Developing a scale for measuring the personality of sport teams

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Abstract

Purpose – The purpose of the study is to develop a reliable measure of sport team personality that incorporates the relevant dimensions/traits consumers attribute to their sport teams.

Design/methodology/approach – Initially, content analysis of sport teams' web sites and magazines were used to identify the items of the scale. Following this a survey research method was used to gather data from consumers. Exploratory and confirmatory factor analyses were conducted on a sample of 301 consumers.

Findings – The analyses of the data resulted in a sport team personality scale consisting of five dimensions: competitiveness, prestige, morality, authenticity, and credibility

Practical implications – Sport brand managers can use the scale for benchmarking purposes and for examining how their sport teams/brands are perceived by sport consumers in terms of the five dimensions identified in this research.

Originality/value – The study expands the concept of brand personality to sport services and provides insights into the main dimensions of sport brands' personality. This is the first study that develops a valid and reliable instrument for measuring the personality of sport teams.

Keywords Brand personality, Sport team personality, Sport brands, Brand image, Brands, Sports, Personality measurement

Paper type Research paper

An executive summary for managers and executive readers can be found at the end of this article.

> You now have to decide what "image" you want for your brand. Image means personality. Products, like people, have personalities, and they can make or break them in the market place (Ogilvy, 1985).

Since the seminal work of Aaker (1997), the construct of brand personality has received intensive and growing interest in the marketing research agenda. According to Aaker (1997, p. 347), brand personality is a "set of human-like characteristics associated with a brand" and an important aspect of brand image (Gwinner and Eaton, 1999) that drives brand equity (Keller, 2003). Brand personality can assist marketers in brand differentiation and in building brand preferences not only in terms of their functionality, but in their symbolic meaning to consumers as well (Aaker, 1997; Keller, 2003). Moreover, brand personality enables consumers to express their own self or specific aspects of their self as well as their ideal self (Belk, 1988).

Studies in the marketing literature have measured brand personality in utilitarian and symbolic products (Aaker, 1997; Diamantopoulos *et al.*, 2005; Monga and Lau-Gesk, 2007), in services (Austin *et al.*, 2003; Harris and Fleming, 2005), in non profit organizations (Venable *et al.*, 2005), in internet providers (Magin *et al.*, 2003; Poddar *et al.*, 2009) and in sport organizations/teams/events (Kim *et al.*, 2008; Lee and Cho, 2009; Musante *et al.*, 1999; Smith *et al.*, 2006; Ross, 2008).

Given their symbolic, experiential, and hedonic nature, sport brands (e.g. sport teams, sport organizations, and sport events) and their personalities have recently attracted research attention (Table I). However, early attempts to identify the personality of sport brands have failed to provide a reliable measure of the construct (Kim *et al.*, 2008; Ross, 2008; Smith *et al.*, 2006). Most of these research initiatives use Aaker's scale of brand personality and report either discouraging results (Ross, 2008) or they substantially modify the original scale (omit several traits or add new dimensions) (Kim *et al.*, 2008; Musante *et al.*, 1999; Smith *et al.*, 2006). These findings indicate that either Aaker's scale needs improvements to capture the essence of brand personality in sports or we need to develop a new instrument for this product category. Taking into account the results of the above studies as well as of similar findings in other product categories, and the cautions of Austin *et al.* (2003) regarding the applicability of Aaker's scale on aggregate data within a specific product category, the second option deems more appropriate.

Sport is the twentieth largest industry worldwide (Schaaf, 1995) with an estimated worth of $500 billion (Deloitte, 2007). Moreover, the value of professional sport teams has increased tremendously over the last few years. For example, it has been reported that in the United State and the National

Table I An overview of studies using Aaker's brand personality scale and their reported results

Study	Products/brands	Sample	Traits/facets/dimensions of original scale utilized	Exploratory factor analysis	Reliability analysis	Confirmatory factor analysis
Ross (2008)	Team sports	$n = 253$ students	42 traits, five dimensions		Cronbach's α: Sincerity = 0.90 Excitement = 0.91 Competence = 0.88 Sophistication = 0.77 Ruggedness = 0.70	$\chi^2 = 2,535.95$, df = 809, ratio = 3.1, $p < 0.01$, RMR = 0.075, CFI = 0.95, GFI = 0.64, TLI = 0.93, RMSEA = 0.103 Average Variance Extracted: Sincerity = 0.47 Excitement = 0.50 Competence = 0.46 Sophistication = 0.37 Ruggedness = 0.32 19.5 percent of the standardized residuals exceeded 2.58
Kim et al. (2008)	Sponsors of the 2006 FIFA World Cup: Adidas, Coca Cola, Gillette, Toshiba; Sport organizations:World Cup, Korean Baseball League	$n = 2,696$ students and consumers	42 traits and five dimensions		Cronbach's α for the final measurement model ranged from 0.76 to 0.91	Final measurement model: Five dimensions and 15 traits Overall results: RMSEA = 0.05, NNFI = 0.97, CFI = 0.97, SRMR = 0.06 AVEs for each factor ranged form 0.60 to 0.75
Mengxia (2007)	Nike SANYO	$n = 230$ consumers	42 traits resulted in four factors 42 traits resulted in four factors	Four factors including 17 items four factors including 20 items	Cronbach's α ranged from 0.62 to 0.83 Cronbach's α ranged from 0.67 to 0.89	Not reported
Donahay and Rosenberger (2007)	Formula 1 teams: BMW, Jaguar, Ferrari, BAR	$n = 160$ consumers	42 traits	Not reported	Cronbach's α ranged from 0.81 to 0.95	Not reported
	Principal Sponsors: Williams, Marlboro, Jaguar Cosworth, Lucky Strikes		42 traits	Not reported	Cronbach's α ranged from 0.84 to 0.97	
Smith et al. (2006)	State sporting organization: Netball Victoria	$n = 413$	Initial analysis used 42 traits and five dimensions	Final analysis used 36 traits and six dimensions Explained variance 50.1 percent	Cronbach's α: Sincerity = 0.82 Excitement = 0.84 Competence = 0.86 Sophistication = 0.86 Ruggedness = 0.78 Innovativeness = 0.75	Not reported
Diamantopoulos et al. (2005)	Automobile (Land Rover)	$n = 102$ MBA students	41 traits of the five dimensions (Western was excluded)	Not reported	Cronbach's α ranged from 0.76 to 0.82	Not reported
Harris and Fleming (2005)	Banks	$n = 200$ bank customers 132 bank employees	16 traits of the five dimensions	Not reported	Not reported	Not reported

Table I

Study	Products/brands	Sample	Traits/facets/dimensions of original scale utilized	Exploratory factor analysis	Reliability analysis	Confirmatory factor analysis
Lau and Phau (2007)	Automobiles (BMW, Volkswagen)	$n = 148$ undergraduate students	42 traits and five dimensions	Conducted but results were not reported	Cronbach's α ranged from 0.67 to 0.83	Not reported
Monga and Lau-Gesk (2007)	Clothes	$n = 106$	Excitement, sophistication	Not reported	Not reported	Not reported
Batra et al. (2006)	Cars, jeans, magazines	$n = 119$	15 traits (largest loading in the 15 facets), five dimensions	Four factors with eigenvalues > 1 Factor 1 contrasted sincerity and excitement Factor 2 combined Competence and Sophistication Factor 3 corresponded to Ruggedness Factor 4 consisted on one item (Cheerful) from sincerity and one item (Charming) sophistication 80.2 percent of explained variance	Not reported	Not reported
Venable et al. (2005)	Non profit organizations (health, environment/rights, arts/humanities)	$n1 = 376$ university faculty/staff $n2 = 355$ business major students	42 traits/5 dimensions +12 new items	Four factors and 15 items: Integrity, Ruggedness, Sophistication, Nurturance Three dimensions of Aaker's scale were dropped (sincerity, excitement, ruggedness) because their items cross-loaded on other factors Explained variance for $n1 = 72.3$ percent Explained variance for $N2 = 68.6$ percent	Cronbach's α: Integrity: $n1 = 0.91$, $n2 = 0.86$ Ruggedness: $n1 = 0.84$, $n2 = 0.87$ Sophistication: $n1 = 0.84$, $n2 = 0.84$ Nurturance: $n1 = 0.81$, $n2 = 0.82$	
	March of Dimes, Greenpeace, PBS	$n3 = 1,029$ consumers			Cronbach's α: Integrity: 0.92 Ruggedness: 0.75 Sophistication: 0.72 Nurturance: 0.88	$\chi^2 = 370.3$, df $= 84$, ratio $= 4.4$, $p < 0.01$, CFI $= 0.96$, GFI $= 0.95$, IF $= 0.96$, RMSEA $= 0.06$

