to their favorite team brands by increasing involvement with the teams in the fan communities. Therefore, fan community identification will serve as the means of increasing team brand equity among the fans of the focal sport team. Derived from these arguments, we test the following hypothesis:

H<sub>1</sub>: Fan community identification has a positive effect on team brand equity.

Theoretically, the results from previous research provided additional support for the development of fan community-related behaviors. From one perspective, a consumer's identification with other fans strengthens his or her engagement in the fan community (Algesheimer et al., 2005). Other researchers provided a theoretical basis for the impact of fan community identification on a number of community-related behaviors such as integrating and retaining other fans, participating in team-related discussions, assisting other fans, and providing feedback to the team for improving event experiences (Füller et al., 2008; Katz & Heere, 2013; Schau et al., 2009). To make the mechanism driving fan community-related consequences more concrete, we draw on SIT. Because identification with a social group helps individuals develop a sense of belonging, increase their self-esteem, raise their aspirations, and invest themselves in altruism and unselfish behaviors (Mael & Ashforth, 2001), fan community identification affects not only an assessment of team brand equity, but also fans' community engagement and prosocial behaviors. Based on this discussion, we expect fan community identification plays a key role in achieving consumers' extra-role behaviors in fan communities (e.g., fan community engagement, customized product use, member responsibility, and positive word-of-mouth). Therefore, we propose:

H<sub>2</sub>: Fan community identification has a positive effect on (a) fan community engagement, (b) customized product use, (c) member responsibility, and (d) positive word-of-mouth.

### *The Impact of Team Brand Equity*

In addition to the effect of fan community identification on fan community-related consequences, we also hypothesize the impact of team brand equity on the outcome variables. As suggested by Keller (2003) in his work with the brand equity pyramid model, fans' behavioral and social engagement is beyond team brand equity. Team brand equity influences the attitudinal and behavioral responses of fans to the fan community (Keller, 2003). More specifically, the literature on brand community leads us to conclude that high levels of team brand equity are likely to engender high levels of fan community-related behaviors such as participation in the fan community, group behavior, and co-creation (Algesheimer et al., 2005; Füller et al., 2008; Oliver, 1999). This reasoning is in line with research revealing prosocial outcomes of consumers' brand commitment (Bettencourt, 1997; Jones, Taylor, & Bansal, 2008). As an example, brand commitment has been shown to be positively related to prosocial behaviors including altruism (Jones et al., 2008), cooperation (Bettencourt, 1997), participation in service

delivery (Bettencourt, 1997), and advocacy (Jones et al., 2008). Because we include team brand equity as an antecedent of four fan community-related behavioral consequences (fan community engagement, customized product use, member responsibility, and positive word-of-mouth) in the proposed framework, the following hypothesis is derived:

H<sub>3</sub>: Team brand equity has a positive effect on (a) fan community engagement, (b) customized product use, (c) member responsibility, and (d) positive word-of-mouth.

#### *Moderating Effects of Fan Loyalty Program Participation*

There is little known about the role the organization can play in enhancing the relationship between consumers. Managers often appear reluctant to do anything to encourage these relationships, claiming they are concerned about getting in the way of an organic process (Katz & Heere, 2013). One strategy that might be appropriate in this context is a fan loyalty program, which might facilitate recurring behavior and could encourage consumer interaction (Rosenbaum, 2008). One conclusion drawn from the existing literature is that consumers' fan loyalty program participation moderates the link between consumers' attitudinal and behavioral responses (Evanschitzky & Wunderlich, 2006; Seiders, Voss, Grewal, & Godfrey, 2005). Evanschitzky and Wunderlich (2006) found relationship program participants were more likely to allocate resources (money, time, and effort) to service providers that offer superior customer value. In the case of loyalty programs that provide consumers with social interaction opportunities rather than simple financial incentives, such communal programs elicit various types of social support from other consumers: intimate interaction, social participation, physical assistance, feedback, guidance, and material aid (Rosenbaum, 2008). By providing superior value, fan loyalty program participation will promote social behavior among participants. Because brand equity is a significant defining element of customer value (Rust et al., 2000), we propose the following hypothesis:

H<sub>4</sub>: The effects of team brand equity on (a) fan community engagement, (b) customized product use, (c) member responsibility, and (d) positive word-of-mouth are stronger for fan loyalty program participants than for non-participants.

#### *Control Variables*

In addition to the main effects of the proposed fan community identification framework, other variables might influence the outcome variables. According to the theory of planned behavior, a consumer's past

behavior can explain his or her actual behavior (Ajzen, 1991). Due to individuals' psychological commitment to habitual behavior and their desire to minimize the cost of thinking, consumers prefer to attend sporting events of the same team they followed before.

