
**The Relationship Among Fans' Involvement, Psychological Commitment, and
Loyalty in Professional Team Sports**

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Abstract

Research on consumer behavior in leisure settings has proposed the relationship among involvement, psychological commitment and loyalty. Nonetheless, very little attention has been given to the conceptualization of the relationship among these constructs in a sport spectator context. The present study examined the relationship among involvement, psychological commitment, and two dimensions of loyalty, namely the attitudinal and behavioral loyalty of sport fans. The participants of this study were 800 soccer fans. The confirmatory factor analysis confirmed the multidimensional factor structure of the involvement scale which was developed for leisure participants by Kyle, Graefe, Manning and Bacon (2003). A structural equation modeling examined the proposed relationship model among involvement, commitment and loyalty. It was found that fans' involvement affects psychological commitment. Psychological commitment, in turn, influences attitudinal loyalty, and eventually attitudinal loyalty has direct effects on behavioral loyalty. The findings of the study indicate the mechanism through which sport fans become loyal to their team. It is suggested that sport managers should develop involvement, psychological commitment and attitudinal loyalty through marketing strategies in order to maximize sport fans' behavioral loyalty.

Keywords: Involvement, psychological commitment, attitudinal loyalty, behavioral loyalty, sport fans

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Introduction

Research in leisure settings proposed the relationship among involvement, psychological commitment and loyalty, because consumer loyalty is a key consideration for customer retention (Bee & Havitz, 2010). While the importance of the loyalty construct is widely recognized, the variables that influence consumer loyalty in leisure activities in different sport environments may vary. Very little attention has been given to the conceptualization of the relationship between the involvement and loyalty of sport fans. Iwasaki and Havitz (2004) proposed a model for the relationship among the involvement, psychological commitment, resistance to change, and behavioral loyalty of participants in leisure settings. The present study extends Iwasaki and Havitz's previous research (2004) by conceptualizing a behavioral component of loyalty with past and future behavior, an attitudinal component of loyalty, and psychological commitment, as well as the fans' involvement with the team in a professional sport setting.

Many researchers attempted to explain the relationship among consumer involvement, psychological commitment, and loyalty in leisure settings (Havitz & Dimanche, 1997; Iwasaki & Havitz, 1998, 2004; Kyle, Absher, Norman, Hammitt & Jodice, 2007, Kyle et al., 2003). Nevertheless, research on the relationship between involvement and loyalty with regard to sport fans is very limited (Bee & Havitz, 2010; Funk & James 2001). Generally, researchers have examined the concepts of involvement, loyalty and any reported correlations between them independently. Nonetheless, the detailed process by which involvement influences loyalty is largely unexplained.

The majority of the models explaining the relationship between involvement and loyalty that have been reported in the literature measured mainly recreation participants (Iwasaki & Havitz, 1998, 2004; Kyle et al, 2003, 2007). In their model, Iwasaki and Havitz (2004) described how psychological commitment mediated the effects of enduring involvement on behavioral loyalty. It is important to develop models in the sport fan context. Sport fans might be different to leisure participants with regard to their loyalty level or involvement level, and can be more enthusiastic towards a particular team or an

athlete. The level of devotion and the intensity of feeling towards the favored team can create a sense of unity in sport fans' behavior.

Kenneth, Bristol, and Bashaw defined the fan as "an enthusiastic devotee of some particular sport, league, team, or a sports consumptive object" (1999, p. 439). Thus, a fan has some level of attachment with a sport or an object related to sports and manifests his/her attachment through a specific behavior. Since fans' behavior varies according to their devotion or attitudes, it is interesting to investigate what are the attitudinal constructs that lead to their behavioral intentions.

In sport team settings, loyalty has been defined as the commitment to a team that persists, resists to changes and has an impact on cognitive thoughts and behavior (Funk & James, 2006; Funk & Pastore, 2000). It's important to create a loyal fan base because of the heterogeneous nature of the service and because of the lack of control over the core product of a team (sport performance, win or lose record). In order to create long-term relationships, sport teams should enhance their strategies and identify the factors that affect sport fans' loyalty.

In this study, involvement was measured with the use of a three-dimensional approach, because the vast majority of researchers have adopted the model that measures involvement as consisting of three dimensions: attraction, centrality and self-expression (Kyle, Graefe, Manning & Bacon, 2004a, Kyle, Graefe, Manning & Bacon, 2004b; Kyle, Bricker, Graefe & Wickham, 2004; Kyle & Mowen, 2005).

