Brand Commitment to Football Teams: A Multidimensional Scale

Avichai Shuv-Ami

The School of Business Administration, Peres Academic Center, Israel

Abstract   This paper presents a multidimensional scale for measuring brand commitment to football teams. Compared to previous research that used unidimensional measures, this multidimensional scale offers a better means of understanding fan behavior through the four constructs composing it – loyalty, involvement, satisfaction and performance. The scale was tested using three separate empirical survey studies and was found to be highly valid and reliable. These tests employed exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and nomological network analysis. Football fan brand commitment was found to be highly correlated to attitudes toward the sport team, recommendation, purchase intentions, price premium and how fans identified with their football team.

Keywords   Brand Commitment, Attitude, Recommendation, Purchase Intentions, Price Premium, Fans Spectator Identity

1. A New Brand Commitment Scale for Football Club Funs

Introduction

The importance of brand commitment for sport teams in understanding fan behavior has been widely discussed in the sport marketing literature. Wan and Pierce (2003) found that sport spectator identity is highly correlated with commitment to a sport team. Many (e. g. Bee and Havitz, 2010; Heere and Dickson 2008; Mahony et al., 2000; Martin 2013; Morgan and Hunt 1994; Kennett et al., 2001) studied the relationship of commitment to fan loyalty and satisfaction.

However, in these studies, the researchers only implemented a direct and single scale to measure fan psychological commitment. In this research, following Keller and Lehmann's (2006) work, it is suggested that commitment to a football club is a series of attachments that transcend straightforward loyalty and satisfaction. Drawing

upon Shuv-Ami's (2012) 4E commitment scale, it is argued that fan commitment to a football club has four underlying dimensions. Two of these dimensions represent the affective component and two the calculative component of commitment. Underlying the affective component are feelings of loyalty that represent the emotional attachment and of involvement that represent the engagement attachment. The calculative component of commitment is based on satisfaction that reflects the attachment consequent to the shared experiences with the team and the perception of relative brand performance as the functional or evaluative attachment.

Brand Commitment - the Theoretical Foundation

In most marketing research, it assumed that brand commitment represents the relationship between the consumer and the brand. Researchers, however, are divided about the nature of this relationship with one school of thought regarding the relationship as reflecting an exchange-like nature (exchange perspective) and the other maintaining that it reflects an attachment or a bond to the brand (attachment perspective). From the exchange perspective, commitment is the desire to carry on into the future the durable and valued relationship with the brand (Moorman, Zaltman and Deshpande 1992; Morgan and Hunt, 1994; Dholakia, 1997; Samuelson and Sandivik, 1997; Gurviez and Korchia, 2002; Johnson et al., 2006; Walsh et al. 2010; Belaid and Behi, 2011). Various other concepts are associated with the exchange perspective such as the development of stable relationships with partners; a willingness to accept short-term sacrifices in order to maintain the relationship; and the assurance of relationship stability (Anderson and Weitz, 1992). This type of exchange provides customers with the confidence that the brand's functional and affective benefits are greater than the benefits derived from ending the relationship (Geyskens et al., 1996).

The psychological and economic attachment that a consumer may have towards a particular brand is regarded as the attachment perspective of brand commitment (Thomson et al., 2005). Marketing research in recent years has been utilizing the attachment perspective of brand commitment

(Hur et al., 2011; Iglesias, Singh and Casabayó 2011; Royo-Vela and Casamassima, 2011) mainly in studying the affective commitment component of employees to their workplace. The studies were carried out primarily in the context of organizational behavior (Meyer and Allen, 1991). Klein et al. (2009), recognizing that a bond or attachment could also represent feelings and not just perceptions, defined commitment as the extent to which individuals regard themselves as bound to a given target. A "series of attachments" (Keller and Lehmann 2006, p. 745) form the relationship with the brand, with brand equity as the critical driver (Park et al., 2010).

This research follows the same line of approach with brand commitment representing the overall attachment or bond that consumers have toward a brand with which they desire to continue a valued relationship by re-using, re-buying and re-patronizing (Shuv-Ami, 2012). There are both attitudinal and behavioral dimensions to this type of brand commitment. The attitudinal dimension reflects performance perceptions of "evaluation attachment" and feelings of "emotional attachment" (Klein et al., 2009; Rusbult and Buunk, 1993). The experience consumers potentially have with the brand's perceived benefits are reflected by the behavioral dimension. As Keller (2005) notes, the consumer's attachment or bond of commitment with a brand develops over time and these brand experiences are an integral part of life (Fournier, 1998). Such attachments are experiential (Oriol et al., 2011; Rusbult and Buunk, 1993) and as such they are likely to lead to "experiential attachment". (Mollen and Wilson, 2010).

In the literature devoted to organizational commitment, there is a well-established distinction between attitudinal and behavioral commitment (Meyer and Allen, 1991). The behavioral component of commitment represents the calculative pledge of job characteristics (job performance) and satisfaction (Kidron, 1978). The affective component of commitment is regarded as the individual's emotional attachment to the goals and values of the organization (Meyer and Allen 1991). Calculative commitment, marketing research suggests, is related to the brand's economical and functional attributes while affective commitment is connected to the emotional pleasure and care the customer feels (Gustafsson et al., 2005). In line with the predominant body of thought in organizational commitment literature (Allen and Meyer 1990; Solinger et al., 2008), this current research regards loyalty and involvement as representing emotional attitudes and as likely to constitute the affective component of brand commitment

In terms of this theoretical framework, this research suggests that the calculative component of brand commitment includes a functional or "evaluation attachment", i.e., the evaluation of brand performance relative to alternatives. Consumer satisfaction with the brand experience is represented by the "experiential attachment" while the affective component of brand commitment is represented by the "emotional attachment" i.e., the feelings of loyalty toward the brand and by the "engagement attachment" that comprises the degree of involvement with the brand.