Therefore, we control for consumers' past attendance frequency in the current season and length of time as a fan. Both variables have been proposed to be influential for consumer decision-making in the sport context (Nakazawa, Mahony, Funk, & Hirakawa, 1999).

## **Method**

### *Research Setting and Sample*

In fan communities, the role of sporting events is associated with the idea of "brandfests" (McAlexander et al., 2002). Brandfests are corporate-sponsored events where consumers come together to experience and celebrate brand ownership (McAlexander et al., 2002). Because fans attend sporting events to support and celebrate the successes of their team, sporting events can be viewed as a type of brandfest in the sport setting. Conceptual and empirical support for the phenomenon that sporting events have a role as brandfests is provided by Katz and Heere (2013) and Woolf et al. (2013). In this study, we examined the psychology and behavior of spectators who attended sporting events to support their favorite teams.

This study was conducted in two major professional sport settings in Japan: professional soccer and professional baseball. First, data were collected from spectators attending a J. League Division I game ( $N_{\text{total}} = 9,550$ ) in a large city in west Japan. We conducted data collection in all seating sections (except for the section of the opposing team's fans) and used a mixture of convenience and proportionate sampling, which was stratified by both age and gender. Questionnaires were distributed in the stands prior to the start of the game. Brief instructions were given to the respondents about the purpose of the study, voluntary participation, and confidentiality of the data. Before distributing the questionnaires, 20 trained surveyors observed an assigned block of the stands in order to estimate the percentage of those attending based on gender (male/female) and age (ages between 18-29, 30-49; and 50 and older). From the 440 questionnaires distributed, 427 were returned for a response rate of 97.0%. Thirteen questionnaires were not returned. Among the questionnaires returned, 26 were rejected because many items were left blank, yielding a usable response rate of 91.1% ( $n = 401$ ). Of the soccer sample, 62.4% of the respondents were male. Approximately one-third of the subjects were in the 30-39 age range (30.5%), 27.2% were between 40-

49 years old, 18.1% were between 20-29 years old, and 17.6% were 50 years old and older.

For the baseball sample, data were collected from spectators attending a professional baseball game ( $N_{\text{total attendance}} = 19,087$ ) in the eastern Tokyo metropolitan area. Questionnaires were distributed to individuals outside the stadium prior to the start of the baseball game. In order to collect data as systematically as possible, one of the authors estimated when, where, and how many people would be present at various locations around the stadium based on observations of previous games. Twelve trained surveyors approached potential respondents in the assigned locations. The surveyors provided instructions on the study purpose, voluntary participation, and confidentiality of the results. Of the 360 questionnaires distributed, 347 were returned for a response rate of 96.4%. Among the 347 forms returned, 21 were incomplete, yielding a final usable response rate of 90.6% ( $n = 326$ ). Of the baseball sample, 68.4% of the subjects were male. One-third of the respondents were in the 30-39 age range (32.8%), 28.2 were between 40-49 years old, and 24.5% were between 20-29 years old.

In order to verify the representativeness of our samples, we compared our samples with the general population. According to the J. League Annual Survey Report (J. League, 2013), which was based on the data collected from 17,286 game attendees of all teams, the gender distribution of the national population (male = 62.6%, female = 37.4%) corresponded to that of our sample (male = 62.4%, female = 37.6%). Even though such data were not available for the baseball sample, the gender distribution (male = 68.4%, female = 31.6%) was almost parallel to that of the soccer sample. Therefore, our samples were thought to be an adequate representation of the overall population to generate data for this study.

### *Measurement*

We adapted items from previous research to measure fan community identification (Keller, 2003) and team brand equity (Brady, Cronin, Fox, & Roehm, 2008). In order to measure positive word-of-mouth, a three-item scale was adapted from previous research (Jones & Reynolds, 2006), and the wording was modified to reflect the sport fan community context. Also, we developed new scale items to measure fan community engagement, customized product use, and member responsibility. The information supporting these factors was primarily conceptual (Schau et al., 2009) and no established scale was available in the existing literature. Therefore, an initial pool of 17 items was generated for these factors based on the construct definitions. In order to assess content validity, four researchers

from four different universities were asked to rate each statement as being “Not Representative (0),” “Somewhat Representative (1),” and “Clearly Representative (2)” of the dimension (Tian, Bearden, & Hunter, 2001). Items evaluated as clearly representative by three reviewers, and as no worse than somewhat representative by a fourth reviewer were retained. Also, the judges were asked to provide suggestions for changing words and phrases in the items. This process eliminated seven items, leaving 10 items.