Regarding the measurement of the psychological commitment and loyalty of sport fans, there is confusion among researchers about the attitudinal constructs of commitment and loyalty. Heere and Dickson (2008) defined commitment as "an internal psychological state of mind an individual has toward an object" (p.230), and attitudinal loyalty as "the result of the interaction between negative external changes and the internal psychological connection" (p.230). In the present study, commitment and attitudinal loyalty were measured as distinct constructs, according to Heere and Dickson's suggestion that commitment is a cross-sectional construct that can be measured only at a single point in time, while attitudinal loyalty is longitudinal in nature (2008).

Furthermore, in the current study behavioral loyalty was measured as the difference between past behavior and future intentions. According to Bauer, Stockburger-Sauer and Exler (2008), past behavior is a past purchasing behavior and

past positive word-of-mouth. The intentional dimension is a fan's positive and persistent future behavior.

The objective of the present study was to examine the applicability of the conceptual model of the relationship among involvement, psychological commitment, and loyalty, proposed by Iwasaki and Havitz (2004), in the context of a professional sport, and test the degree to which sport fans' involvement predicts psychological commitment, attitudinal loyalty, and behavioral loyalty.

Review of Literature

The relationship among sport fans' involvement, psychological commitment, attitudinal and behavioral loyalty is an important topic in the marketing literature, since it is related to customer retention and it brings a sustainable competitive advantage to service markets.

Involvement

In leisure and recreation literature, leisure involvement refers to an "unobservable state of motivation, arousal or interest toward a recreational activity or associated product that is evoked by a particular or stimulus that possesses drive properties" (Havitz & Howard, 1995; Iwasaki & Havitz, 1998). This definition has been adapted to examine sport fans and spectators' involvement (Funk & James, 2001; Funk, Ridinger & Moorman, 2004). A wide range of research dealing with involvement measurement has been conducted in leisure and sport settings (Dimanche, Havitz & Howard, 1993; Kerstetter & Kovich, 1997). Researchers have developed unidimensional (Zaichowsky, 1985) and multidimensional (Laurent & Kapferer, 1985) scales to measure the construct.

It is widely accepted that involvement is best conceptualized as a multidimensional construct (Havitz & Dimanche, 1997; Iwasaki & Havitz, 1998; Kyle et al., 2003; Laurent & Kapferer, 1985; McIntyre, 1989). The vast majority of researchers have approached involvement from a multidimensional perspective and the three-dimension (attraction, centrality and self-expression) model was used mostly in leisure research (Dimanche, Havitz & Howard, 1991; Gahwiler & Havitz, 1998; Kyle et al., 2003, Kyle et al., 2004a, Kyle et al., 2004b; Kyle et al., 2004; Kyle & Mowen, 2005; McIntyre & Pigram, 1992; Nassis & Theodorakis, 2008). McIntyre and Pigram (1992) argue that the attraction facet is a combination of importance and pleasure. Self-expression is a dimension similar to sign; it refers to self-representation, the impression of oneself that consumers wish to

convey to other people through their consumption. Centrality refers to the centrality of an activity in terms of the consumer's lifestyle. An activity is considered central if other aspects of a consumer's life are organized around that activity (Kyle et al., 2003).

Although involvement is a widely used construct in leisure settings, its application to spectator sports has been largely ignored. Kerstetter and Kovich (1997) examined the involvement of women's basketball spectators and found that there is a relationship between involvement and specific behaviors among spectators. Also, Funk et al. (2004) confirmed the psychometric properties of a Team Sport Involvement (TSI) model revealing that nine antecedents represented four higher order facets of involvement (attraction, self-expression, centrality to lifestyle and risk). As far as Greek spectator sports are concerned, Nassis and Theodorakis (2008) confirmed the three-factor model of sport fans' involvement that Kyle et al. (2003) had suggested, but the sample of the study was limited to university students.

Loyalty

As Jacoby and Chestnut (1978) observed reviewing early research, there are three approaches to loyalty measurement: the behavioral, the attitudinal and the composite approach. Also, Oliver (1999) was one of the first scholars to refer to the multidimensionality of brand loyalty. In this case, there are four stages of loyalty: cognitive, affective, conative and action loyalty.

