

DIMENSIONS OF BRAND PERSONALITY: A NEW MEASURE OF BRAND
PERSONALITY IN SPORT

A Dissertation

by

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ABSTRACT

Given highly competitive markets where numerous quality equivalent brands exist in the sport industry, a well-established brand personality of sport brands can help sport brand managers or practitioners differentiate their brands from competitors beyond utilitarian or functional characteristics. In addition, brand personality enables marketers to effectively communicate with their consumers about the brands as well as build a strong relationship. Given the importance of brand personality as a marketing tool, sport brand managers and marketers could benefit from a sport brand personality scale in order to measure their brands' personality. Therefore, the purpose of this study was therefore to develop a valid and reliable instrument for measuring brand personality in sport based on the rigorous definition of sport brand personality that excludes non-human personality traits, focusing on understanding the symbolic meanings of sport brands within a specific category (professional sport leagues in the U.S.). I identified five factors (i.e., Agreeableness, Emotionality/Extraversion, Openness, Conscientiousness, and Honesty) and developed a valid and reliable five-dimensional instrument in order to measure sport brand personality. The confirmatory factor analysis confirmed that the five-factor model has a satisfactory fit. This study contributes to the literature by (a) recognizing that defining the brand personality construct thoroughly can be a fundamental step in the process of developing a sport brand personality instrument; (b) developing a reliable and valid instrument that has five dimensional factors based on the rigorous brand personality definition; and (c) providing crucial information for brand managers or marketers to initiate effective positioning and advertising strategies.

DEDICATION

For my parents

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CHAPTER I

INTRODUCTION

With the proliferation of brands in an increasingly competitive marketplace, Ailawadi and Keller (2004) suggest that “branding has emerged as a top management priority in the last decade” (p. 331). Given highly competitive markets where numerous quality equivalent brands exist, brand managers or practitioners have long sought to develop marketing strategies to differentiate their brands from competitors beyond utilitarian or functional characteristics (Aaker, 1997; Austin, Siguaw, & Mattila, 2003; Azoulay & Kapferer, 2003). Recently, marketing researchers and brand managers have become increasingly interested in examining the emotional and symbolic human personality traits marketers or consumers attribute to brands (Aaker, 1997; Austin et al., 2003; Azoulay & Kapferer, 2003; Kapferer, 2008, Keller, 2008). McCrae and Costa (1997) define personality traits as “relatively enduring styles of thinking, feeling, and acting” (p. 509). Ogilvy (1983) suggests that a brand has personalities that “can make or break them in the market place” (p. 14) and Aaker (1997) posits that a brand has emotional and symbolic human personality aspects beyond utilitarian or functional attributes (Keller, 1993). Aaker (1997) argues that brand personality can help practitioners differentiate their brands in a competitive product or service market. In contrast to the utilitarian or functional characteristics of brands, brand personality may provide consumers with an emotional and/or symbolic function that influences consumer purchase decisions (Keller, 1993; Aaker, 1997). Brand personality is the act of attributing human personality to inanimate objects such as merchandise (Aaker, 1997;

Lee & Rhee, 2008; Parker, 2009). Aaker (1997) argues that brand personality encourages consumers to think of a brand as having a human personality. For example, consumers considered the brand personality of Oil of Olay as “gentle” and “down-to-earth,” while Holiday Inn’s brand personality has been described as “friendly,” “practical,” and “reliable” (Aaker, 1997; Plummer, 2000; Parker, 2009). In addition, previous research has shown that consumers could easily attribute human personality traits to inanimate subjects such as brands (Arora & Stoner, 2009; Azoulay & Kapferer, 2003; Kapferer, 1998). Moreover, “human beings have a uniform need for identity, and often search for this through the symbolisms and meanings carried by products and brands” (Wee, 2004, p. 317). Therefore, Austin et al. (2003) suggest that “choosing a brand with the right personality characteristics enables the consumer to develop a visible and a unique representation of him/herself” (p. 77). Previous research has indicated that brand personality could be an effective marketing tool for differentiating brands from competitors and thus of developing marketing strategies for sustainable competitive advantage (Buresti & Rosenberger, 2006; Keller, 2008).

Given the importance of symbolic meaning of a brand, interest in brand personality has increased in the marketing research literature (Aaker, 1997; Sweeney & Brandon, 2006). As a consequence, developing valid and reliable instruments that measure brand personality dimensions is important (Aaker, 1997; Austin et al., 2003; Geuens, Weijters, De Wulf, 2009). Since a brand, like a person, can be generally described with human personality traits, Aaker (1997) followed a lexical approach to personality or a lexical hypothesis, which suggests that the personality characteristics in

brands tend to become encoded in language as words associated with the brands (Caprara, Barbaranelli, & Guido, 2001; Goldberg, 1990). Through the lexical approach in psychology, Aaker (1997) performed an exploratory factor analysis in order to generate brand personality dimensions utilizing the 114 initial set of adjectives across brands within a diverse product or service categories (Azoulay & Kapferer, 2003). Based on the result of factor analysis, Aaker (1997) generated five factors of brand personality (i.e., Competence, Excitement, Ruggedness, Sincerity, and Sophistication). Aaker (1997) suggests her 42-item scale is a valid, reliable, and generalizable brand personality measurement, yet some scholars suggest there are gaps in the scale that should be addressed (Azoulay & Kapferer, 2003; Austin et al., 2003; Geuens et al., 2009).

Statement of the Problem

Aaker's (1997) study is an important seminal work with which brand personality researchers could understand and examine brands' symbolic meanings (Austin et al., 2003). Numerous brand personality studies in the marketing literature are based on the Aaker's (1997) framework or definition (Austin et al., 2003; Kapferer, 2008; Keller, 2008). Austin et al. (2003) state that Aaker's (1997) study is an important work assisting researchers or practitioners not only in understanding the symbolic meaning of brands, but also with measuring the symbolic human personality aspects of the brands. However, some scholars suggest there are gaps in Aaker's scale. For example, suggested gaps involve the conceptual definition that induces convergent and discriminant validity problems and its generalizability issues (Azoulay & Kapferer, 2003; Austin et al., 2003). One such criticism focuses on Aaker's operational definition of the brand personality

construct. Azoulay and Kapferer (2003) argue that the broad definition of brand personality – ‘the set of human characteristics associated with a brand’ – may embrace several other characteristics (e.g., age, social class) besides brand personality as a main element major component of brand image or brand identity (Keller, 2008; Keller & Richey, 2006; Geuens et al., 2009). Because of the broad definition of brand personality, other researchers in sport management who adopted Aaker’s definition of brand personality merged other dimensions of brand identity or brand image into the scales (Lee & Rhee, 2008; Lee & Cho, 2012; Tsotsou, 2012). For example, Lee and Cho (2012) included physical facet (e.g., built/in-shape, physical, athletic, big), culture (e.g., cultural), and typical and temporal user characteristics (e.g., collegiate, motivated, fun, healthy, powerful, focused, renowned, legendary, awesome) beyond personality in the sporting event personality scale (Geuens et al., 2009; Kapferer, 2008). Tsotsou (2012) also included other characteristics beyond human personality traits, such as cultural/cultivated, glorious, great, honorary, influential, multitudinous, prestige, triumphant, wealthy, and winning in her scale. Previous research has conceptualized brand image and brand identity as “multi-dimensional constructs of which brand personality is an important component” (Geuens et al., 2009, p. 98). Moreover, Austin et al. (2003) argued that it is possible that some respondents may understand the meaning of traits in a different way because of the diverse symbolic meaning of brands. Azoulay and Kapferer (2003) argue that Aaker’s (1997) definition of “brand personality encompasses dimensions conceptually distinct from the pure concept of personality” (p. 151). Azoulay and Kapferer (2003) restrict the use of the brand personality concept and

define brand personality as “the unique set of human personality traits both applicable and relevant to brands” (p. 153). Bosnjak, Bochmann, and Hufschmidt (2007) indicate that “this definition necessitates steps identifying only human personality traits and only those traits applicable to, and relevant for, brands” (p. 306). Given the conceptual restriction of brand personality, recent brand personality research has adopted Azoulay and Kapferer’s (2003) definition (Bosnjak et al., 2007; Milas & Mlačić, 2007; Sweeney & Brandon, 2006; Kapferer, 2008; Geuens et al., 2009) and developed new brand personality measures based on the restricted definition. Aaker’s (1997) operationalized definition may induce convergent or discriminant validity problems and provide brand managers or brand personality researchers with ambiguous information on the brand personality (Geuens et al., 2012). Due to this issue this study adopted the definition of brand personality provided by Azoulay and Kapferer’s (2003).

Another criticism discussed regarding the analysis of data aggregated across subjects for diverse brands from different service or product categories is related to the non-generalizability of Aaker’s (1997) framework (Austin et al., 2003). Because Aaker performed all analysis on data aggregated across participants for chosen sets of brands from multiple product categories, the procedure actually removed all within-brand variance (Austin et al., 2003; Geuens et al., 2009). The results of Aaker’s (1997) study were exclusively based on between-brand variance (Austin et al., 2003; Geuens et al., 2009). In other words, there were no attempts to assess the framework for individual brands within a product category. As a result, Aaker’s framework does not seem to generalize when measuring the individual brands’ personality within a specific product

or service category (Austin et al., 2003; Geuens et al., 2009). Therefore, from a marketing standpoint, practitioners may need additional personality research that captures the key personality dimensions within a product category when developing marketing strategies for differentiating competitive brands (Austin et al., 2003).

