

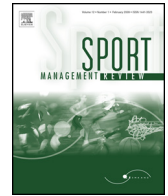


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Sport team emotion: Conceptualization, scale development and validation

Seunghwan Lee^{a,*}, Yukyoum Kim^b, Bob Heere^c

^a Kookmin University, 77 Jeongneung-ro, Seongbuk-gu, Seoul 02707, Republic of Korea

^b Seoul National University, 1 Gwanak-ro, Gwanak-gu, Seoul 08826, Republic of Korea

^c University of South Carolina, Columbia, SC 29208, USA

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ABSTRACT

The purpose of this study was to identify key emotions associated with professional sport team brands and to develop a valid, reliable scale to measure the recall of these emotions. A pool of 30 potential emotions was drawn through a content analysis, a qualitative study ($n=67$), frequency analysis ($n=560$), and categorization process. The identified emotions were subjected to an exploratory factor analysis ($n=260$) and confirmatory factor analysis ($n=286$). The emotion recall scale consists of 24 emotions representing 7 dimensions: connectedness, elation, competitiveness, surprise, anger, unhappiness, and worry. The authors offer evidence of internal consistency of the scale and convergent, discriminant, and criterion validity evidence. Theoretical and practical implications are discussed.

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1. Introduction

Building strong team brands has been an essential goal for contemporary sport management (Shank & Lyberger, 2015). In searching for ways to achieve this goal, sport management researchers have paid close attention to consumers' cognitive side by examining how brands (sport teams) exist in consumer memory on the basis of their links to brand associations (e.g., Bauer, Stokburger-Sauer, & Exler, 2008; Gladden & Funk, 2002; Ross, James, & Vargas, 2006). Following an associative network memory model of brand associations (Anderson, 1983; Keller, 1993), these researchers have primarily focused on brand associations, particularly brand attributes, as major drivers to create strong brands. Although the cognitive research provides valuable contributions to understanding a sport team brand, it uncovers only one side of the sport team brand and does not provide an adequate account of how our emotions are structured and how they, while experiencing the brand, affect our consumption behavior (Robinson & Clore, 2002).

Cognitive theorists in consumer behavior view consumers as vigorous processors of information in connection with choices among alternatives. However, consumers often do not engage in extensive decision-making (Hoyer, 1984), and consumers minimize cognitive efforts even for high involvement consumption decisions, including first-time buying, luxury products, or risky purchases (Olshavsky & Granbois, 1979). Pascal's prescient claim that "the heart has its reasons which reason does not understand" (Pascal, 1643/1966, p. 113) has echoed in the realm of cognition research, and researchers have offered empirical evidence for emotion being a useful and essential constituent of cognition and behavior (Forgas, 2008;

* Corresponding author.

E-mail address: seunghwanlee@kookmin.ac.kr (S. Lee).

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Zajonc, 1980). According to recent research in neuroscience, social cognitive and emotional processes share overlapping neural structure that have co-evolved to cope with stimuli of high significance (Damasio, 2010; Forgas, 2003). The neuroscience approach to emotions suggests that emotion and cognition not only interact, but that the primacy of emotion over cognition happens more frequently in various decision-making situations (Damasio, 1994; Hill, 2010; LeDoux, 1996). According to LeDoux (1996), the amygdala as the emotional center of the human brain serves as a core mechanism that enables the primacy of emotional processing (low road: thalamus to the amygdala) over cognitive processing (high road: thalamus to the cortex to the amygdala); the high road adjusts the initial behavior generated by the low road. Consequently, emotions play a large role in guiding human behavior.

Consumption behaviors are no different. With the emergence of emotionomics, today's more sophisticated consumers not only pursue services and products that are of the highest quality, but also demand and anticipate experiencing positive and personally meaningful emotions in their consumption (Hill, 2010). Furthermore, consumers tend to utilize an emotion-driven shortcut to simplify their decision-making (Zaltman, 2003).

Considering the experiential and hedonic nature of sport consumption, it is not surprising that sport teams attempt to facilitate positive emotional experiences. Indeed, emotion-laden experiences are an essential part of sport events (Holbrook & Hirschman, 1982). Despite the critical role of emotion in consumer behaviors and the widespread emphasis on emotion in sport management practice, the affective nature of sport team brands remains largely unexplored.

Previous researchers focusing on emotions have attempted to understand how sport consumers feel during or after watching sporting events (e.g., Kerr, Wilson, Nakamura, & Sudo, 2005; Sloan, 1979; Wann, Dolan, McGeorge, & Allison, 1994) and focus on the effect of the outcome of the game on our emotions. They suggested that sport consumers' emotions are fundamentally dependent on game outcomes. Yet, consuming sport teams as brands is more than merely watching sporting events and enjoying their performance; rather, it involves meanings that sport consumers attach to their teams beyond sport consumption in a stadium or via TV, and positive brand emotions are at the heart of such brand meanings (Batey, 2008). Sport consumers may develop emotions about their teams based on all aspects of sport teams that they experience, not just on-field performance. In this regard, emotions associated with sport team performance do not seem to fully reflect sport fans' emotions in terms of meaning associated with their teams.

Furthermore, a number of branding researchers have recognized the importance of customer experiences, including sensory, emotional, and cognitive components of the experience (e.g., Brakus, Schmitt, & Zarantonello, 2009). Indeed, to consume a brand is to consume meanings associated with the brand, and these meanings are created and enhanced by experiences with the brand over time (Batey, 2008; Gordon, 2002). As brand experiences can be thought to be a function of multiple components (Brakus et al., 2009), sport team brand experiences seem to be comprised of more than that experienced through the cognitive brand attributes. For example, fans often complain about a team's performance, the qualities of a star player, and the service in the stadium. Yet, they continue to attend games. In the face of such negative evaluations of the brand attributes, a purely cognitive model would determine repeat attendance as irrational. Clearly, there is more to the attendance experience than team success and the qualities of the star player and the stadium: there is also the emotional experience associated with sport teams. Consequently, a deeper understanding of the emotions associated with sport teams is required and several fundamental questions arise. What are the particular emotions associated with sport team brands? Specifically, how are they structured? What is their impact on sport consumer behavior?

In this regard, the purpose of this study is to provide a more complete understanding of how consumers recall their emotions when thinking of their favorite professional sport teams. The identification of the most important emotions that sport consumers recall about their team could allow for an alternative explanation of consumers' current attitudes towards the brand. Thus, the purpose of the research is to develop a valid, reliable scale of emotion recall associated with professional sport team brands.

2. Theoretical background

2.1. Explaining consumer attitudes through brand equity

As sport team values, especially professional franchises, have steadily escalated, sport managers have begun to view their teams as brands (Ross et al., 2006). Most of the sport brand studies have followed the most notable two theories of brand equity—those proposed by Aaker (1991) and Keller (1993). Aaker (1991) conceptualized brand equity as a set of four categories of brand assets: brand loyalty, brand awareness, perceived quality, and brand associations. Keller (1993) presented a more cognitive psychology perspective for understanding brand equity based on an associative network memory model. Keller's (1993) framework is composed of brand awareness and brand associations, two of Aaker's (1991) four dimensions. Keller's (1993) cognitive perspective is useful in that it can show how a brand as a central node and other informational nodes as brand associations are linked in consumer memory. According to Keller (1993), brand associations can be categorized into three major categories: attributes, benefits, and attitudes.

