Segmenting soccer spectators by attachment levels: a psychographic profile based on team self-expression and involvement

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Segmenting soccer spectators by attachment levels: a psychographic profile based on team self-expression and involvement

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The present study aimed to use attachment as a segmentation criterion of soccer spectators and further describe these spectator segments based on self-expression and team involvement. The sample of the study included 280 (N = 280) Greek soccer spectators. Cluster analysis was employed to categorize spectators into high and low attachment groups, and discriminant analysis using team self-expression and involvement to describe the two segments of attached spectators. The cluster analysis revealed two clear groups of spectators, who had significant different scores in their attachment levels (high and low). Furthermore, high attached spectators were shown to have higher scores in the self-expression and team involvement variables than the low attached spectators. The theoretical and practical implications of the results are discussed, and future research directions are provided.

Keywords: sport team attachment; segmentation; team self-expression; team involvement

Introduction

Market segmentation is considered to be a key concept in sport marketers’ effort to understand the needs of specific groups of consumers and develop targeted marketing mixes (Mullin, Hardy, & Sutton, 2007). Both socio-economic variables, such as gender, income, occupation, and age (e.g., Kim, Yoo, & Pederson, 2007; Mehus, 2005; Ridinger & Funk, 2006), and psychographic variables, such as motivation, attitudes, and needs (Funk, 2002; Funk & Pastore, 2000; Mahony, Madrigal, & Howard, 2000; Tapp & Clowes, 2002), have been used to segment sport spectators. According to Bouchet, Bodet, Bernache-Assollant and Kada (2011), socio-economic variables are suitable for describing sport spectators and what they look for. It is, however, necessary for sport marketers to further understand the behavior of sport fans, based on psychological variables.

In the present study, team attachment was used as a segmentation variable to classify sport fans into high and low attached groups. Team attachment has been proposed as one of the main variables in predicting sport consumption because it refers to the development of fans’ psychological connection with a sport team (Funk & James, 2006; Funk, Ridinger, & Moorman, 2003). We further aimed to profile low
and high attached fans by using two psychographic variables: self-expression and team involvement. There is evidence from the marketing (e.g., Ball & Tasaki, 1992; Carroll & Ahuvia, 2006; Piacentini & Mailer, 2004) and sport literature (Gwinner & Swanson, 2003; Tsiotsou & Alexandris, 2009) that involvement and self-expression can act as antecedents of attachment. Carroll and Ahuvia (2006), for example, reported that consumers’ emotions toward a brand are stronger for high self-expressive brands. Furthermore, Tsiotsou and Alexandris (2009) reported that the attraction direction of involvement is an antecedent of team attachment. Treating sport teams as brands (Buhler, Heffernan, & Hewson, 2007), the present study aimed to (1) segment sport team fans based on their attachment level, with the use of a discriminant analysis, and (2) profile the segments based on their scores in the constructs of self-expression and team involvement.

**Market segmentation studies in the sport marketing literature**

Market segmentation is defined as ‘the process of dividing a market into distinct subsets of consumers with common needs or characteristics and selecting one or more segments to target with a distinct marketing mix’ (Schiffman & Kanuk, 2000, p. 33). Segmenting consumers is an essential task for marketers in their effort to understand consumer needs and characteristics and to develop targeted marketing strategies and marketing mixes for different groups of consumers (Tapp & Clowes, 2002).

There are two market segmentation methods: a priori (or conceptual) and a posteriori (or data driven) (Liu, Taylor, & Shibli, 2010). With the priori segmentation method, market groups are formed based on the researcher’s prior knowledge and experience. The a posteriori method involves forming market groups based on empirical marketing research data. Quantitative analysis is applied in this case to identify groups with common characteristics. The variables used most often for segmenting consumer markets are demographic (e.g., age, gender, family status, occupation, and income), socio-cultural (e.g., family life-cycle, social class) geographic (e.g., urban, rural), behavioral (e.g., frequency of use, quantity of buy), and psychographic (e.g., attitudes, benefits, motivation, personality). A combination of different segmentation criteria can also be used. While socio-economic and demographic variables are used to understand who the consumers are, psychographic variables are more useful in understanding aspects of the decision-making process of consumers (Bouchet et al., 2011; Tapp & Clowes, 2002).

There have been a number of studies that have applied segmentation analysis to sport fans. Giulianiotti (2002), using fan identity and attachment, theoretically categorized sport fans into supporters, followers, fans, and flaneurs. Furthermore, Hunt, Bristol and Bashaw (1999), using consumer motivation and identity theory, categorized fans into temporary, local, devoted, fanatical, and dysfunctional. Both the aforementioned studies did not use empirical data to validate these groups. The studies of Tapp and Clowes (2002), Mahony et al. (2000), Funk and Pastore (2000), and Funk (2002) are among the few published ones that used empirical psychographic data in the context of sport fans/spectators and demonstrated the value of segmenting for marketing purposes. Tapp and Clowes (2002) conducted a study among English football fans and used behavioral and psychological (values and needs) variables to segment fans. With the use of qualitative and quantitative data,
they categorized fans into casuals, regulars, and fanatics and showed that each of these groups had different values and consumer needs.