Brand loyalty is accepted as "a commitment to rebuy or to re-patronize a preferred product or service" (Kotler and Keller, 2009, p. 786). Accordingly, this dimension of commitment becomes, in fact, an emotional attachment leading to the desire to repurchase or patronize a preferred brand. In accordance with Oliver's remarks (1999, p. 37) "…conative loyalty brings the consumer to a stronger level of loyalty commitment". Loyalty in our research constitutes an integral part of commitment. Looking at the matter in more practical terms, fans will express their loyalty to a football team by continuing to watch (rebuy and re-patronize) their team.

Oliver (1996, p. 10) looks at brand satisfaction as the "end state of consumption or patronization; it is reinforcing pleasurable experience". Accordingly, another facet of brand commitment that emerges is a type of satisfaction that reflects an experiential attachment. In other words, this attachment represents the pleasurable experience of attachment that fans have for their football team. Therefore, commitment and/or attachment among consumers (fans) is related to the degree that a brand (team) provides an experience that evokes pleasure .

As Schiffman et al. (2010, p.229) note, brand involvement is "the degree of personal relevance that the product or purchase holds for that consumer. This facet of brand commitment reflects an engagement attachment and thus the emotional interest and importance of the brand to the consumer (Korgaonkar and Moschis 1982; Zaichkowsky, 1985; Ratchford, 1987; Zinkhan and Locader, 1988). Furthermore, involvement with a brand is related to brand loyalty (Ray, 1973; Simon and Walker, 2003) and affects the extent of consumer information search, the size of the evoked set and the nature of brand loyalty (Howard and Sheth, 1969).

Relative brand performance is the last dimension of brand commitment. A dimension representing both the "attraction of alternative brands" and the "ambivalence" with which the brand is used. This aspect of brand commitment is an evaluation attachment to the brand. In terms of this attachment, attributes between competing brands are compared and questions are raised as to whether other brands are worthwhile purchasing and using. Keller (1993, 2008) and Keller and Lehmann (2006), suggested that in the construct that underlies the value of the brand for the consumer, the perception of brand performance is important. Keller (2008, p. 38) stated that "Branding is all about differences" in performance (outcomes, value-added etc.). In fact, Sung and Choi (2010) recently demonstrated that less attractive alternatives can lead to a higher level of consumer commitment to a brand. Thus, it is suggested here that "perception of relative brand performance" relates to two measures of the conversion model (Hofmeyr and Rice, 2000): the "attraction of alternatives" and "ambivalence" about the brand she or he is currently using.

Hypotheses

The four attachments (the 4E's) -- evaluation, experiential, emotional and engagement -- to the brand commitment scale are reflective (Shuv-Ami, 2012). That is, the direction of causality (Jarvis et al., 2003) relates to the calculative and affective components of commitment. These components are subsequently related to the specific 4E aspects (Figure 1). Brand commitment, or what is referred to here as "degree of attachment" to the brand, is reflected in each of the four underlying dimensions that constitute a reflective model with the dimensions reflecting a high correlation (Jarvis el at. 2003).
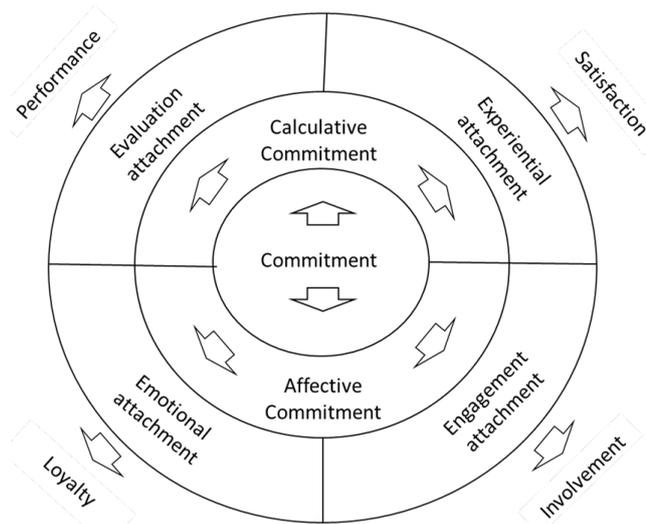
Source: Shuv-Ami (2012), p. 287.

Figure 1. The 4E theoretical conceptualizations of the brand commitment construct

These four related constructs, which have been widely discussed in the marketing literature, combine to create a scale of loyalty, involvement, satisfaction and performance that represent the degree that the 4E's are attached to the brand or brand commitment. Consequently, from the above theoretical research, we can develop three hypotheses regarding both the measurement and structural parts of the brand commitment's nomological net:

H1: Four oblique first-order factors - involvement, satisfaction, loyalty and performance - suffice to account for covariations of the brand commitment scale items.

H2: Two oblique second-order factors – affective and calculative - explain the covariation among the four first-order factors.

H3: An overall brand commitment underlies the two second-order factors.

Figure 2 depicts these first three hypotheses within a comprehensive structural one third-order factor measurement model for the brand commitment scale.

The fourth hypothesis attempts to establish the nomological validity of the brand commitment scale that the current research suggests. The validity of scale is tested against four variables: overall attitude, the preferred brand, purchase intention and recommendation.
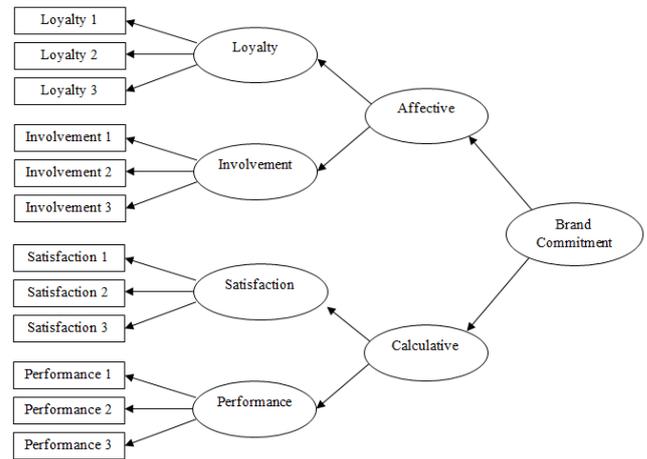
Figure 2. Hypothesized one third-order factor measurement model for the brand commitment scale

Models and theories of consumer behavior that such researchers, among others, as Howard and Sheth (1969) and Oliver (1999) have developed, suggest that attitude affects satisfaction and loyalty, which, in turn, affect preference. Since satisfaction and loyalty are part-and-parcel of the commitment scale (as constructed in the current research and as suggested by Allen and Meyer (1990), it is methodologically valid to hypothesize that most committed consumers, compared to the uncommitted, will display a higher overall regard and preference for the brand they are committed to.