In the realm of team sports, Gladden, Milne, and Sutton (1998) and Gladden and Milne (1999) conceptualized 12 antecedents of brand equity: success, head coach, star player, tradition, conference/schedule, product delivery, logo, stadium, local media coverage, geographic location, competitive forces, and team support/following. These antecedents affect brand equity of sport teams, and the brand equity results in related consequences, such as national media exposure, merchandise sales, individual donations, corporate support, atmosphere, and ticket sales.

More recent sport brand scholars began to view these antecedents as brand associations, and thus as a component of brand equity itself. Gladden and Funk (2002) developed the Team Association Model (TAM) in the professional team sport setting utilizing Keller's (1993) theoretical framework of brand associations. They identified 16 components of sport brand associations: attribute (success, head coach, star player, management, stadium, logo design, product delivery, and tradition), benefit (identification, nostalgia, pride in place, escape, and peer group acceptance), and attitude (importance, knowledge, and affect). Realizing that Gladden and Funk's (2002) work relied on categories identified by the researchers rather than consumers' perceptions about a sport team, Ross et al. (2006) developed the Team Brand Association Scale (TBAS) that includes 11 components underlying professional sport team brand associations: success, non-player personnel, team play, brand mark, stadium, history, rivalry, concessions, organizational attributes, social interaction, and commitment. Later, Ross, Bang, and Lee (2007) examined and found support for the applicability, validity, and reliability of the TBAS in the context of collegiate sport. More recently, Bauer et al. (2008) developed a scale for assessing brand associations in Germany's professional team sport. In their model, brand attributes contain nine components (i.e., success, star player, head coach, team members, team play, logo/club colors, history/tradition, stadium, and fans). In addition, the authors identified seven associated benefits: identification, peer-group acceptance, escape, socializing, emotions, nostalgia, and entertainment. To measure brand attitudes, they used four affective reactions (unique, trustworthy, positive, and likeable).

It is important to note that all of these scales predominantly measure how the external evaluations of the brand affect consumers' attitudes, yet they omit how people process these evaluations, and what the role of their emotions are in their evaluation of the brand. In consuming sport teams, consumers experience a mixture of emotions (Larsen & McGraw, 2014), and these emotions affect perception of the brand. While consumers might not be able to make sense of these emotions during the experience, recall of the emotions in the days and weeks that follow might potentially have a strong effect on attitudes towards the brand.

2.2. Emotions as an alternative source to explain our brand attitudes

Etymologically, emotion is from the Latin *ex* (away, out) and *movere* (to move). Although there is a lack of consensus among researchers regarding emotion's definition, it is commonly recognized as a response to a stimulus and encompasses psychological arousal, motor expression, and subjective feeling (Scherer, 2005). Scholars in cognitive psychology distinguished between the feelings and emotions, and regard feelings as part of emotional language that describe the point where an individual comes to be aware of the emotion (Bradley & Lang, 2000). While their contents and valences are closely related, emotions describe immediate responses to external stimuli, while feelings describe how people process these emotions. For example, underlying positive (negative) emotions about stimuli (e.g., brands) produce positive (negative) feelings with the assistance of consciousness, which in turn initiate more positive (negative) emotions without people ever really knowing why (Hansen & Christensen, 2007).

Because brands are coded in memory on a cognitive and emotional basis, understanding emotions in relation to brands requires taking cognition into account (Gordon, 2002). According to the neuroscience approach to brand, when sport consumers encounter a sport team over time, the brand experiences are coded in consumer memory on a cognitive (thinking, analytical) and emotional (somatic) basis (Gordon, 2002). These two components of brand coding are inextricably connected. As a result of the brand coding, sport consumers form a sport team brand associative network that involve anything (e.g., brand attributes, benefits, or associated emotions) that can be interconnected in consumer memory with the sport team, as well as their connections with the team. When sport consumers think about a sport team, they will draw from memory not only its cognitive associations such as brand attributes or benefits, but they also recall the associated emotions.

In response to the lack of knowledge regarding what kinds of emotions are associated with sport team brands, in this study, we aim to measure sport consumers' recall of their own emotions. Unlike brand association scales that have an external focus on how people cognitively perceive attributes associated with the brand, the emotion scale is meant to capture people's recall of their internal emotions of the overall experience in their sport team consumption, and the scale should result in a list of feelings that consumers have of their favorite sport teams (Aaker, Drolet, & Griffin, 2008). Hence, we are not aiming to measure all emotions and provide a true psychologically valid scale for all the emotions that sport consumers experience with their sport teams. Instead, following Aaker et al. (2008) and Robinson and Clore (2002), we contend that for consumer behaviorists, the recall of these emotions (i.e., feelings) provides a more accurate measure to predict attitudes and future behavior through survey research, as it is impossible to truly measure emotions through surveys. Thus, our aim is to identify those emotions that are most often recalled by consumers when thinking of their sport teams, so we evaluate to what extent these recalled emotions are predictive of behavior.

3. Methods and results

The scale to measure emotions associated with professional sport teams was developed in three sequential studies: qualitative development, exploratory empirical evaluation, and empirical validation. For the purpose of clarity, the methods and the results section are discussed simultaneously as the research design process for scale development (DeVellis, 2003) is a series of steps that force the researchers to respond to the results of the earlier stages.

3.1. Study 1: Qualitative development

The purpose of Study 1 was: (a) identify emotions associated with sport consumers' favorite professional sport teams; (b) generate a pool of items reflecting the content and domains of the Sport Team Emotion Recall Scale (SportTERS); (c) establish the content validity of the initial SportTERS; and (d) refine the scale if appropriate.

3.1.1. Research synthesis

First, we analyzed and integrated the findings from the previous studies. Based on the literature search and expert consensus, we selected 21 foundational studies in general psychology, consumer psychology (including advertising, branding, product consumption experience, and service recovery experience), and sport fan psychology on emotions and emotion words (Aaker, Stayman, & Vezina, 1988; Desmet, 2002; Edell & Burke, 1987; Ekman & Friesen, 1971; Hansen, Percy, & Lundsten, 2006; Holbrook & Batra, 1987; Holbrook & Westwood, 1989; Izard, 1977; Mano, 1996; Mehrabian & Russell, 1974; Pieters & de Klerk-Warmerdam, 1996; Plutchik, 1980; Richins, 1997; Russell, 1980; Schoefer & Diamantopoulos, 2009; Shaver, Schwartz, Kirson, & O'Connor, 1987; Sloan, 1979; Svebak, 1993; Tomkins, 1984; Watson, Clark, & Tellegen, 1988; Watson & Tellegen, 1985). The selection of these studies is justified by the fact that they have been widely used in their own fields (e.g., Izard, 1977; Mehrabian & Russell, 1974; Sloan, 1979) and frequently cited in high quality journals (e.g., *Journal of Consumer Research*, *Journal of Advertising*, *Journal of Sport and Exercise Psychology*). We content-analyzed the 21 studies and identified 301 potential emotion words for sport teams.