For a long period, sport marketing researchers in sport settings have only focused on the behavioral dimensions of fan loyalty, such as spectator attendance (Funk, Mahony & Ridinger, 2002; Hansen & Gauthier, 1989)., Despite being an important concept in the field of sports, attitudinal loyalty has only been examined in limited studies, and has often been included in composite measures of fan loyalty (Gladden & Funk, 2001; Pritchard et al., 1999). Funk and James (2001) considered attitudinal loyalty as an attitude that strengthens the psychological connection to a specific team through a tendency towards resistance, persistence, influence on cognition, and impact on behavior. In the team sport context, according to Bauer et al. (2008), who transferred the loyalty concept to fan behavior using the study of Homburg and Giering (1999), behavioral loyalty represents past behavior and behavioral intentions. In sport settings also, Backman and Crompton (1991) and Mahony et al. (2000) noted that loyalty is a concept of two dimensions: a) psychological attachment and b) behavioral consistency.

The Distinction between Psychological Commitment and Attitudinal Loyalty

For the measurement of sport spectators' psychological commitment, the vast majority of researchers have used unidimensional scales (Funk & James, 2001, 2006; Heere & Dickson, 2008; Kwon & Trail, 2003; Mahony et al., 2000; Trail, Anderson and Fink, 2000). Heere and Dickson (2008) note that in current marketing research there is a conceptual confusion and overlap between the attitudinal constructs of commitment and loyalty. Many researchers have suggested that commitment to a sport team reflects an attitude (Funk & James, 2001; Iwasaki & Havitz, 1998; Pritchard et al., 1999). Others observe that resistance to changing attitude represents the factor contributing to commitment (Crosby & Taylor, 1983; Dick & Basu, 1994; Eagly & Chaiken, 1995). Pritchard et al. (1999) proposed a model according to which loyalty is the outcome of resistance to change. Mahony et al. (2000) developed the Psychological Commitment to Team (PCT) scale extending the study of Pritchard et al. (1999), and considered psychological commitment and attitudinal loyalty as two distinct constructs. Other researchers use the two dimensions interchangeably (Funk & Pastore, 2000; Gladden & Funk, 2001).

Heere and Dickson (2008) suggested that psychological commitment and attitudinal loyalty are two different constructs. According to Heere and Dickson (2008), commitment is an internal psychological state of mind an individual has toward a brand. It is a consequence of consumers' ability to satisfy their motivations through the consumption of that specific product or service (Wann, Melnick, Rusell & Pease, 2001). They suggested that commitment is a cross-sectional construct that can be measured only at a single point in time. Moreover, Heere and Dickson (2008) proposed a new definition for attitudinal loyalty that provides a clearer distinction between commitment and attitudinal loyalty. They argued that "attitudinal loyalty is the result of the interaction between negative external changes and the highly developed attitude of an individual, which is characterized by persistence, resistance to change, biasing in cognitive processing and a guide to behavior based on the interaction between negative external changes and the individual's attitude" (p.233). When individuals cannot satisfy their needs because of negative changes that occur to the service or product, there appears their willingness to maintain their commitment to a team. Attitudinal loyalty is the measurement of this willingness, which can be examined by measuring the differences in a person's commitment toward a brand under varying conditions of satisfaction.

The Relationship among Involvement, Psychological Commitment, Attitudinal and Behavioral Loyalty

In leisure research, involvement and loyalty have been two of the most researched topics (Kyle et al., 2004b; Kyle et al., 2004). Although many authors focusing on leisure research have reported correlations between these two concepts and explained the process by which leisure involvement influences client loyalty, the relationship between these constructs in a professional team sport context remains largely unexplained. Little attention has been given to the examination of potential relationships between the two concepts.

In the analysis of the relationship between the constructs, involvement refers to individuals' beliefs about a brand or participation (Havitz & Dimanche, 1997; Iwasaki & Havitz, 2004); psychological commitment and attitudinal loyalty reflect their attitude toward the brand of the service, as well as future intentions (Iwasaki & Havitz, 2004); finally, behavioral loyalty refers to their behavior (Pritchard, Havitz & Howard, 1999; Pritchard & Howard, 1997). This is consistent with the belief-attitude-behavior hierarchy (Ajzen, 1991; 2000). Madrigal (2001) notes that beliefs play a crucial role in attitude theory, because they provide the groundwork upon which attitudes are constructed. Additionally, attitudes have an important role, when individuals process information, form intentions and take actions (Boninger, Krosnick & Berent, 1995). Understanding the relationship among these constructs may assist sport managers in their strategies for fans' attendance and the development of a loyal fan base.