Mahony et al. (2000) developed a psychological commitment scale and classified fans according to commitment level. Funk and Pastore (2000) used a loyalty scale consisting of five behavioral and five attitudinal dimensions to segment sport fans. After segmenting consumers based on loyalty, the authors showed that the dimensions of importance and direct experience were the most powerful predictors of loyalty. Importance was defined as an individual’s perception of the psychological significance of the sport team, while direct experience was defined as the amount of previous direct contact that an individual had with his/her team. Finally, Funk (2002) used 13 team associations (e.g., star player, nostalgia, peer group acceptance, success) and showed how these associations differ among consumers with different loyalty levels. Psychographic segmentation has also been widely applied in studies conducted among sport, leisure participants, and tourists (e.g., Alexandris, Kouthouris, Funk, & Chatzigianni, 2008; Jun, Kyle, & Mowen, 2009; Kyle, Absher, & Chancellor, 2005; Kyle, Kerstetter, & Guadagnolo, 2002).

**Theoretical background**

*Delineating the concept of attachment*

Attachment has been defined as ‘an emotion-laden target-specific bond between a person and a specific object’ (Park, MacInnis, & Priester, 2008, p. 194). In the context of consumer behavior, attachment to a brand has been defined as ‘a psychological variable that reveals a lasting and inalterable affective relationship (separation is painful) to the brand and expresses a relation of psychological closeness to it’ (Louis & Lombart, 2010, p. 118). Attachment can be considered a valuable variable for psychographic segmentation because it expresses attitudes that are relatively persistent and stable over time (Funk & James, 2001, 2006). Furthermore, it influences the development of positive, emotional and behavioral outcomes (Funk, Haugtvedt, & Howard, 2000; Krosnick & Petty, 1995), such as brand loyalty, willingness to pay a price premium, favorable word of mouth, and willingness to forgive the brand for mishaps (Park et al., 2008). Furthermore, research has shown that attachment is correlated with consumer trust, satisfaction, and commitment (Thomson, 2006).

It is widely accepted in the literature that although the constructs of attachment and commitment share some similarity they are distinct (Park et al., 2008). Park et al. (2008) defined commitment as ‘a decision or pledge to maintain a long term relationship with a brand into the future. Commitment is a psychological pledge regarding future behavior’ (p. 199). It is, therefore, a consequence of attachment (Iwasaki & Havitz, 2004) On the other hand, brand identification, which has been developed based on social identity theory (Tajfel & Turner 1985), has been defined as the extent to which the consumer sees his or her own self-image as being consistent with the brand’s image (Bergkvist & Larsen, 2010). Brand can represent self-relevant social categories with which customers identify (Lam, Ahearne, Hu, & Schillerwaert, 2010). Brand identification is also known as ‘brand image congruence’ and ‘self-connection’ (Bergkvist & Larsen, 2010). In this line, identification is an antecedent of attachment and has been widely applied in sport settings (e.g. Heere & James, 2007;
Further discussion of the team identification is beyond the scope of this study.

Sport teams (Funk & James, 2006), events (Filo, Funk, & O’Brien, 2008, 2009), and leisure activities (Alexandris, Funk, & Pritchard, 2011) have been studied as objects for the development of attachment in the sport and leisure literature. It has been proposed that sport attachment represents a strong psychological connection that occurs when an individual assigns emotional, functional, and symbolic meaning to a leisure object (e.g., recreational sport activity, sport event, sport team) (Beaton, Funk, & Alexandris, 2009; Filo et al., 2008, 2009; Funk & James, 2006). In addition to being attached to a sport team, event, or an activity, it has been recently suggested that there are specific points of attachments, such as the players, the coach, the community, the university, the benefits, and the community (Robinson & Trail, 2005; Woo, Trail, Kwon, & Anderson, 2009). In the present study, we measured attachment to a sport team with a one-dimensional scale, as proposed by James and Ross (2002) and Robinson and Trail (2005). Our objective was to use attachment as a segmentation criterion and in relationship with self-expression and team involvement.

Involvement

Involvement has been defined as ‘a person’s perceived relevance of the object based on inherent needs, values, and interests’ (Zaichkowsky, 1985, p. 342). It is a function of individual characteristics (e.g., needs, values, goals), situational factors (e.g., purchase occasion or perceived risk associated with a purchase decision), and characteristics of the product or stimulus (e.g., type of the media, variations within a product class) (Zaichkowsky, 1985). The consequences of involvement are not only higher motivation, heightened arousal, increases in cognitive elaborations (Mano & Oliver, 1993), but also brand loyalty and brand commitment (Beatty & Kahle, 1988).