Finally, we included two control variables that might influence behavioral responses in the fan community: past attendance frequency and length of time as a fan (Figure 1). Past attendance frequency was measured by the number of games attended in the current season (Yoshida & James, 2010). A spectator’s length of time as a fan was measured by the number of years being a fan of his or her favorite sport team (Nakazawa et al., 1999).

### *Back Translation*

As a check of meaning equivalence between the original English instrument and the translated Japanese instrument, the survey questionnaire was first translated into Japanese by one of the authors and then back-translated into English by another native of Japan who is also fluent in English. To ensure the accuracy of the translation, a U.S.-born American citizen was asked to assess differences in meaning between the original and back-translated instruments. The comparison of the two forms indicated both instruments reflected the construct domain.

## **Results**

### *Assessment of the Measures*

**Measurement Analysis.** The psychometric properties of the items were assessed through a confirmatory factor analysis (CFA) using LISREL 8.8. The fit measures were acceptable for both samples (see Table 1). The ratios of chi-square to degrees of freedom ( $\chi^2/\text{df}$ ) were within the acceptable range of 2 to 3 (Hu & Bentler, 1999). The comparative fit index (CFI) and non-normed fit index (NNFI) were greater than the cutoff point of .90 (Hu & Bentler, 1999). The values of the root mean square error of approximation (RMSEA) were .067 for the soccer sample and .073 for the baseball sample were smaller than Hu and Bentler’s (1999) criterion of .08.

Scale statistics, including factor loadings ( $\lambda$ ), composite reliability (CR), and average variance extracted (AVE) values, are presented in Table 1. All items loaded on their respective factors, and factor loadings ranged from .53 to .88 for the soccer sample and from

**Table 1**  
**CFA Results**

Construct	Item	Factor loading ( $\lambda$ )	
		Soccer ( <i>n</i> = 401)	Baseball ( <i>n</i> = 326)
Fan community identification (CR <sub>soccer</sub> = .86, AVE <sub>soccer</sub> = .61; CR <sub>baseball</sub> = .89, AVE <sub>baseball</sub> = .67)			
FCI1.	I really identify with people who follow ( <i>team name</i> ).	.80	.83
FCI2.	I feel like I belong to a club with other fans of ( <i>team name</i> ).	.82	.88
FCI3.	( <i>team name</i> ) is supported by people like me.	.75	.73
FCI4.	I feel a deep connection with others who follow ( <i>team name</i> ).	.75	.80
Team brand equity (CR <sub>soccer</sub> = .79, AVE <sub>soccer</sub> = .50; CR <sub>baseball</sub> = .81, AVE <sub>baseball</sub> = .52)			
TBE1.	How loyal are you to ( <i>team name</i> )? (not at all loyal [1] to very loyal [7])	.53	.60
TBE2.	What kind of attitude do you have about ( <i>team name</i> )? (negative attitude [1] to positive attitude [7])	.84	.82
TBE3.	What kind of image do you have about ( <i>team name</i> )? (negative image [1] to positive image [7])	.85	.83
TBE4.	How would you rate the event quality delivered by your team? (low quality [1] to high quality [7])	.55	.61
Fan community engagement (CR <sub>soccer</sub> = .81, AVE <sub>soccer</sub> = .52; CR <sub>baseball</sub> = .89, AVE <sub>baseball</sub> = .67)			
FCE1.	I often buy memorabilia to represent memorable games.	.74	.86
FCE2.	I often buy apparel which represents the fans of ( <i>team name</i> ).	.85	.91
FCE3.	In order to share a sense of belonging with ( <i>team name</i> )'s fan group, I often wear clothing that displays the logo of ( <i>team name</i> ).	.70	.79
FCE4.	I often talk to others or blog about my unique experiences shared with other fans of ( <i>team name</i> ).	.58	.70
Customized product use (CR <sub>soccer</sub> = .86, AVE <sub>soccer</sub> = .67; CR <sub>baseball</sub> = .92, AVE <sub>baseball</sub> = .79)			
CPU1.	I love to show my customized products to other fans of ( <i>team name</i> ).	.76	.86
CPU2.	I often design spectator products in order to fit the unique concept of ( <i>team name</i> ).	.88	.93
CPU3.	The extensive use of my customized items enables me to guide other fans of ( <i>team name</i> ).	.82	.86
Member responsibility (CR <sub>soccer</sub> = .84, AVE <sub>soccer</sub> = .64; CR <sub>baseball</sub> = .94, AVE <sub>baseball</sub> = .83)			
MR1.	I have a sense of duty to attract new fans of ( <i>team name</i> ).	.82	.91
MR2.	I have a sense of obligation for keeping the current fans of ( <i>team name</i> ).	.85	.96
MR3.	I am obligated to provide team-related information to other fans.	.72	.86
Positive word-of-mouth (CR <sub>soccer</sub> = .84, AVE <sub>soccer</sub> = .64; CR <sub>baseball</sub> = .91, AVE <sub>baseball</sub> = .78)			
WOM1.	When I talk with my friends, I give them a good impression of ( <i>team name</i> ).	.83	.85
WOM2.	I often say positive things to a friend about enthusiastic fans of ( <i>team name</i> ).	.77	.93
WOM3.	When I talk with my friends, I give them a good impression of the fan community of ( <i>team name</i> ).	.81	.86
Fit Indices $\chi^2$			
	df	484.31	477.79
	$\chi^2 / df$	174	174
	CFI	2.78	2.75
	NNFI	.98	.98
	RMSEA	.97	.97
		.067	.073
Note. CR = composite reliability; AVE = average variance extracted			