(continued)

Table I

Study	Products/brands	Sample	Traits/facets/dimensions of original scale utilized	Exploratory factor analysis	Reliability analysis	Confirmatory factor analysis
Austin *et al.* (2003)	Restaurants	$n = 247$ students	42 traits – five dimensions	Not reported	Average item to total correlations < 0.55 in 22 items/traits	$\chi^2 = 16,194.88$, df = 809, ratio = 20, $p < 0.01$, RMSEA = 0.11, CFI = 0.71, GFI = 0.67, NFI = 0.70, NNFI = 0.70 11.8 percent-27.6 percent of the standardized residuals exceeded 2.58
Deane *et al.* (2003)	Golf The Ryder Cup Team IBM	$n = 109$	42 traits – five dimensions	Not reported	Not reported	Not reported
Magin *et al.* (2003)	Internet Service Providers	$n = 241$ consumers	15 facets	Not reported	Not reported	Not reported
Musante *et al.* (1999)	*Study 1:* Sponsor Brands (Marlboro, Cadillac, Mountain Dew, Jack Daniels and Bud Light) Sports (tennis, auto racing, baseball, golf and beach volleyball)	$n = 72$ students	20 traits – four dimensions	Four factors explaining 68 percent of the variance	For the brands Cronbach's α: Exciting = 0.91; Wholesome = 0.64; Rugged = 0.90; Sophisticated = 0.92) For the Sports Cronbach's α: Exciting = 0.88; Wholesome = 0.80; Rugged = 0.90; Sophisticated = 0.92	Not reported
	Study 2: NBA Jam Session and its sponsors	$n = 153$ sport fans	20 traits – four dimensions	Not reported	Not reported	Not reported
Aaker (1997)	Symbolic and utilitarian products	$n1 = 81$ consumers	42 traits/15 facets/5 dimensions	89.8 percent of explained variance	Cronbach's α: Sincerity = 0.93 Excitement = 0.95 Competence = 0.93 Sophistication = 0.91 Ruggedness = 0.90 Average item to total correlations: 0.85	
		$n2 = 180$ consumers		Factor congruence correlations range: 0.90-0.97		Generalized Least Squares Results for correlated factors: $\chi^2 = 9,216.80$, df = 809, ratio = 11.4, $p < 0.01$, RMSR = 0.07, CFI = 0.98, GFI = 0.91, AGFI = 0.86 Results for uncorrelated factors: $\chi^2 = 9,447.11$, df = 819, ratio = 11.5, $p < 0.01$, RMSR = 0.15, CFI = 0.91, GFI = 0.86, AGFI = 0.85

Football League, the average team worth has reached $957 million (Badenhausen *et al.*, 2007). Consequently, sport brand management requires careful planning and implementation of state of the art strategies to create team personalities that will enhance their image and attract the interest of all the relevant stakeholders. At the same time, business investments in sport sponsorship increased rapidly over the last decades. Sponsorship expenditures increased worldwide from $2 billion in 1984 to $28 billion in 2004 (Carrillat *et al.*, 2005). According to IEG Sponsorship Report, global sponsorship spending reached $37 billion in 2007, an 11.5 percent increase over 2006 (IEG, 2008). Because sport sponsorship has been utilized as a marketing communication tool in order to associate with or even transfer the sport brands image to sponsors products (Gwinner, 2005; Meenaghan, 2001), developing an instrument that measures sport brands personality could benefit sponsors in identifying the most appropriate sport brands for their products and in evaluating their sponsorship investment.

Thus, the purpose of the present study is to develop a parsimonious measure of brand personality for sport teams. Given the intangible nature of sport services, it becomes necessary to understand consumers' perceptions of sport brands in order to manage them more effectively. The intended contribution of this study is two-fold. First, in terms of enriching the related literature, the study expands the concept of brand personality to sport services and provides insights into the main dimensions of sport brands personality. Sport brands are complex brands, emotional in nature and intangible services, with an unpredictable core product (i.e. game output), consisting of symbolic and experiential attributes. Many other brands share similar characteristics, especially as firms shift to strategies focusing on more experiential and emotional branding. Thus, this endeavor might be the first step in developing a brand personality instrument that will be applicable to all these types of products. Moreover, to the author's knowledge, this is the first initiative to develop a brand personality scale for sport brands that is not based on Aaker's scale.

Second, the study findings should be relevant to marketers of sport brands, for whom it is important to understand the personality of their brands in order to differentiate them, build their image, and enhance their brand equity; to sponsors in their selection process of the most suitable sport brands and the evaluation of sponsorship effectiveness, and to advertisers who wish to promote or associate their brands with sport entities by emphasizing their most prominent sport personality characteristics.

The following section presents a brief conceptual background on brand personality and relevant research on sport brands. Next, the method section describes a multi-stage process in developing and validating the sport team personality scale, called SPORTEAPE. The name of the scale comes from the first letters of the words "spor(t) tea(m) pe(rsonality)." Then, the results section reports the findings of the study, and the paper concludes with a discussion of the outcomes and suggestions for future research initiatives.

Conceptual framework

The meaning and measurement of brand personality
Various conceptualizations of brand personality exist in the marketing literature. The most well known view is the "trait"

approach that considers brand personality as a tendency consumers have to ascribe human personality characteristics to brands (Aaker, 1997; Keller, 2003). Based on an interpersonal relationship approach, Sweeney and Brandon (2006, p. 645) define brand personality as "the set of human personality traits that correspond to the interpersonal domain of human personality and are relevant to describing the brand as a relationship partner". Azoulay and Kapferer (2003, p. 151) consider brand personality as "the set of human personality traits that are both applicable and relevant for brands". Consumer experiences with a brand, either direct (product-related factors such as price, product attributes and packaging) and/or indirect (e.g. word-of-mouth and celebrity endorsers), can create and form a brand's personality. Aaker (1997) argues that, through learning and experience, brands associate differentially with personality traits in consumers' minds, and these associations provide self-expressive or symbolic benefits for the consumers. Given that functional differences among brands are often minimal, and symbolism represents a fundamental element of brand positioning and differentiation (Keller, 2003), personality characteristics can offer useful insights into consumers' perceptions of a brand.

Brand personality is increasingly important in brand management for several reasons. Consumers often choose or remain loyal to brands that encompass personality traits which are relevant and consistent with their own self-concept (Aaker, 1997; Keller, 2003). Brand personality, as a subset of an overall brand image (Gwinner and Eaton, 1999), can positively influence brand evaluations (Aaker, 1997), lead to image enhancement and payment of a premium price for a brand while it facilitates consumers' acceptance of brand extensions (Diamantopoulos *et al.*, 2005; Venable *et al.*, 2005). Strategically speaking, brand personality is important because it can assist firms achieve enduring brand differentiation and sustainable competitive advantage (Diamantopoulos *et al.*, 2005; Venable *et al.*, 2005) by building a distinct image for a brand and developing a long-term brand equity (Keller, 2003).

Although several attempts to develop brand personality measures exist in the marketing literature, Aaker's (1997) pioneering scale, Brand Personality Scale (BPS), represents the largest effort to date to measure the construct. Aaker (1997) identifies five dimensions of brand personality:
1 excitement;
2 sophistication;
3 ruggedness;
4 competence; and
5 sincerity.