Zaichkowsky (1985) distinguished involvement into two categories: product involvement and brand-decision involvement. Product involvement refers to the interest that a consumer finds in a specific product. Brand-decision involvement is the interest developed by a consumer in making the selection of a specific brand. Product involvement has been found to have a direct effect on consumer satisfaction (Richins & Bloch, 1991).

While it is widely accepted today that involvement is a multi-dimensional construct, there is still controversy in terms of the number and the nature of the dimensions used to measure it. By extending the Personal Involvement Inventory developed by Zaichkowsky (1985), McQuarrie and Munson (1987) proposed the dimensions of importance and pleasure as the core ones in the measurement of involvement. The Personal Involvement Inventory was also further revised by Zaichkowsky (1994), who proposed the dimensions of cognitive, which corresponds to the importance dimension of McQuarrie and Munson (1987) and affective, which corresponds to the pleasure dimension of McQuarrie and Munson (1987). Cognitive involvement has been defined as the degree of personal relevance of message contents or issue based on the brand’s functional performance (utilitarian motive) (Zaichkowsky, 1994). Affective involvement has been defined as the degree of personal relevance of a message based on emotional or aesthetic appeals to one’s motive to express an actual or ideal self-image to the outside world (Zaichkowsky, 1994).
A second model that has been influential in the literature is Laurent and Kapferer’s (1985) Consumer Involvement Profile. A main critique of this model is that it includes facets that have been proposed to be antecedents of involvement (Zaichkowsky, 1994). Laurent and Kapferer (1985) proposed five facets of involvement: the perceived importance of the product (importance), the perceived importance of negative consequences associated with purchase of the product (risk importance), the perceived probability of making a poor purchase decision (risk probability), the symbolic or sign value attributed by the consumer to the product (sign), and the hedonic value or pleasure provided by the product (pleasure).

In sport and leisure settings, both the Personal Involvement Inventory and the Consumer Involvement Profile have been used as a basis for the development of adjusted models to measure involvement. However, there is still an inconsistency in terms of the number and the nature of the dimensions used (for an extensive review of the leisure involvement literature, see Havitz and Dimanche (1997)). Some examples are the series of studies conducted by Kyle and his colleagues (e.g., Kyle & Chick, 2004; Kyle, Absher, Hammitt, & Cavin, 2006), who adopted the Consumer Involvement Profile and applied it in a variety of leisure settings. As Havitz and Dimanche (1997) concluded after having made a detailed review of the literature in sport and leisure involvement, there has been no agreement on the number and types of facets that should be used for the measurement of involvement. Consequently, the degree to which all facets are central to understanding and conceptualizing leisure involvement is still a debated issue. Attraction, for example, tends to be a main facet in leisure settings, while the risk facet is more frequently reported in nonleisure contexts (Havitz & Dimanche, 1997).

As previously noted, while involvement has been examined in relation to motives, constraints, and loyalty, there has been limited empirical research on the relationship between involvement and attachment in the context of sport fans, although this relationship was proposed in Iwasaki and Havitz’s (2004) theoretical model. There is some evidence in two recent studies (Tsiotsou, 2010; Tsiotsou & Alexandris, 2009) that there is a positive relationship between the attraction dimensions of involvement and attachment to a sport team. Based on the definition and the theoretical discussion of the constructs, as made previously, we argue that both the importance and the hedonic dimensions of involvement (Zaichkowsky, 1985, 1994) are antecedents of attachment. The use of the Personal Involvement Inventory in our study is justified by the role that emotions play in spectators’ behaviour (Funk & James, 2001, 2006; Funk & Pastore, 2000) and the consistent report of the role of the importance dimension in previous studies conducted in sport and leisure settings (Kyle & Chick, 2004; Kyle et al., 2006; Laurent & Kapferer, 1985).

**Brand attachment and self-expression**

Self-expression has been defined as a consumer’s perception ‘of the degree to which the specific brand enhances one’s social self and/or reflects one’s inner self’ (Carroll & Ahuvia, 2006, p. 82). It has been proposed that consumers’ emotions toward a brand are stronger for brands that play a significant role in shaping their identity (Carroll & Ahuvia, 2006). The symbolic meaning that brands hold for consumers has been well documented in the consumer behavior literature. Individuals choose specific brands not only for their functional benefits, but also for their symbolic
properties (Piacentini & Mailer, 2004; Wattanasuwan, 2005). Consumers choose brands that help them create, foster, and develop their identity (Yoo, Chung, & Kan, 2006). In this case, the symbolic meaning of the brand is used as an expression of a consumer’s self-concept in relation to her/his status in society. Carroll and Ahuvia (2006) proposed that a brand can reflect the inner-self or it can enhance the social self of a consumer. Thus, they proposed that two dimensions of self-expression (inner and social) should be measured.