In the leisure literature Iwasaki and Havitz's (1998) model seems to be the most widely accepted so far. They suggested that individuals go through sequential processes to become loyal participants. These processes include: a) the formation of high levels of involvement in an activity, b) the development of psychological commitment to brands, and c) the maintenance of strong attitudes toward resistance to change preferences regarding those brands. Involvement and loyalty are related, but they are also distinct constructs, while psychological commitment has been conceptualized as a key linking construct between the former and the latter (Iwasaki & Havitz, 2004). Extending their 1998 model, in order to systematically examine the nature of the relationship between leisure involvement and loyalty, Iwasaki and Havitz (2004) suggested that psychological commitment and resistance to change have a mediator role in the relationship between the involvement and behavioral loyalty of participants in leisure activities.

In the area of spectator sports, many researchers have found that there is a relationship between involvement and specific behaviors, such as fans' attendance (Funk et al. 2004; Shank and Beasley, 1998). Funk et al. (2004) developed a model that measures 18 distinct antecedents of involvement among spectators of the WNBA in the United States of America and demonstrated that there is a significant correlation between facets of involvement and fans' attendance. Also, Shank and Beasley (1998) ascertained significant correlations between cognitive and affective involvement on the one hand, and fans' attendance, and other activities, such as watching games on television or listening to the radio and reading team news in the newspapers, on the other.

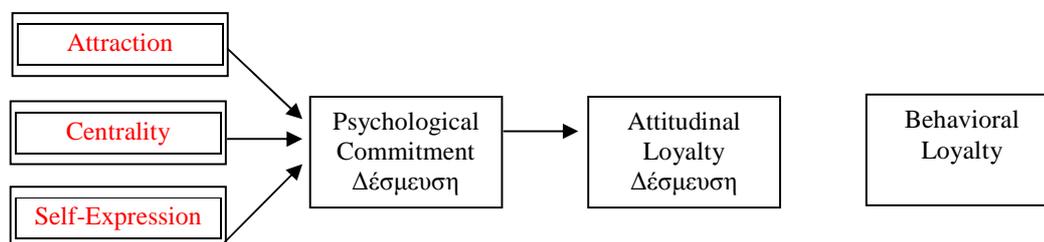
With regard to the relationship between involvement, psychological commitment and loyalty in a sport spectator context, Bee and Havitz (2010) examined the relationship among involvement, psychological commitment, resistance to change, and behavioral loyalty among spectators of the women's international tennis championship. The results indicated that psychological commitment and resistance to change mediate the relationship between spectators' involvement and loyalty. Although the relationship of the constructs in that study was hypothesized based on the same theory as the current study, the data analysis was only correlational.

Proposed Model

The purpose of the current study was to determine whether the conceptual model proposed by Iwasaki and Havitz (1998) (Figure1) can be applied to the fans of professional soccer teams, and to investigate if involvement leads to psychological commitment, which, in turn, leads to fans' attitudinal and behavioral intentions. Following Heere and Dickson's (2008) suggestion, commitment and attitudinal loyalty were measured as different constructs. Additionally, attitudinal loyalty was measured as the result of the interaction between negative external changes in the environment and the individual's internal level of commitment, which is a longitudinal dimension of attitudinal loyalty. The application of the model of the relationship among sport fans' involvement, psychological commitment and loyalty may provide a better understanding of what eventually drives the behavior of sport fans.

The proposed model is presented in Figure 1.

Figure 1. The proposed structural model of the relationship among sport fans' involvement, psychological commitment, attitudinal and behavioral loyalty.



Aims and Hypotheses of the Study

The objectives of the study were:

1. To confirm the factorial validity of the multidimensional involvement scale proposed by Kyle et al. (2003) through a confirmatory factor analysis (CFA).
2. To examine the fit criteria of the proposed model of the relationship among involvement, psychological commitment, attitudinal and behavioral loyalty, through the structural equation modeling (SEM) in a sport fan setting.

Based on the literature, as discussed above, we developed the following hypotheses:

Hypothesis 1: Involvement will have a significant positive influence on fans' psychological commitment;

Hypothesis 2: Psychological commitment will have a significant positive influence on fans' attitudinal loyalty;

Hypothesis 3: Attitudinal loyalty will have a significant positive influence on fans' behavioural loyalty.

Methodology

Sample

The participants were 880 fans of Greek soccer teams. The teams participate in the major soccer Greek League (Super League). A stratified sampling method was used so that the demographic data of the participants would be representative of the Greek population of fans.