Aaker's scale constitutes the base for many research papers on brand personality. Table I summarizes a number of studies using the BPS and their reported results.

However, a number of scholars question the conceptualization and operationalization of Aaker's (1997) brand personality concept. Azoulay and Kapferer (2003) criticize its validity and demonstrate that Aaker's definition is too wide, incorporating concepts beyond those of personality that create conceptual confusion. They argue that Aaker's scale merges a number of dimensions of brand identity where personality constitutes one of these dimensions. Moreover, they consider items such as competence, feminine, social class, western, and small town as problematic. Based on the results of confirmatory factor analyzes, Austin *et al.* (2003)

show that Aaker's brand personality framework may not generalize to individual brands or to particular product categories (they report poor fit of the tested CFA measurement models). Even the results of the confirmatory factor analysis in Aaker's (1997) study indicate a poor fit of the measurement model ($\chi^2 = 9,447.11$, df $= 819$, ratio $= 11.5$, $p < 0.01$, RMSR $= 0.15$, CFI $= 0.91$, GFI $= 0.86$, AGFI $= 0.85$) while she does not demonstrate convergent and discriminant validity of the PBS. Table I, which summarizes the findings of several studies using Aaker's scale, provides support for the arguments of Austin et al. (2003). It becomes apparent that the majority of the studies do not report confirmatory factor analysis results of the BPS scale or when they report it, their measurement models exhibit poor fit.

The personality of sport brands
Recently, the personality of sport brands (i.e. organizations, teams, and events) attracted the interest of researchers. The inherent properties and complexity of sport brands are likely to influence consumer perceptions, evaluations, and preferences of these brands (Aaker, 1997; Freling and Forbes, 2005). Thus, the unique attributes of sport brands (symbolic, experiential, and hedonic characteristics) make the study of their personalities not only very appealing but imperative. Understanding how consumers perceive the personality of sport brands would provide useful insights of the construct to marketing researchers and guide managers in the determination and implementation of their marketing strategies.

Musante et al. (1999) were the first to measure the personality of various sports (tennis, auto racing, baseball, golf, and beach volleyball) by employing Aaker's BPS scale. Ross (2008) was the first to study the personalities of sport teams as perceived by university students. Using Aaker's scale, he reports that only the dimension "excitement" could be applicable to sport teams. The remaining research attempts have been focused on the personalities of sport events or sport organizations. "Excitement" was also found to be the most descriptive element of the Aaker's scale in a study measuring the personality of the Ryder Cup (Deane et al., 2003). Using Aaker's scale, Kim et al. (2008) studied the personalities of World Cup and the Korean Baseball League while Smith et al. (2006) investigated the personality characteristics of Netball Victoria, a state membership-based sporting organization. The latter found that "Competence" and "Sincerity" are the most descriptive elements of the Netball Victoria personality while they identify a new dimension of sport brand personality, named "Innovation."

All of the above studies measured the personalities of sport brands by using Aaker's scale and failed to provide reliable results. These studies either report poor measurement model fit (Ross, 2008), or exclude items from the original scale in order to produce a reliable measurement model (Kim et al., 2008; Musante et al., 1999), or add dimensions to reach an explained variance of roughly 50 percent (Smith et al., 2006). For example, Musante et al. (1999) had to modify and condense the scale by excluding the competent factor and renaming the sincerity factor as wholesome. However, there are a few cases in the literature where attempts were made to develop a valid and reliable instrument that will measure sport brands personalities. In 1996, Ferrand and Pages tried to develop an instrument by collecting data on 23 adjectives

describing the Lyon's Tennis Gran Prix (France). However, the factor loadings of the scale were low and negative, while standards procedures for validating the scale were not followed. In a recent article, Lee and Cho (2009) mention that they have developed a scale of sport event personality and identified five dimensions: diligence, uninhibitedness, fit, tradition, and amusement. However, because the procedures for developing and validating the scale as well as the results of their exploratory and confirmatory factor analyzes have not been published, an assessment of the validity of this scale cannot be made.

While interest in sport brands personality has grown, there has been no systematic effort to develop a reliable, valid, and generalizable scale to measure sport team personalities. Taken into account the shortcomings of Aaker's scale and its lack of applicability in sport brands, the development of a new instrument that will measure the personality of sport brands seems imperative.

Research method

The purpose of the study is to develop a reliable measure of sport team personality that incorporates the relevant dimensions/traits consumers attribute to their sport teams. In line with the reasoning of Azoulay and Kapferer (2003), sport team personality is considered here as the set of human personality traits that are both applicable and relevant for sport teams. Thus, the conceptualization of sport team personality should be relevant to this type of service because as Harris and Fleming (2005, p. 188) state, services differ in the level of customer/employee interaction and a conceptualization of service personality is "bound by the type of service under investigation". The study uses a multi-stage process to develop the research instrument and to refine it with the goal of obtaining a parsimonious and valid scale applicable to a broad spectrum of sport teams.

The research includes three stages, each stage building on the previous stage(s). In stage one, a content analysis of the web sites of sport teams was used to generate the items to include in the other two steps of the study. In the second stage, the items were selected based on two imposed rules to avoid researcher's bias. In the last phase, the dimensions of sport team personality were defined using exploratory and confirmatory factor analysis of survey data.

Stage 1: web site content analysis
Given the interest in consumer perceptions of a sport team personality and in how sport teams view or promote their personalities, content analysis of sport teams' web sites was performed. Six of the most well-known sport teams in Greece were chosen for the analysis. Specifically, the content of two web sites for each team was analyzed: the official web site of each sport team and the web site of the major fan group of each team. Web sites were used to gather information because a recent study conducted by the European Interactive Advertising Association (EIAA) indicates that twice as many sports fans use the internet than the average user (32 percent versus 16 percent). Moreover, 36 percent of all European internet users currently visit sports web sites and spend more than 13 hours online each week on these sites, 10 percent more time than the average European and an increase of 27 percent since 2004 (Netimperative, 2008). Thus, a total of 12 web sites were analyzed to identify statements/traits that describe and refer to

the personality of the team. The analysis resulted in 80 adjectives that described the investigated sport teams.

Stage 2: identifying items

In order to identify the most prominent and widely applicable traits of a sport team's personality, the original items were reduced based on two rules:

1 Each item/trait had to be mentioned in at least half of the web sites analyzed.
2 Each item/trait should be found to describe the team in both the official sport team web site and in the corresponding fan group web site.

Rule (a) was used in order to identify personality traits that could be applicable to sport teams in general and not to represent a limited number of teams. The second rule was used in order to secure that these personality traits are perceived by both the fans and the sport team organization. Based on these rules, the original pool of items was reduced to 48 traits. These were examined by a panel of three experts, two sport marketing managers, and one sport marketing scientist. Their main disagreements were related to the wording of the items, which, however, were modified only when the three experts reached consensus. A pilot study among a convenience sample of 25 students indicated that there was no problem in responding to the items of the scale.

Stage 3: survey research

The third phase of data collection involved a survey of a stratified random sample of consumers. The questionnaire consisted of two parts: Part I gathered demographic data; Part II consisted of three questions. The first question asked consumers if they were sport fans without specifying in which sport, although in Greece usually the favored team is related to soccer teams. If they were sport fans, they had to identify their favored team (question 2) and then indicate how well each of the 48 adjectives described their favor team in a seven-point scale (1 = not at all descriptive, 7 = very descriptive). If they were not sport fans, they could stop completing the questionnaire. The questionnaire was distributed randomly to 640 consumers all over Greece (in 21 different regions). From the total sample, 305 were sport fans, but due to missing data, the final sample in the study was 301.