One of the issues not clarified in the literature is whether self-expression is part of the involvement construct. Laurent and Kapferer (1985) proposed the facet of sign, which measures the symbolic or sign value attributed by the consumer to a product as one of the five dimensions of the Consumer Involvement Profile. However, as previously discussed, Zaichkowsky (1985, 1994) did not include self-expression with her Personal Involvement Inventory, as she argued that the facets of involvement proposed by Laurent and Kapferer (1985) are antecedents of involvement.

The degree to which a sport team is perceived as high or low self-expressive by the fans influences the development of sport attachment. Professional teams are considered today as strong and unique brands (Buhler et al., 2007), with specific consumer/fan associations (Ross, 2006, 2007). These are formed on the basis of their promotional and communication activities, history, logo, past performance, personality of players, and style of play (Ross, James, & Vargas, 2006). Fans of professional teams develop psychological associations with their favorite teams, and the symbolic meaning of the team is used as a way of expressing their self-concept and self-identity (Heere & James, 2007). The relationship between self-expression and sport attachment has received limited attention in the sport marketing literature. In one of the few published studies, Tsiotsou (2010) reported that when a sport team expresses a fans’ self, it has a positive influence on their attachment with this team. Consequently, it is expected that high self-expressive teams are more likely to have fans with higher team attachment levels.

**Method**

Greek spectators in two Super League soccer games participated in the study. The data were collected by a team of four research assistants, who distributed the questionnaires during two home games of the same soccer teams. The questionnaires were distributed and collected in different places in the stadiums during half time of the two games, in order to ensure representation of all spectators. Two hundred questionnaires were distributed in each game and a total of 280 ($N = 280$) were returned. The response rate for the first team was 71.5% ($n = 143$) and 68.5% ($n = 137$) for the second team.

**Study measures**

**Sport involvement**

The importance (Higie & Feick, 1989; Zaichkowsky, 1985), consisting of 5 items (7-point bipolar scale), and hedonic (Higie & Feick, 1989; Zaichkowsky, 1994), consisting of 5 items (7-point scale), dimensions of involvement were used in measuring involvement. Hedonic involvement stems from the emotional appeal of the
product and its ability to provide pleasure and affect (Higie & Feick, 1989; Zaichkowsky, 1985). The use of the hedonic dimension of involvement in the current study is justified by the important role that emotions play in fans’ behavior (Funk & James, 2001, 2006; Funk & Pastore, 2000). On the other hand, importance involvement has more of a rational element, related to the perceived importance that a product holds for an individual (McQuarrie & Munson, 1987). The importance dimension of involvement has been consistently used by studies in the general and sport leisure marketing literature and has been shown to be an important one (Kyle & Chick., 2004; Kyle et al., 2006; Laurent & Kapferer, 1985).

Sport team self-expression

To measure the self-expressive value of the team, the scale developed by Carroll and Ahuvia (2006) was employed. Their scale consists of two factors: inner self (4 items) and social self (5 items), using a 7-point Likert scale anchored by ‘strongly disagree’ (1) and ‘strongly agree’ (7). The social-self factor reflects the degree to which a brand enhances an individual’s image in society, while the inner self reflects internal values and attributes (Carroll & Ahuvia, 2006). The mean score of the two factors was used as the two indicators of sport team self-expression.

Sport team attachment

Six items were used to measure sport team attachment, using a 7-point Likert scale anchored by ‘strongly disagree’ (1) to ‘strongly agree’ (7). These items were previously used by James and Ross (2002) and Robinson and Trail (2005). The items of all the scales are presented in the Appendix.

Results

Sample demographics

A preliminary analysis of the demographic characteristics of the sample showed that 65% of the respondents were males, whereas 35% were females. Regarding their education level, one-third of the sample were students (31%), and another one-third had completed college (31%). In terms of their marital status, 80% were single and 20% were married. Finally, the majority of the respondents (74%) did not belong to an organized fan club.

Confirmatory factor analysis

Via maximum-likelihood Confirmatory Factor Analysis (CFA) using LISREL 8.52, the psychometric properties of the scales were examined. The overall measurement model fit can be assessed statistically by the chi-square test and by a number of goodness of fit indices. Thus, to assess the fit to the data, several practical fit indexes were used: (1) the ratio of the chi-square to the degrees of freedom (2) the root-mean square error of approximation (RMSEA); (3) the Goodness of Fit Index (GFI); (4) Normative Fit Index (NFI); and (5) the Comparative Fit Index (CFI). A ratio of the chi-square to the degrees of freedom below three is considered acceptable in the
The resulted measurement model fits the data (Table 1) well with a chi-square value of 255.18 with 106 degrees of freedom (ratio $= 2.4$, $p = .00$). The fit indexes values met or exceeded the critical values for good model fit ($\text{RMSEA} = .07$, $\text{GFI} = .91$, $\text{NFI} = .91$, $\text{CFI} = .94$). All loadings were significant at the .05 level, with t-values ranging from 11.33 to 16.17. The correlations between the constructs ranged from .36 to .63, and all were significant at the .05 level.