Questionnaire

The involvement scale in recreation settings proposed by Kyle et al. (2003) was used in order to measure fans' involvement. It includes items from the scales of McIntyre and Pigram (1992) and Laurent and Kapferer (1985). This scale has been evaluated

according to reliability and validity criteria in the past (Kyle et al., 2003; 2004a; 2004b; Kyle et al., 2004; Kyle & Mowen, 2005). Involvement was measured with the use of eleven (11) questions. The involvement construct was evaluated with regard to three (3) dimensions: a) attraction, which includes five (5) questions, e.g. *"I really enjoy participating in my favorite team's activities"*, b) centrality, which includes three (3) questions, e.g. *"My favorite team has a central role in my life"*, and c) self-expression, which includes three (3) questions, e.g. *"When I participate in my favorite team's activities others see me the way I want them to see me"*. The unidimensional scale of Funk et al. (2009) was used to measure the fans' psychological commitment, since it has been found that it is a valid and reliable instrument (Neale & Funk, 2006). Psychological commitment was measured with the use of three (3) questions, *"i.e., I am a committed fan of my favorite team; I am a loyal supporter of my favorite team; Win, lose or draw I'm a loyal fan of my favorite team"*. Heere and Dickson's (2008) Attitudinal Loyalty to Team Scale (ALTS) was used to measure fans' attitudinal loyalty. The construct of attitudinal loyalty was measured with the use of four (4) questions *"i.e., I could never switch my allegiance from my favorite team even if my close friends were fans of another team; It would be difficult to change my beliefs about my favorite team; I would still be committed to my favorite team regardless of the luck of any star players; I would still be committed to my favorite team regardless of the lack of physical skill among the players"*. For the measurement of behavioral loyalty, ten (10) questions that consider both past and future behaviors were used, e.g. *"I have often attended the games of my favorite team live in the stadium/ I will often attend the games of my favorite team live in the stadium"* (Homburg & Giering, 1999; Fink et al., 2003; Bauer et al., 2008). As Bauer et al. (2008) suggested: "we aggregate the item scores for the past and future behavior items by calculating an average score, in order to reduce the complexity for the construct". Demographic questions including gender, age, profession, education, income, nationality were included in the questionnaire. Also, a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (totally agree) was used.

Process

A supervisor and ten trained research assistants were placed in all stadium gates to ensure the representation of all spectators (Robinson, Trail, Dick, & Gillentine, 2005). Participants completed the questionnaires prior to the beginning of the soccer game. The procedure lasted for two (2) months. Before completing the questionnaire,

participants were asked if they had participated in this research in the past. Those who had previously participated did not complete the questionnaire.

Statistical Analysis

In order to assess the factorial validity of the service quality scale, a confirmatory factor analysis (CFA) was conducted first with the use of EQS 5.7. Furthermore, in order to test the proposed model structural equation modeling was used.

Results

Descriptive Statistics

Eight hundred eighty (880) fans of Greek soccer teams participated in the study. The vast majority of the fans were Greek (98.8%) and male (93%). Almost 74% of the fans were between 20-39 years old. Also, there is a significant percentage (9.7%) of unemployed fans. Regarding their level of education, a significant percentage (38.7%) of the participants has a high school degree. In addition, 42.7% of the fans were married and 31.2% of them had an income of less than 500€. Similar results were found in Theodorakis, Alexandris, Tsigilis & Karvounis' study (2013), in which 314 participants were male and 36 were female and their age ranged from 17 to 69 years. Descriptive statistics are depicted in table 1.

Table 1. Demographic data.

Age	<19 8%	20-29 30.7%	30-39 30.7%	40-49 24.5%	>50 6,1%
Gender	Male 93%	Female 7%			
Marital Status	Not married 54.3%	Married 42.7%	Divorced 2,5%	Widow 0.5%	
Professional Status	Students 20%	Employees 64.2%	Entrepreneurs 4.8%	Unemployed 9.7%	Retired 1,3%
Education	Elementary School 0.9%	High School 38.7%	Graduate 49.8%	Post Graduate 10.6%	
Income	<500€ 31.2%	500-1000€ 28.9%	1000-1700€ 26.9%	>1.700€ 13%	
Ethnicity	Greek 98.8%	Other 1.2%			