In the "Customer Development Process" model (Kotler and Keller, 2009, p.157), members in a customer club tend to be brand advocates. Similarly, Hofmeyr and Rice (2000, p.6) argued that "at a higher end of commitment, committed consumers act as advocates for the brand, exhorting others to use it."

Price premium represents "How much extra are customers willing to pay for a comparable product because of its brand?" (Keller 2008, pp. 321-322). In his "Brand Equity Ten" model, Aaker (1996) used price premium as a loyalty measure that is associated with satisfaction. Keller (2008) suggested that price premium is a result of the customer's "mindset" that leads to brand loyalty and attachment. As Keller and Lehmann (2006) suggested, brand commitment is a series of attachments and loyalty and satisfaction represent two of the attachments underlining the brand commitment measure (Shuv-Ami 2012). Thus, it is also expected that fans will be willing to pay more for the various elements (such as tickets or merchandising items) associated with the football team to which they are committed.

Sport spectator identity represents the degree to which spectators identify with their sport team (Wan and Branscombe 1993). Wan and Pierce (2003) found that sport spectator identity is highly correlated with commitment to a sport team and hence this kind of correlation it is also expected here.

Therefore, it is hypothesized that:

H4: The total score of brand commitment will correlate positively with overall attitude toward the brand, recommendation, purchase intentions, price premium and sport spectator identity.

2. Methodology

The Samples

The purpose of the present analysis was to construct a new operationalization for the re-conceptualized fan commitment construct. The commitment scale was subjected to calibration and validation by applying Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA) and nomological network validity. In order to test the commitment scale the current research used on three separate empirical survey studies, one for each validation process. Each study is distinct from the others and embodies separate and independent identities.

1. In study 1 EFA has been employed. The participants of this study included 320 Israeli football fans. Participants' ages ranged from 17 to 69 with a mean age of 36.6 (sd = 13.9); 60% were males; and 56% had an academic education.
2. The participants in Study 2 consisted of 245 Israeli football fans. Participants' ages ranged from 17 to 77 with a mean age of 37.5 (sd = 14.2); 59% were males; and 56% had an academic education. In this study CFA has been employed.
3. Study 3 has tested the nomological network validity. The study participants encompassed 314 Israeli football fans. Participants' ages ranged from 17 to 81 with a mean age of 38.1 (sd = 14.9); 55% were males; and 56% had an academic education.

Measurements

A major purpose of the current analysis was to construct a new operationalization for the re-conceptualized brand commitment construct of sport team fans. The four measures of the suggested commitment dimensions adopted from Shuv-Ami (2012) used three items on a 10-point agree-disagree scale. The use of three items per scale enables a parsimonious validation of the suggested measurement model via confirmatory factor analysis (CFA) without any problem of identification (Worthington and Whittaker 2006).

Additionally, overall attitude was measured accordingly: "Please rate from 1 to 10 the way you generally feel about (think of) your team, with one indicating 'a very poor brand' and 10 'a very good brand'". Recommendation intention was measured using a modified Markey and Reichheld (2008) advocate measure (Net Promoter Scores - NPS): "Please rate from 1 to 10 how likely are you to recommend that your friends or relatives become members of your team fan club, where 1 indicates 'Definitely will not recommend' and 10 'Definitely will recommend'". Purchase intention was measured by the question "Please rate from 1 to 10 how

likely are you to go to your team's next season games, where 1 indicates 'Very unlikely' and 10 'Very likely'".

Following Keller's (2008) notion of price premium and using a 10-point agree-disagree scale, the following statement was used; "I am willing to pay more to continue to be a fan of my main sport team." Sport spectator identity was measured on a 10-point agree-disagree scale using the seven items measure that Wan and Branscombe (1993) developed. Thus measure was found to be highly reliable with a Cronbach's α of 0.94.

Analytic strategy and scale development

The validation was based on two hypothesized models for the scale: a measurement model and a structural model. The hypothesized measurement model for the brand commitment scale (see Figure 2) represents three surfaces: an overt surface with 12 observable items; a first-order latent surface with four factors – brand loyalty, brand satisfaction, brand involvement and brand performance; a second-order latent surface with two factors – loyalty + involvement (affective) and satisfaction + performance (calculative); and a third-order latent surface with one factor - brand commitment. According to the model, the items serve as overt manifestations for the latent first-order factors, as follows: brand involvement; brand satisfaction; brand loyalty; and brand performance. The four first-order factors serve as reflective indicators for the two second-order factors, which exist at a higher level of abstraction. These two second-order factors are indicators for the brand commitment construct. Positive associations are thus expected between items from each first-order factor, between the four first-order factors, and between the two second-order factors. The hypothesized structural model for the brand commitment scale (see Figure 2) represents its nomological network with respect to its relations with other relevant scales.

Construct validity for the new brand commitment scale was assessed with respect both to the factorial validity of the measurement model for the scale and to the nomological validity of its structural model (Messick, 1989). Following the recommended two-step approach of Anderson and Gerbing (1988), the validity of the measurement model was tested prior to testing the structural part (Anderson and Gerbing, 1988).