Next, internal consistency was evaluated using Cronbach $\alpha$ and composite reliability (CR). Both CR and average variance extracted (AVE) were calculated using the procedures recommended by Fornell and Larker (1981). As shown in Table 1, all the composite reliabilities for the three multi-item scales ranged from .80 to .91, indicating acceptable levels of reliability for the constructs. Moreover, the AVE ranged between .57 and .75, well above the recommended .50 level (Bagozzi & Yi, 1988). Finally, the model was tested for convergent and discriminant validity by using the factor loadings and the $\Phi$ matrix (Anderson & Gerbing, 1988; Fornell & Larker, 1981). The correlations between the constructs ranged from .36 (standard error: .06) to .63 (standard error: .05), and none of the confidence intervals included the value of 1. These two tests indicated that the conditions for convergent and discriminant validity were satisfied, indicating that the constructs are measured reliably and can be discriminated. Descriptive statistics of all variables under investigation are shown in Table 2.

### Cluster analysis (K-means)

To identify sport consumers with different levels of sport team attachment, cluster analysis (K-means) was used on the team attachment scale. Clustering refers to the process of grouping subjects based on similarities. In other words, cluster analysis is a data analysis tool that sorts different objects into groups in a way that the degree of

<table>
<thead>
<tr>
<th>Variables</th>
<th>Loading</th>
<th>AVE**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sport team involvement ($\text{CR} = .82$)**</td>
<td>.71</td>
<td></td>
</tr>
<tr>
<td>Importance (BINV1)</td>
<td>.70*</td>
<td></td>
</tr>
<tr>
<td>Hedonic (BINV2)</td>
<td>.96*</td>
<td></td>
</tr>
<tr>
<td>Sport team self-expression ($\text{CR} = .91$)**</td>
<td>.75</td>
<td></td>
</tr>
<tr>
<td>Inner Self (BSEX1)</td>
<td>.83*</td>
<td></td>
</tr>
<tr>
<td>Social Self (BSEX2)</td>
<td>.90*</td>
<td></td>
</tr>
<tr>
<td>Sport team attachment ($\alpha = .81$, $\text{CR} = .80$)**</td>
<td>.57</td>
<td></td>
</tr>
<tr>
<td>I feel I am part of my team (BAT1)</td>
<td>.77*</td>
<td></td>
</tr>
<tr>
<td>I feel like I am a ‘real’ fan of the team (BAT2)</td>
<td>.83*</td>
<td></td>
</tr>
<tr>
<td>It is important for me to be a fan of my team (BAT3)</td>
<td>.66*</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Measurement model and confirmatory factor analysis results.

Note: Chi square $= 255.18$ $(p = .01)$ with 106 degrees of freedom, RMSEA $= .07$, GFI $= .91$, NFI $= .91$, CFI $= .94$.

*Significant at the 0.05 level.

**CR = composite reliability, $\alpha$ = Cronbach alpha, AVE = average variance extracted estimate.

literature (Hoyle, 1995). A value of RMSEA smaller than .08 indicates a reasonable fit to the data, and values of fit indexes larger than .90 indicate good model fit (Hoyle, 1995).
association between two objects is maximal if they belong to the same group and minimal otherwise (Ravichandran & Ananthi, 2009). Two groups were extracted from the analysis. Based on their mean score of all the team attachment items, the two groups were named as low in team attachment (cluster center = 2.8) and high in team attachment (cluster center = 5.2). The group low in team attachment represented 46.1% of the sample, whereas the group high in team represented 53.9% of the sample. Between groups and within groups differences were tested using one-way analysis of variance (ANOVA). Cluster means were found significantly different on team attachment ($F = 556.7$, $p < .001$). In terms of the demographic profile of the groups, the results indicated that the high attachment group had more males than females, people between 22 and 26 years old, and those who were single with a university degree.

**Classification with discriminant analysis**

To compare sport fans with high and low team attachment and identify differences, classification with discriminant analysis was used. Classification with discriminant analysis was chosen because it provides ‘parsimony of description’ and ‘clarity of interpretation,’ as Stevens (1992) suggested. According to Stevens (1992), 20 subjects per variable are adequate for running discriminant analysis without being cautious in interpreting the results. Subsequently, the sample size of 280 subjects is adequate for the four variables of the study. The total sample was randomly split by the SPSS statistical program into a development sample of 145 subjects and a cross-validation sample of 135 subjects to assess the classification accuracy of the discriminant variables. The classification function was computed first on the development sample and then checked its hit rate on the cross-validation sample. The independent variables of the study were hedonic involvement, importance involvement, and inner self-expressive and social self-expressive. In a preliminary analysis of the data, a case analysis was conducted to identify possible outliers and violations of the assumptions of independence, multivariate normality, and the homogeneity of variance/covariance matrices. No serious violations of the assumptions were identified. The homogeneity of variance/covariance test (Box’s M) indicated that the data did not violate the assumption (fail to reject at the .001 level; $F = 1.463$, $p = .146$).