Results

Sample description

The final sample of the study consisted of 192 men (64 percent) and 109 women (36 percent). The majority of the respondents were 18-25 years old (68.9 percent), 27.5 percent were between 26 and 50 years old, whereas a 3.6 percent was older than 50 years. In terms of the sport teams they support, the majority indicated Olympiacos (36 percent) followed by Panathinaikos (33 percent), AEK (10 percent), PAOK (5 percent), Aris (3 percent). The remaining 13 percent supported six other sport teams. The favored team composition of the sample reflects the typical synthesis of the sports fan base in Greece. Moreover, it should be clarified that in the Greek culture sport clubs usually consists of teams of various sports (e.g. soccer, basketball, volleyball, water polo). However, soccer dominates the preference of the sport fans and when referring to "the favored team" they mean mainly the soccer team. Of course, this does not mean that they do not support the remaining teams of the club. Greek sport fans do not support other teams depending on the sport (like sport fans do in the USA) but they support one club in all sports although mainly they follow and support the soccer team.

Exploratory factor analysis

Initially, exploratory factor analysis, utilizing principal axis analysis with an oblique rotation, was performed on the 48 traits related to sport team personality. The factor analysis identified nine dimensions (eigenvalues larger than 1), which accounted for 66 percent of the variance in the data. Following scale development guidelines, the items were purified utilizing data reduction and reliability analyzes. Item-to-total correlations, inter-item correlations, and Cronbach alpha statistics suggested a reduced scale consisting of 23 items and five dimensions that capture 65 percent of the variance on sport team personality. Items were retained if: they loaded 0.50 or more on one factor, if an item-to-total correlation was more than 0.40, and did not load more than 0.50 on two factors (Hair *et al.*, 1998). The reduced 23-item scale measuring the five dimensions of sport team personality possessed Cronbach's alphas ranged from 0.82 to 0.94.

Based on the sport personality literature, the names decided to represent best the types of concepts included in the five dimensions were:

1 Competitiveness.
2 Prestige.
3 Morality.
4 Authenticity.
5 Credibility (Table II).

Competitiveness reflects the perceptions of sport consumers regarding the ability of a sport team to win its competitor teams and achieve its goals. Prestige refers to the superiority of the sport team and its general recognition for its accomplishments. Morality mirrors consumers' perceptions of the team's code of conduct. Authenticity indicates the uniqueness of the sport team and Credibility manifests whether a team inspires trust and confidence.

Confirmatory factor analysis

Via maximum-likelihood Confirmatory Factor Analysis (CFA) using LISREL 8.52, the psychometric properties of the sport team personality scale were examined for measurement reliability, convergent, discriminant and predictive validity, and unidimensionality. Four out of the 23 items were dropped from the analysis owing to their small factor loadings (< 0.50). The final 19-item and five-factor solution was assessed for "overall model fit" to determine the degree to which the specified indicators represent the hypothesized construct. The overall model fit can be assessed statistically by the chi-square test, and heuristically by a number of goodness of fit indices. Thus, to assess the practical fit to the data, several practical fit indexes were used:

- the ratio of the chi-square to the degrees of freedom;
- the significance of chi-square;
- the root-mean square error of approximation (RMSEA);
- the Goodness of Fit Index (GFI);
- Normative Fit Index (NFI);
- the Comparative Fit Index (CFI); and
- the Root Mean Square Residual (RMR).

A ratio of the chi-square to the degrees of freedom below 3 is considered acceptable in the literature whereas the model

Table II The description of the SPORTEAPE dimensions and items

Competitiveness	The team is able to attain the desired results in sport competitions
Proud	The team is overconfident about its abilities and inspires pride to its fans
Ambitious	The team is determined to accomplish its goals
Dynamic	The team is self motivated
Successful	The team has gained many championships and cups
Winning	The team is unbeatable, with a very good winning record
Triumphant	The team excels in competitions
Prestige	The team is recognized for its accomplishments and superiority
Multitudinous	The team is supported by countless fans
Glorious	The team is celebrate
Great	The team is super
Strong	The team is superior over its rivals
Honorary	The team has received awards of distinction
Morality	The team espouses an acceptable code of conduct and conforms to rules and regulations
Principled	The team is imbued with acceptable rules of conduct
Cultural/cultivated	The team develops and promotes the growth of culture (e.g. educational, art and science programs)
Ethical	The team behaves in accordance with standards for right practice
Authenticity	The team is unique, faithful to internal rather than external ideas, and retains its spirit and character despite external forces
Traditional	The team has been around for many years and handed down legends (e.g. players) and customs (e.g. team anthem)
Uncompromising	The team adheres to principal positions
Radical	The team is open to changes and new ideas
Credibility	The team is trustworthy and reliable
Wealthy	The team is rich and financially independent
Influential	The team has the capacity and power to exert effects on others and their decisions (e.g. on the administration of the national league)

would be supported with a non-significant chi-square. A value of RMSEA smaller than 0.08 indicates a reasonable fit to the data and values of fit indexes larger 0.90 indicate good model fit (Hoyle, 1995). The recommended RMR values (a measure of absolute fit) indicating good fit should be less than .05 (Kelloway, 1998).

The resulted measurement model fit the data adequately (Table III) although the chi-square goodness of fit index was statistically significant ($\chi^2 = 304.4$ with 137 degrees of freedom, ratio = 2.2, $p < 0.01$). The fit indexes values met or exceeded the critical values for good model fit (RMSEA = 0.06, GFI = 0.91, CFI = 0.94, NFI = 0.90, RMR = 0.04).

Next, internal consistency was evaluated by using Cronbach's α and composite reliability (CR). The Cronbach α for the five factors ranged from 0.76 to 0.88, all above the recommended 0.70 cut-off point. As shown on Table III, all traits within each of the five dimensions had high item-to-total correlations averaging 0.67 (all averages exceeding the 0.55 cut-off point). The inter-item correlations ranged from 0.41 to 0.71 for the "Competitiveness" traits; from 0.47 to 0.73 for the "Prestige" traits; from 0.52 to 0.56 for the "Morality" traits; from 0.43 to 0.64 for the "Authenticity" traits, and 0.67 for the two "Credibility" traits. The correlations between the five dimensions are provided on Table IV. Overall, these analyzes provide support for the internal reliability of the SPORTEAPE dimensions.

Both composite reliability (CR) and average variance extracted (AVE) were calculated using the procedures recommended by Fornell and Larcker (1981). According to Fornell and Larcker (1981), variance extracted estimates assess the amount of variance that is captured by an underlying factor

in relation to the amount of variance due to measurement error. They have suggested that it is desirable a construct to exhibit estimates of 0.50 or larger. As shown on Table III, the composite reliabilities for the five factors ranged from 0.75 to 0.88, indicating acceptable levels of reliability for the factors. Moreover, the AVEs ranged between 0.50 and 0.68, meeting the recommended 0.50 level (Bagozzi and Yi, 1988).

Finally, the model was tested for convergent and discriminant validity by using the factor loadings and the Φ matrix. Convergent validity is indicated when path coefficients from latent constructs to the corresponding indicators are statistically significant. The loadings of the observed variables ranged from 0.67 to 0.84 (exceed the 0.4 level commonly considered meaningful in factor analytic investigations) and all were positive and significant at the 0.05 level (the lowest t-value = 11.42) indicating that the observed items were explained by the factors. Significant t-values meet the criteria for convergent validity. According to Anderson and Gerbing (1988), another way of examining convergent validity is to test if each indicator loading is greater than twice its standard error. All indicators of the SPORTEAPE scale met this criterion (Table III).