Since a modified scale was validated, it was subjected first to Exploratory Factor Analysis (EFA) in order to test its factorial validity. The EFA served as a preliminary, indirect test for the plausibility of the hypothesized measurement model (Worthington and Whittaker, 2006).

The hypothesized measurement model was further tested directly via the confirmatory factor analysis (CFA) procedure in the structural equation modeling (SEM) approach. The fit of the model as an explanation for the relationships between the observed items was tested against their variance-covariance matrix (Brown, 2006; Bollen, 1989; Kline, 2005). For comparison purposes, the hypothesized model was compared to three other more

restricted or more elaborate models in a nested sequence: the most restricted model seeks to account for inter-item covariations with only one first-order latent factor (one first-order factor model); the most elaborate model accounts for item covariations with four correlated first-order factors (four correlated first-order factor model); and a more restricted model that tries to account also for covariation between the four first-order factors with a single second-order factor (one second-order factor model).

After the measurement model was evaluated, the nomological validity of the brand commitment scale was assessed by testing its relations with other relevant scales in its assumed nomological network (Benson 1998, Cronbach, 1989, Cronbach and Meehl 1955). The variables were overall attitudes, recommendation, intention, price premium and sport spectator identity.

STUDY 1: Exploratory Factor Analysis: Football

The 12-items of the Brand Commitment Scale were subjected to exploratory factor analysis with oblique rotation. According the criterions of eigenvalue > 1 and Scree test (Hair, Black, Babin, Anderson, & Tatham, 2006) four factors were extracted. On the basis of hypothesized structure and items content, I labeled the four factors involvement, satisfaction, performance and loyalty. These factors accounted for 85.6% of the common variance, above the recommended minimum threshold of 60%. The four factors solution is presented in table 1. With the exception of one item, all items loaded highest on the appropriate factor and had substantive loadings that exceeded .7. Only one item which presumed to reflect loyalty loaded one the involvement factor as well. No other item found to have cross loading the exceeded .3 on the non-primary factor.

Alpha coefficients for the three-item involvement, satisfaction, performance, and loyalty were .93, .90, .88, and .90, respectively. Correlations among the unit-weighted scale scores were similar to those between the factors. Correlations among the factors ranged between .54 to .78 and none of the correlation were found to exceed .90, suggesting discrimination between the factors. The substantial correlations found between the factors justified the use of the oblique rotation and suggested higher order constructs.

Table 1. Factor analysis of the football brand commitment scale

Brand commitment items	Factors				
	Involvement	Satisfaction	Performance	Loyalty	Communalities
I am connected and emotionally involved with my football team	.93				.90
My football team is important for me	.90				.88
I am involved and interested in my football team	.86				.87
I am satisfied with the way my football team meets my expectations		.97			.85
I am satisfied with my football team		.86			.88
I am satisfied with the way my football team suited my needs		.74			.88
My football team has higher quality than other competing teams			.89		.81
My football team has advantages that other competing teams don't			.87		.89
In most aspects, my football team is better than other competing teams			.70		.85
I will not stop being a fan of my football team even if they loses every game this season				.93	.86
I will not be a fan of another football team if the football team loses every game this season				.91	.92
I consider myself loyal to my football team	.52			.45	.90
Rotated eigenvalue	6.06	4.90	6.00	4.59	
% of explained variance[a]	25.6%	21.8%	19.8%	18.4%	

Correlations and reliabilities (in parentheses)				
Involvement	(.93)			
Satisfaction	.64**	(.90)		
Performance	.70**	.78**	(.88)	
Loyalty	.73**	.54**	.66**	(.90)

Note. N = 143.

All factor loadings > .30 are presented in the table.

a. Rough estimates based on eigenvalues from the orthogonal, varimax rotation (cannot be estimated for the oblimin rotation due to confounded factors contribution).

** p < .01

STUDY 2: Confirmatory Factor Analysis: Football

The hypothesized measurement model was further tested directly via the confirmatory factor analysis (CFA) procedure in the structural equation modeling (SEM) approach. The fit of the model as an explanation for the relationships between the observed items was tested against their variance-covariance matrix (Brown, 2006; Bollen, 1989; Kline, 2005). For comparison purposes, the hypothesized model was compared to three other more restricted or more elaborate models in a nested sequence: the most restricted model seeks to account for inter-item covariations with only one first-order latent factor (one first-order factor model); the most elaborate model accounts for item covariations with four correlated first-order factors (four correlated first-order factor model); and a more restricted model that tries to account also for covariation between the four first-order factors with a single second-order factor (one second-order factor model).

In order to validate the hypothesized one-third order factor model Confirmatory Factor Analysis (CFA) was used. Additional, three-nested models – a first-order factor model, a second-order factor model, and a four-correlated fist-order factor model – were also tested for comparison purposes. CFA was analyzed with AMOS 18.0 structural equation modeling (Arbuckle, 2009) using the maximum-likelihood estimation method. The models fit was assessed using the following goodness-of-fit indices (see Hu & Bentler; 1999): Chi-square (Tabachnik and Fidell, 2007), Standardized Root-Mean-Square Residual (SRMR; Kline, 1998), Normed Fit Index (NFI; Bentler & Bonett, 1980), Tucker-Lewis Index (TLI; Bentler & Bonett, 1980), Comparative Fit Index (CFI; Rigdon, 1996), and Akaike Information Criterion (AIC; Tabachnik & Fidell, 2007). A NFI, CFI, and TLI close to or

greater than .95, and SRMR equal to or less than .08, are indicative of an acceptable fit (Hu & Bentler; 1999; Tabachnik and Fidell, 2007). Model comparisons were based on the Chi-square per df difference and on differences between the models fit indices.