3.1.2. Psychological meaning listing

In conjunction with the synthesis of previous works, we conducted the Psychological Meaning (PE) listing technique to capture any further potential emotions that fans recall and might be relevant to the context of sport team brands but are not reported in the literature. The PE listing technique has been widely used in emotion research due to its stimulus bound nature. In other words, it facilitates respondents to focus more on the target stimulus than peripheral ones that might be derived from consecutive retrieval of associations (Friedmann, 1986). Participants were asked to write down their favorite professional sport team and then asked to complete a simple task of listing as many one-emotion words of whatever comes to their mind when they think about their favorite team. This can force participants to consider the original stimulus (i.e. favorite professional sport team) to prevent chain-format associations, in which the previous association the participants provide becomes the dominating stimulus cue for the next word. Such an approach does present a measurement limitation, as consumers' recall of emotions might be different than the true emotion they experienced, thus opening the possibility that the terminology consumers use to recall their emotions might not be reflective of a true emotion. However, because the purpose of this study is to identify the most important emotions that consumers recall, we believe it is appropriate to include the terminology they use to recall these emotions.

Undergraduate students ($n=67$; 31 women, 36 men) at a large public university in the southwestern United States completed the PE listing task. The authors analyzed the content of the lists of emotion words to identify emotions associated with sport teams. The number of emotions extracted from each response ranged from 3 to 28. A total of 211 emotions were obtained from the psychological meaning listing. Of the 211 emotions, 100 emotions were identical to ones that were identified from the content analysis. As a result, 111 emotions were newly identified from the analysis. We further examined the degree of similarity and screened the 111 emotions using semantic clustering. For example, emotions such as self-esteem, self-worth, and self-respect were semantically factored into a self-respect cluster by two independent expert judges. In addition, emotions that were provided by only one individual in the sample were eliminated because the focus in this study is on the shared emotional meaning a given stimulus (i.e., favorite professional sport team) has for a particular group of respondents (i.e., sport consumers). Consequently, 64 emotions remained and were added to the pool of emotions. Taken together, a total of 365 emotions (301 from the research synthesis and 64 from the psychological meaning listing) composed an initial pool of emotions associated with professional sport teams.

3.1.3. Frequency analysis

In order to create a more universal set of emotions, we conducted a frequency analysis to estimate which emotions are most frequently checked by participants. As a rule of thumb, the emotions marked by more than 40% of participants were chosen (Shaver et al., 1987). Although negative emotions are essential to map the recall of emotions related to sport teams, the frequencies of negative emotions associated with favorite sport teams are expected to be substantially less than positive emotions due to the priming effects. That is, a participant's exposure to the positive topic (i.e., favorite team) would evoke more positive words. Therefore, we chose the cut-off of more than 10% of participants for negative emotions.

For the next phase, we recruited 560 participants from undergraduate classes at the same university. Of the participants, 46.6% ($n=261$) were women and 53.4% ($n=299$) were men. Participants ranged in age from 18 to 39 years ($M=20.3$, $SD=2.33$). A large number of emotion words could make respondents fatigued for frequency analysis; therefore, in an effort to mitigate this effect, we created four different survey checklists that contained one-fourth of the total emotions. Furthermore, in order to reduce potential order biases, we developed two different versions for each survey checklist that differed in order of emotion placement. Each respondent was assigned randomly to one of the eight versions of the checklists.

To identify emotions associated with favorite professional sport teams, first, participants were asked to write down their favorite professional sport team and then put a check mark beside any emotion that describes how they feel when they think about the team. The number of emotions reported by each participant ranged from 17 to 87. Of the 365 emotions, 40 emotions were reported by more than 40% of respondents. Therefore, those emotions were selected for the categorization. As the priming effect predicted, the result of the frequency analysis showed positive emotion words more frequently appeared than negative emotions. Only two negative emotions, competitive and aggressive (cf. Barlett & Rodeheffer, 2009; Barratt, 1991) were over the cut-off of 40%. However, 28 negative emotions were over the 10% threshold, and they additionally qualified for further analysis.

3.1.4. Categorization and content validity

A total of 68 emotions chosen from the frequency analysis were categorized based on Shaver et al.'s (1987) emotion prototype (6 overarching and 25 idiosyncratic emotions). A number of researchers have used Shaver et al.'s work, given its comprehensiveness and generalizability across various contexts and cultures (cf. Cornelius, 1996). The 25 idiosyncratic emotions suggested by Shaver et al. (1987) were affection, lust, longing, cheerfulness, zest, contentment, pride, optimism, enthrallment, relief, surprise, irritation, exasperation, rage, disgust, envy, torment, suffering, sadness, disappointment, shame, neglect, sympathy, horror, and nervousness. In order to establish content validity evidence, an expert panel consisted of two faculty members and a graduate student in sport management, and a faculty member in cognitive psychology further screened the emotions for inclusion and then assessed the categorization of the individual emotions. First, the panel matched the emotions with each of the 25 idiosyncratic emotions suggested by Shaver et al. (1987). Then, per each of the 25 emotions, only the most representative matching emotion from frequency analysis was selected. In addition, the panel identified individual emotions that were qualified from the frequency analysis but did not fit in any of the 25 emotions. Among those emotions, four emotions (supportive, connected, competitive, and aggressive) that were judged to be distinctive were additionally incorporated. Lastly, one emotion (i.e., relief) from Shaver et al.'s (1987) study was dropped because no emotion qualified from previous analyses matched relief.

Based on the frequency analysis and the categorization process, 28 individual emotions emerged, which represents 6 dimensions of emotions associated with professional sport teams. It is important to note here that according to Shaver et al.'s (1987) classification, surprise has only one idiosyncratic-level emotion. However, the panel determined two individual emotions are critical to adequately reflect this surprise dimension—amazed and astonished and, thus, we included them in the pool of emotions for further ensuing factor analysis.

As a result of the frequency analysis, the categorization process, and the addition of two surprise words, we included 30 potential emotions as an initial pool of emotions. These 30 emotions were deemed to be the most relevant to the sport spectator experience. Shaver et al.'s (1987) terminology of six overarching emotions (love, joy, surprise, anger, sadness, and fear) was used as a template to categorize these 30 potential emotions, yet we modified them in this study to better reflect the spectatorship-specific nature. The six dimensions include: (a) connectedness (admiration, passion, nostalgia, supportive, and connected), (b) elation (happy, excited, pleased, proud, optimistic, and entertained), (c) surprise (amazed, surprised, and astonished), (d) anger (annoyed, frustrated, rage, disgusted, envious, tormented, competitive, and aggressive), (e) unhappiness (suffering, sad, disappointed, regret, dejected, and sympathy), and (f) worry (fearful and anxious).

3.2. Study 2: An examination of the emotion dimensions through exploratory factor analysis

The purpose of exploratory factor analysis (EFA) was to explore the underlying dimensions of the initial 30 emotions in order to develop a more concise, reliable version of the instrument.

Table 1
Summary of Method.