Discriminant validity of the measurement instrument, confirming that the factors are sufficiently different from each other to capture unique constructs, was examined through two tests. First, it was checked whether the correlations among the latent constructs were significantly less than one as recommended by Anderson and Gerbing (1988). None of the confidence intervals of the Φ values (+ two standards errors) included the value of one, providing evidence of discriminant validity (Table IV). Then, the AVEs of each construct were compared against the shared variance with the other latent

Table III Confirmatory factor results of the SPORTEAPE scale

	Factor loading	Standard errors	AVE	Item to total correlations
Competitiveness (α = 0.88 CR = 0.89)			0.57	Average = 0.70
Proud	0.71 *	0.05		0.61
Ambitious	0.76 *	0.05		0.73
Dynamic	0.82 *	0.05		0.77
Successful	0.77 *	0.05		0.74
Winning	0.72 *	0.05		0.67
Triumphant	0.73 *	0.05		0.68
Prestige (α = 0.87 CR = 0.88)			0.60	Average = 0.76
Multitudinous	0.78 *	0.05		0.62
Glorious	0.69 *	0.05		0.67
Great	0.84 *	0.05		0.77
Strong	0.81 *	0.05		0.74
Honorary	0.76 *	0.05		0.73
Morality (α = 0.78 CR = 0.78)			0.55	Average = 0.62
Principled	0.80 *	0.05		0.61
Cultured	0.70 *	0.05		0.64
Ethical	0.72 *	0.05		0.62
Authenticity (α = 0.76 CR = 0.75)[a]			0.50	Average = 0.60
Traditional	0.72 *	0.06		0.49
Uncompromising	0.73 *	0.06		0.66
Radical	0.67 *	0.06		0.64
Credibility (α = 0.80 CR = 0.80)[a]			0.68	Average = 0.67
Wealthy	0.80 *	0.05		0.67
Influential	0.84 *	0.05		0.67

Notes: [*]Significant at the 0.05 level; Chi square = 304.4 (p = 0.00) with 137 degrees of freedom, RMSEA = 0.06, GFI = 0.91, NFI = 0.90, CFI = 0.94, RMR = 0.04; [a]CR = Composite Reliabilities, α = Cronbach alpha, AVE = Average Variance Extracted estimate

Table IV Correlation and standard errors for the SPORTEAPE dimensions

	Competitiveness		Prestige		Morality		Authenticity		Credibility	
	n	Standard error	*n*	Standard error	*n*	Standard error	*n*	Standard error	*n*	Standard error
Competitiveness	1.00									
Prestige	0.67	0.04	1.00							
Morality	0.79	0.04	0.57	0.05	1.00					
Authenticity	0.51	0.06	0.37	0.06	0.61	0.06	1.00			
Credibility	0.70	0.04	0.72	0.04	0.61	0.05	0.40	0.06	1.00	

constructs. According to Fornell and Larker (1981), the AVEs of the constructs should be greater than their squared correlations. The AVEs were larger than the shared variance with the other latent constructs, strong evidence of discriminant validity (Table III). For example, the AVE for Competitiveness (0.57) and Prestige (0.60) are larger than the squared correlation between the two factors (0.45). Thus, the conditions for convergent and discriminant validity were satisfied indicating that the factors are measured reliably and can be discriminated.

After establishing convergent and discriminant validity, the five dimensions of SPORTEAPE were tested for predictive validity. Using structural equation modeling and the statistical program, LISREL, sport team involvement (a latent variable consisting of five items of the revised version of the Personal Involvement Inventory developed by Zaichkowsky, 1994) was regressed on the five dimensions. The model did fit the data

well with a chi square value of 550.98 and 256 degrees of freedom (ration = 2.2) and the fit indexes meeting the threshold values (NNFI = 0.92, CFI = 0.93, IFI = 0.94; RMSEA = 0.06). Moreover, the five dimensions of SPORTEAPE explained 30 percent of the variance on sport team involvement whereas the paths from two dimensions, Morality (0.35) and Credibility (0.30), were significant. Thus, the five factors of SPORTEAPE evince a pattern of relationship with sport team involvement that suggest predictive validity of the factors, both individually and collectively.

Further analyses by team

Measurement invariance testing across sport teams

In addition to aggregate analyses, analyses at the individual levels of the sport teams studied were conducted. Because of the large differences in the number of subjects supporting

individual sport teams, it was decided to use the teams with large enough sample sizes ($n > 100$) and aggregate the remaining. Two teams, Olympiakos and Panathinaikos, had more than 100 subjects whereas the rest of the teams had less than 30 subjects. Following the approach of Austin *et al.* (2003), the reliabilities of each SPORTEAPE dimension for the two teams and the remaining ones were calculated. As shown on Table V, all but one reliabilities are above the recommended 0.70 (Nunnally, 1979) indicating the adequacy of the scale for research purposes.

In order to test for the invariance of the measurement model across the three sub-samples, the procedure recommended by Joreskog and Sorbom (1993) was employed. The notion for measurement equivalence is that the measurement models are invariant across samples. This assumption refers to the invariance of factor loadings, factor correlations, and error variances and is accepted if the change in chi-square is non significant (Byrne, 1995). Thus, in order to validate the measurement model between the three subsamples, invariance testing was conducted. The measurement model (Model A) with the increased constraints (with factor loadings, factor correlations, and error variances invariant across groups) fitted the data well ($\chi^2 = 1491.73$ and 522 degrees of freedom, ratio = 2.8, $p < 0.01$; RMSEA = 0.08). Moreover, when comparing this model with a measurement model (Model B) without these constraints lead to no significant chi-squares differences suggesting no differences of the overall model in the three data sets. Specifically, Model B (with factor correlation and error variances invariant across teams) resulted on a χ^2 of 1482.78 with 484 degrees of freedom. The chi square difference between Model A and B is non significant ($\Delta\chi^2 = 8.95$ and 38 degrees of freedom). Model C (with factor correlation invariant across teams) had a $\chi^2 = 1466.17$ and 484 degrees of freedom. However, the chi square difference between Model B and C is significant with a $\Delta\chi^2$ of 16.61 and 0 degrees of freedom). Model D (with factor correlation and factor loadings invariant across teams) had a $\chi^2 = 1474.86$ and 522 degrees of freedom. The chi square difference between Model A and D is significant with a $\Delta\chi^2 = 16.87$ and 0 degrees of freedom. The above tests show that the factorial structure of the final measurement model is mainly invariant among the three subsamples (do not differ in factor loadings and correlations), and no evidence was found of a team effect on the accepted parameters of the model. The differences found on the error variances might be attributed to the small group sample sizes although they should be taken into consideration. In sum, the results show that it is more efficient to use the parameters of the overall measurement model than to develop separate parameters for each sport team in the study.

Multivariate analysis of variance (MANOVA)

To assess whether SPORTEAPE can discriminate sport teams in terms of their personality, Multivariate Analysis of Variance (MANOVA) was employed on its five dimensions with follow-up Analyses of Variance (ANOVAs). These were the dependent variables of the MANOVA analysis (Table VI). The overall multivariate null hypothesis (*Ho*: population mean vectors are equal) was tested to determine if any differences existed within the groups in the dependent variables, and was finally rejected (Wilks $\Lambda = 0.84$, $p < 0.01$; Hotellings test = 0.18, $p < 0.01$).

Thus, it was concluded that the three sport team segments differed in relation to their personality. Univariate F-tests were run for all sets of groups on the dependent variables to determine where the differences existed. Significant differences between groups on all but one of the dependent variables (Morality) were detected (Table VI). Competitiveness, Prestige, Authenticity, and Credibility were significantly different in the three sport team segments indicating that SPORTEAPE captures the unique personalities of sport teams and can discriminate them.

Validation of SPORTEAPE in a UK sample

Because the initial items of SPORTEAPE and its dimensions were developed in the Greek language, several steps were taken in order to ensure that cross translation did not bias the interpretation and the scale can be used in other countries. Thus, four (marketing and non marketing) academics from the USA were contacted in order assist in the translation of the items and scale dimensions. Two of these academics are of Greek origin, speaking both Greek and English, while the other two are only English speaking individuals. Initially, the scale was sent to the Greek speaking US academics which provided feedback as to the most appropriate words in English in order to express the meaning of each item and dimension. Then, their recommendations were sent to the English speaking academics in order to verify that the proposed items could describe a sport team. In both cases, when the two academics agreed on a word, the process stopped and this word was kept. The final scale in English was sent to a fifth marketing academic who verified the appropriateness of the items/dimensions to describe a sport team personality.