Confirmatory Factor Analysis of the Involvement Scale

CFA is an analytical tool for the assessment of the construct validity of multiple-attribute survey items used to create unobserved latent factors (Hair, Black, Babin, Anderson, & Tatham, 2006). First, the data were examined for normality. The χ^2 test results indicated that the assumption of multivariate normality was not violated. The six factors were allowed to correlate with one another. The model was evaluated with the use of the comparative fit index (CFI), the non-normed fit index (NNFI), the root mean square error of approximation (RMSEA), the standardized root mean square residual (SRMR), and the chi-square to degrees of freedom (X^2/df) ratio. The general rules of thumb for the acceptability of the model fit using these indices are $>.90$ for CFI and NNFI, $<.06$ for RMSEA, and <2 for the X^2/df ratio (Bollen & Long, 1993; Byrne, 1994; Hu & Bentler, 1999). The model was shown to have good fit indices (CFI= .90, NNFI= .90, RMSEA= .05, RMSEA 90% CI= .035-0.61, SRMR= .05, $p > .001$).

Reliability Analysis

The reliability analysis indicated good alpha values ranging from .69 to .89. In terms of descriptive statistics, the results indicated high mean scores for all the involvement dimensions, for psychological commitment, as well as for attitudinal and behavioral loyalty. The results are presented in Table 2.

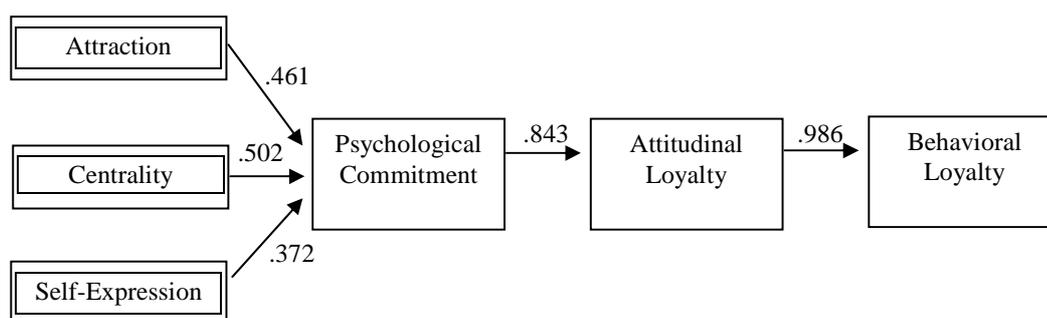
Table 2. Descriptives and alpha reliability of the involvement factors, psychological commitment, attitudinal and behavioral loyalty.

Factors	Mean	S.D.	(Alpha)	Items
Involvement			0.85	8
Attraction	6.13	1.06	0.81	3
Centrality	5.27	1.38	0.89	3
Self-expression	4.38	1.78	0.79	2
Psychological Commitment	6.61	0.70	0.82	3
Attitudinal Loyalty	6.72	0.55	0.73	4
Behavioral Loyalty	5.96	0.85	0.70	10
Past Behavior	5.84	0.89	0.69	5
Future Behavior	6.08	0.89	0.71	5

Structural Equation Model

The model was analyzed with the use of the technique of structural equation modeling. It was considered that three (3) variables of fans' involvement (attraction, centrality, self-expression) affect psychological commitment; psychological commitment, in turn, influences attitudinal loyalty and, eventually, attitudinal loyalty has direct effects on behavioral loyalty. The global fit criteria of the model were satisfactory (CFI=.91, NNFI=.88, RMSEA=.52, RMSEA 90% CI=.046-.059). Involvement facets, such as attraction, centrality, and self-expression have direct effects on psychological commitment (.46, .50, .37); psychological commitment affects attitudinal loyalty (.84), and attitudinal loyalty affects behavioral loyalty (.99).

Figure 2. The structural model of the relationship among sport fans' involvement, psychological commitment, attitudinal and behavioral loyalty



Discussion

This research attempted to develop academic knowledge in the area of the fans of professional sports (soccer), and also emphasize the importance of theoretical constructs, such as involvement, psychological commitment, attitudinal and behavioral loyalty, in terms of the fans of a professional sport. Identifying the nature of the relationship among involvement, commitment, and loyalty constructs appears to be advantageous, as it assists the development of better managerial decisions.

The main purpose of the study was to test the applicability of the model of the relationship among involvement, psychological commitment, attitudinal and behavioral loyalty, proposed by Iwasaki and Havitz (1998), in a leisure setting. It was hypothesized that involvement will influence psychological commitment, which will in turn influence attitudinal loyalty, and this will eventually influence sport fans' behavioral loyalty. The results provided support for all the hypotheses of the current study. The present study

provided evidence that the model proposed by Iwasaki and Havitz (1998) is valid with regard to sport fans and this is an important finding, since it will assist sport managers to understand and predict fans' future behaviors.