Although there are limitations in Aaker's (1997) framework, numerous brand personality studies have applied Aaker's (1997) scale and framework when measuring brand personality of individual brands within a different service or product category (Zentes, Morschett, & Schramm-Klein, 2008). For example, Zentes et al. (2008) stated that Aaker's (1997) brand personality scale has been utilized to examine the brand personality for beer (Phau & Lau, 2001), clothing (Kim, 2000), computers (Villegas, Earnhart, & Burns, 2000), and mobiles (Kim, Han, & Park, 2001).

However, in contrast to Aaker's (1997) argument that her brand personality scale is a generalizable measurement across product categories, previous research has shown heterogeneous results (Zentes et al., 2008). There is consensus that the five dimensions of Aaker's brand personality scale have good or acceptable reliability (Rathnayake, 2008). Concerning the validity issues in Aaker's (1997) scale, Austin et al. (2003) conducted a confirmatory factor analysis (CFA) to verify the five-dimensions of Aaker's (1997) model at both an individual restaurant brand level (e.g., Burger King, McDonald's, T.G.I. Friday) and at diverse levels of aggregation across three subcategories: (a) quick service restaurant brands; (b) quick service and casual dining restaurant brands; and (c) quick service, casual dining, and upscale dining restaurant brands. However, the results of CFA indicated that the model fit was not acceptable at

the individual restaurant brand level as well as at the levels of aggregation within the subcategory of restaurant brands (Austin et al. 2003). The results of the study by Austin et al. (2003) showed that “a number of the 42 items are not unidimensional indicators of the specified component as they need to cross-load on other components” (p. 83). For example, although Aaker (1997) indicates that the Sincerity dimension includes a wholesome trait, Austin et al. (2003) found that wholesome loads on three dimensions of Aaker’s (1997) scales such as Excitement, Ruggedness, and Sophistication. In addition, Outdoorsy loads on three dimensions (i.e., Sincerity, Excitement, and Sophistication) while the Ruggedness dimension includes Outdoorsy in Aaker’s study (Austin et al., 2003). This is aligned with previous brand personality research that has shown the need to modify Aaker’s measure by re-allocating some traits to other dimensions or eliminating some traits from Aaker’s 42 items (Zentes et al., 2008).

In recent years, sport management researchers have become increasingly interested in measuring brand personality within the sport industry (Ross, 2008; Braunstein & Ross, 2010; Tsiotsou, 2012; Lee & Cho, 2012). Within the context of spectator sport, previous research has indicated that sport brands have a variety of meaningful symbolic connections for spectators, such as community pride, socialization with one’s family or friends when attending sport events, vicarious achievement, wholesome environment, and identifying sport players as good role models for girls and boys (Pritchard & Funk, 2010; Funk, Mahony, & Ridinger., 2002; Funk, Ridinger, & Moorman., 2003). Given the meaningful symbolic nature of sport brands, previous studies in sport management have measured brand personality in professional sport

teams (Braunstein & Ross, 2008; Tsiotsou, 2012), intercollegiate sport teams (Ross, 2008), sport organizations (Smith, Graetz, & Westerbeek, 2006), sport sponsorship (Musante, Milne, & McDonald, 1999), and sporting events (Lee & Cho, 2012). Ross (2008) argues that Aaker's (1997) brand personality scale may be applicable to sport brands. For example, Aaker's brand personality scale has several dimensions including a number of human personality traits that may represent important human characteristics of sport brands, such as drama, cheerful, excitable, tough, cool, masculine, and sincere (Ross, 2008).

However, previous research demonstrated that initial attempts to provide a valid and reliable instrument have failed based on the results (Ross, 2008; Smith et al., 2006; Tsiotsou, 2012). For example, Ross (2008) reported that the composite reliabilities (CR) of four dimensions were over the 0.70 cutoff recommended by Hair, Black, Babin, and Anderson (2006) except those for one dimension, Ruggedness (CR = .69) (see Table 1). Convergent and discriminant validities were calculated for all five dimensions (i.e., Sincerity, Sophistication, Excitement, Ruggedness, and Competence) of Ross's (2008) study using the procedure recommended by Hair et. al (2006). The results of Ross's study failed to achieve both discriminant validity and convergent validity (see Table 1).

Table 1 Reliability, Convergent and Discriminant Validity in Ross's (2008) Study

Dimensions	CR	AVE	MSV	ASV	Convergent Validity	Discriminant Validity
Sincerity	.91	.50	1.01	.78	Not Failed	Failed
Sophistication	.77	.37	.74	.67	Failed	Failed
Excitement	.91	.50	1.01	.78	Not Failed	Failed
Ruggedness	.69	.32	.72	.66	Failed	Failed
Competence	.88	.46	1.01	.80	Failed	Failed

Note: Threshold of reliability: composite reliability (CR) > .70; threshold of convergent validity: CR > average variance extracted (AVE), AVE > .50; threshold of discriminant validity: maximum squared variance (MSV) < AVE, average shared squared variance (ASV) < AVE (Hair et al., 2006).

The results of Ross's (2008) study show that either Aaker's (1997) scale may need modification to identify the key factors of sport brand personality or we might need a new scale of the construct in the sport industry (Austin et al., 2003; Ross, 2008; Tsiotsou, 2012). Although the brand personality scale of Aaker represents a significant instrument with which researchers or practitioners can measure symbolic brand meanings, Austin et al. (2003) argued that additional research on brand personality needs to develop an instrument that captures major dimensions of individual brands' personalities across a diverse range of service or product categories. Therefore, Austin et al. (2003) argue that researchers need to identify major brand personality dimensions of individual brands within a particular brand category.

Aaker's (1997) framework was built upon the Big Five human personality structure in psychology (Norman, 1963; McCrae & Costa, 1989; John, 1990; Piedmont, McCrae, & Costa, 1991). Since the 1980s, personality researchers have found that the number of human personality dimensions could be grouped in terms of five major dimensions named by the Big Five (Goldberg, 1990; John, 1990; Ashton & Lee, 2005; Ashton, Lee, & Goldberg, 2004), which include five factors: (a) Agreeableness; (b)

Conscientiousness; (c) Emotional Stability; (d) Extraversion; and (e) Intellect/Imagination or Openness to Experience. The five factors have been revealed in investigates of English-language personality adjectives and those five dimensions have also subsequently been found in other languages (Ashton & Lee, 2007; De Raad, Perugini, Hrebickova, & Szarota, 1998; Goldberg, 1990; Lee & Ashton, 2006; Tupes & Christal, 1961, 1992). However, Ashton, Lee, Perugini, et al. (2004) found that the sixth factor, distinguished by the Honesty-Humility dimension, has repeatedly emerged from the analysis of English lexical studies as well as in other non-English language (e.g., French, Italian, Dutch, Korean, Hungarian, Polish, German) lexical research (Ashton & Lee, 2001; Ashton et al., 2004; Lee & Ashton, 2006; Ashton & Lee, 2007). They suggest that the Big Five structure may be in need of significant revisions, and propose a new framework named the HEXACO model that postulates a set of six personality dimensions as follows: (a) Honesty/Humility; (b) Emotionality; (c) Extraversion; (d) Agreeableness; (e) Conscientiousness; and (f) Openness to Experience (Ashton & Lee, 2001; Ashton et al., 2004; Ashton & Lee, 2006, 2007). Ashton et al. (2004) argue that “this six-factor structure may be a strong candidate to be an optimal taxonomy of human personality variation” (p. 708). Given the important role of the Big Five in brand personality (Aaker, 1997; Sweeney & Brandon, 2006), the HEXACO model needs to be critically examined because the model may also play an important role in developing a fundamental framework in brand personality research (Aaker, 1997; Lee & Ashton, 2006; Milas & Mlačić, 2007). The HEXACO model produces a separate factor (i.e., Honesty-Humility) from the Big Five model and the human personality dimension may

provide better prediction of the Sincerity factor in brand personality (Aaker, 1997; Ashton & Lee, 2005).

Since brands, like persons, can be generally described with human personality traits in psychology, the lexical approach in psychology is appropriate to identify human personality traits both relevant and applicable to brands (Azoulay & Kapferer, 2003; Caprara et al., 2001). However, it is still uncertain whether the Big Five dimensions or six dimensions of HEXACO are also likely to be applicable in brand personality dimensions (Caprara et al., 2001). Caprara et al. (2001) argue that the Big Five personality factors cannot be applied to brands. However, this study argues that Caprara et al.'s (2001) study has a significant limitation in the measures. Caprara et al. (2001) used only 40 adjectives as an initial pool set for the study. Although Caprara et al. (2001) mentioned that the 40 adjectives “were taken from a wider list of about 500 trait terms identified as the most useful for describing human personality in the Italian language” (p. 382), the full set of markers may not be enough if the set of personality traits do not represent an important aspect of brand personality. In addition, the scales included non-human personality trait items (e.g., dominant, happy, informed, modern, recent) (Allport & Odbert, 1936).