Research steps	Purpose
Study 1: Qualitative development	Qualitative step to generate an initial pool of sport team emotions
Research synthesis	Content-analyzing 21 seminal studies in general psychology, consumer psychology, and sport fan psychology
Psychological meaning listing	Identifying any further potential emotions that are not reported in the literature ($n=67$)
Frequency analysis	Estimating which emotions are most frequently checked by participants ($n=560$)
Categorization and content validity	Categorizing the emotions chosen from the frequency analysis based on Shaver et al.'s (1987) emotion prototype and establishing content validity with an expert panel
Study 2: EFA	Exploring the underlying dimensions of the initial emotions identified in Study 1 in order to develop a more concise, reliable version of the scale ($n=260$)
Study 3: CFA	Confirming the hypothesized factor structure identified in Study 2 and providing further empirical evidence of validity and reliability for the scale ($n=286$)

3.2.1. Participants

We recruited sample of 282 participants from several undergraduate classes at the same university in Study 1. Of the 282 surveys collected, we removed 22 incomplete surveys using listwise deletion (Allison, 2002), and therefore, 260 usable surveys were analyzed for EFA, which was acceptable according to widely accepted guidelines (MacCallum, Widaman, Zhang, & Hong, 1999). Women made up 41.2% ($n = 107$) of the participants, and men 58.8% ($n = 153$). Participants ranged in age from 18 to 41 years ($M = 20.7$, $SD = 2.29$).

3.2.2. Measure

We used the initial emotion version that contained the 30 emotions identified in Study 1. Participants were asked to write down their favorite professional sport team and then rate the degree to which they agreed or disagreed with each emotion when they think about the team. A Likert scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), anchored the items. Additionally, demographic questions were included in the survey.

3.2.3. Procedure

Participants were provided a survey questionnaire that contained the 30 emotions identified in Study 1. Each participant was assigned randomly to one of the two versions of the survey questionnaires with different orders of emotions to reduce order effects.

We followed Podsakoff, MacKenzie, Lee, and Podsakoff's (2003) suggestions to mitigate potential common method variance. First, we chose a self-administered survey over a face-to-face survey to reduce the method variance that can be introduced by choice of a face-to-face survey method, which is susceptible to social desirability bias. Second, the items and overall questionnaire were designed as unambiguously and succinctly as possible. Finally, Harman's one-factor test (Harman, 1976) was conducted, in which no single factor emerges, nor one general factor account for the majority of variance. Taken together, CMV was not likely to be a serious concern for our interpretation of the data in this study.

3.2.4. Data analysis and results

The EFA was conducted to identify the underlying structure of the initial pool of emotions. We first evaluated the key assumptions about the data. When examining the scatterplots of measured variables, the relationship between all pairs of variables appeared to be reasonably linear. The positive sign of the determinant of all input matrices indicated that severe multicollinearity or singularity was not present. Data were subjected to principal-components analysis with varimax rotations. Factors with eigenvalue greater than one were initially retained and further evaluated based on the scree plots and theoretical relevance. Item-to-total correlations and loadings were investigated as a means of screening items prior to validating the scale through confirmatory factor analysis (Keith, 2005). Items with item-to-correlations exceeding 0.30 were retained (Nunnally & Bernstein, 1994). Emotion items loaded on multiple factors were deleted (i.e., two or more loadings above 0.40; Hair, Anderson, Tatham, & Black, 1998). Six (admiration, disgusted, envious, tormented, disappointed, and sympathy) of the 30 emotions were eliminated due to their poor loadings on their respective factors or double loadings.

Table 2
Factor Loadings and Reliability of the SportTERS (EFA).

	1	2	3	4	5	6	7	Item-to-total r	α
passion	0.723	0.298	0.102	0.194	0.072	-0.023	0.129	0.656	0.806
nostalgia	0.763	0.037	0.023	0.077	-0.066	0.071	-0.031	0.539	
supportive	0.815	0.148	0.095	0.007	0.059	0.010	-0.011	0.654	
connected	0.734	0.345	0.070	0.119	0.050	0.047	-0.005	0.658	0.887
happy	0.142	0.766	0.060	0.120	-0.054	-0.025	0.096	0.698	
excited	0.108	0.813	0.094	0.154	-0.052	-0.039	0.042	0.748	
pleased	0.235	0.752	-0.011	0.155	-0.238	-0.195	-0.031	0.749	0.837
proud	0.214	0.745	0.082	0.034	-0.115	-0.158	-0.011	0.698	
optimistic	0.110	0.748	0.008	0.099	0.065	0.017	-0.012	0.626	
entertained	0.052	0.780	0.081	0.174	-0.017	-0.092	0.035	0.701	0.834
competitive	0.166	0.140	0.890	-0.008	0.049	0.051	0.119	0.725	
aggressive	0.072	0.096	0.919	0.045	-0.009	0.104	0.043	0.725	
amazed	0.202	0.247	0.072	0.836	-0.047	0.022	-0.071	0.769	0.881
surprised	0.091	0.141	-0.042	0.880	0.020	0.027	0.130	0.761	
astonished	0.059	0.228	0.024	0.879	0.031	0.019	-0.010	0.781	
annoyed	-0.031	-0.111	0.032	0.033	0.902	0.223	0.110	0.863	0.934
frustrated	0.082	-0.076	0.003	-0.049	0.877	0.268	0.169	0.864	
rage	0.040	-0.080	0.007	0.026	0.867	0.337	0.130	0.886	
suffering	0.006	-0.074	0.065	0.008	0.283	0.835	0.153	0.837	0.891
sad	0.060	-0.106	0.045	0.026	0.346	0.782	0.178	0.806	
regret	0.052	-0.119	0.081	0.020	0.094	0.811	0.149	0.686	
dejected	0.007	-0.080	0.008	0.018	0.169	0.854	0.051	0.736	0.834
fearful	-0.013	0.021	0.048	0.079	0.167	0.281	0.863	0.724	
anxious	0.048	0.099	0.131	-0.021	0.207	0.191	0.870	0.724	

Note: All loadings (in bold) were significant, $p < 0.01$; All item-to-total correlations were significant, $p < 0.01$.

The analysis resulted in dimensions in a seven-factor model containing 24 emotions: connectedness (passion, nostalgia, supportive, and connected), elation (happy, excited, pleased, proud, optimistic, and entertained), competitiveness (competitive and aggressive), surprise (amazed, surprised, and astonished), anger (annoyed, frustrated, and rage), unhappiness (suffering, sad, regret, and dejected), and worry (fearful and anxious). The internal consistency of extracted factors was evaluated using Cronbach's alpha. Cronbach's alpha values for all extracted factors were greater than 0.70 (Nunnally & Bernstein, 1994), ranging from 0.81 for connectedness to 0.93 for anger. The 7-component extraction accounted for 76% of the total variance. Factor loadings, item-to-total correlations, and Cronbach's alpha values for the final model are shown in Table 2.

3.3. Study 3: Confirming the dimensions through confirmatory factor analysis

The primary purpose of Study 3 was: (a) to confirm the hypothesized factor structure identified in Study 2 via confirmatory factor analysis (CFA); and (b) to provide further empirical evidence of validity and reliability for the scale.