In order to validate SPORTEAPE and examine its applicability in another context, data were collected from 250 sport fans in the UK. The results of the Confirmatory Factor Analysis showed a good model fit with a chi-square goodness of fit index of 273 and 137 degrees of freedom (ratio = 2.0; $p < 0.00$). Moreover, the fit indexes values met or exceeded the critical values for good model fit (RMSEA = 0.06, GFI = 0.90, CFI = 0.94, NFI = 0.90). Thus, the findings confirm that SPORTEAPE is a valid

Table V Coefficient alpha for the SPORTEAPE dimensions by team rated

Sport team	SPORTEAPE dimensions				
	Competitiveness	Prestige	Morality	Authenticity	Credibility
Olympiakos	0.76	0.81	0.60	0.71	0.73
Panathinaikos	0.86	0.87	0.86	0.78	0.72
Other teams	0.88	0.89	0.77	0.76	0.81
Total scale	0.88	0.87	0.78	0.75	0.80

Table VI Descriptive statistics and ANOVA results on the SPORTEAPE dimensions by team group

SPORTEAPE dimensions as dependent variables	Olympiakos Mean	Panathinaikos Mean	Other teams Mean	F	Sign.
Competitiveness	6.15	5.70	6.03	4.54	0.01 *
Prestige	6.31	6.01	6.15	2.47	0.09 **
Morality	5.42	5.44	5.57	0.40	0.067
Authenticity	4.83	4.23	5.13	7.99	0.000 *
Credibility	6.05	5.96	5.57	3.76	0.002 *

Notes: * Significant at the 0.05 level; ** Significant at the 0.10 level

measurement instrument of sport team personality that can be used in other countries as well.

Discussion of findings

This paper provides both theoretical and practical implications. Theoretically, the sport brand personality scale of this research suggests that one reason for the weak findings in the brand personality literature using Aaker's scale may be due to its lack of relevancy and applicability to all product/ service categories. The results of an exploratory and a confirmatory factor analysis suggest that consumers perceive that sport teams have five distinct personality dimensions:

1   Competitiveness.
2   Prestige.
3   Morality.
4   Authenticity.
5   Credibility.

The creation of SPORTEAPE and its confirmatory factor results indicate that this scale is a valid and reliable measure of sport team personality. Specifically, the various measures of overall goodness-of-fit lend sufficient support to deem the findings to be an acceptable representation of the hypothesized construct.

The findings confirm Aaker's (1997) assertion that the structure of brand versus human personality is characterized by an asymmetric relationship. However, they also suggest that this asymmetry exists between product/service categories as well. That is, none of the five dimensions of SPORTEAPE resemble either the "Big Five" dimensions of human personality or the BPS dimensions. This pattern implies that sport team personality dimensions might operate differently or serve different purposes. These results should be expected given the unique characteristics of sport brands and particularly of sport teams. Specifically, unlike other types of brands or services, the personality of a sport team is a combination of the image of its administration and personnel, the image of the team (players and coaches in and out of the field), and the image of its fans. In other types of services, the interactions between customers and employees usually influence perceptions of the service offering (Schneider and Bowen, 1995) while in sport teams there are several factors affecting perceptions of their personality and consequently their image. Thus, the personality of a sport team is more complex than in other types of services and brands consisting of unique characteristics and requiring a distinct measurement instrument such as SPORTEAPE.

Moreover, the dimensions of sport teams identified in this research do not resemble any of the dimensions of other self developed instruments or modified versions of BPS used in sports. Two explanations might be provided for this phenomenon. One reason is that studies measuring sport personalities used as their bases the BPS scale so they did not examine and consequently could not identify new dimensions. The second reason might refer to their methodologies and what actually they captured in their studies. For example the "Innovation" dimension identified in Smith *et al.* (2006) study might not represent a dimension because its factor loading were low (contemporary = 0.36, unique = 0.45 and imaginative = 0.53) and were also loaded in the excitement factor of the BPS scale (e.g. loadings of unique = 0.22 and imaginative = 0.29). Furthermore, their measurement model was never tested with a confirmatory factor analysis to provide evidence for the proposed dimensions.

This configuration advocates that sport team personality dimensions might function differently or serve different goals to consumers. Aaker's brand personality framework captures both inner (sincerity, excitement, and competence) and aspirational (ruggedness and sophistication) associations. SPORTEAPE also encapsulates inner (morality, authenticity) and aspirational associations (competitiveness, prestige, credibility). This is in line with the brand personality research supporting that consumers create expectations about characteristics, performance and benefits of the brand while they tend to associate the brand to their own or ideal self (Fournier, 1998). SPORTEAPE taps dimensions such as prestige and competitiveness that consumers desire but not necessarily have. An explanation of this phenomenon may be the nature and purpose of the sport brands (experiential and symbolic products) that serve social and identification needs to sport consumers. Consumers get involved in sports in order to identify/attach themselves with/to winning, influential, powerful teams. This premise is also consistent with brands developed for prototypical Competitive and Prestigious products where their names (e.g. NIKE means win/triumph and comes from the name of a Greek goddess) advertisements and sponsorships associate with or aim to relate with these dimensions.

However, SPORTEAPE appears to encapsulate not only the above associations, but all three functions of symbolic products proposed by Khalil (2000). Khalil (2000) categorized symbolic products according to three characteristics: admiration, respect, and dignity. SPORTEAPE incorporates all three characteristics in its dimensions. Specifically, admiration is reflected through the competitiveness dimension, respect is presented through the prestige and authenticity components, and dignity is expressed through the morality and credibility constructs.

Managerial implications

The findings of this research provide several practical implications to both, marketing managers of sport brands and marketers of brands sponsoring sport teams. SPORTEAPE provides a reliable alternative measure to the *ad hoc* scales used in sports. Sport brands managers need to be aware that their team's personality elements differ from those of other product/services. Therefore, SPORTEAPE can be used to compare sport team personalities across various sports, thereby enabling the identification of benchmarking sport teams' personalities. As such, sport brand managers can utilize the team personality scale created in this study to develop, leverage and position their sport brands in order to enhance their image, to increase consumer preferences, to build brand equity, to differentiate them and to increase the levels of trust and loyalty (Lau and Phau, 2007; Keller, 2003; Aaker, 1997). Sport brands are experiential services, intangible, subjective and unpredictable which require a better understanding of their personalities in order to survive in the market place. Therefore, sport brand managers need to examine how their brands are perceived by sport consumers in terms of the five dimensions identified in this research. Then, they can decide which dimension they need to (de) emphasize or improve in order to build a brand that increases its personal meaning to consumers. Recent research shows that the more a sport brand expresses the inner-self and reflects the social self of sport consumers, the more involved, emotionally attached and loyal these consumers become (Tsiotsou, 2010). Developing strong emotional bonds with sport fans is a desirable outcome because they facilitate sport team marketer in building long-term relationships with their fan base. Moreover, Tsiotsou and Alexandris (2009) have shown that strong emotional attachment to a team provides several benefits (e.g. enhanced image and positive word-of-mouth) to the sponsors of the teams.

The current paper illustrates to managers of brands sponsoring sport teams and to advertising professionals that the personality components of a sport team differ from those of other products/services. The findings can assist sponsors identify the right sport teams for their products, elevate their brands' image and evaluate their sponsorship. Specifically, sponsors can benefit from this study by using the SPORTEAPE scale as a personality measure of the sport team they intend to sponsor. Because, sponsorship is a vehicle used to enhance brand image and increase brand equity via brand associations, SPORTEAPE can assist in identifying sport teams with the most desired personality attributes and testing the degree of congruence between sponsor brands and sport teams. When a brand has limited financial resources to allocate to a market that is home to several sport teams, it is very valuable to know which teams best strengthen the image of the brand and which undermine it. Thus, SPORTEAPE could assist sponsors in assessing whether the personality of a potential sport team will contribute to their brand image or damage it. The closer the sponsoring brand is portrayed to share similar personality dimensions with the sport team, the more likely it is that consumers will find positive meaning and beliefs to associate with the sponsoring brand. Furthermore, advertisers of symbolic products can use the identified personality dimensions to incorporate them into their messages or when they use sport endorsements in order to build or enhance the image of their brands.