Both the Big Five and HEXACO scales are the result of factor analysis of the natural language of personality that individuals generally utilize to describe him/herself (Ashton et al., 2004; Goldberg, 1993; Das, Guin, & Datta, 2012). Aaker (1997) proposed five dimensions, of which three dimensions (i.e., Sincerity, Excitement, and Competence) resemble the Big Five dimensions and HEXACO (Austin et al., 2003; Das

et al., 2012). For example, the Sincerity dimension includes traits associated with two dimensions of the Big Five, Agreeableness and Conscientiousness. In addition, concerning the relationship between dimensions of the HEXACO scale and Aaker's (1997) Brand Personality dimensions, I identified Sincerity as related to one dimension of HEXACO, that of Honesty/Humility. However, Aaker (1997) reported that two dimensions (i.e., Ruggedness, Sophistication) among the five brand personality dimensions are different from the Big Five dimensions (Geuens et al., 2009). Moreover, several other researchers have also found different dimensions of brand personality from the Big Five structure (d'Astous & Lévesque, 2003; Geuens et al., 2009; Sung & Tinkham, 2005). None of the previous research on brand personality in sport replicates the Big Five dimensions (Ross, 2008; Braunstein & Ross, 2010; Heere, 2010; Tsiotsou, 2012; Lee & Cho, 2012) (see Table 2). Concerning the previous brand personality studies in sport, the 12 other dimensions (i.e., Amusement, Attractive, Authenticity, Classic, Community-driven, Credibility, Fit, Prestige, Professional, Ruggedness, Sophistication, Success) do not contain any human personality traits. For example, the dimension of credibility generated by Tsiotsou (2012) only includes two non-human personality traits such as wealthy and influential. The results are not too surprising because most previous brand personality studies are based on Aaker's (1997) brand personality definition or her scale (Azoulay & Kapferer, 2003; Geuens et al., 2009).

In sum, extant literature reveals a lack of consensus among previous brand personality studies. This may be due to Aaker's (1997) operational definition of brand personality, which encompasses several other brand identity dimensions or brand image

dimensions beyond brand personality construct (Austin et al., 2003; Azoulay & Kapferer, 2003; Geuens et al., 2009; Kapferer, 2003). According to Churchill (1979), defining the construct thoroughly cannot be overestimated and is an important first step; “the process of developing better measures involves specifying the domain of the construct” (p. 67). Churchill posits that “the researcher must be exacting in delineating what is included in the definition and what is excluded” (p. 67). In addition, Aaker removed all within-brand variance because she conducted factor analysis utilizing the data aggregated across individual brands (37 brands in total) on each personality trait across participants (Austin et al., 2003). In other words, there were no attempts to assess the scales’ generalizability for individual brands within a specific category (Austin et al., 2003). As a result, Aaker’s framework does not seem to generalize when measuring individual brands’ personalities within a specific product/service category (Austin et al., 2003; Geuens et al., 2009). Austin et al. (2003) state that “researchers must be careful, however, when attempting to use the framework in research contexts other than those involving analyses aggregated over broad sets of product categories” (p. 90).

Purpose of Research

The purpose of this study was therefore to develop a valid and reliable instrument for measuring brand personality in sport based on the rigorous definition of sport brand personality that excludes non-human personality traits, focusing on understanding the symbolic meanings of sport brands within a specific category (professional sport leagues in the U.S.).

Research Questions

The research questions for this study are as follows: (a) Does a newly developed sport brand personality scale have a set of dimensions/framework of personality different from or similar to the dimensions of Aaker's (1997) scale?; and (b) Does a newly developed sport brand personality scale have a set of dimensions/ framework of personality different from or similar to the HEXACO dimensions of human personality or those of the Big Five dimensions? (Aaker, 1997; Ashton & Lee, 2007; Lee & Ashton, 2004)

Overview of the Dissertation

This dissertation is organized into five chapters. Chapter I introduces the research topic, outlines the problem statement, states the purpose of the study, and presents the guiding research questions. Chapter II reviews the relevant literature on brand personality and includes: (a) The relationship among brand image, brand identity, and brand personality; (b) Brand identity; (c) Brand personality and human personality; (d) Trait theory and human personality traits; (e) The Big Five personality versus HEXACO; and (f) Human personality dimensions versus brand personality dimensions. Chapter III provides the research method (i.e., selection of human personality traits, measures, data analysis) utilized in the study. Chapter IV presents the results (i.e., descriptive statistics, exploratory factor analysis, confirmatory factor analysis, construct reliability, convergent and discriminant validity) of the study. Finally, Chapter V concludes with a general discussion, theoretical implications, marketing implications, limitations, future research directions, and a conclusion.

CHAPTER II

LITERATURE REVIEW

The Relationship between Brand Imagery, Brand Identity and Brand Personality

As mentioned previously, Aaker (1997) defines brand personality as “the set of human characteristics associated with a brand” (p. 347). Freling and Forbes (2005) argue that “The clear delineation of brand personality, however, remains somewhat vague and indistinguishable from other constructs such as brand imagery or brand identity” (p. 404). Previous research has indicated that brand imagery and brand identity have multiple dimensions of which brand personality is a key dimension among those constructs (i.e., brand imagery, brand identity) (Geuens et al., 2009; Kapferer, 2008; Keller, 2008). For example, Keller (2008) defined brand imagery as “more intangible aspects of a brand, and consumers can form imagery associations directly from their own experience or indirectly through advertising or by some other source of information” (p. 65). Keller (2008) also identified four main elements of brand imagery: (a) user imagery or user profiles, which address “the type (e.g., demographic factors) of consumers who use the brand; (b) purchase and usage situation, which indicate type of channel (e.g., condition or situation) where or when consumers use the brand; (c) personality and values, which express type of personality traits associated with the brand; and (d) history, heritage, and experience, which indicate type of associations consumers may recall from their personal experiences or experiences of others such as friends or family with the brand. Given these aspects of the brand imagery construct (Keller, 2008), this study posits that Aaker’s argument that brand personality should include socio-

demographic (e.g., age, gender, social class) may cause a construct validity problem because the scale encompasses other brand imagery components (i.e., user profiles) beyond personality. Moreover, previous research has indicated that user imagery is not the same construct as brand personality (Keller, 2008; Plummer, 2000). For example, customers may describe Perrier's user imagery as "flashy" and "trendy", whereas the brand personality of Perrier can be "sophisticated" and "stylish" (Keller, 2008).

Brand Identity

Aaker (1996) defined "brand identity as a unique set of brand associations that the company aspires to create or maintain" (Alsem & Kosteljik, 2008, p. 909). Brand identity reflects the desired perception of supply orientation toward the brand (firm-centered perspective or supply-side perspective), whereas brand image specifies how consumers perceive a brand (customer-centered or receiver-side perspective) (De Chernatony, 1999; Alsem & Kosteljik, 2008; Smith et al., 2006; Konecnik & Go, 2007; Geuens et al., 2009). Previous research has shared the opinion that brand identity is "a stable point of reference for customers" (Alsem & Kosteljik, 2008, p. 911). Kapferer (1998, 2008) argued that brand identity is not the same as brand image and suggested a brand identity prism consists of six dimensions such as culture, personality, physique, reflection, relationship, and self-image. de Chernatony (1999) argued that the hexagonal 'brand identity prism' model is an important tool to understand different aspects of brand identity. Kapferer (2008) argued that the brand identity prism demonstrates distinct facets and these aspects have specific relationships between them. Two brand identity dimensions of brand personality and physique are on the sender's side in the Kapferer's

(2008) brand identity prism. Kapferer (2008) indicated that the brand identity of reflection (i.e., user image toward brands) and self-image (i.e., consumer's own image as a brand user) represent the receiver's side in the prism. Finally, the dimensions of culture (i.e., set of values providing the brand's inspiration) and relationship (i.e., mode of conduct as crux of transactions) form a bridge between picture of sender (i.e., physique, personality) and picture of recipient (i.e., reflection, self-image) (Geuens et al., 2009; Kapferer, 2008). Given each differentiated aspect of brand identity components in the prism, Kapferer (2008) argued that brand personality as a picture of the sender should not be confused with the receiver-side perspective (i.e., reflection, self-image). In this perspective, Azoulay and Kapferer (2003) argued that Aaker (1997) defined brand personality not as a part among different brand identity concepts but as the whole. Aaker's definition of brand personality as being "the set of human characteristics associated with a brand" (p. 347) may mix up theoretically and empirically different constructs of brand identity within a single dimension of brand personality (Azoulay & Kapferer, 2003).

In sum, although there are several controversial brand identity frameworks, previous research has indicated that brand personality is a distinct aspect among distinct brand identity facets (Azoulay & Kapferer, 2003; Geuens et al., 2009). According to Churchill (1979), defining the construct thoroughly cannot be overestimated and is an important first step; "the process of developing better measures involves specifying the domain of the construct" (p. 67). Churchill argued that "the researcher must be exacting in delineating what is included in the definition and what is excluded" (p. 67). In this

perspective, Azoulay and Kapferer (2003) argued that a new definition of brand personality should “remain close to that used in psychology, where the concept of personality has been analyzed for decades, although it should be adapted to brands” (p. 146).