CFA results for the hypothesized model and the additional three comparison models are presented in table 2. As can be seen in the table the one first-order factor model had unacceptable fit indices suggesting that the most restricted model is inappropriate for explaining the scale's inter-items covariation. The hypothesized one third-order factor model, the one second-order factor model, and the four correlated first-order factor model showed acceptable fit to the data. Comparisons among the three acceptable models revealed that the one second-order factor model had significantly worse fit indices compare to the hypothesized one third-order factor model. The four correlated first-order factor model was not significantly different from the one third-order factor model however the one third-order factor model was superior in terms of parsimony as indicated by more degrees of freedom and lower AIC.

The one third-order factor model standardized coefficients are presented in Figure 3. All items loadings on respective first-order factors were greater than .85 suggesting good convergence. Second and third order loading exceeded .85 as well, suggesting that higher order factors explain more than the recommended half of the variance in the lower order factors. The composite reliability for the loyalty, involvement, satisfaction, and performance were high (.92, .94, .91, and .92, respectively). Overall, evidence for convergent validity was gained and the hypothesized model can, thus, be considered as a plausible and sufficient measurement for the football commitment scale.

Table 2. Fit indices for the alternative measurement models of the football brand commitment scale

Model	χ2	df.	Standardized Root-Mean-Square Residual (SRMR)	Normed Fit Index (NFI)	Tucker-Lewis Index (TLI)	Comparative Fit Index (CFI)	Akaike Information Criterion (AIC)	Δχ2(df) a
One first-order factor model	688.15	54	.08	.79	.76	.80	760.15	468.86 (5)***
One second-order factor model	262.96	50	.07	.92	.91	.93	342.96	53.67 (1)***
Four correlated first-order factor model	208.96	48	.05	.93	.93	.95	292.95	0.33 (1)
One third-order factor model (Hypothesized)b	209.29	49	.05	.94	.93	.95	291.29	

Note. *** p < .001

a. Δχ2(df) represent the difference in comparison to the hypothesized model.

b. For identification purpose, the loading of the first item in each first and second-order factor was set to 1, and the disturbances of the two second-order factors were constraint to be equal.
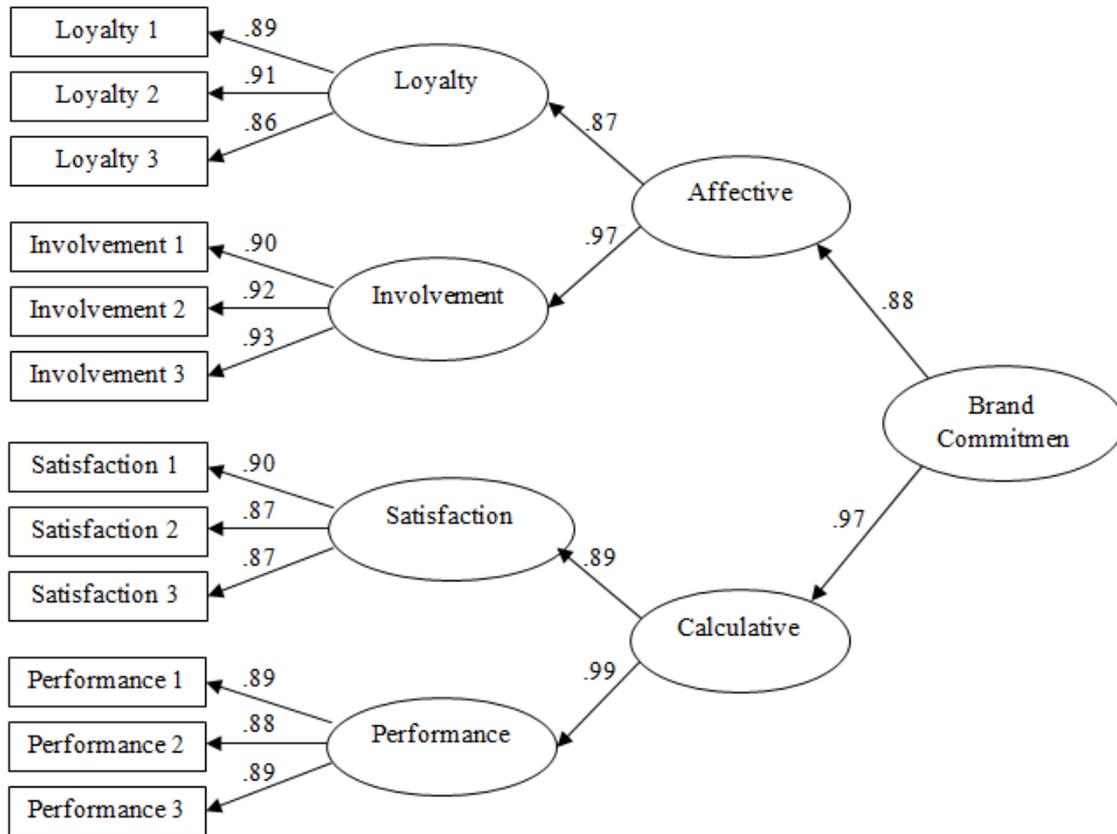
Note: All loadings are significant at the p < .001.

Figure 3. Standardized loadings for the one third-order factor structure

Table 3. Correlations between the research variables.

	Brand commitment	Overall attitude	Recommendation	Intentions	Price premium	Sport spectator identity
Overall attitude	.67***	--				
Recommendation	.69***	.70***	--			
Intentions	.64***	.51***	.63***	--		
Price premium	.69***	.47***	.55***	.60***	--	
Sport Spectator Identity	.72***	.52***	.58***	.61***	.64***	--

Note. *** p < .001

STUDY 3: Nomological network: Football

The Brand commitment scale items were as in study 1. The internal reliabilities for the brand commitment sub-scales were high: involvement α = .92; satisfaction α = .88; loyalty α = .90, and performance α = .87. Internal reliability for the total scale was high as well (Cronbach's α = .95).