3.3.1. Participants

We recruited a sample of 317 students from several undergraduate classes at the same university in Study 1 and 2. Among the 317 surveys gathered, 31 incomplete surveys were eliminated using listwise deletion (Allison, 2002). As a result, 286 usable surveys remained. Women made up 47.6% ($n = 136$) of the sample and males 52.4% ($n = 150$). Participants ranged in age from 18 to 37 years ($M = 20.0$, $SD = 2.45$).

3.3.2. Measure

Participants were asked to write down their favorite professional sport team and then rate the degree to which they agreed or disagreed with each emotion when they think about the team on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

In addition, in order to examine the validity of the emotion scale, we employed seven external variables: brand attitude, fanship, team loyalty, purchase intention, and three other actual consumer behaviors (i.e., watching their team's games on live TV, talking about their team with others, and licensed merchandise consumption). The rationale for choosing these variables as the external criteria was that these are the widely used constructs to test the effectiveness of emotion recall in marketing (Hill, 2010; Robinette et al., 2001). We used Freling and Forbes' (2005) 7-point semantic differential items—unpleasant/pleasant, unfavorable/favorable, and bad/good—to assess brand attitudes.

We measured fanship by using Trail and James' (2001) three items: "I consider myself to be a 'real' fan of my favorite team," "I would experience a loss if I had to stop being a fan of my favorite team," and "Being a fan of my favorite team is very important to me." All three items were measured using a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

We measured team loyalty by using Heere and Dickson's (2006) four items: "I would still be committed to my favorite team regardless of the lack of any star players," "I could never switch my loyalty from my favorite team even if my close friends were fans of another team," "I would still be committed to my favorite team regardless of the lack of physical skill among the players," and "It would be difficult to change my beliefs about my favorite team." All four items were measured using a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

We adapted Lee and Chalip's (2016) item, "How likely do you think it is that you would attend your favorite team's game (s) in the future?" to assess purchase intention. The item was measured using a 7-point Likert scale ranging from 1 (*not at all*) to 7 (*extremely likely*).

Finally, we measured three consumer behaviors by drawing from Milne and McDonald's (1999) work. Each of the three consumer behaviors contained a single item, respectively, "How often do you watch your favorite team's games on TV?" "How often do you talk about your favorite team with others?" and "How often do you purchase sports merchandise with your favorite team logo?" (1 = Never, 2 = Less than once a month, 3 = About once or twice a month, 4 = About once or twice a week, 5 = Every day or almost every day). Demographic questions were included in the survey.

3.3.3. Procedure

Upon analysis of the qualitative study data and instrument refinement using EFA, we developed a paper-and-pencil mail survey to administer the SporTERS. The scale was included in a survey packet that also contained a cover letter and an informed consent form. As discussed previously, steps were taken to reduce the influence of CMV, which could inflate relationship estimates among the variables due to the measurement of multiple constructs in a single instrument (Podsakoff et al., 2012).

Participants were provided a survey questionnaire containing the 24 emotion items. Each participant was assigned randomly to one of the two versions of the survey questionnaires with different orders of emotions to reduce order effects. The available sample size of 286 was larger than the recommended minimum sample size of 200 (Weston & Gore, 2006). The ratio of cases to observed variables was 12:1. These ratios were adequate for the CFA given that the reliability coefficients of the SporTERS subscales were high (Bollen, 1989; Kline, 2011).

3.3.4. Data analysis and results

We conducted a CFA to assess the psychometric properties of the scale using Mplus 7.0. First, the key assumptions about the data were evaluated. When examining the scatterplots of measured variables, the relationship between all pairs of variables appeared to be reasonably linear. All randomly selected pairs of variables appeared to be linearly related. The sign of determinant was positive and the matrix used in this study was positively definite, indicating there was no extreme multicollinearity or singularity. Normalized Mardia's coefficients of skewness and kurtosis were 46.90 ($p < 0.001$) and 30.89 ($p < 0.001$), respectively (Bentler, 2001). These results indicated a lack of multivariate normality. The Satorra-Bentler (S-B; 1994) scaling method was adopted for CFA and subsequent structural equation model (SEM). Accordingly, when conducting χ^2 difference tests, the S-B χ^2 statistics was adjusted using the formula provided by Satorra and Bentler (2001).

The model achieved good fit for the data: S-B $\chi^2/df = 397.62/231 = 1.72$; root mean square error of approximation (RMSEA) = 0.05 (90% CI: 0.04, 06); comparative fit index (CFI) = 0.95; standardized root mean square residual (SRMR) = 0.05; weighted root mean square residual (WRMR) = 1.10. In addition, none of the parameter estimates were different from expectations (e.g., sign of factor loadings), nor were they inadmissible (e.g., Heywood cases). All reliability coefficients of the constructs exceeded 0.70, ranging from 0.75 to 0.89. Additionally, as shown in Fig. 1, all factor loadings were significant in the predicted direction ($p < 0.001$; loadings ranging from 0.56 to 0.96) and all of the average variance extracted (AVE) values were greater than 0.50 ranging from 0.55 to 0.77 (Table 3). Thus, the measures demonstrated evidence of good convergent validity and reliability. Discriminant validity evidence was examined for each construct by performing multiple χ^2 difference tests of unity between all pairs of constructs. The unconstrained model (i.e., correlation estimated freely) was significantly