**Table 2**  
**Descriptive Statistics  $\phi$  Matrix, and AVE Values<sup>a</sup>**

Construct	$\phi$ matrix <sup>b</sup> ( $n_{\text{soccer}} = 401$ )							
	1	2	3	4	5	6	7	8
1. Fan community identification	<b>.61</b>	.26	.40	.23	.41	.58	.02	.01
2. Team brand equity	<b>.51**</b>	<b>.50</b>	.18	.13	.19	.27	.01	.00
3. Fan community engagement	<b>.64**</b>	<b>.43**</b>	<b>.52</b>	.34	.61	.64	.06	.00
4. Customized product use	<b>.48**</b>	<b>.36**</b>	<b>.59**</b>	<b>.67</b>	.39	.20	.00	.00
5. Member responsibility	<b>.64**</b>	<b>.43**</b>	<b>.78**</b>	<b>.63**</b>	<b>.64</b>	.65	.01	.00
6. Positive word-of-mouth	<b>.76**</b>	<b>.52**</b>	<b>.80**</b>	<b>.45**</b>	<b>.80**</b>	<b>.64</b>	.05	.00
7. Attendance frequency	.13*	.11*	<b>.24**</b>	-.01	.08	<b>.23**</b>	N.A.	.10
8. Length of time as a fan	.10	.07	.00	.00	.00	.07	<b>.32**</b>	N.A.
Mean <sub>soccer</sub> <sup>c</sup>	4.64	4.99	3.78	2.76	3.70	4.44	8.70	6.81
Standard deviation <sub>soccer</sub> <sup>c</sup>	1.28	1.17	1.52	1.48	1.54	1.51	4.96	4.44
Construct	$\phi$ matrix <sup>b</sup> ( $n_{\text{baseball}} = 326$ )							
	1	2	3	4	5	6	7	8
1. Fan community identification	<b>.67</b>	.44	.41	.12	.38	.53	.04	.03
2. Team brand equity	<b>.67**</b>	<b>.52</b>	.30	.09	.18	.47	.00	.01
3. Fan community engagement	<b>.64**</b>	<b>.55**</b>	<b>.67</b>	.27	.36	.46	.04	.02
4. Customized product use	<b>.34**</b>	<b>.30**</b>	<b>.52**</b>	<b>.79</b>	.32	.16	.02	.00
5. Member responsibility	<b>.62**</b>	<b>.43**</b>	<b>.60**</b>	<b>.56**</b>	<b>.83</b>	.42	.01	.01
6. Positive word-of-mouth	<b>.73**</b>	<b>.68**</b>	<b>.68**</b>	<b>.40**</b>	<b>.65**</b>	<b>.78</b>	.03	.02
7. Attendance frequency	<b>.19**</b>	.03	<b>.21**</b>	<b>.15**</b>	.11	<b>.17**</b>	N.A.	.06
8. Length of time as a fan	<b>.16**</b>	.09	<b>.15**</b>	.02	.10	<b>.15*</b>	<b>.25**</b>	N.A.
Mean <sub>baseball</sub> <sup>c</sup>	5.38	5.91	4.38	2.99	3.86	5.03	11.77	10.05
Standard deviation <sub>baseball</sub> <sup>c</sup>	1.33	.98	1.67	1.76	1.76	1.61	11.41	8.23
<p><sup>a</sup> The AVE value for each construct is shown in boldface italic on the diagonal.</p> <p><sup>b</sup> Correlations are taken from <math>\phi</math> matrix using LISREL 8.8 and are reported in the lower triangle of the <math>\phi</math> matrix; Squared correlations are depicted in the upper triangle of the <math>\phi</math> matrix.</p> <p><sup>c</sup> The mean scores and standard deviations for the eight constructs are calculated using IBM SPSS statistics 20.0.</p> <p>* <math>p &lt; .05</math>; ** <math>p &lt; .01</math>; N.A. = not applicable.</p>								