The overall multivariate relationship (MANOVA) was statistically significant at the .05 level (chi square = 53.936; Wilk’s $\Lambda = .68$; $p < .001$), indicating that the two groups are statistically significantly different. Thus, the discriminant function extracted was significant, and overall the variables used in the study were able to

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>Hedonic involvement</th>
<th>Importance involvement</th>
<th>Inner self-expressive</th>
<th>Social self-expressive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hedonic involvement</td>
<td>5.08</td>
<td>1.54</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Importance involvement</td>
<td>5.26</td>
<td>1.44</td>
<td>.71*</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inner self-expressive</td>
<td>3.04</td>
<td>1.32</td>
<td>.06</td>
<td>.16*</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Social self-expressive</td>
<td>3.23</td>
<td>1.53</td>
<td>.03</td>
<td>.21*</td>
<td>.64*</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*p < .05.
discriminate between high and low team attachment groups. The resulted canonical correlation was .56, whereas the eigenvalue reached .47. The eigenvalue can be interpreted as the proportion of variance accounted for by the correlation between the respective canonical variates. The analysis continued by evaluating the contribution of each independent variable to the discrimination of the two groups. All univariate $F$-tests were significant, as shown in Table 3.

The next step of the analysis was the classification of the subjects and the evaluation of the classification procedure. The classification was based on the Bayesian probability of group membership, assuming group priors equal to the relative group sizes. The prior probabilities of group membership were .57 for high and .43 for low team attachment. To accomplish this classification the Fisher's Linear Discriminant Functions were used (Table 4). The analysis continued with the evaluation of the performance of the classification procedure, which is set up to maximize the number of correct classifications. To assess the accuracy of the number of correct classifications, the random cross-validation sample was used. According to Stevens (1992), the use of a random cross-validation sample provides a ‘good check on the external validity of the classification function’ (p. 293). Table 5 shows the ‘hit rate’ for both the development and the cross-validation sample. The results for the development sample indicated a 77% correct classification rate, which was reduced to 76% on the cross-validation sample. The precision of correct classification is satisfactory and for this reason the use of the procedure for classification of future subjects is recommended.

**Discussion and implications**

The present study aimed to classify sport spectators according to their attachment level and further profile them according to the variables of self-expression and team involvement. As previously discussed, team attachment is of particular interest to sport

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Table 3. Univariate $F$-tests for the independent variables and discriminant loadings.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Wilks's $L$</th>
<th>$F$</th>
<th>Significance</th>
<th>Discriminant loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hedonic involvement</td>
<td>.94</td>
<td>9.29</td>
<td>.003</td>
<td>.90</td>
</tr>
<tr>
<td>Importance involvement</td>
<td>.86</td>
<td>24.10</td>
<td>.000</td>
<td>.65</td>
</tr>
<tr>
<td>Inner self-expressive</td>
<td>.84</td>
<td>28.03</td>
<td>.000</td>
<td>.60</td>
</tr>
<tr>
<td>Social self-expressive</td>
<td>.73</td>
<td>54.17</td>
<td>.000</td>
<td>.37</td>
</tr>
</tbody>
</table>

Table 4. Fisher's linear discriminant functions, means and (standard deviations) by group and discriminant function coefficients (weights).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Low team attachment</th>
<th>Group means (SD)</th>
<th>High team attachment</th>
<th>Group means (SD)</th>
<th>Coefficients*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hedonic involvement</td>
<td>1.043</td>
<td>4.65 (1.35)</td>
<td>1.120</td>
<td>5.41 (1.60)</td>
<td>.08$^4$</td>
</tr>
<tr>
<td>Importance involvement</td>
<td>1.542</td>
<td>4.64 (1.35)</td>
<td>1.918</td>
<td>5.74 (1.33)</td>
<td>.37$^2$</td>
</tr>
<tr>
<td>Inner self-expressive</td>
<td>1.061</td>
<td>2.43 (1.08)</td>
<td>1.168</td>
<td>3.50 (1.30)</td>
<td>.10$^3$</td>
</tr>
<tr>
<td>Social self-expressive</td>
<td>.351</td>
<td>2.31 (1.2)</td>
<td>1.147</td>
<td>3.93 (1.38)</td>
<td>.76$^1$</td>
</tr>
<tr>
<td>Constant</td>
<td>-8.53</td>
<td></td>
<td>-13.40</td>
<td></td>
<td>*Rank</td>
</tr>
</tbody>
</table>
managers since high team attachment is related with positive attitudinal (e.g., consumer trust, satisfaction, commitment) and behavioral outcomes (Funk & James, 2006).