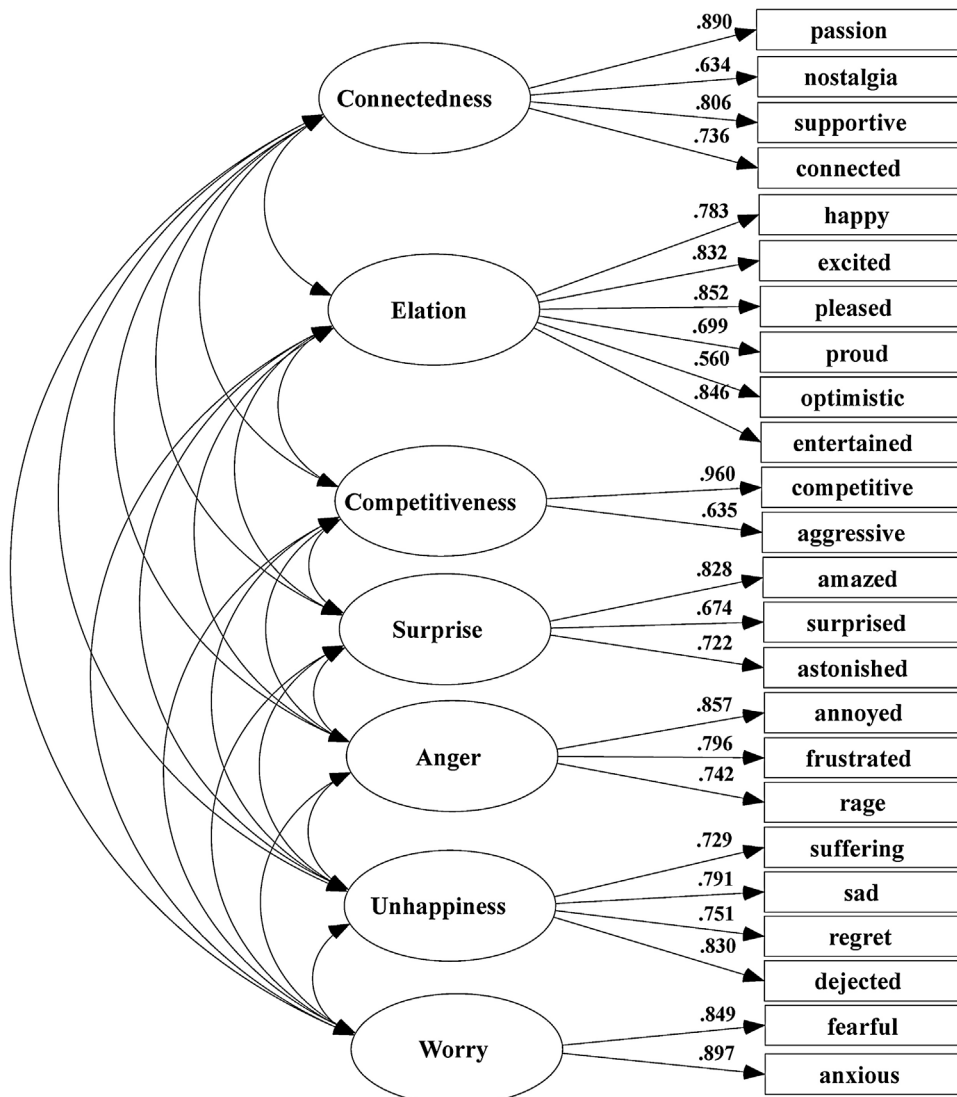


Fig. 1. Standardized loadings of the first-order-factor model for SportTERS.

Table 3
Factor Correlations, Reliability, and Validity of the SportTERS (CFA).

Factors	1	2	3	4	5	6	7	α	AVE	$\sqrt{\text{AVE}}$
Connectedness	1							0.842	0.598	0.773
Elation	0.449**	1						0.886	0.591	0.769
Competitiveness	0.293**	0.226**	1					0.752	0.666	0.816
Surprise	0.370**	0.350**	0.132	1				0.784	0.552	0.743
Anger	0.020	-0.199**	0.104	0.047	1			0.834	0.642	0.801
Unhappiness	0.021	-0.288**	0.139*	0.004	0.629**	1		0.849	0.602	0.776
Worry	0.046	-0.071	0.173*	0.092	0.443**	0.564**	1	0.852	0.766	0.875

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

better than the constrained model (i.e., correlation between a pair of latent factors constrained as 1) in all comparisons. In addition, AVE values for all constructs were larger than the corresponding squared inter-construct correlations (see Table 3), providing additional support for discriminant validity (Fornell & Larcker, 1981). In sum, the results indicated that the measures possessed adequate psychometric properties.

In addition, the criterion validity evidence was tested to examine the extent to which the dimensions of the emotion scale performed in relation to the seven external variables listed earlier. For this, seven regressions were conducted with the seven dimensions of the emotion scale as the independent variables and continuing with the seven external variables as the dependent variables through each regression. The results of the regressions exhibited that all seven dimensions of the emotion scale were significantly associated with at least two or more of the seven external variables. Specifically, both the connectedness and elation dimensions were positively related to all of the seven external variables (brand attitude, fanship, team loyalty, purchase intention, watching live games on TV, talking about the team, and licensed merchandise consumption). The competitiveness dimension was positively related to five of the seven external variables (brand attitude, fanship, team loyalty, watching games on live TV, and talking about the team). The surprise dimension was negatively related to both brand attitude and purchase intention. The anger dimension was positively related to four external variables (fanship, team loyalty, watching games on live TV, and talking about the team) while it was negatively related to brand attitude. The unhappiness dimension was negatively related to both brand attitude and merchandise consumption. Lastly, the worry dimension was negatively related to brand attitude, watching games on live TV, and merchandise consumption. The effects of the seven dimensions on the seven external variables along with their standardized regression coefficients are summarized in Table 4.

4. Discussion

4.1. Structure of the SportTERS

Beyond the conventional game outcome-based approach on emotions in sport consumer behavior (e.g., Kerr et al., 2005; Sloan, 1979), the authors developed a reliable scale with evidence of validity to measure emotion recall in the context of brands (i.e., professional sport teams) named as the Sport Team Emotion Recall Scale (SportTERS) through sequential processes (an intensive literature review, qualitative research, frequency analysis, categorization, EFA, and CFA). The SportTERS is a psychometrically sound tool for sport marketers interested in better identifying meaningful emotions that lead sport consumers to pursue continued consumption of the services of their favorite sport team.

Within the psychology literature, aggressiveness and competitiveness represent anger-related concepts (e.g., Barlett & Rodeheffer, 2009; Barratt, 1991), and originally, we expected a 6-factor structure of emotions associated with sport teams. However, a new dimension (competitiveness) has emerged as a distinctive source for emotion recall, which is composed of two emotions, competitive and aggressive. Many consumer researchers have attempted to identify various kinds of emotions that consumers associate with advertising, product consumption, or brands (e.g., Edell & Burke, 1987; Holbrook & Westwood, 1989; Richins, 1997); however, scant attention has been paid to competitiveness and aggressiveness.

Table 4
Summary for the Results of Nine Regressions.

	Brand attitude	Fanship	Team loyalty	Purchase intention	Live game on TV	Talk	Merchandise consumption
Connectedness	0.30**	0.42**	0.40**	0.26**	0.27**	0.32**	0.30**
Elation	0.42**	0.30**	0.26**	0.25**	0.47**	0.27**	0.16**
Competitiveness	0.16**	0.13*	0.14**	0.08	0.19**	0.16**	0.07
Surprise	-0.09*	0.02	-0.07	-0.15**	-0.03	0.02	0.01
Anger	-0.14**	0.17**	0.11*	-0.04	0.10*	0.17**	-0.03
Unhappiness	-0.21**	0.02	-0.01	-0.01	-0.04	0.02	-0.29**
Worry	-0.08*	0.05	-0.06	-0.03	-0.09*	0.00	-0.16**
R^2	0.37	0.31	0.26	0.15	0.34	0.23	0.23

Note: The numbers in the table denote standardized regression coefficients; * $p < 0.05$, ** $p < 0.01$.

Only Hansen et al. (2006) has suggested that aggressive is one of the emotions associated with brands. In fact, we derived competitive as one of two components of the competitiveness dimension not from the existing literature, but from the qualitative research. One might argue that both competitive and aggressive are not true emotions, but rather feelings that are the immediate result of an emotion, much like envy and jealousy, in which we compare ourselves to others, or anger. Yet, consumers do not rate these two emotions negatively because they might see these emotions as virtues rather than vices, and they form a source of positive associations for them within the context of the sport industry. For sport fans, competitive and aggressive are positive emotions that, for sport fans, are a crucial part of the spectator experience. This was supported by the fact that the factor correlations between competitiveness and positive emotional dimensions (i.e., connectedness and elation) were statistically significant whereas that between competitiveness and anger was not (see Table 3). Accordingly, this newly identified dimension highlights the sense of competitive and aggressive as distinct emotions that sport consumers value about their teams. The findings also provide support for the proposition of a new scale to measure how consumers recall their emotions of spectatorship.