.61 to .96 for the baseball sample. In both settings, the CR values for all factors were greater than the recommended cutoff point of .60 (Bagozzi & Yi, 1988), indicating the proposed constructs were internally consistent. The AVE values for the proposed constructs ranged from .50 to .67 in the soccer setting and from .52 to .83 in the baseball setting, providing evidence of construct reliability (Fornell & Larcker, 1981). Discriminant validity was assessed by comparing the AVE estimate for each construct with the squared correlations between the respective constructs (see Table 2). For the soccer sample, in 12 cases out of a total of 15 correlations between the six latent constructs, the AVE values were considerably greater than any squared

correlations between all pairs of the constructs. However, three cases failed to establish discriminant validity. For the baseball sample, the AVE values were considerably greater than any squared correlations between all pairs of the constructs. Next, we used a chi-square difference test using the soccer sample and compared a model in which the correlation of each pair of the latent constructs was constrained to be equal to one with an unconstrained model in which the correlation was permitted to vary freely (Anderson & Gerbing, 1988). Performing a total of 15 chi-square difference tests for all pairs, every case demonstrated a significant difference. Collectively, our results provide evidence for discriminant validity.

Table 2 also presents descriptive statistics (means, standard deviations, and correlations) for the measures used in the current study. In both settings, the mean factor scores pertaining to team brand equity, fan community identification, and positive word-of-mouth were slightly higher than those of the factors pertaining to fan community engagement, customized product use, and member responsibility. In terms of the two control variables, the mean scores of both attendance frequency (11.77) and length of time as a fan (10.05) for the baseball sample were higher than those of the variables for the soccer sample (attendance frequency = 8.70; length of time as a fan = 6.81) because there were more home games in the regular season for professional baseball (72 games) than for professional soccer (17 games), and the professional baseball team had a longer history than the professional soccer club.

**Multi-Group Measurement Invariance.** When structural paths are examined between contexts, the results are meaningful if the measures are invariant across groups (Steenkamp & Baumgartner, 1998). Therefore, prior to hypothesis testing, we also tested whether the measures were invariant across the soccer and baseball samples by estimating three types of multi-group measurement invariance models (Steenkamp & Baumgartner, 1998). The first model we estimated was an unconstrained six-factor measurement model (also called configural invariance model) across the two samples. This model consisted of the six latent constructs (fan community identification, team brand equity, fan community engagement, customized product use, member responsibility, and positive word-of-mouth) and demonstrated an acceptable fit to the data ( $\chi^2 = 989.38$ ,  $df = 348$ ; CFI = .98; NNFI = .97; RMSEA = .071). Second, we estimated a model with the matrix of factor loadings constrained as invariant across the two samples in order to assess metric invariance. The chi-square statistic was 1020.35 with 363 degrees of freedom for the metric invariance model. The difference between the configural invariance and metric invariance models was significant ( $\Delta\chi^2 = 30.97$ ,  $\Delta df = 15$ ,  $p < .01$ ), indicating the factor structure was not invariant across the two contexts.

However, because full metric invariance is rare, Steenkamp and Baumgartner (1998) contend that meaningful comparisons of structural paths can be made if “at least one item (other than the one fixed at unity to define the scale of each latent construct) was metrically invariant” (p. 81). Hence, as suggested by Steenkamp and Baumgartner (1998), we further evaluated the modification indices (MIs) of the constrained parameters. Based on an investigation of MIs, the loadings of five items (TBE4, FCI2, FCE4, MR3, and WOM2) with large MIs were released. This seemed

appropriate because each construct had at least one factor loading fixed across the two samples in addition to the item loading set to be equal to 1 to represent the respective latent construct (Steenkamp & Baumgartner, 1998). For this partial metric invariance model, the chi-square statistic was 1005.25 with 358 degrees of freedom. The difference between the fit of the partial metric invariance model and the fit of the configural invariance model was not significant ( $\Delta\chi^2 = 15.87$ ,  $\Delta df = 15$ ,  $p > .05$ ), providing support for partial metric invariance.