Brand Personality and Human Personality

Since brands, like people, can be described with human personality traits, the lexical approach in personality psychology is an appropriate method to represent brand characteristics (Caprara et al., 2001). Previous research in brand personality has focused on the two main constructs (i.e., human personality, brand personality) (Milas & Mlačić, 2007). Milas & Mlačić (2007) argued that previous developed personality models (i.e., Big Five, HEXACO) which were generated from the lexical studies in personality psychology may provide a good guidance for the construction of a set of brand personality factors. However, Aaker (1997) argued that the brand personality dimensions was different from the Big Five human personality dimensions indicating lack of consensus between the two constructs. Aaker identified five dimensions of brand personality (i.e., Competence, Excitement, Ruggedness, Sincerity, and Sophistication) and reported that two dimensions (i.e., Sophistication and Ruggedness) among five brand personality dimensions are different from any of the five human personality dimensions of the ‘Big Five’ (Aaker, 1997). Aaker argued that “this pattern suggests that brand personality dimensions might operate in different ways or influence consumer preference for different reasons” (p. 354). Previous research also indicated that brand personality dimensions may be formed through the direct or indirect interactions

between consumer and brand, whereas human personality dimensions might be generated based on an individual's attitudes, behaviors, and beliefs (Park, 1986; Plummer, 1985, Lee & Cho, 2009). However, although two items (i.e., strong, outdoorsy) among four items in the Ruggedness dimension are different from any of the five human personality dimensions, the other two items (i.e., tough, rugged) tap into an innate part of the human personality dimension, Emotional Stability (vs. Neuroticism). Moreover, previous research has also included Sophistication (e.g., blasé, urbane, refined, and cosmopolitan) as a factor in the Conscientiousness personality dimension (Allport, 1937; Norman, 1967; Goldberg, 1990).

However, Aaker's Sophistication dimension represented by human characteristic items such as upper-class, charming, good looking, and glamorous does not contain any human personality traits (Austin et al., 2003; Geuens et al., 2009). This study argues that the lack of consensus between dimensions of the two constructs (i.e., human personality, brand personality) may be due to Aaker's definition. Azoulay and Kapferer (2003) argued that the broad definition of Aaker's (1997) may cause a convergent or discriminant validity problems and provide brand managers or brand personality researchers with ambiguous information on brand personality (Geuens et al., 2012).

Trait Theory and Human Personality Traits

The trait theory is one of the major theoretical areas in the study of personality (Wee, 2004). Trait theory can be defined as "approaches that explain personality in terms of traits, that is, internal characteristics that are presumed to determine behavior" (VandenBos, 2009, p. 432). As a seminal and pioneer study on human personality trait

descriptors in personality psychology (Briggs, 1992), Allport and Odbert (1936) conducted a lexical approach and identified 17,953 words that could be used to “distinguish the behavior of one human being from that of another (p. 24). Allport and Odbert (1936) identified four major categories: (a) “real” traits of personality (e.g., aggressive, introverted, and sociable), defined as “generalized and personalized determining tendencies—consistent and stable modes of an individual’s adjustment to his environment” (p. 26); (b) temporary and casual states, moods, and emotional activities, such as abashed, amazed, elated, rejoicing, and afraid; (c) highly evaluative judgments or social evaluations, such as successful, charming, excellent, and wholesome; and (d) capacities or talents, physical characteristics, and other terms of metaphorical or uncertain applicability to personality, such as able, gifted, prolific, veteran, wealthy, physical, young, athletic, eastern, European, and commercial. Furthermore, Allport (1937) identified trait-descriptive terms and derived a list of 4,504 terms that “designate generalized and personalized determining tendencies” (p. 306). Norman (1967) reduced the list of 4,504 to 2,800 human personality traits that mostly consist of adjectives. Norman (1967) elaborated these classifications into several categories: (a) stable traits (e.g., helpful, persistent, and dandy); (b) temporary states, physical states, and activities (e.g., abashed, obeying, and carping); (c) social roles, social evaluations, relationships, and effects (e.g., captive, dangerous, and soporific); and (d) exclusion categories (e.g., awful, bad, and male).

The Big Five Personality versus HEXACO

One of the most influential trait theorists, Cattell (1943), used the list of 4,504 traits of Allport and Odbert (1936) to develop 171 scales consists of bipolar adjectives in empirical analyses (Goldberg, 1990). Further, from the original 171 traits (Cattell, 1943), Cattell (1945) constructed a set of human personality traits consists of 35 bipolar personality clusters that include 18 positive variables and 17 negative variables in a factor analysis. In addition, based on the set of 35 personality clusters, Cattell (1945) argued that at least twelve oblique factors exist (Goldberg, 1990). However, using orthogonal rotational methods, previous research has identified that only five factor structures known as the Big Five were repeatedly observed (Borgatta, 1964; Digman & Takemoto-Chock, 1981; Digman & Inouye, 1986; Goldberg, 1990; McCrae & Coast, 1987; Norman, 1963). Although many personality studies utilize the Big Five (Ashton & Lee, 2008), some critics indicate that the emergence of the Big Five factors in lexical data sets may have been a consequence of biases in variable selection (Block, 1995; Hahn, Lee, & Ashton, 1999). For example, because several studies used Cattell's (1945) personality traits and discovered the Big Five factor structure, the structure may not be replicable beyond the initial set of variables (Goldberg, 1990; Hahn et al., 1999). However, as a response to these critiques, Goldberg (1990) argued that obtained results are almost identical to those observed in previous studies "within any pool of personality traits that is based on a reasonably representative sampling of the English lexicon of trait adjectives" (p. 1222).

More recently, however, Ashton and Lee (2007) argued that a six set structure named the HEXACO model has been repeatedly found from non-English lexical human personality studies in several languages such as German, Korean, Italian, French, Polish, and Hungarian (Ashton & Lee, 2001; Ashton, Lee, et al., 2004; Lee & Ashton, 2006; Ashton & Lee, 2007). Ashton and Lee (2005) stated that their argument may raise a question of why the six-factor structure has not been found from the English personality lexicons. Therefore, Ashton, Lee and Goldberg (2004) investigated the structure of the English personality lexicon based on Goldberg's (1982) set of 1,710 human personality traits. Whereas the result in Ashton et al.'s (2004) study revealed that Honesty-Humility factors were the smallest dimension of the six factor solution, Ashton et al. (2004) argued that "the English personality lexicon does contain a sixth factor broadly similar to the Honesty-Humility dimension that has been obtained in other languages" (p. 718). Ashton et al. (2004) argued that the process of selecting the 1,710 traits (Goldberg, 1982) into a set of clusters consist of synonymous adjectives may have resulted in a failure to include proportional representation of the Honesty-Humility factors in the set of personality trait adjectives.

Human Personality Dimensions versus Brand Personality Dimensions

"Does it (brand personality) have a framework or set of dimensions of human personality?" (Aaker, 1997, p.347). Although Epstein (1977) indicated that human personality traits might have a similar conceptualization with that of brand personality, Aaker (1997) found that the dimensions of human personality and brand personality are different. Aaker identified two different brand personality dimensions (i.e., Ruggedness

and Sophistication) with an independent set of brand personality traits from the Big Five dimensions. Aaker argued that those two dimensions (i.e., Ruggedness, Sophistication) are not related to any of the Big Five dimensions as a unique set of dimensions of brand personality. Moreover, several other researchers have also found different brand personality dimensions from the Big Five structure (d'Astous & Lévesque, 2003; Sung & Tinkham, 2005; Geuens et al., 2009). In addition, none of the previous research on brand personality in sport replicated the Big Five dimensions (Ross, 2008; Braunstein & Ross, 2010; Heere, 2010; Tsiotsou, 2012; Lee & Cho, 2012). The results (see Table 2) are not too surprising because most studies on brand personality are based on Aaker's (1997) framework, definition, or her scale (Azoulay & Kapferer, 2003; Geuens et al., 2009). Concerning the previous brand personality studies in sport, the 12 other dimensions (i.e., Amusement, Attractive, Authenticity, Classic, Community-driven, Credibility, Fit, Prestige, Professional, Ruggedness, Sophistication, Success) do not contain any human personality traits. For example, the dimension of credibility generated by Tsiotsou (2012) only includes two non-human personality traits such as wealthy and influential.