Only eight (proud, optimistic, amazed, surprised, astonished, rage, suffering, and sad) of the final 24 emotions were the same as Shaver et al.'s (1987) emotions in terms of emotion lexicon. The rest, 16 emotions (passion, nostalgia, supportive, connected, happy, excited, pleased, entertained, competitive, aggressive, annoyed, frustrated, regret, dejected, fearful, and anxious) differed. These findings could be due to our replacing the majority of Shaver et al.'s original emotion lexicon with substitute emotions in the initial categorization process in Study 1. Specifically, like competitive, we derived nostalgia, supportive, and connected from the qualitative research, not from the existing emotion scales. The importance of nostalgia has been widely recognized in a variety of sport consumer areas, such as sport facilities (Mason, Duquette, & Scherer, 2005) and sport tourism (Fairley, 2003). These works addressed that nostalgia plays a key role in fostering the consumption of sport consumers. Supportive and connected seem to be spectator sport-specific emotions that reflect sport consumers' connection to and support for their teams as basis for facilitating fanship and team loyalty. That is, sport fans who have an emotional attachment to sport teams, such as supportive and connected, tend to have a long-term commitment with the teams, such as fanship and team loyalty (Khan, Rasheed, Islam, Ahmed, & Rizwan, 2016). Considering that fan commitment such as fanship and team loyalty that can be fostered by supportive and connected is one of the most important factors in predicting sport consumer behavior, the discovery of supportive and connected as brand emotions could be an important finding of this study.

Contrary to expectations, six emotions (admiration, disgusted, envious, tormented, disappointed, and sympathy) of the initial pool of 30 emotions identified from Study 1 did not fit with emotions associated with sport teams. Along with the emergence of a new dimension (competitiveness) and the discovery of new three emotions (nostalgia, supportive and connected) that consumers prioritize in their recall, this finding suggests that Shaver et al.'s (1987) categorization on emotions does not fully reflect emotions that sport consumers recall about their favorite teams. Instead, different social contexts – one is where one lives as a normal person and the other is where he or she lives as sport fans – influence the range and intensity of emotions associated with the love objects (cf. Averill, 1980).

4.2. Validity of the SporTERS

Based on the findings, we propose that the seven dimensions of emotions associated with the recall of the sport team brand are closely related to sport consumers' psychology and actual behaviors. Cognitive psychology widely recognize that affective valence (positive versus negative) is a vital factor in determining how emotions affect judgment and behavior through a rose-colored-glasses effect (Higgins, 1997). According to this valence approach to emotions, positive emotions not only produce positive evaluations, but also facilitate approach behavior (Forgas, 2003) while negative emotions have opposing effects (Edell & Burke, 1987). In the context of brands, Chaudhuri and Holbrook (2001) also found that positive brand affect (measured in terms of feel good, happy, and pleasure) had a positive impact on brand commitment in the forms of purchases and attitudinal loyalty.

The competitiveness dimension was a key factor that can affect consumer behaviors by being positively related to five of the seven external variables, and illustrates the importance of this inherent characteristic of the sport industry. A number of researchers in sport consumer behavior reported that competitiveness as a personality trait was positively related to sport consumer behavior, such as attendance at sporting events (Shoham & Kahle, 1996) and fan interest (i.e., being a fan; Mowen, 2004). Many cognitive psychology researchers have proposed the personality-emotion link (e.g., Corr, 2008; Revelle & Scherer, 2009; Revelle, 1995), suggesting that they are not only closely related but also to some degree overlapping (Revelle & Scherer, 2009). If this is the case, by extension, just as competitiveness as fan personality positively affects sport consumer behavior, the finding of this study – the positive relationships among competitiveness as a brand emotion, brand commitment, and subsequent behaviors – could be thought to be valid in the context of spectator sport. Nevertheless, we still know little about what leads to such competitiveness. Consequently, more research is needed to identify the key antecedents to competitiveness.

In regards to the relationships between surprise and sport consumer behavior, we observed that surprise was negatively related to brand attitude and purchase intention. Surprise is considered as a neutral emotion that is neither inherently positive nor inherently negative, and its valence depends on what people recognize after the surprise happened (Hill, 2010). Although the researchers did not differentiate between positive and negative surprises for the study, respondents seem to show positive valence when considering the fact that the factor correlations between surprise and positive emotional

dimensions (connectedness and elation) were statistically significant while those between surprise and negative emotional dimensions (anger, unhappiness and worry) were not (see Table 3). This finding was not in line with the previous findings in consumer behavior showing that pleasant (positive) surprise positively influences consumer behavior, such as positive word-of-mouth and consumer satisfaction (Derbaix & Vanhamme, 2003). However, the contrary finding from this study is not preposterous in the context of sport team brands. Due to the nature of the uncertainty of outcome of sporting contests, spectators may experience (pleasant) surprise during games. According to the uncertainty of outcome hypothesis (Knowles, Sherony, & Haupert, 1992), more evenly matched teams tend to produce less certain outcomes and therefore, greater attendance. These unpredictable contests tend to take spectators by surprise, and they become interesting and exciting events (Zillmann, Bryant, & Sapolsky, 1989). However, while sport fans may enjoy unpredictable outcomes of close contests and accompanied (pleasant) surprise during a game or for a short period of an entire season, they would not want to see such unpredictable outcomes during an entire season or for a lengthy period of time in the sense that repeated unpredictable outcomes are closely related to the competitive disadvantage of their team as a brand. In this regard, sport consumers would not prefer a long-term unpredictable outcome and associated surprise even though its valence is positive. This interpretation is supported by research findings in sport consumer behavior that an increase in uncertainty of game outcome during six seasons (from 2001–01 to 2005–06) in the English Premier League was related to a decrease in game attendance (Buraimo & Simmons, 2008). The authors interpreted this finding as suggesting that fans tend to prefer to watch their team play and beat an inferior team rather than watch a draw or their team defeated by a competitive team. Extending this finding, it is reasonable to suggest that since sport fans desire their team to be more competitive over opponents in the long-term, they do not prefer the uncomfortable emotional experience (surprise) resulting from repeated uncertainties of outcome. Although this interpretation may be reasonable, nevertheless, it still remains unexplored. Future researchers should further explore why this relationship takes place.

The most interesting finding from this study is that the anger dimension was dually (positively and negatively) related to sport consumer behavior. Specifically, unlike other negative emotional dimensions, such as unhappiness and worry, the anger dimension was positively related to four consumer behavior variables (i.e., fanship, team loyalty, watching games on live TV, and talking about the team), whereas it was negatively related to only brand attitude. This may imply that the valence approach to emotions does not apply to anger as a brand emotion in the context of sport team consumption. Cognitive psychology researchers suggest that different emotions of the same (negative) valence differentially affect evaluation and decision-making (Lerner & Keltner, 2000). For example, anger is associated with the disposition to perceive certainty and individual control in new circumstances, and as a result, angry persons tend to make optimistic judgments of future events. Fear, on the other hand, is associated with the disposition to perceive uncertainty and situational control in new circumstances, and as a result, fearful persons tend to make pessimistic judgments of future events (Lerner & Keltner, 2000). Furthermore, angry persons and happy persons showed similar behavioral patterns: both tend to make decisions based on optimism (Lerner & Keltner, 2001). These findings provide some insight into how anger associated with sport teams influences sport consumer behavior. Since angry fans tend to make optimistic judgments of future events, anger as a brand emotion may not mitigate their relationships with the teams in terms of team commitment and subsequent behaviors. Although this interpretation seems to be reasonable, we still know little about why this relationship happens. In this sense, future research should investigate why anger as a negative emotion is closely related to consumers' approach behavior or whether there are mediating factors (e.g., service recovery satisfaction) between anger and approach behavior.