3. Results

The nomological validity of the football brand commitment scale was assessed by testing its relations with three relevant scales in its hypothesized nomological network (Benson 1998, Cronbach, 1989, Cronbach and Meehl 1955). Table 3 presents the correlations between the research variables. As expected, results indicate significant and strong correlations between the football brand commitment scores and overall attitudes, recommendation, intention, price premium and sport spectator identity. Thus these correlations provide evidence for the nomological validity of the football brand commitment scale.

4. Conclusions and Discussions

Commitment is one of the most important customer constructs for measuring the success of a brand in the marketplace (Hofmeyr and Rice, 2000). As suggested in the marketing literature (e. g., Hofmeyr and Rice 2000; Howard and Sheth 1969; Keller 2008; Oliver 1999), the current study found that commitment is strongly correlated with the

decisions that football fans make in regard to consumption (attitudes, recommendations, intentions and price premium) and that loyalty and satisfaction are part of four attachments underlying the brand commitment of fans (Hofmeyr and Rice, 2000: Shuv-Ami 2012). Similar to previous research (Wan and Pierce 2003), the current study shows that fan brand commitment was also strongly associated with the fans' identification with their football team.

Using EFA, CFA and nomological network analysis, it has been established in the current research that the new and multi-dimensional scale (Shuv-Ami, 2012) that has been developed to measure fans' commitment (4E) to their football team is valid and reliable. This multi-dimensional scale may provide better insight into fan behavior than previous uni-dimensional scale researches (e.g., Bee and Havitz, 2010; Heere and Dickson 2008; Mahony et al., 2000; Martin 2013; Morgan and Hunt 1994; Kennett et al., 2001). The dimensions of this new scale provide a better understanding of four important constructs, representing four types of attachments fans may have to their football club -- loyalty, involvement, satisfaction and performance.

Four alternative measurement models were tested and the hypothesized one third-order factor model was found to be a plausible and sufficient measurement of the football commitment scale. Football fans brand commitment is a reflective measure that, according to the nomological network of the scale, shows a direct causality link to its components. The data supports the first hypothesis showing four oblique first-order factors - involvement, satisfaction, loyalty and performance. The results also support the second and third hypotheses as well. The nomological network of the brand commitment scale shows that the direction of causality is from commitment to the calculative and affective components of commitment (H3) and then to involvement, satisfaction, loyalty and performance (H2). As expected, in the fourth hypothesis there were strong correlations between the football brand commitment scores and overall attitudes and recommendations, intentions, price premium and sport spectator identity provide the nomological validity for the proposed football brand commitment scale. While attitudes, recommendations, intentions and price premium represent aspects of decision-making among customers, sport spectator identity represents personal identification with the football team. While the results show a strong relationship between football fans' brand commitment and their spectator identity, it would be interesting to see what would happen when their team does not meet their expectations. Hence, presumably spectator identification with their football team will decline when team performance and satisfaction are low.

The attachment of fans to their football team is both functional and emotional (Rusbult and Buunk, 1993; Klein et al., 2009). The functional aspect of the attachment represents the evaluation of the team performance ("evaluation attachment") and the satisfaction with the experience the fan has with his team ("experiential attachment"). The emotional aspect of the attachment represents the feelings of loyalty ("emotional attachment") and involvement with everything that is related to the team ("engagement attachment"). Accordingly, we conclude that the commitment of fans to their club is a composite of all of these four dimensions and not uni-dimensional.

The fan commitment scale also offers a system for categorizing fans into: "real" fans (the top three ranks of the scale); "weak", "fashionable" or "occasional" fans (the lowest three ranks of the scale); and "ambivalent" fans (the middle four ranks of the scale). Each group behaves differently towards its respective football team. Typically, when a team shows negative results over a period of time (especially if it slides into a lower league) the losing fans may display anger, sullenness, humiliation and resentment (Kerr et. al. 2005). Such feelings may weaken the fans' functional attachment and compromises their commitment to the club. However, for "real" fans, the emotional dimension is most significant and the attachment is long-term and strong and they are likely to display their support even when the team is undergoing a crisis. Social factors also can affect the nature of the commitment. For example, those fans may be residing in the same city as their losing team and that many friends may also be fans of this same club strengthens involvement and potentially offsets the detachment forces. Commitment under such conditions will weaken, but fans will most likely remain brand faithful with the probability decreasing with a lowering scale rank (see above).

The research suggests that brand commitment, as measured by the 4E scale, is a valuable and valid means for measuring fan attachment to their football team. In regard to future research, it might be valuable to study the impact of the 4E scale on fan behavior relative to each dimension of football team commitment at games and at other times. It would also be interesting to test the four-dimension commitment scale (4E) on other sports as well and to compare results.

This research has also highlighted the need to study and analyze fans in a multi-dimensional and multi-context manner. This will not only provide valuable scholarly knowledge, but also furnish teams with an understanding of the true and underlying needs/wants of fans and the means to achieve the maximum commitment, ultimately maximizing both the number of fans and the benefits to the team per fan. It is suggested therefore that further research should be undertaken with to delineate the fan's profile both in terms of exhibited behavior and its causes and to construct a comprehensive value chain/cycle incorporating all stakeholders.

In team management terms -- economic, social or other type of subjectively perceived 'success' (Rossi et al., 2013; Kartakoullis et al., 2013a) -- a team's destiny is largely defined by its ability to build and sustain a substantial mass of fans. When the body of fans becomes a truly "real" entity in the sense presented in this paper, it becomes difficult to differentiate between the team and its fans. Their relationship is not just a question of strength, it becomes symbiotic, an interdependent relationship where each is in

inextricably linked with the other. Understanding the nature of fan commitment, and comprehending its breadth, depth and cause is the key to understanding the club itself and the way forward.

REFERENCES

[1] Aaker, D A. (1996), Measuring Brand Equity across products and markets, *California Management Review*, 38 (3), 102-120.

[2] Allen, NJ. and Meyer JP. (1990). The measurement and antecedents of affective, continuance, and normative commitment to the organization," *Journal of Occupational Psychology*, 63; 1–18.