Table 2 Resemblance of Brand Personality Dimensions or Traits to the Big Five Dimensions/ HEXACO

Author (s)	Big Five-like dimensions or traits	HEXACO-like dimensions or traits	Other dimensions or traits
Aaker (1997)	Sincerity (e.g., down-to earth, honest, cheerful) (A, C, & E), Excitement (e.g., daring, spirited, imaginative) (E-O), Competence (e.g., reliable, intelligent) (A, C, & O), Ruggedness (e.g., masculine, tough, rugged) (ES)	Sincerity (H-X), Excitement (X-O), Competence (H-O), Ruggedness (E)	Sophistication (e.g., upper class, glamorous, good looking, charming)
Ross (2008)	Sincerity (A, C, & E), Excitement (E-O), Competence (A, C, & O), Ruggedness (ES)	Sincerity (H-X), Excitement (X-O), Competence (H-O), Ruggedness (E)	Sophistication
Braunstein and Ross (2010)	Sincerity (e.g., down-to-earth, honest, sincere) (A-C) Rugged (e.g., bold, daring, rugged) (E-ES)	Sincerity (H) Rugged (X)	Success Sophistication Community-driven Classic
Heere (2010)	Competitive (C) Exciting (ES) Dynamic (E) Passionate (C-E) Proud (C) Accessible (A) Warm (A) Cool (E)	Competitive (C) Exciting (E) Dynamic (X) Passionate (C-X) Proud (C) Accessible (A) Warm (A) Cool (X)	Professional Attractive
Tsiotsou (2012)	Competitiveness (e.g., proud, ambitious, dynamic) (C-E) Morality (e.g., principled) (A)	Competitiveness (C-X) Morality (A)	Prestige Authenticity Credibility
Lee and Cho (2012)	Diligence (C) Uninhibitedness (E) Tradition (O)	Diligence (C) Uninhibitedness (X) Tradition (O)	Fit Amusement

Note. Letters between parentheses in the second column refer to the Big Five dimensions (Geuens et al., 2009): E=Extraversion, A=Agreeableness, C=Conscientiousness, ES=Emotional Stability and O=Openness

Letters between parentheses in the third column refer to the HEXACO dimensions(Geuens et al., 2009): H=Honesty/Humility, E=Emotionality, X=eXtraversion, A=Agreeableness, C=Conscientiousness and O=Openness to Experience

Although the term ‘personality’ in psychology has a very definite meaning, Aaker’s definition of brand personality might lead to construct validity problems because the definition might include other non-human personality trait items beyond brand personality itself (Azoulay & Kapferer, 2003; Geuens et al., 2009). Therefore, this study adopted the brand personality definition of Azoulay and Kapferer (2003). Based on the strict definition of brand personality (Azoulay & Kapferer), this study expects to find a five or six set of dimensions/ framework of personality. Moreover, using the strict definition, this study developed an instrument for measuring brand personality in sport based on human personality traits in personality psychology and carefully excluded other dimensions of brand identity or brand image beyond brand personality (Geuens et al., 2009).

CHAPTER III

RESEARCH METHOD

This chapter is organized into five steps. First, an initial set of 222 candidate traits were identified from the previous brand personality studies and a content analysis using the NBA mission statement. Second, a set of 105 human personality traits was obtained after eliminating non-human personality traits and redundant human personality traits from the initial set of 222 candidate traits. Third, to reduce the initial pool of 105 human personality traits to a more manageable number (N=36), I employed an expert panel consisting of four judges who are faculty members at a Southwestern university. All human personality traits were sorted in hierarchical ordering based on the rating by the expert panel. Then, six human personality traits in each dimension were selected from the process. Fourth, convenience sampling was used to distribute a survey link to students at a Southwestern university. Participants rated how relevant and applicable the 36 human personality traits were to the National Football League (NFL) using a 7-point Likert-type scale (1 = strongly disagree, 7 = strongly agree). Finally, the data were coded into the SPSS 20.0. The selected 36 human personality traits were submitted to a principal axis factor analysis. An exploratory factor analysis was performed through principal axis factor analysis with Oblimin rotation in order to generate a factor structure of sport brand personality. Then, a confirmatory factor analysis (CFA) was performed through AMOS 20.0 to examine construct reliability (convergent validity and discriminant validity) of the newly developed sport brand personality model in this study (Hair et al., 2006). These steps are explained in detail below.

Selection of Human Personality Traits

In a first step to obtain an extensive list of human personality traits on brand personality in sport, the study included human personality traits from two research studies on brand personality (Aaker, 1997; Geuens et al., 2009). Moreover, personality traits in previous brand personality scales developed to measure sport brands were included (Ross, 2008; Braunstein & Ross, 2010; Heere, 2010; Tsiotsou, 2012; Lee & Cho, 2012). An initial set of 222 candidate traits were identified from the previous marketing and sport management studies on brand personality.

In a second step, I needed to select only human personality traits from the initial set of candidate items. Therefore, I used the list of 4,504 human personality traits in Allport and Odbert's (1936) study and the set of 2,800 descriptive terms of human personality traits in Norman's (1967) study as inclusion and exclusion criteria. To assure human personality traits from candidates in previous studies (Aaker, 1997; Geuens et al., 2009; Ross, 2008; Braunstein & Ross, 2010; Tsiotsou, 2012; Lee & Cho, 2012), terms that exist in either of the two studies (Allport & Odbert, 1936; Norman, 1967) were selected (see Table 3). For example, Heere's (2010) scale has 10 adjectives such as accessible, attractive, competitive, cool, dynamic, exciting, passionate, professional, proud, and warm. However, two traits (i.e., attractive, professional) were not in any of lists of Allport and Odbert's (1936) and Norman's (1967) studies. Based on the criteria, the two adjectives, which are non-human personality traits, were excluded from the study.

Table 3 Resemblance of Brand Personality Dimensions to the HEXACO Dimensions

Author(s)	Honesty	Emotionality	Extraversion	Agreeableness	Conscientiousness	Openness to Experience
Aaker (1997)	Confident	Confident	Cheerful	Confident	down-to-earth	Imaginative
	Honest	Excitable	Confident		hard working	Intelligent
	Reliable	Feminine	Cool		Leadable	Original
	Sincere	Independent	Daring		Realistic	Trendy
		Masculine	Friendly		Technical	
		Rugged	Spirited			
		Sentimental				
Geuens et al. (2009)	Honest	Emotional	Active	Aggressive	Consistent	Creative
	Pretentious	Romantic	Adventurous	Bold	Down-to-earth	Genuine
	Reliable	Sentimental	Dynamic		Honest	Innovative
	Trustworthy	Steady	Energetic		Rational	Simple
Braunstein & Ross (2010)			Lively		Reliable	
					Responsible	
					Stable	
	Dependable	Family-oriented	Bold	Reliable or Truthful	Confident	Stylish
	Genuine	Rugged	Daring		Consistent	Traditional
	Honest		Friendly		Down-to-earth	
	Reliable				efficient	
Respectful				Hard-working		
Sincere				Sophisticated		
Genuine				Consistent		
Honest				Down-to-earth		

Table 3 Continued.

Author(s)	Honesty	Emotionality	Extraversion	Agreeableness	Conscientiousness	Openness to Experience
Heere (2010)		Excitable	Cool Dynamic	Accessible Warm	Competitive Passionate Proud	
Lee & Cho (2012)	Loyal Show-off	Brave Excitable Fearless Masculine Rugged Ruthless Tense Tough	Adventurous Assertive Bold Brave Cheerful Daring Dominant Dynamic Dynamic Energetic Extroverted Fearless Lively Loud Outgoing Passionate Rowdy	Aggressive Ruthless Violent	Ambitious Competitive Dedicated Disciplined Hardworking Passionate Persistent Proud	Intense Traditional
Tsiotsou (2012)	Ethical Sincere		Dynamic	Ethical Moral Principled Stubborn	Ambitious Changeable competitive proud	Creative Traditional

Based on these criteria, 25 human personality traits were identified from Aaker's (1997) study (see Table 3). In addition, this study included 24 personality traits from the scale of Geuens et al. (2009). Moreover, this study identified that previous studies on brand personality in sport include a total of 56 human personality traits (e.g., adventurous, competitive, energetic, masculine, lively) both applicable and relevant to sport brands. In addition, using a content analysis method, the National Basketball Association's (NBA) mission statement was used to derive additional human personality traits both relevant and applicable to professional sport leagues (Azoulay & Kapferer, 2003). However, I found that other professional leagues do not make their mission statements publically available, so I was not able to access these. Covey (1989) stated that:

An organizational mission statement –one that truly reflects the deep shared vision and values of everyone within the organization–creates a great unity and tremendous commitments. It creates in people's hearts and minds a frame of reference, a set of criteria or guidelines, by which they will govern themselves. They don't need someone else directing, controlling, criticizing, or taking cheap shots. They have bought into the changeless core of what the organization is about (p. 143).

Given that mission statements may contain the core values of organizations, mission statements can “act as a powerful emotional pull for people who identify with them” (Herbst & Merz, 2011, p. 1075). This procedure may well represent an appropriate way to generate additional personality traits for this study (Herbst & Merz,

2011). To identify and extract human traits from the mission statement, two raters who are doctoral students in a Sport Management program read the mission statement and described all human traits both relevant and applicable to the mission statement (Azoulay & Kapferer, 2003). Items that had discrepancies between raters were excluded from the list. After eliminating redundant human personality traits, in sum, a set of 105 human personality traits was generated from previous brand personality studies (Aaker, 1997; Geuens et al., 2009; Ross & Braunstein, 2010; Heere, 2010; Tsiotsou, 2012; Lee & Cho, 2012) which were used in the study along with a content analysis using the NBA mission statement.