## Hypothesis Testing

**Structural Modeling.** An examination of the hypothesized relationships was achieved through structural equation modeling (SEM) using LISREL 8.8 (see Table 3). In the soccer sample, the fit indices for the hypothesized model were  $\chi^2/df = 4.11$ , CFI = .95, NNFI = .95, RMSEA = .088. Similarly, in the baseball sample, the fit measures for the structural model were  $\chi^2/df = 3.96$ , CFI = .96, NNFI = .95, RMSEA = .095. Both CFI and NNFI values were greater than the cutoff point of .90 in the two settings. Although the RMSEA values for the two samples exceeded the acceptable threshold (.05-.08), they indicated a mediocre fit (.08-.10; Browne & Cudeck, 1993). The ratios of chi-square to degrees of freedom ( $\chi^2/df$ ), however, were higher than the recommended cutoff point ( $>3.0$ ; Hu & Bentler, 1999) in both settings. According to Hair and colleagues (2006), the ratio of chi-square to degrees of freedom is not meaningful when a complex model is used to analyze data. Because we added two control variables to the structural model, it was not surprising the ratio of  $\chi^2:df$  of the structural model was larger than that of the measurement model. Overall, the proposed structural model demonstrated a reasonable fit to the data, while it was not a close fit.

With respect to hypothesis testing, fan community identification had a positive effect on team brand equity in both soccer ( $\gamma = .53$ ,  $p < .01$ ) and baseball ( $\gamma = .69$ ,  $p < .01$ ) settings. Also, the paths from fan community identification to the four outcome variables (fan community engagement, customized product use, member responsibility, and positive word-of-mouth) were positive and significant for both samples. Hence, we found support for H<sub>1</sub>, H<sub>2a</sub>, H<sub>2b</sub>, H<sub>2c</sub>, and H<sub>2d</sub> from both settings. Furthermore, the findings indicated that team brand equity did not have a positive effect on the four outcome variables in the soccer setting. On the other hand, the effects of team brand equity on fan community engagement ( $\beta = .22$ ,  $p < .01$ ) and positive word-of-mouth ( $\beta = .35$ ,  $p < .01$ ) were positive and significant in the baseball setting, in partial support of

**Table 3**  
**Standardized Parameter Estimates (t-value) and Hypothesis Testing**

Path	Hypothesis	Soccer ( <i>n</i> = 401) Path coefficient	Baseball ( <i>n</i> = 326) Path coefficient
Fan community identification			
→Team brand equity	H <sub>1</sub>	.53**(6.97)	.69**(8.45)
→Fan community engagement	H <sub>2a</sub>	.75**(11.18)	.53**(7.05)
→Customized product use	H <sub>2b</sub>	.55**(8.37)	.34**(3.92)
→Member responsibility	H <sub>2c</sub>	.79**(12.27)	.67**(8.39)
→Positive word-of-mouth	H <sub>2d</sub>	.81**(13.08)	.52**(7.64)
Team brand equity			
→Fan community engagement	H <sub>3a</sub>	.02(.28)	.22**(2.93)
→Customized product use	H <sub>3b</sub>	.07(1.17)	.10(1.14)
→Member responsibility	H <sub>3c</sub>	.02(.42)	.02(.21)
→Positive word-of-mouth	H <sub>3d</sub>	.08(1.50)	.35**(4.85)
Attendance frequency			
→Team brand equity	Control	.04(.72)	.10*(-1.96)
→Fan community engagement	Control	.18**(4.09)	.09(1.90)
→Customized product use	Control	-.08(-1.52)	.09(1.67)
→Member responsibility	Control	.000(.001)	-.02(-.43)
→Positive word-of-mouth	Control	.14**(3.17)	.05(1.21)
Length of time as a fan			
→Team brand equity	Control	-.01(-.09)	.01(.20)
→Fan community engagement	Control	-.14**(-3.29)	.02(.51)
→Customized product use	Control	-.04(-.81)	-.07(-1.18)
→Member responsibility	Control	-.08(-1.88)	.01(-.14)
→Positive word-of-mouth	Control	-.07(-1.76)	.02(.40)
R <sup>2</sup>			
Team brand equity		.29	.46
Fan community engagement		.62	.51
Customized product use		.35	.19
Member responsibility		.63	.46
Positive word-of-mouth		.77	.66
Fit indices			
χ <sup>2</sup> (df)		863.51(210)	831.71(210)
χ <sup>2</sup> (df)		4.11	3.96
CFI		.95	.96
NNFI		.95	.95
RMSEA		.088	.095
* <i>p</i> < .05; ** <i>p</i> < .01			

H<sub>3a</sub> and H<sub>3d</sub>. In order to check the robustness of the hypothesized effects, we also examined whether the inclusion of consumers' two types of habitual behavior (attendance frequency and length of time as a fan) influenced these findings (see Table 3). In the soccer setting, attendance frequency had significant positive effects on fan community engagement ( $\beta = .18, p < .01$ ) and positive word-of-mouth ( $\beta = .14, p < .01$ ). The respondents' length of time as a fan negatively

influenced fan community engagement ( $\beta = -.14, p < .01$ ). In the baseball setting, only attendance frequency had a significant negative effect on team brand equity ( $\beta = -.10, p < .05$ ). Based on these findings, it is important to note team brand equity and fan community-related outcomes were more impacted by the proposed constructs than by the control variables. Our results were robust to the inclusion of these control variables.