[3] Anderson J. C. and Gerbing D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach," *Psychological Bulletin*, 103; 411-423.

[4] Anderson, E. and Weitz, B. (1992). The use of pledges to build and sustain commitment in distribution channels. *Journal of Marketing Research* 29 (1); 18-34.

[5] Arbuckle, J. (2009). *Amos 18 user's guide*. SPSS Incorporated.

[6] Bee CC and Havitz ME (2010), Mark Exploring the relationship between involvement, fan attraction, psychological commitment and behavioural loyalty in a sports spectator context. *International Journal of Sports Marketing and Sponsorship*. 11 (2),140-157.

[7] Belaid S. and Behi A. T. (2011). The role of attachment in building consumer-brand relationships: an empirical investigation in the utilitarian consumption context. *Journal of Product and Brand Management* 20 (1); 37- 47.

[8] Benson, J. (1998). Developing a strong program of construct validation: A test anxiety example. *Educational Measurement: Issues and Practice*, 17(1), 10-17.

[9] Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. Psychological bulletin, 88(3), 588-606.

[10] Bollen, K. A. (1989), *Structural equations with Latent Variables*, New York: Wiley.

[11] Brown A. Timothy (2006), *Confirmatory Factor Analysis for Applied Research*, Guilford Press New York.

[12] Cronbach, L.J. (1989). *Construct validation after thirty years. Intelligence: Measurement, theory, and public policy*, 3, 147-171.

[13] Cronbach, L.J. Meehl, P.E. (1955). "Construct validity in psychological tests". *Psychological Bulletin*, 52 (4): 281–302.

[14] Dholakia, U.M. 1997. An investigation of some determinants of brand commitment. *Advances in Consumer Research* 24; 381-387.

[15] Fournier S. (1998). Consumers and their brands: developing relationship theory in consumer research. *Journal of Consumer Research* 24 (4); 343-73.

[16] Geyskens, I., Steenkamp JBEM., Scheer, L.K. and Kumar, N. (1996). The effects of trust and interdependence on relationship commitment: a trans-Atlantic study. *International Journal of Research in Marketing* 13 (4); 303-17.

[17] Gurviez, P. and Korchia, M. (2002). "Proposition d'une e´chelle de mesure multidimensionnelle de la confiance dans la marquee. *Recherche et Applications en Marketing*, 17 (3); 41-62.

[18] Gustafsson A. Michael D. J. and Inger I. (2005). The effects of customer satisfaction, relationship commitment dimensions and triggers on customer retention. *Journal of Marketing*, Vol. 69(10). 210–218.

[19] Hair, J. F., Jr., W. C. Black, B. Babin, R. Anderson, and R. Tatham, (2006*), Multivariate Data Analysis*, (6th ed.). Upper Saddle River, NJ: Prentice Hall.

[20] Heere Bob and Geoff Dickson (2008) "Measuring Attitudinal Loyalty: Separating the Terms of Affective Commitment and Attitudinal Loyalty," *Journal of Sport Management*, 22, 227-239.

[21] Hofmeyr J. and Rice B. (2000). *Commitment-led Marketing*, John Wily and Sons Ltd. West Sussex, England.

[22] Howard, JA. and Sheth JN. (1969). *The Theory of Buyer Behavior*, New York: John Wiley and Sons.

[23] Hu, L., & Bentler, P. M. (1999), "Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives," Structural Equation Modeling, 6, 1-55.

[24] Hur WM, Ahn KH and Kim M. (2011). Building brand loyalty through managing brand community commitment. *Management Decision* 49 (7); 1194 – 1213.

[25] Iglesias, O.; Singh, J. J. and Casabayó, M. (2011). Key changes and challenges for brands in an uncertain environment. *Journal of Product and Brand Management*, 20(6), 436-439.

[26] Jarvis CB, Mackenzie SB and Podsakoff PM. 2003. A Critical review of construct indicators and measurement model misspecification in marketing and consumer research. *Journal of Consumer Research* 30 (9); 199-218.

[27] Johnson, M.D., Herrmann, A. and Huber, F. (2006). The evolution of loyalty intentions. *Journal of Marketing* 70 (2); 122-32.

[28] Keller LK and Lehmann DR. (2006). Brands and branding: Research findings and future priorities", *Marketing Science* 25(6); 740–759.

[29] Keller LK. (1993). Conceptualizing, measuring, and managing customer-based brand Equity," *Journal of Marketing*, 57,1–22.

[30] Keller, K.L. 2005. Branding shortcuts, *Marketing Management* 14 (5); 18-23.

[31] Keller LK. (2008). *Strategic Brand Management*, 3rd Edition, Prentice Hall, Englewood Cliffs, New Jersey

[32] Kennett, PA. Sneath, J Z. Henson, S (2001), "Fan satisfaction and segmentation: A case study of minor league hockey spectators." *Journal of Targeting, Measurement and Analysis for Marketing*; Oct, Vol. 10 Issue 2, -143

[33] Kerr John H., George V. Wilson, Isamu Nakamura and Yoshiko Sudo (2005) "Emotional dynamics of soccer fans at winning and losing games," *Personality and Individual Differences,* 38 1855–1866.

[34] Kidron A. (1978). Work values and organizational commitment," *Academy of Management Journal.* 21(2); 239-247.

[35] Klein HJ, Becker TE and Meyer PJ. (2009). *Commitment in organizations: accumulated wisdom and new directions.* New York. Taylor and Francis Group LLC.

[36] Kline, R. B. (1998). Software review: Software programs for structural equation modeling: Amos, EQS, and LISREL. Journal of Psychoeducational Assessment, 16(4), 343-364.

[37] Kline B. Rex (2005) *Principles and Practice of Structural Equation Modeling,* Third Edition Guilford Press New York.

[38] Korgaonkar PKP and Moschis GP. (1982). An experimental study of cognitive dissonance, product involvement, expectations, performance and consumer judgment of product performance", *Journal of Advertising.* 11(3); 32-44.