Limitations and future research recommendations

This study was designed as a preliminary phase of a study investigating sport team personality in a global market. Methodologically, this study combines qualitative and quantitative approaches that measure brand personality as both, the consumers and the firm perceive. Previous studies rely mainly on consumers' perceptions in order to identify and create the initial pool of personality traits whereas at least at the initial stage, this paper takes into account the personality a firm promotes. In the first stage of this endeavor, content analysis was utilized as a research methodology implying that the interpretation of the initial items identified through the sport teams' web sites should be limited to the apparent content observed and not extended to the underlying managerial decisions. Moreover, because the final instrument does not measure the perceptions of sport teams' managers, their assessments may constitute a future research avenue. A future study should measure which dimensions marketing managers of sport teams intend to create, explore who is responsible for the creation of the team personality and what specific actions are used in accomplishing a desired team image. As mentioned above, the personality of a sport team is a complex construct reflecting the administration, the team (players and coaches) and its fans image. The role and the contribution of these three entities in the creation of the sport team personality should be investigated in future research.

Another limitation of the present study is that SPORTEAPE's has been tested in two countries (Greece and the UK). Further replications of this research to sport brands (teams/clubs) in other countries would be useful for enhancing the robustness of the scale and increasing its external validity. SPORTEAPE should be tested in other types of sport brands such as sport events (e.g. Olympic Games), sport organizations (e.g. NBA) and sport endorsements. Furthermore, SPORTEAPE should be tested in other products that share similar characteristics with sport teams such as other symbolic and experiential services in order to examine the degree of its applicability.

Another future research directive refers to the identification of the antecedents and consequences of a sport team personality. Recently, Mowen and Voss (2008) have proposed among other steps in scale development to test the construct under investigation by using a hierarchical network of antecedents and consequences. In this study, only team involvement was tested as an outcome of sport team personality with encouraging results. However, the sport team personality framework and scale developed here can be utilized to empirically test the antecedents and outcomes of sport team personality. Such an initiative would shed light on theoretical and practical implications while it will further validate SPORTEAPE. Antecedents such as team logo, team mascot, team involvement, and team self expression in conjunction with consequences such as team image, team trust, team attachment, team loyalty, and team satisfaction are recommended in future investigations of sport team personality.

References

Aaker, J.L. (1997), "Dimensions of brand personality", *Journal of Marketing Research*, Vol. 34, August, pp. 347-56.
Anderson, J.C. and Gerbing, D.W. (1988), "Structural equation modeling in practice: a review and

recommended two-step approach", *Psychological Bulletin*, Vol. 103 No. 3, pp. 411-23.

Austin, J.R., Siguaw, J.A. and Mattila, A.S. (2003), "A re-examination of the generalizability of the Aaker brand personality measurement framework", *Journal of Strategic Marketing*, Vol. 11, June, pp. 77-92.

Azoulay, A. and Kapferer, J.-N. (2003), "Do brand personality scales really measure brand personality?", *Brand Management*, Vol. 11 No. 2, pp. 143-55.

Badenhausen, K., Ozanian, M.K. and Roney, M. (2007), "The business of football", Forbes.com, available at: http://sports.espn.go.com/nfl/news/story?id=2572739

Bagozzi, R.P. and Yi, Y. (1988), "On the evaluation of structural equation models", *Journal of the Academy of Marketing Science*, Vol. 16 No. 1, pp. 74-94.

Batra, R., Lenk, P. and Michael, W. (2006), "Separating brand from category personality", working paper.

Belk, R.W. (1988), "Possessions and extended self", *Journal of Consumer Research*, Vol. 15, September, pp. 139-68.

Byrne, B.M. (1995), "One application of structural equation modelling from two perspectives", in Hoyle, R.H. (Ed.), *Structural Equation Modelling: Concepts, Issues, and Applications*, Sage Publications, Thousand Oaks, CA.

Carrillat, F., Lafferty, B. and Harris, E. (2005), "Investigating sponsorship effectiveness: do less familiar brands have an advantage over more familiar brands in single and multiple sponsorship agreements?", *Brand Management*, Vol. 13 No. 1, pp. 50-64.

Deane, J., Smith, G. and Adams, A. (2003), "Sports sponsorship and brand personality – the Ryder Cup team and IBM", *International Journal of Sports Marketing & Sponsorship*, September/October, pp. 193-208.

Deloitte (2007), available at: www.horseracingintfed.com/resources/WorldMedia/ICHA_2007/Switzer_2007E.pdf

Diamantopoulos, A., Smith, G. and Grime, I. (2005), "The impact of brand extensions on brand personality: experimental evidence", *European Journal of Marketing*, Vol. 39 Nos 1/2, pp. 129-49.

Donahay, B. and Rosenberger, P.J. III (2007), "Using brand personality to measure the effectiveness of image transfer in Formula One racing", *Marketing Bulletin*, Vol. 18, pp. 1-15.

Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 28, pp. 39-50.

Fournier, S. (1998), "Consumers and their brands: developing relationship theory in consumer research", *Journal of Consumer Research*, Vol. 24, March, pp. 343-73.

Freling, H.T. and Forbes, P.L. (2005), "An empirical analysis of the brand personality effect", *Journal of Product & Brand Management*, Vol. 14 No. 7, pp. 404-13.

Gwinner, K.P. (2005), "Image transfer in global sport sponsorship: theoretical support and boundary conditions", in Amis, J. and Cornwell, T.B. (Eds), *Global Sport Sponsorship*, Berg, London, pp. 163-78.

Gwinner, K.P. and Eaton, J. (1999), "Building brand image through event sponsorship: the role of image transfer", *Journal of Advertising*, Vol. 28 No. 4, pp. 47-57.

Hair, J.F., Anderson, R.E., Tatham, R.L. and Black, W.C. (1998), *Multivariate Data Analysis*, 5th ed., Prentice Hall, Upper Saddle River, NJ.

Harris, E.G. and Fleming, D. (2005), "Assessing the human element in service personality formation: personality congruency and the five factor model", *Journal of Services Marketing*, Vol. 19 No. 4, pp. 187-98.

Hoyle, R.H. (1995), *Structural Equation Modeling: Concepts, Issues, and Applications*, Sage Publications, Thousand Oaks, CA.

IEG (2008), "Sponsorship spending continues to rise", IEG, Chicago, IL, available at: www.expoweb.com/headline_search.asp?id=6585

Joreskog, K.G. and Sorbom, D. (1993), *LISREL 8: Structural Equation Modeling with the SIMPLIS Command Language*, Lawrence Erlbaum Associates Publishers, Hillsdale, NJ.

Keller, L.L. (2003), *Strategic Brand Management*, 2nd ed., Prentice Hall, Upper Saddle River, NJ.

Kelloway, K. (1998), *Using LISREL for Structural Equation Modeling: A Researcher's Guide*, Sage Publications, Thousand Oaks, CA.

Khalil, E.L. (2000), "Symbolic products: prestige, pride, and identity goods", *Theory and Decision*, Vol. 49, pp. 53-77.

Kim, Y., Oh, J. and Ko, Y.J. (2008), "Revalidation of brand personality scale for sport sponsorship evaluation", *Proceedings of the 2008 North American Society for Sport Management Conference, Toronto, May 28-31*, available at: www.nassm.com/files/conf_abstracts/2008-280.pdf

Lau, K.C. and Phau, I. (2007), "Extending symbolic brands using their personality: examining antecedents and implications towards brand image fit and brand dilution", *Psychology & Marketing*, Vol. 24 No. 5, pp. 421-44.

Lee, H.-S. and Cho, C.-H. (2009), "The matching effect of brand and sporting event personality: sponsorship implications", *Journal of Sport Management*, Vol. 23, pp. 41-64.