The results showed that team attachment can be used as a segmentation criterion, supporting what has been theoretically proposed by Hunt et al. (1999). The cluster analysis revealed two clear groups of spectators, who had significantly different scores in their attachment levels (high and low). Further profiling of these two groups was achieved with the use of the self-expression and team involvement variables. The classification analysis indicated that large proportions of the high and low fans (79% and 75%, respectively, 77% in total) were predicted with the use of the involvement and self-expression variables, which is a promising finding.

The results indicated that the high attached spectators had also high scores in the self-expression and team involvement variables. This gives a clear psychographic profile of highly attached spectators: individuals who feel that the sport team can help them express their self-concept and build their self-identity, and are emotionally and cognitively involved with their sport team. The high score on the importance dimension for the high attached group is a finding that should be highlighted. As previously discussed, the importance dimension relates to the value that a brand (the football team) holds for an individual and its positioning in his/her everyday life. It looks like the sport team is an important part of the everyday life of these spectators. Furthermore, in terms of the demographic profile of the two groups, the results indicated that high attachment spectators are more likely to be males than females, between 22 and 26 years old, single, with a university degree. While this is a clear target group for sport marketers, it could be argued that the size of this group is quite limited and should be further extended, so that sport marketers can develop a wider customer base (e.g., older individuals, married, and family with kids). This is a typical problem with the target group of football clubs in Greece (Theodorakis & Alexandris, 2010). While it is difficult to compare the segments revealed in the present study with the ones proposed by Tapp and Clowes (2002), who used

<table>
<thead>
<tr>
<th>Table 5. Classification accuracy.</th>
</tr>
</thead>
</table>

Results for the development sample ($n = 145$):

<table>
<thead>
<tr>
<th>Actual group</th>
<th>No. of cases</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>63</td>
<td>Low: 47 (74.6%), High: 16 (25.4%)</td>
</tr>
<tr>
<td>High</td>
<td>82</td>
<td>Low: 17 (20.7%), High: 65 (79.3%)</td>
</tr>
</tbody>
</table>

Total correct classification = 77%

Results for the validation sample ($n = 135$):

<table>
<thead>
<tr>
<th>Actual group</th>
<th>No. of cases</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>66</td>
<td>Low: 48 (72.7%), High: 18 (27.3%)</td>
</tr>
<tr>
<td>High</td>
<td>69</td>
<td>Low: 15 (21.7%), High: 54 (78.3%)</td>
</tr>
</tbody>
</table>

Total correct classification = 76%
behavioral segmentation to classify fans, it seems that the highly attached spectators correspond with the ‘regulars’ and the ‘fanatics’, and the low attached spectators with the ‘casuals’. Further, definition of the high and low attached segments revealed in the present study with the use of behavioral characteristics in future studies could give a clearer picture of the profile of high and low attached spectators.

The results, regarding the role of self-expression in the development of team attachment, support the study of Funk and James (2006) who reported that individuals place symbolic meanings on sport teams. Self-expression can be built by enhancing the brand of a team. Fans should be able to see common values (team’s vs. personal), in order to identify with it. The objective should be for fans to feel that the team is personally relevant and important for them, and has a central role in their life. Research on brand associations and brand personality (Ross, 2006; Tsiotsou, in press) can provide some information on how marketers can build the brand of a team and make it more self-expressive. For example, sport team marketers should build attractive sport team’s personalities that will express sport fans’ inner self and reflect their social self. Fans’ perceptions about the image and the personality of their team, as expressed by its administration, history, winning records, stadium, coaches, and players can play a significant role in enhancing its self-expressive value. Marketing efforts should be made toward enhancing these team brand associations.

In terms of involvement, both the hedonic and importance dimensions, which were proposed by Zaichkowsky (1985, 1994) and Higie and Feick (1989) in the general marketing literature, were shown to be applicable in the context of sport spectators. As previously discussed, different facets of involvement have been used in the sport behavior literature so far, with Laurent and Kapferer (1985) involvement model to be the most influential (e.g., Funk et al., 2004; Kyle et al., 2002, 2006). Our study therefore, further expands the literature by providing an alternative model for the measurement of sport involvement, based on the Personal Involvement Inventory (Higie & Feick, 1989; Zaichkowsky, 1994).

Spectator motivation research can give us some information on the development of involvement. As previously discussed, hedonic involvement has a strong emotional element related to the ability of a product to provide pleasure and affect. Previous research on fan motivation shows that entertainment-related motives can influence the development of the hedonic (emotional) dimension of involvement (Funk et al., 2004). Subsequently, sport clubs that provide opportunities for enjoyment and fun to their fans can create attractive environments for the development of hedonic involvement. It should be emphasized that the performance of the team and the final outcome are not the only factors affecting fan enjoyment. It is the whole game experience, including the atmosphere and the aesthetics of the stadium, the services provided the half-time competitions and events, and the various happenings before, during and after the game. Fun and enjoyment can also be enhanced by peripheral aspects of the product, such as the club’s web-site, the socials organized, and the various family promotion activities.