In terms of the factor structure of the involvement scale proposed by Kyle et al (2003), the results provided evidence for its factorial validity, since involvement was supported with the use of the confirmatory factor analysis. The model tested fans' involvement with their team and was found to be valid and reliable. The involvement dimensions ("attraction", "centrality", "self-expression") proposed by other researchers (Kyle et al. 2003; 2004a; 2004b; Kyle et al., 2004; Kyle & Mowen, 2005) in leisure and recreation settings were also confirmed in the sport spectator setting. This is the first time that this model, which had been tested in a recreation setting with sport participants, is also found to be reliable and valid for sport spectators; this is an important finding for sport managers. The involvement scale proposed is a promising one and can be used both as a base for measuring sport fans' involvement and as a diagnostic tool at the different levels of analysis. Involvement scores provide sport managers with useful and detailed information both about fans' total involvement and involvement as measured by the sub-dimensions. This information shows sport managers the way to increase the total level of involvement and its dimensions separately. More specifically, from the mean scores of the three dimensions ("attraction", "centrality", "self-expression") it was found that fans considered the attraction aspect as the most important one. It seems that the attraction facet in sport spectator settings is probably a combination of importance and pleasure; soccer fans' involvement with their team might be a way to spend time through an enjoyable activity and to escape from daily routine. Many researchers have pointed out the important role of the attraction facet in the development of involvement in leisure and sport spectator settings (Kyle et al., 2003; 2004; 2004a; 2004b; Kyle & Mowen, 2005; Nassis & Theodorakis, 2008). Centrality also received a high score. It relates to the central role of a sport team in terms of an individual's overall lifestyle. Previous studies have also shown that centrality, as a dimension of involvement, is a central feature in the development of involvement (Kyle et al., 2003). It was also found that fans ranked high the self-expression dimension. Researchers have asserted the basic role of self-expression, as the self-representation of the fans (Kyle & Mowen, 2005). It seems that the attraction dimension is the most important one; managers should therefore give special attention to it.

From the results of the study it was found that the centrality dimension of loyalty had the strongest influence on psychological commitment, followed by attraction and self-expression. This is a significant finding and was not expected, since the majority of studies on leisure participants have indicated that it was the attraction facet that had the strongest influence on psychological commitment (Kyle et al., 2003). It seems that teams play a more central role for fans than a recreation activity does for its participants. We must consider that the spectators of such events are usually highly involved fans and this was also found in this study. Wann et al. (2001) suggested that the centrality dimension varies according to the degree spectators identify themselves as fans and the level of identification may be the difference between the two populations.

Studies in leisure marketing literature have demonstrated that psychological commitment is related to resistance to change (Iwasaki & Havitz, 1998, 2004). The findings of this study provide support for this notion. Attitudinal loyalty for which resistance to change is a central feature (Heere & Dickson, 2008) was influenced by psychological commitment. Fans with high levels of psychological commitment probably have a stronger unwillingness to change their preferences toward their team. The different identification level between recreation participants and sport fans may mediate this influence and this is a recommendation for further study.

Finally, the results of the study indicated that attitudinal loyalty influenced behavioral loyalty. These findings are similar to those reported by Funk and James (2001), Funk and Pastore (2000) and Iwasaki and Havitz (1998, 2004), who also found a strong influence of resistance to change on behavioral loyalty. The enduring positive or negative feeling has probably the ability to direct behaviors ((Fishbein & Chaiken, 1993; Petty & Cacioppo, 1981).

Managerial Implications

The application of the model of the relationship among fans' involvement, psychological commitment, attitudinal and behavioral loyalty to their teams can help sport managers to understand clearly sport fans' behavior, and to enhance marketing strategies in order to keep a loyal fan base.

Kapferer and Laurent (1993) suggested that the different facets of involvement provide different influences on the consequences of involvement. Managers should segment sport fans according to involvement facets in order to implement different strategies to every category.

The results indicated that attraction is the most important factor in the development of fans' involvement. In order to develop a more attractive environment for fans, sport managers should organize many activities, for example pre-game shows and concerts. It is also important to increase service quality through the development of new technologies in the stadium.

The results showed that psychological commitment plays an important role in the development of behavioral loyalty. It is, therefore, necessary to increase team awareness and the interaction between fans and the team, using all the available social media. In addition, the application of a customer relationship management program is key for soccer clubs; the information should be used in order to control the levels of fans' attitudinal loyalty.