Magin, S., Algesheimer, R., Huber, F. and Herrmann, A. (2003), "The impact of brand personality and customer satisfaction on customer's loyalty: theoretical approach and findings of a causal analytical study in the sector of internet service providers", *Electronic Markets*, Vol. 13 No. 4, pp. 294-308.

Meenaghan, T. (2001), "Understanding sponsorship effects", *Psychology & Marketing*, Vol. 18 No. 2, pp. 95-122.

Mengxia, Z. (2007), "Impact of brand personality on PALI: a comparative research between two different brands", *International Management Review*, Vol. 3 No. 3, pp. 36-44.

Monga, A.B. and Lau-Gesk, L. (2007), "Blending co-brand personalities: an examination of the complex self", *Journal of Marketing Research*, Vol. 44, August, pp. 389-400.

Mowen, J.C. and Voss, K.E. (2008), "On building better construct measures: implications of a general hierarchical model", *Psychology & Marketing*, Vol. 25 No. 6, pp. 485-505.

Musante, M., Milne, G.R. and McDonald, M.A. (1999), "Sport sponsorship: the role of personality matching", *International Journal of Sports Marketing and Sponsorship*, Vol. 1 No. 1, pp. 32-47.

Netimperative (2008), "Sport fans among internet's biggest users", Netimperative, London, June 2, available at: www.netimperative.com/news/2008/june/2/sports-fans-amongst-internet2019s-biggest-users

Nunnally, J.C. (1979), *Psychometric Theory*, 2nd ed., McGraw-Hill, New York, NY.

Ogilvy, D. (1985), *Ogilvy on Advertising*, Vintage Books, New York, NY, p. 14.

Poddar, A., Naveen, D. and Yujie, W. (2009), "Web site customer orientations, web site quality, and purchase intentions: the role of web site personality", *Journal of Business Research*, Vol. 62 No. 4, pp. 441-50.

Ross, S.D. (2008), "Assessing the use of the brand personality scale in team sport", *International Journal of Sport Management and Marketing*, Vol. 3 Nos 1/2, pp. 23-38.

Schaaf, P. (1995), *Sports Marketing: It's Not Just a Game Anymore*, Prometheus Books, Amherst, NY.

Schneider, B. and Bowen, D.E. (1995), "The service organization: human resources management is critical", in Bateson, J. (Ed.), *Managing Services Marketing: Test and Readings*, 3rd ed., The Dryden Press, Fort Worth, TX.

Smith, A., Graetz, B.R. and Westerbeek, H.M. (2006), "Brand personality in a membership-based organization", *International Journal of Nonprofit and Voluntary Sector Marketing*, Vol. 11, pp. 251-66.

Sweeney, J.C. and Brandon, C. (2006), "Brand personality: exploring the potential to move from factor analytic to circumplex models", *Psychology & Marketing*, Vol. 23 No. 8, pp. 639-63.

Tsiotsou, R. (2010), "Brand loyalty through brand attachment and brand trust: a relational perspective", *Proceedings of 6th Thought Leaders International Conference in Brand Management, April 18-20, Lugano, Switzerland*, pp. 1-14.

Tsiotsou, R. and Alexandris, K. (2009), "Delineating the outcomes of sponsorship: sponsor image, word of mouth, and purchase intentions", *International Journal of Retail & Distribution Management*, Vol. 37 No. 4, pp. 358-70.

Venable, B.T., Rose, G.M., Bush, V.D. and Gilbert, F.W. (2005), "The role of brand personality in charitable giving: an assessment and validation", *Journal of the Academy of Marketing Science*, Vol. 33 No. 3, pp. 295-312.

Zaichkowsky, J.L. (1994), "The personal involvement inventory: reduction, revision and application to advertising", *Journal of Advertising*, Vol. 13 No. 4, pp. 59-70.

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Executive summary and implications for managers and executives

This summary has been provided to allow managers and executives a rapid appreciation of the content of this article. Those with a particular interest in the topic covered may then read the article in toto to take advantage of the more comprehensive description of the research undertaken and its results to get the full benefits of the material present.

Advertising legend David Ogilvy once said that brand image meant personality; that products, like people, have personalities. Having had success with Jaguar and Rolls Royce cars – among many other clients – it is not surprising that he was well aware of the almost human affection that some people afford the brands they cherish. Take the branding of professional sport teams whose values have increased tremendously over recent years, with a correspondingly rapid increase in sport sponsorship.

Given the intangible nature of sport services, it is necessary to understand consumers' perceptions of sport brands in order to manage them more effectively. They are complex, emotional in nature and intangible services, with an unpredictable core product (i.e. game output), consisting of symbolic and experiential attributes. Because sport sponsorship has been utilized as a marketing communication tool in order to associate with or even transfer the sport brands image to sponsor products, developing an instrument that measures sport brands personality could benefit sponsors in identifying the most appropriate brands for their products and evaluating their sponsorship investment.

Coming as they do with their symbolic, experiential, and hedonic nature, sport brands (e.g. teams, organizations, and events) and their personalities have attracted much attention. However, early attempts to identify the personality of brands have failed to provide a reliable measure. Most of these research initiatives use a scale of brand personality developed by Professor Jennifer L. Aaker in the 1990s and report either discouraging results or they substantially modify the original scale.

In "Developing a scale for measuring the personality of sport teams" Rodoula Tsiotsou suggests a new instrument is needed for this product category and goes on to describe SPORTEAPE, a multi-stage process named from the first letters of the words "spor(t) tea(m) pe(rsonality). Specifically, unlike other types of brands or services, the personality of a sport team is a combination of the image of its administration and personnel, the image of the team (players and coaches in and out of the field), and the image of its fans. In other types of services, the interactions between customers and employees usually influence perceptions of the service offering while in sport teams there are several factors affecting perceptions of their personality and consequently their image. Thus, the personality of a sport team is more complex than in other types of services and brands consisting of unique characteristics and requiring a distinct measurement instrument such as SPORTEAPE with its dimensions: Competitiveness, Prestige, Morality, Authenticity, and Credibility.

Competitiveness reflects the perceptions of sport consumers regarding the ability of a team to win and achieve its goals. Prestige refers to the superiority of the team and its general recognition for its accomplishments. Morality mirrors consumers' perceptions of the team's code of conduct. Authenticity indicates the uniqueness of the sport team and Credibility manifests whether a team inspires trust and confidence.

Sport brand managers need to examine how their brands are perceived by consumers in terms of these five dimensions. Then they can decide which they need to (de) emphasize or improve in order to build a brand that increases its personal meaning to consumers. Recent research shows that the more a sport brand expresses the inner-self and reflects the social-self of sport consumers, the more involved, emotionally attached and loyal these consumers become. Developing strong emotional bonds with sport fans is a desirable outcome

because they facilitate a sport team marketer in building long-term relationships with the fans. Also, strong emotional attachment to a team provides several benefits (e.g. enhanced image and positive word-of-mouth) to the sponsors.

Managers of brands sponsoring sport teams and advertising professionals should be aware that the personality components of a sport team differ from those of other products/services. They can use the SPORTEAPE scale as a personality measure of the team they intend to sponsor. Because sponsorship is a vehicle used to enhance brand image and increase brand equity via brand associations, SPORTEAPE can assist in identifying sport teams with the most desired personality attributes and testing the degree of congruence between sponsor brands and sport teams.

When a brand has limited financial resources to allocate to a market that is home to several sport teams, it is valuable to know which teams best strengthen the image of the brand and which undermine it. Thus, SPORTEAPE could assist sponsors in assessing whether the personality of a potential team will contribute to their brand image or damage it. The closer the sponsoring brand is portrayed to share similar personality dimensions with the team, the more likely it is that consumers will find positive meaning and beliefs to associate with the sponsoring brand. Furthermore, advertisers of symbolic products can use the identified personality dimensions to incorporate them into their messages or when they use sport endorsements in order to build or enhance the image of their brands.

(A précis of the article "Developing a scale for measuring the personality of sport teams". Supplied by Marketing Consultants for Emerald.)