In a third step, to reduce the initial pool of 105 human personality traits to a more manageable number (N=36), this study included an expert panel consisting of three sport management faculty and one educational psychology scholar was selected to assess the traits. Using a brand personality scale rubric, they were asked to indicate how relevant they felt each trait to be for the six dimensions (i.e., Honesty, Emotionality, Extraversion, Agreeableness, Conscientiousness, Openness) by typing an “X” in either the “Highly relevant”, “Mostly relevant”, or “Low relevance or no relevance” columns. Human personality traits were sorted in hierarchical ordering based on the rating by the expert panel. Six human personality traits in each dimension were selected from the process. For example, the rubric included an initial set of nine human personality traits for the Openness dimension (see Table 4). Six human personality traits such as creative, flexible, imaginative, innovative, original, and reflective were selected based on the experts’ rating scores.

Table 4 Results of Expert Panel’s Ratings on Openness Dimension

Dimension	Human personality traits	Highly relevant	Mostly relevant	Low relevance or No relevance
Openness	Creative	3/4		1/4
	Flexible	4/4		
	Imaginative	4/4		
	Innovative	3/4	1/4	
	Intelligent		2/4	2/4
	Intense		1/4	3/4
	Original	1/4	1/4	2/4
	Penetrative		1/4	3/4
	Reflective	2/4		2/4

The procedure generated 36 personality traits which include six human personality traits for each dimension for data collection (Table 5).

Table 5 Selected 36 Human Personality Traits

Dimensions	Human personality traits (highly relevant or mostly relevant)
Agreeableness	Agreeable, civil, considerate, courteous, generous and tolerant
Emotionality	Emotional, fearless, ruthless, sentimental, stable and tense
Extraversion	Adventurous, daring, dynamic, enthusiastic, friendly and lively
Openness	Creative, flexible, imaginative, innovative, original and reflective
Conscientiousness	Consistent, dedicated, disciplined, hard-working, leadable and persistent
Honesty	Dependable, ethical, fair-minded, integrity, respectful and sincere

Measures

Using a 7-point Likert-type scale (7 = strongly agree, 6 = agree, 5 = somewhat agree, 4 = neither agree nor disagree, 3 = somewhat disagree, 2 = disagree, 1 = strongly disagree), respondents rated the selected human personality traits in the National NFL. The NFL was selected based on the Annual revenue comparison and television exposure among the Big Four leagues (i.e., NFL, Major League Baseball (MLB), National Basketball Association (NBA), National Hockey League (NHL)). The final set of human personality traits consisting of 36 human personality traits was measured. The items included: (a) Honesty (i.e., dependable, ethical, fair-minded, integrity, respectful, and sincere); (b) Emotionality (i.e., emotional, fearless, ruthless, sentimental, stable, and tense); (c) Extraversion (i.e., adventurous, daring, dynamic, enthusiastic, friendly, and lively); (d) Agreeableness (i.e., aggressive, civil, considerate, courteous, generous, and tolerant); Conscientiousness (i.e., consistent, dedicated, disciplined, hard-working, leadable, and persistent); and (f) Openness to Experience (i.e., creative, flexible, imaginative, innovative, original, and reflective). Participants rated how relevant and applicable the 36 human personality traits were to the NFL brand using a 7-point Likert-type scale (1 = strongly disagree, 7 = strongly agree). Several socio-demographic variables (i.e., age, ethnicity, gender, and level of education) were also measured.

Participants

In a fourth step, convenience sampling was used to collect data. Using a web-based survey tool (Qualtrics), data were collected from students who were enrolled in Sport Management and Kinesiology classes at a Southwestern university in the U.S.

Instructors distributed a link to the survey webpage and an information sheet to the students and gave extra credit points to participants who completed the survey. As this study utilized an anonymous online survey, written consent could not be obtained from students. Therefore, the information sheet was used to inform participants that their participation is entirely voluntary and that they may refuse to answer any questions on the survey if it makes them feel uncomfortable. In addition, alternative assignments for extra credit were provided for students who chose not to participate in the study.

Data Analysis

In a fifth step, data were coded into the Statistical Package of Social Science (SPSS) for Windows version 20.0. Frequency statistics were used to show socio-demographic information, such as age, ethnicity, gender, and level of education. Descriptive analysis was used to access statistical data such as mean and standard deviation. The selected 36 human personality traits were submitted to a principal axis factor analysis. An exploratory factor analysis was performed through principal axis factor analysis with Oblimin rotation in order to generate a factor structure of sport brand personality. Bollen (1989) defined construct validity as a way to “assess whether a measure relates to other observed variables in a way that is consistent with theoretically derived predictions” (p.181). Cui and Berg (1991) argued that “although exploratory factor analysis is appropriate in the developing stage of a construct, confirmatory factor analysis is considered more adequate when assessing the validity of the developed construct” (p.233). Therefore, a confirmatory factor analysis (CFA) was performed through AMOS 20.0 to examine construct reliability (convergent validity and

discriminant validity) of the newly developed sport brand personality model in this study (Hair et al., 2006). Several indices were used to measure the fit of the model to the data, including chi-square with related degrees of freedom (*df*), Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA) with its 90% confidence interval (Hair et al., 2006)

CHAPTER IV

RESULTS

Descriptive Statistics

Using a web-based survey tool (Qualtrics), data were collected from students who were enrolled in two classes at a Southwestern university in the U.S. An email invitation containing the link to the survey webpage was sent to 250 students who were enrolled in a Sport Management class. The response rate was 78.4%. The first data from students ($N = 196$) in the Sport Management class were utilized for the principal axis factor analysis. In addition, an email invitation was sent to 242 students who were enrolled in a Kinesiology class. One hundred fifty-five usable questionnaires were obtained for a response rate of 64.1%. The second data ($N = 155$) were used for confirmatory factor analysis. The total sample consisted of 351 undergraduate students; 174 females (49.6%) and 177 males (50.4%). Although the sample included African Americans ($N = 19$, 5.4%), Hispanic Americans ($N = 33$, 9.4%), Asian Americans ($N = 14$, 4.0%), Native Americans ($N = 2$, 0.6%), and “other” races ($N = 5$, 1.4%), the sample was mostly White Americans ($N = 276$, 78.6%). The mean age of the sample was 21.5 years ($SD = 1.55$). The sample consisted of students from undergraduate levels (freshman, sophomore, junior, senior). Detailed demographic characteristics are presented in Table 6.

Table 6 Demographics Characteristics by Frequency and Percentage (*N*= 351)

Variable	Sample (<i>N</i> = 351)	Group I (<i>N</i> = 196)	Group II (<i>N</i> = 155)
Gender			
Female	174 (49.6%)	74 (37.8%)	100 (64.5%)
Male	177 (50.4%)	122 (62.2%)	55 (35.5%)
Age (mean =21.5 , SD = 1.55)			
19yrs	13 (3.7%)	8 (4.1%)	5 (3.2%)
20yrs	73 (20.6%)	25 (12.8%)	48 (31.0%)
21yrs	110 (31.3%)	66 (33.7%)	44 (28.4%)
22yrs	91 (25.9%)	54 (27.6%)	37 (23.9%)
23yrs	42 (12.0%)	32 (16.3%)	10 (6.5%)
24yrs	13 (3.7%)	7 (3.6%)	6 (3.9%)
25yrs and older	10 (2.8%)	4 (2.0)	5 (3.0%)
Ethnicity			
African American	19 (5.4%)	6 (3.1%)	13 (8.4%)
White American	276 (78.6%)	159 (81.1%)	117 (75.5%)
Hispanic American	33 (9.4%)	16 (8.2%)	17 (11.0%)
Asian American	14 (4.0%)	11 (5.6%)	3 (1.9%)
Native American	2 (.6%)	1 (.5%)	1 (.6%)
Other	5 (1.4%)	2 (1.0%)	3 (1.9%)
Decline	2 (.6%)	1 (.5%)	1 (.6%)
Education			
Freshman	17 (4.8%)	8 (4.1%)	9 (5.8%)
Sophomore	91 (25.9%)	40 (20.4%)	51 (32.9%)
Junior	115 (32.8%)	64 (32.7%)	51 (32.9%)
Senior	124 (35.3%)	83 (42.3%)	41 (26.5%)
Decline	4 (1.2%)	1 (.5%)	3 (1.8%)

Exploratory Factor Analysis

An exploratory factor analysis (EFA) was performed through principal axis factor analysis with Oblimin rotation in order to generate a factor structure of sport brand personality that has the most appropriate number of sport brand personality dimensions. The selected 36 brand personality traits were submitted to the principal axis factor analysis on the first data set (*N* = 196) using SPSS (Lee & Ashton, 2004). Seven items (i.e., consistent, dedicated, flexible, lively, sentimental, stable, tolerant) were eliminated due to significant cross-loadings. The first six eigenvalues were 10.27, 3.52,

1.97, 1.37, 1.32, and 0.94. There was a substantial drop in eigenvalues between the five and six factors in the scree plot (Figure 1) (Kim & Ashton, 2004).