**Table 4**  
**Moderating Effects of Fan Loyalty Program Participation: Results of the Soccer Sample**

Moderating Effect of Fan Loyalty Program Participation on		$\gamma$ Estimates of Free Model (t-Value)		
		Participants ( <i>n</i> = 183)	Non-participants ( <i>n</i> = 191)	$\Delta\chi^2$ ( $\Delta$ df)
Team brand equity				
→ Fan community engagement	H <sub>4a</sub>	.09(1.32)	.11(1.43)	.18(1)
Team brand equity				
→ Customized product use	H <sub>4b</sub>	.12(1.66)	.15(1.86)	.22(1)
Team brand equity				
→ Member responsibility	H <sub>4c</sub>	.16*(2.23)	.02(.22)	1.77(1)
Team brand equity				
→ Positive word-of-mouth	H <sub>4d</sub>	.26**(3.44)	.04(.59)	3.88*(1)

Note. \*  $p < .05$ ; \*\*  $p < .01$ ; The critical values for  $\Delta\chi^2$  with  $df = 1$  are 3.84 at the .05 level and 6.64 at the .01 level.

The ability of the exogenous variables to explain variations in the endogenous variables was assessed by  $R^2$  values (see Table 3). The  $R^2$  values for team brand equity, fan community engagement, customized product use, member responsibility, and positive word-of-mouth in the soccer setting were .29, .62, .35, .63, and .77, respectively, and those in the baseball setting were .46, .51, .19, .46, and .66, respectively.

**Moderating Effects of Fan Loyalty Program Participation.** A series of multi-group SEM analyses were conducted in order to test the moderating effects of fan loyalty program participation (H<sub>4a</sub>, H<sub>4b</sub>, H<sub>4c</sub>, and H<sub>4d</sub>) on the proposed structural model (Palmatier, Scheer, & Steenkamp, 2007). A dichotomous variable (yes/no) was used to divide the soccer sample into two groups of fan loyalty program participants and non-participants.<sup>1</sup> In each analysis, a chi-square difference test was used in order to compare a model in which all hypothesized paths were constrained to be equal across the two groups with an unconstrained model in which the hypothesized path to be moderated was permitted to vary freely across the groups. If the unconstrained model has a significantly lower chi-square value than the constrained model, and if the impact is in the expected direction, the moderating effect is evident. As Table 4 shows, the impact of team brand equity on positive word-of-mouth was significantly stronger for fan loyalty program participants ( $\gamma = .26, p < .01$ ) than for non-participants ( $\gamma = .04, n.s.; \Delta\chi^2 = 3.88, \Delta df = 1, p < .05$ ). Therefore, H<sub>4d</sub> was supported while H<sub>4a</sub>, H<sub>4b</sub>, and H<sub>4c</sub> were rejected.

## Discussion

Sport fan communities arise in numerous settings when sport consumers participate in face-to-face, vir-

tual, fan-initiated, or team-initiated fan communities. In order to assess fans' collective feelings of camaraderie and their actual behavior in sport fan communities, we tested the proposed fan community identification model using subjective consumer responses evoked by live experiences at two professional sporting events in Japan. Since little effort has been made to identify the outcome and moderator variables of fan community identification, the current study makes a significant contribution to the literature and practice in four different ways.

First, this study is one of the first attempts to apply the idea of communal brand connection to the sport context. Examining the concept of fan community identification in the sport setting extends the sport marketing literature that has developed with self-brand connection concepts such as team identification (Wann & Branscombe, 1993), team attachment (Mahony et al., 2002), and team brand equity (Boyle & Magnusson, 2007). Specifically, we conceptually differentiate fan community identification from team identification and assume fan community identification to be a more appropriate antecedent of the extra-role prosocial behavior of fanatical fans: "The fanatical fan engages in behavior that is beyond the normal devoted fan, yet the behavior is accepted by significant others (family, friends, and other fans) because it is considered supportive of the target - sport, team, or player" (Hunt et al., 1999, p. 446). We proposed a conceptual model of fan community identification and adopted the four-item scale of communal brand connection developed by Keller (2003). The results in both soccer and baseball settings provide evidence of construct reliability and validity for the concept of fan community identification.