On the other hand, the importance dimension of involvement has a cognitive meaning related to the benefits that an individual expects from being a fan of a specific sport team. This dimension has a similar meaning with the attraction dimension, used by Funk et al. (2004). They proposed that the origin of this dimension relates to the sport environment and the value of entertainment; this is reflected by situational stimuli learned through sport spectating that evoke pleasure,
satisfaction, and happiness. Fans should therefore feel that they get benefits from attending games. This is a leisure activity that demands time and money on the part of the fans. Subsequently, fans should be persuaded that the time and money devoted to being involved with a team and its activities are worth spending.

It could also be proposed that internal/individual characteristics, such as motivation, preferences, expectations, and culture, can relate to the development of the importance dimension of involvement. Empirical support for the positive relationship between importance and behavioral and attitudinal aspects of loyalty has been reported by Funk (2002), in the context of professional sports, and by Alexandris et al. (2008) and Iwasaki and Havitz (2004) in the context of leisure.

Conclusions, limitations, and future research

In conclusion, the present study provided empirical evidence for the applicability of the sport attachment construct as a segmentation criterion for soccer spectators. Furthermore, a psychographic profile of low and high fan attached spectators was provided, with the use of self-expression and team involvement. These results enhance our theoretical understanding of the use of psychographic segmentation in soccer spectators and have marketing implications, as discussed earlier. Some clear limitations of the study should, however, be addressed. First of all, it should be noted that the sample of the study included spectators in two soccer games in Greece; subsequently, results should be replicated with spectators at more games and spectators of different teams in order to be able to generalize the results with more confidence. Furthermore, collection of data from spectators in other European countries could give the chance for cross-cultural comparisons. It should be noted that the majority of the published studies in the area of team attachment come from North America. The structure of the system in professional and college sports in North America is different from that in Europe. Future studies could make direct comparisons in fan behavior issues between North America and Europe, considering also cultural differences. This approach could allow for an identification of good practices and applications in the different sport management systems.

Measurement issues of the constructs should also be pointed out. First of all, as previously discussed, the data were collected during half time of the games. The score of the game might have had an impact on the way that spectators scored the questionnaires. A good game and a positive score for the home team, for example, might cause a temporary increase of spectators’ attachment level. This possibility is something that was not evaluated in the present study. Furthermore, as previously discussed, we used a one-dimensional scale for the measurement of team attachment. While this scale was shown to have good psychometric properties, future studies should consider Funk and James’ (2006) three-dimensional model of sport attachment, which has been theoretically proposed and recently applied in sport and leisure settings (Alexandris et al., 2011). Finally, it should be noted that in the present study we measured attachment to a sport team and not to specific points of the club, such as the players, the coach, the community, and so on, as Woo et al. (2009) and Robinson & Trail (2005) proposed. While we believe that in the European culture, soccer fans are more attached to the team and less to the club, this is an issue for future research. Further development of the self-expression construct is also an issue that deserves further research. The question of why a professional team might
be high or low self-expressive is of particular interest for sport marketers and needs further research. Research on brand associations can contribute toward this direction. Ross et al. (2006), for example, proposed that a set of 10 brand associations create the team’s image: nonplayer personnel, team success, team history, stadium community, team play characteristics, brand mark, consumption experience, and characteristics of sport, commitment, organizational attributes, social interaction, concessions, and rivalry. It would be interesting to examine how these associations contribute to the development of a team as a high or low self-expressive ‘product.’ Individual (e.g., motivation, preferences, expectations), environmental (e.g., social class, friends, family) and organizational (e.g., marketing strategies) factors could also be studied in relation to building team involvement.

References


### Appendix

#### TEAM INVOLVEMENT

**Hedonic Involvement**

*My team is:*

- Not fun — — — — — — — Fun
- Unappealing — — — — — — — Appealing
- Boring — — — — — — — Interesting
- Unexciting — — — — — — — Exciting
- Dull — — — — — — — Fascinating

**Importance Involvement**

*My team is:*

- Unimportant — — — — — — Important
- Means nothing to me — — — — — — Means a lot to me
- Does not matter — — — — — — Matters to me
- Insignificant — — — — — — Significant
- Of no concern — — — — — — Of concern to me

#### TEAM SELF EXPRESSIVE

**Inner Self**

- My team symbolizes the kind of person I really am inside
- My team reflects my personality
- My team is an extension of my inner self
- My team mirrors the real me

**Social Self**

- My team contributes to my image
- My team adds to a social ‘role’ I play
- My team has a positive impact on what others think of me
- My team improves the way society views me
- My team improves the way my friends view me

#### TEAM ATTACHMENT

- I feel I am part of my team
- I feel connected to my team
- I go to games so I can be part of my team
- I feel like I am a ‘real’ fan of the team
- It is important for me to be a fan of my team
- I would experience a loss if I had to stop being a fan of my team