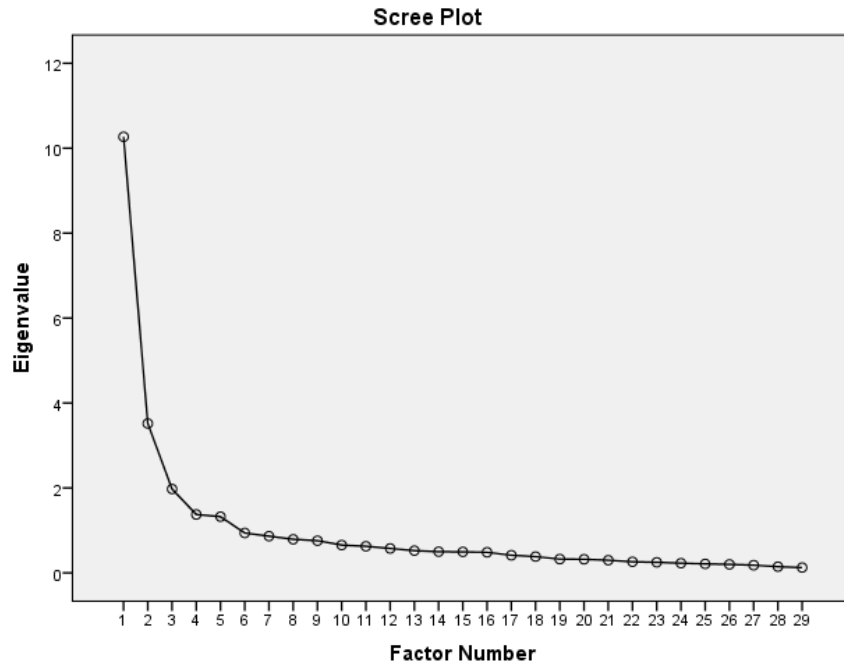


Figure 1 Scree Plot of the Eigenvalues Obtained from Principal Factor Analysis of 29 Human Personality Traits

The scree plot showed a substantial drop in the five and six eigenvalues. The principal axis factor analysis identified a clear simple factor structure that had five factors with eigenvalues exceeding 1 (Table 7) (Kim & Ashton, 2004). The five factors collectively explained 63.65% of the total variance.

Table 7 Factor Analysis of the 29 Brand Personality Traits

Item/Factor	(1) A	(2) E/X	(3) O	(4) C	(5) H	Mean	SD
Courteous	.89	.03	.01	.08	-.05	4.33	1.43
Considerate	.66	-.03	-.07	-.05	-.10	4.24	1.41
Generous	.65	.03	-.09	-.05	.07	4.60	1.45
Friendly	.65	.04	-.04	-.04	-.06	4.84	1.42
Civil	.60	-.05	-.05	.01	-.17	4.51	1.32
Agreeable	.51	.01	-.08	-.09	-.18	4.65	1.21
Fearless	-.07	.74	-.02	-.11	-.08	5.69	1.28
Daring	-.05	.72	-.10	-.02	-.08	5.56	1.36
Ruthless	-.19	.72	-.09	.10	-.03	5.29	1.43
Enthusiastic	.20	.59	-.03	-.12	-.09	6.12	1.00
Adventurous	.15	.55	-.24	.03	-.09	5.46	1.30
Dynamic	.07	.47	-.07	-.27	-.09	5.70	1.15
Tense	.08	.44	.11	-.11	.17	5.45	1.26
Emotional	.11	.35	-.07	.00	.02	5.61	1.47
Imaginative	.10	.02	-.87	-.05	.12	4.66	1.49
Innovative	-.01	.09	-.82	.03	-.02	4.85	1.44
Creative	.07	-.04	-.82	-.12	.09	4.73	1.41
Original	-.07	.07	-.64	-.05	-.15	5.07	1.37
Reflective	.14	.07	-.56	-.03	-.10	4.69	1.34
Persistent	.03	-.11	-.13	-.85	.01	5.64	1.11
Hard-working	-.08	.17	.03	-.75	-.04	5.97	1.07
Leadable	.04	-.04	-.09	-.73	.00	5.53	1.25
Disciplined	.01	.09	.04	-.49	-.16	5.59	1.36
Integrity	-.06	.09	.04	-.10	-.83	4.87	1.41
Respectful	.09	.01	.03	-.07	-.72	4.92	1.37
Fair-minded	.00	-.05	-.08	-.06	-.68	4.81	1.31
Ethical	.16	-.11	-.08	.03	-.65	4.34	1.47
Sincere	.27	-.02	.01	.05	-.61	4.44	1.50
Dependable	.09	.14	-.04	-.10	-.49	5.13	1.41
Eigenvalue	10.27	3.52	1.97	1.37	1.32		
% of Variance	35.41	12.13	6.81	4.74	4.57		
Cronbach's Alpha	.88	.84	.90	.83	.85		

Note. $N = 196$. A = Agreeableness, E/E = Emotionality/Extraversion, O = Openness, C = Conscientiousness, or H = Honesty). Absolute factor loadings greater than .30 are typed in bold (Lee & Ashton, 2006)

The first factor was labeled Agreeableness and accounted for 35.41% of the variance. This factor consisted of six personality traits (i.e., courteous, considerate, generous, friendly, civil, and agreeable). The internal-consistency reliability of Agreeableness was .88. The second factor was labeled Extraversion/Emotionality and accounted for 12.13% of the variance. This factor contained eight personality traits (i.e., fearless, daring, ruthless, enthusiastic, adventurous, dynamic, tense, and emotional). The Cronbach's alpha for the second factor was .84. The third factor included five personality traits (i.e., imaginative, innovative, creative, original, and reflective) and was labeled Openness and accounted for 6.81% of the variance. The reliability of Openness was .90. The fourth factor was labeled Conscientiousness and accounted for 4.74% of the variance. This factor consisted of four personality traits (i.e., persistent, hard-working, leadable, and disciplined). The internal-consistency reliability of Conscientiousness was .83. The fifth factor was labeled Honesty and accounted for 4.57% of the variance. This factor comprised six personality traits (i.e., integrity, respectful, fair-minded, ethical, sincere, and dependable). The Cronbach's alpha for Honesty was .85. Although the five-factor solution resembled the HEXACO structure, the results showed that two dimensions (i.e., Emotionality and Extraversion) were combined within a factor. The size of the corresponding factor loadings exceeded an absolute value of .30, ranging from .35 to .89. The absolute value of the factor loadings of the five-factor solution on non-corresponding factors ranged from .01 to .27.

Confirmatory Factor Analysis

Before conducting a confirmatory factor analysis (CFA), univariate normality was assessed in the second data set ($N = 155$) using SPSS 20.0. Skewness ranged from -.04 to -1.07, and kurtosis ranged from -.71 to 1.16 (Table 8). The results showed that all 29 variables met the threshold recommended by Stevens (2002) for univariate normality.

Table 8 Skewness and Kurtosis of Variables

Item	N	Mean	Std. Deviation	Skewness	Kurtosis
Courteous	155	4.25	1.34	-.04	-.26
Considerate	155	4.26	1.33	-.26	-.29
Generous	155	4.45	1.42	-.26	-.08
Friendly	155	4.59	1.52	-.27	-.56
Civil	155	4.43	1.33	-.42	.05
Agreeable	155	4.76	1.08	-.42	.33
Fearless	155	5.66	1.27	-.88	.31
Daring	155	5.72	1.10	-.97	1.16
Ruthless	155	5.36	1.37	-.55	-.43
Enthusiastic	155	5.99	1.10	-1.07	1.04
Adventurous	155	5.54	1.34	-.79	.01
Dynamic	155	5.73	1.20	-.91	.68
Tense	155	5.57	1.12	-.73	.64
Emotional	155	5.28	1.61	-.79	-.44
Imaginative	155	4.73	1.37	-.31	-.14
Innovative	155	4.81	1.46	-.46	-.20
Creative	155	4.79	1.37	-.43	-.16
Original	155	4.72	1.44	-.47	-.05
Reflective	155	4.45	1.33	-.28	.03
Persistent	155	5.58	1.14	-.75	.48
Hard-working	155	5.80	1.14	-.92	.62
Leadable	155	5.37	1.28	-.60	-.05
Disciplined	155	5.54	1.34	-.97	.87
Integrity	155	4.72	1.43	-.42	-.41
Respectful	155	4.74	1.51	-.56	-.40
Fair-minded	155	4.58	1.38	-.42	-.30
Ethical	155	4.24	1.49	-.31	-.71
Sincere	155	4.41	1.46	-.27	-.61
Dependable	155	4.82	1.47	-.60	-.16

To confirm the structure of the identified five factor model, a CFA was performed on the second data set ($N = 155$) using AMOS 20.0. The results of the CFA are presented in Table 7. When the five factors with 29 items were entered in the analysis, the five factor model (Model 1) demonstrated a mediocre fit to the data. The S-B χ^2/df ratio ($748.408/367 = 2.039$) was lower than the suggested threshold (i.e., less than 3.0; Kline, 2005). The CFI (.861) was lower than recommended .92 threshold (Hair et al., 2006). The RMSEA value (.082) was slightly higher than the suggested threshold (i.e., $\leq .08$; Hair et al., 2006). All loadings were significant at the .001 level (Hair et al., 2006). Based on the modification indices, error covariance was added between the observed variables that were part of the same factor. The revised model is presented in Figure 2.