A second contribution of the study is assessing the construct validity of fan community-related consequences that are conceptually relevant to the idea of fan-like behavior (Hunt et al., 1999). Although recent qualitative studies provide evidence of descriptive validity for the four dimensions of fan community engagement, customized product use, member responsibility, and positive word-of-mouth (Schau et al., 2009; Woolf et al., 2013), there has been no research to actually measure these constructs. We developed scale items to measure the four behavioral constructs and provided evidence of convergent and discriminant validity in both soccer and baseball settings. Furthermore, it is worth noting a contribution of this study to the literature is evidence of the distinction between fan community identification and fan community engagement. In the study of Algesheimer et al. (2005), both community identification and community engagement were viewed as attitudinal constructs, thereby failing to provide strong support for discriminant validity between the two constructs. On the other hand, we took a behavioral perspective on fan community engagement (Hunt et al., 1999; Schau et al., 2009) and provide evidence of discriminant validity across the two samples of soccer and baseball fans. These results reinforce Yoshida and colleagues' (2014) recent study that found fan engagement in nontransactional extra-role behavior should be measured from a behavioral standpoint.

Third, the current study contributes to the sport marketing literature by identifying the effects of fan community identification on team brand equity and fan community-related consequences. A fundamental assumption of the proposed relationships is that creating a sense of friendship and camaraderie among fans (Keller, 2003) will enable the team to increase consumers' involvement with the team brand in the fan community (Oliver, 1999), develop strong team brand equity (Bagozzi & Dholakia, 2006), attract more fans to the fan community (Katz & Heere, 2013), and to receive more social support from the fans (Rosenbaum, 2008). Based on our results, fan community identification positively influenced team brand equity in both settings. Also, the effects of fan community identification on fan community-related consequences were positive, strong, and significant in both settings. On the other hand, the direct effects of team brand equity on fan community-related consequences were not significant in the soccer setting and these effects were weak in the baseball setting. We suggest from these findings that in the total sample, fans' unique social behaviors are primarily a function of fan community identification, not team brand equity. Furthermore, it should be noted the current study is

one of the first attempts to examine the impact of fan community identification on team brand equity. While researchers have tested the relationship between team identification and team brand equity (Boyle & Magnusson, 2007), our results indicated that team brand equity could be strengthened by consumers' social identification with the fan community. From a practical standpoint, our results and the relevant literature (Decrop & Derbaix, 2010; Hunt et al., 1999) suggest fans' pre- and in-game activities such as anthems, rituals, fight songs, group movements, and displays of team color can be used to foster their collective feelings of enjoyment, friendship, and pride in fan communities and eventually to receive social support from the members of fan communities.

Fourth, this study advances our understanding of the role that fan loyalty programs play in fostering positive word-of-mouth in fan communities. The results of the moderator analyses indicated fan loyalty program participants were more likely to tell others about their positive impressions of the team itself, the other fans, and the fan community. Within a fan base, there is a distinction between leaders who have a strong emotional connection to a sport team and followers who have a low emotional connection to a sport team but are strongly attached to other fans (Katz & Heere, 2013). Fan community members can serve as "brand advocates" who communicate with one another and with followers and become strong referents for promoting the social desirability of engaging in fan community-related behaviors.

## Limitations and Directions for Future Research

Several limitations may influence the results of this study. First, it is unclear whether these results would be replicated in other cultural settings. The proposed framework was tested in the context of Japanese professional sport, and it should be acknowledged that Japan has a collectivist culture (Hofstede, 2001). This collectivism might enhance the relationships between the proposed constructs. In particular, this cultural characteristic may have inflated the predictive power of fan community identification for behavioral consequences. The emphasis here is on the word "may." Based on the experiences of the authors with American, European, and New Zealand fan communities, it might be questionable whether these relations arise even in a less collectivist culture. Nevertheless, it will be interesting to replicate this study in a different cultural context. Second, the SEM results indicated the proposed model was a mediocre fit to the data. Additional effort should be made to validate whether the factor structure can be observed in other settings empirically. Finally, this study only examined the mod-

erating effect of fan loyalty program participation on the proposed framework. A suggestion for future research is to examine the impact of other moderators (e.g., team identification and involvement) on the proposed framework (Seiders et al., 2005).

The developed fan community identification model serves to advance the study of sport marketing by examining the impact of self-team connection (team brand equity) and communal-fan connection (fan community identification) on extra-role fan behavior. The proposed model and recommendations for future research provide numerous opportunities to continue advancing our knowledge of sport fan communities.

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## Endnote

<sup>1</sup> The baseball sample was eliminated from the moderator analysis because (1) the sample included unpaid loyalty program customers with no membership fees and (2) the sample size of non-participants was too small for factor analysis ( $n = 83$ ).

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