4.3. Practical implications

The findings from the study have several practical implications for sport marketing practice. Overall, the study confirmed the valence theory on emotions in the context of sport team brands, except anger, that had a dual (positive and negative) relationship with sport consumer behavior and (pleasant) surprise, that had a negative relationship with it. These results provide some insight into how sport marketers can foster (control) the identified emotions in order to maximize (minimize) positive (negative) consumer behavior that are essential to build a loyal fan base and a strong brand equity. First of all, since brand emotions are a product of repeated experiences with the brand (Batey, 2008), sport teams should provide sport consumers with positive brand experiences over time that can be leveraged to create positive emotional connections to the team (e.g., connectedness, elation, or competitiveness). Considering sport marketers' fate that even though sport team consumption primarily occurs within stadia/arenas, and they do not have the ability to control the core product (team performance), a key way to create a positive brand experience, to some extent, free from the impact of team performance, is to provide a positive stadium experience by offering high quality services. In this regard, the sportscape's recommendations are useful (Wakefield, Blodgett, & Sloan, 1996); sport teams should provide better stadium services (e.g., stadium access, parking, facility cleanliness, lack of crowding) in order to create a positive stadium experience as a basis for positive brand experiences and associated brand emotions. However, such a basis for creating positive brand emotions is not necessarily limited to the physical surroundings suggested by the sportscape, but can also be grounded in sensory experiences (cf. Brakus et al., 2009). Recently, researchers in sport consumer behavior suggested that the sensoryscape (a combination of spectators' stadium experiences through all five senses) plays a key role in creating meaningful stadium experiences, such as transcendental experiences (liminality and communitas) and fan commitment, such as fanship and team loyalty (e.g., Lee, Heere, & Chung, 2013; Lee, In, & Seo, 2015; Lee, Lee, Seo, & Green, 2012). While the sportscape has primarily focused on sight (e.g., facility aesthetics), touch (e.g., seating comfort), and occasionally taste (e.g., food services) dimensions, the

sensorscape extends the scope of the conventional sportscape in the stadium experience by adding two other dimensions, sound and smell, to the sportscape. Consumer researchers have recognized that when all five senses are engaged, consumers are more likely to form and retain more meaningful memories about brands (Lindstrom, 2005). From a sport marketing point of view, sport teams can enhance consumers' brand experiences and associated brand emotions by more holistically leveraging the stadium experience through their five senses (e.g., a stadium's architecture, sound of cheering, physical contact with other spectators, stadium's unique smells, and good tasting food), which in turn plays a key role in building a strong fan base and brand equity.

Yet, brand experience as a basis for brand emotion is not necessarily restricted to sport venues; rather sport consumers may develop emotions about their teams based on all aspects of sport teams that they experience beyond the on-field experience. In this regard, promoting the community service of star players, team members, the head coach, or the sport organization itself can be a good marketing communication strategy to create positive emotions associated with sport teams, especially connectedness. In addition, considering its positive relationship with consumer behavior, eliciting competitiveness can also be a good marketing communication strategy. For instance, emotional advertising that can stimulate sport consumers' competitiveness would work well for important matches, particularly matches against main rivals when considering the symbolic nature of sport team consumption (Lee, 2013).

Unlike the positive brand emotions mentioned above, sport teams should minimize the possibility for consumers to negatively experience their sport team consumption. If the consumers already established negative emotions toward their teams, effective service recovery is likely to reduce a customer's negative emotions (e.g., anger) and even turn angry customers into loyal customers (Boshoff, 1997; Gustafsson, 2009). Therefore, it is critical that effective service recovery efforts should be given a priority in developing customer services and that service staff need to be trained to recognize and cope with anger in customers.

4.4. Limitations

Following consumer behaviorists (Aaker et al., 2008; Robinson & Clore, 2002), we used a survey design to measure the recall of emotions. This is a strong limitation, as it asks people to cognitively evaluate their recall of particular emotions, rather than measuring their true emotions. As a consequence, we are unable to lift the curtain on a better understanding of the emotions people experience while engaging with their favorite sport team. To address this, future studies should focus on measuring people's true emotions, and use alternative methods, such as measuring heart rate and pupil dilation, that would allow researchers to measure the emotions of the consumers as they experience them (Larsen & Prizmic-Larsen, 2006). Yet, as stated in our purpose, our aim was to better understand the recall of these emotions and identify those emotions that are most central to the spectator experience. The emotion recall scale developed from this study provides evidence of reliability and convergent, discriminant, and criterion validity. However, since the emotion recall scale was developed for professional sport teams with a college student sample, it has room for improvement by testing its structure and validity across different contexts (e.g., college sport teams, non-college student populations, different cultures). Thus, future researchers should confirm both the structure of how consumers phrase the recall of their emotions and the relationships between the emotions and sport consumer behavior identified from this study across the different contexts.

Another limitation is related to the times in which the sequential sub-studies (i.e., qualitative research, frequency analysis, EFA, and CFA) to develop the emotion scale were conducted. In order to minimize the effect of a situational factor (i.e., team's current success) on sport team-related emotions as brand emotions, we conducted the studies during the National Football League and Major League Baseball off-seasons (the majority of the participants were fans of either NFL or MLB teams). As expected, although the majority of the participants in the four sub-studies were fans of the NFL or MLB, responses from the minority of the participants (e.g., National Basketball Association fans) may not be free of influence related to their team's current success. Therefore, to some degree, the results of this study seem to include the impact of the situational factor on the development of emotions associated with professional sport teams. In this regard, future researchers should confirm the identified structure of the emotion scale across different seasons (off-seasons versus during seasons).

5. Conclusion

In this study, we take the first step towards the exploration of emotions that sport consumers have with their favorite sport teams. The challenge is to identify the means to capitalize on positive emotions and to minimize negative emotions that sport consumers experience in their sport team consumption. The seven dimensions of emotions that sport fans have about their teams identified in this study are the other side that completes sport consumer psychology combined with cognitive brand attributes and serve as a significant foundation to the understanding of consumers' emotional attachments to sport team brands.

Consuming sport teams as brands is more than merely consuming sporting events: it involves meanings that sport consumers attach to their teams. Positive brand emotions are at the heart of the consumer meanings. By cultivating the positive brand emotions, sport teams can make the sport consumers more enjoyable and more emotionally connected to them, thus increasing their approach behavior. This more emotional approach to understanding sport consumer behavior offers a vital foundation in building strong sport team brands.

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