In conclusion, sport managers should comprehend the procedures through which fans' behavioral loyalty to their teams is developed. In order to control the process through which fans become loyal the following is proposed: the application of new strategies, and the reinforcement of fans' psychological commitment and attitudinal loyalty.

Limitations of the study

There are several limitations in the present research. First of all, the proposed model was examined among sport fans of Greek soccer teams. It would be useful to investigate new approaches and applications of the model in different leagues and spectator sports, since the measures that are developed in one culture/country may not be applicable in a different cultural setting (Karatepe Yavas, & Babakus, 2005).

The related literature indicated that there are many factors contributing to the development of sport fans' loyalty. The proposed model should take into account all these factors. Also, it is important to test the psychometric properties of the new proposed scale of involvement in other sport spectator settings in order to examine the adequacy of the scale in the measurement of sport fans' involvement with their teams.

Finally, the sample of the research was limited, as we examined only fans that attend games. It would be useful to focus on other samples of sport fans, such as fans who only watch their favorite teams on television or the internet.

Future Research

The current study measured the relationship of these constructs in the case of soccer fans. It supported the three-dimensional model of sport fans' involvement using a new scale. Scholars need to test the reliability and validity of the proposed new scale of soccer fans' involvement.

More research is needed to examine other factors contributing to the development of behavioral loyalty. Researchers have pointed out the important role of individual characteristics and social-situational factors in the development of behavioral loyalty (Iwasaki & Havitz, 1998). The role of sport fan curiosity in the development of fans' loyalty could contribute to the development of academic knowledge, since "curiosity has been found to be one of the crucial motivators that initially influence human exploratory behaviors in many domains" (Park, Mahony & Kim, 2012, p. 46).

The model of the relationship among these constructs focused on soccer fans. Research in other spectator sports is an interesting topic that may result in new different findings. Also, the vast majority of the participants were male. The examination of the relationship between involvement, psychological commitment and loyalty among female sport fans could contribute to consumer behavior research, especially in European spectator sport settings.

Conclusion

In conclusion, the purpose of this study was to examine the relationship between the involvement, psychological commitment and loyalty of soccer fans' to their favorite team. The present study provided evidence that the model proposed by Iwasaki and Havitz (1998) is valid in the sport fan area and it will assist sport managers to understand and predict fans' future behaviors. It's a useful tool for scholars, researchers and sport managers.

Appendix A. Scale Items

Involvement

Attraction

- a. *Participating in my favorite team's activities* is one of the most enjoyable things that I do.
- b. *Participating in my favorite team's activities* is important to me.

- c. *Participating in my favorite team's activities* interests me.
- d. *Participating in my favorite team's activities* is pleasurable.
- e. I really enjoy participating in my favorite team's activities.

Centrality

- a. I find a lot of my life is organized around my favorite team.
- b. *My favorite team has a central role in my life.*
- c. *I find a lot of my life is organized around my favorite team's activities.*

Self-expression

- a. When I participate in my favorite team's activities I can really be myself.
- b. You can tell a lot about a person by seeing him/her participating in his/her favorite team's activities.
- c. When I participate in my favorite team's activities, others see me the way I want them to see me.

Psychological commitment

I am a committed fan of my favorite team.

I am a loyal supporter of my favorite team.

Win, lose or draw I'm a loyal fan of my favorite team.

Loyalty

Attitudinal

- a. I could never switch my allegiance from my favorite team even if my close friends were fans of another team.
- b. It would be difficult to change my beliefs about my favorite team.
- c. I would still be committed to my favorite team regardless of the luck of any star players.
- d. I would still be committed to my favorite team regardless of the lack of physical skill among the players.

Behavioral

- a. I have often attended the games of my favorite team live in the stadium. / I will often attend the games of my favorite team live in the stadium.
- b. I have often followed reports about my favorite team's players, coaches, managers etc. in the media. / I will often follow reports about my favorite team's players, coaches, managers etc. in the media.

- c. I have purchased a lot of club-related merchandise. / I will purchase a lot of club-related merchandise.
- d. I often wore the colors and/or the logo of my favorite team. / I will often wear the colors and/or the logo of my favorite team.
- e. I have often participated in discussions about my favorite team. / I will often participate in discussions about my favorite team.

(Note. All items are measured on 7-point scales with end points ranging from 1 (strongly disagree) to 7 (strongly agree).

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