[39] Kotler P and Keller, LK. (2009). *Marketing Management*, 13rd Edition, Pearson - Prentice Hall, Englewood Cliffs, New Jersey.

[40] Mahony DF., Madrigal R and Howard D, (2000) "Using the Psychological Commitment to Team (PCT) Scale to Segment Sport Consumers Based on Loyalty," *Sport Marketing Quarterly* Volume 9 Number 1, 15-24

[41] Markey R and Reichheld F. (2008). Leading with loyalty", *Strategy and Leadership.* 36(3); 50-52.

[42] Martin Craig A (2013) Investigating National Football League (NFL) Fan Loyalty

[43] *Journal of Marketing Development and Competitiveness* vol. 7(1)

[44] Messick S. (1989). Validity. In Linn Rl. (Ed.), Educational measurement. 3rd ed.. 13-103. New York: Macmillan.

[45] Meyer JP and Allen NJ. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review.* 1(1); 61-89.

[46] Mollen A. and Wilson H. (2010). Engagement, telepresence and interactivity in online consumer experience: Reconciling scholastic and managerial perspectives. *Journal of Business Research* 63; 919–925.

[47] Moorman Christine, Zaltman Gerald and Deshpande Rohit (1992), Relationships between providers and users of market research: the dynamics of trust within and between organizations, *Journal of Marketing Research,* 29 (3), 314-328.

[48] Morgan, R. M. and Hunt S. D. (1994). The commitment trust theory of relationship marketing. *Journal of Marketing.* 58 (3).

[49] Oliver L. R. (1996). *Satisfaction: A Behavioral Perspective on the Consumer.* McGraw-Hill, New York.

[50] Oliver L. R. (1999). Whence Consumer Satisfaction. *Journal of Marketing* 63 (Special Issue) 33-44.

[51] Oriol I, Jatinder Singh J. and Batista-Foguet M. (2011). The role of brand experience and affective commitment in determining brand loyalty," *Journal of Brand Management* 18; 570 – 582.

[52] Park CW, MacInnis DJ, Priester J, Eisingerich AB and Iacobucci D. (2010). Brand attachment and brand attitude strength: conceptual and empirical differentiation of two critical brand equity drivers. *Journal of Marketing* 74(1); 1–17.

[53] Ratchford, Brian T. (1987), New Insights About the FCB Grid, *Journal of Advertising Research*, 27 (August/September), 24-38.

[54] Ray M. L. (1973). Marketing communications and the hierarchy of effects. In: Peter Clarke, , *New Models for Mass Communication Research*, Sage Publications, Beverly Hills, CA. 147-176.

[55] Rigdon, E. E. (1996). CFI versus RMSEA: A comparison of two fit indexes for structural equation modeling. Structural Equation Modeling: A Multidisciplinary Journal, 3(4), 369-379.

[56] Royo-Vela M and Casamassima P, (2011).The influence of belonging to virtual brand communities on consumers' affective commitment, satisfaction and word-of-mouth advertising: The ZARA case. *Online Information Review* 35 (4); 517 – 542.

[57] Rusbult CE and Buunk, BP. (1993). Commitment processes in close relationships: An interdependence analysis. *Journal of Social and Personal Relationships*10; 175–204.

[58] Samuelson, BM, and Sandivik, K. 1997. The concept of customer loyalty, marketing: prospects, perspectives. *EMAC Proceedings* 3; 1120-40.

[59] Schiffman LG, Kanuk LL and Wisenblit J. (2010). *Consumer Behavior*, 10th. Edition, Pearson - Prentice Hall, Englewood Cliffs, New Jersey.

[60] Shuv-Ami A. (2012), "Brand Commitment: A New Four-Dimensional (4 E's) Conceptualization and Scale," Journal of Customer Behaviour. Vol. 11, No. 3, 281-305.

[61] Simon K. and Walker D. (2003). Empirical developments in the measurement of involvement, brand loyalty and their relationship in grocery markets. *Journal of Strategic Marketing* 11; 271–286.

[62] Solinger ON, Woody O and Roe OR. (2008). Beyond the three-component model of organizational commitment. *Journal of Applied Psychology.* 93(1); 70–83.

[63] Sung Y. and Choi SM. (2010). "I won't leave you although you disappoint me": The interplay between satisfaction, investment, and alternatives in determining consumer–brand relationship commitment. *Psychology and Marketing* 27(11); 1050–1074.

[64] Tabachnick, B. G., & Fidell, L. S. (2007). Experimental designs using ANOVA. Thomson/Brooks/Cole.

[65] Thomson, M., MacInnis, D. J. and Park, C.W. (2005) The ties that bind: Measuring the strength of consumers' emotional attachment to brands, *Journal of Consumer Psychology*, 15(1): 77 – 91.

[66] Walsh MF, Winterich KP, Mittal V. (2010). Do logo redesigns help or hurt your brand? The role of brand commitment. *Journal of Product and Brand Management* 19 (2) 76 – 84.

[67] Wan Dl. and Branscombe NR. (1993). Sport fans: Measuring the degree of identification with their team. *International Journal of Sport Psychology*, 24, 1-17.

[68] Wan Dl. and Pierce S. (2003). Measuring sport team identification and commitment: An empirical comparison of the sport spectator scale and the psychological commitment to the team scale. *North American Journal of Psychology*, 5 (3), 365-372.

[69] Worthington R and Whittaker T. (2006). Scale development research: A content analysis and recommendations for best

practices. *Counseling Psychologist*, 34; 806-838.

[70] Zaichkowsky JL. (1985). Measuring the involvement construct. J*ournal of Consumer Research*, 12(12); 24-38.

[71] Zinkhan GM and Locader WB. (1988). ESSCA: A multi-dimensional analysis tool for marketing research. *Journal of Academy of Marketing Science*, 16 (Spring); 36-46.