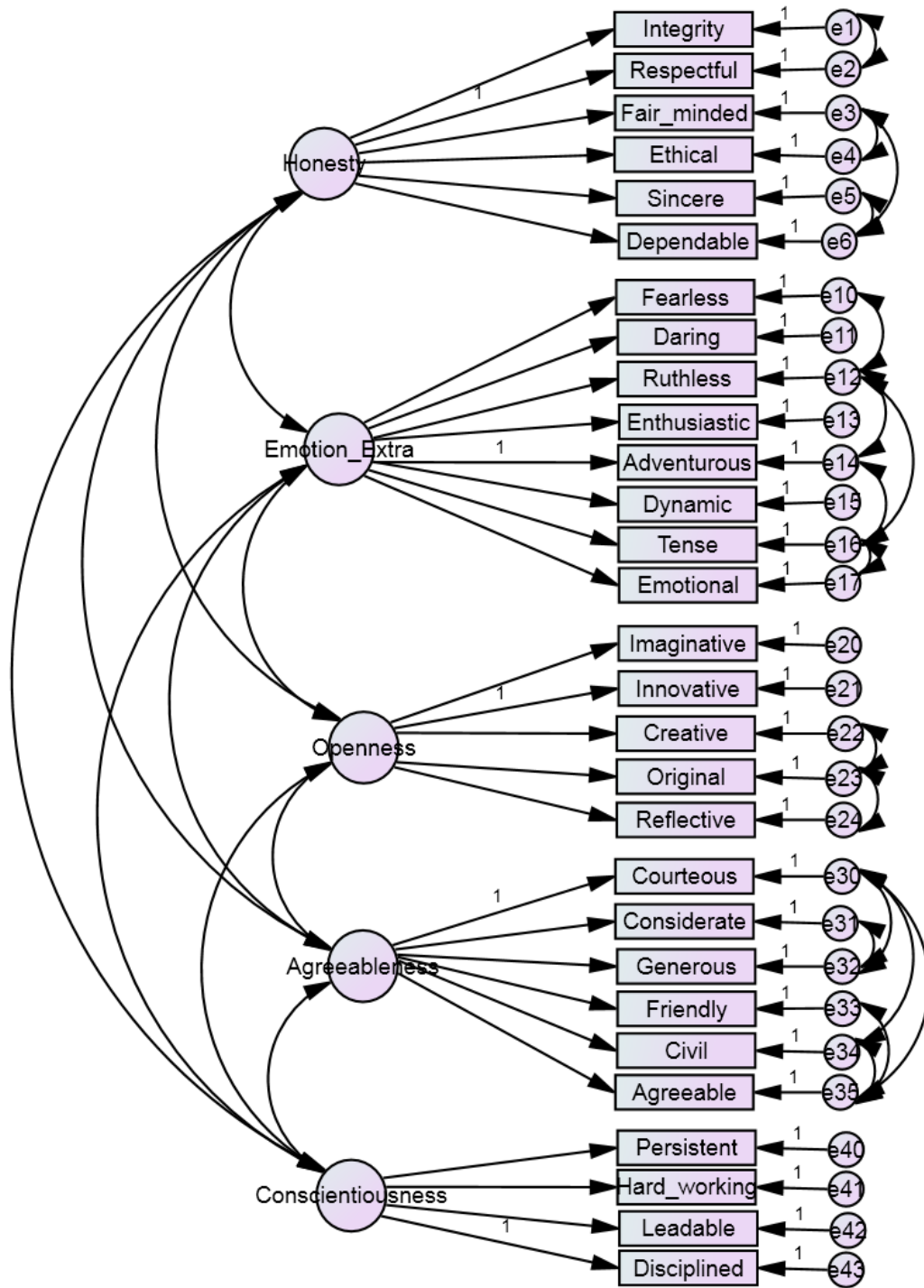


Figure 2 CFA Model with Five Factors

The revised model (Model 2) with added error covariance was tested again. The revised second model showed an adequate fit to the data: The S-B χ^2/df ratio (592.866/350 = 1.694), CFI = .911, RMSEA = .067 (90% CI = .058–.076). The chi-square difference test revealed that the revised model has a significantly better fit to the data than did the first model: $\Delta\chi^2 = 155.542$, $\Delta df = 17$, $p < .001$ (Table 9).

Table 9 Results of Confirmatory Factor Analysis

Model	$\chi^2(df)$	χ^2/df ratio	CFI	RMSEA	(90% CI)
Model 1	748.408(367)	2.039	.861	.082	.074–.091
Model 2	592.866(350)	1.694	.911	.067	.058–.076

Construct Reliability

Construct reliability is defined as the “measure of reliability and internal consistency of the measured variables representing a latent construct” (Hair et al., 2006, p. 771). To measure construct reliability, the composite reliabilities were calculated (Table 10). The composite reliabilities ranged from .85 to .90. The construct reliabilities were .86 for Agreeableness, .85 for Extraversion/Emotionality, .90 for Openness, .86 for Conscientiousness, and .89 for Honesty. All composite reliabilities exceeded .70 and indicated that the model has good reliability (Hair et al., 2006). Hair et al. (2006) stated that “high construct reliability indicates that internal consistency exists, meaning that the measures all consistently represent the same latent construct” (p. 778).

Table 10 Factor Loadings (β), Construct Reliability (C.R), Average Variance Explained Values (AVE) for the Constructs, and Maximum Squared Variance (MSV)

Item	β	C.R	AVE	MSV
Agreeableness		.86	.52	.41
Courteous	0.88			
Considerate	0.84			
Generous	0.69			
Friendly	0.78			
Civil	0.46			
Agreeable	0.59			
Emotionality/Extraversion		.85	.43	.38
Fearless	0.70			
Daring	0.78			
Ruthless	0.42			
Enthusiastic	0.81			
Adventurous	0.71			
Dynamic	0.79			
Tense	0.41			
Emotional	0.43			
Openness		.90	.63	.38
Imaginative	0.89			
Innovative	0.88			
Creative	0.77			
Original	0.69			
Reflective	0.73			
Conscientiousness		.86	.61	.38
Persistent	0.75			
Hard-working	0.85			
Leadable	0.73			
Disciplined	0.78			
Honesty		.89	.59	.41
Integrity	0.82			
Respectful	0.82			
Fair-minded	0.73			
Ethical	0.70			
Sincere	0.77			
Dependable	0.75			

Note: Threshold of reliability: composite reliability (CR) > .70 (Hair et al., 2006); threshold of convergent validity: CR > average variance extracted (AVE), AVE > .50; threshold of discriminant validity: maximum squared variance (MSV) < AVE (Hair et al., 2006)

Convergent and Discriminant Validity

Convergent validity is defined as the “extent to which indicators of a specific construct converge or share a high proportion of variance in common” (Hair et al., 2006, p. 771). Hair et al. (2006) suggested several rules of thumb to estimate construct validity (convergent and discriminant validity) of the factors:

First, standardized loading estimates should be .5 or higher, and ideally .7 or higher. Second, average variance extracted (AVE) should be .5 or greater to suggest adequate convergent validity. Third, construct reliability should be .7 or higher to indicate adequate convergence or internal consistency (p. 779).

Construct validity of the five factor model was examined based on the threshold suggested by Hair et al. (2006). The results indicated that standardized loading estimates of four items (i.e., Civil, Ruthless, Tense, and Emotional) were lower than .5 among the 29 items (Table 8). The average variance extracted (AVE) values of each of four factor (i.e., Agreeableness, Openness, Conscientiousness, and Honesty) were greater than .5. Construct reliabilities of all five factors were higher than .7, which indicates adequate convergent or internal consistency (Hair et al., 2006). Discriminant validity is defined as “the extent to which a construct is truly distinct from other constructs” (Hair et al., 2006, p. 771). The threshold of discriminant validity is that the AVE estimates for two factors should be greater than the square correlation estimates between two factors (Hair et al., 2006). The correlation between factors and squared correlation estimates are presented in Table 11. When assessing the discriminant validity, the results provided evidence of discriminant validity.

Table 11 Correlations between Factors and Squared Correlation Estimates (in Parentheses)

Factors	1	2	3	4	5
Agreeableness	–				
Emotionality/Extraversion	.19 (.04)*	–			
Openness	.48 (.23)**	.46 (.21)**	–		
Conscientiousness	.26 (.07)**	.62 (.38)**	.44 (.19)**	–	
Honesty	.64 (.41)**	.38 (.15)**	.62 (.38)**	.47 (.22)**	–

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

CHAPTER V

CONCLUSIONS

The purpose of this study was to develop a valid and reliable instrument for measuring brand personality in sport based on the rigorous definition of sport brand personality that excludes non-human personality traits, focusing on understanding the symbolic meanings of sport brands within a specific category (professional sport leagues in the U.S.).

The study identified five factors (i.e., Agreeableness, Emotionality/Extraversion, Openness, Conscientiousness, and Honesty) and developed a valid and reliable five-dimensional instrument in order to measure sport brand personality. The CFA confirmed that the five-factor model has a satisfactory fit. Concerning the first research questions in this study, the newly developed sport brand personality scale has a different set of dimensions from the dimensions of Aaker's (1997) brand personality scale. Two dimensions (i.e., Ruggedness, Sophistication) among the Aaker's (1997) five brand personality dimensions are different from the sport brand personality dimensions.

Although one item (i.e., friendly) shifted from Extraversion to Agreeableness, in a way similar to the Big Five studies of human personality or the HEXACO, items like courteous, considerate, generous, civil, and agreeable loaded on Agreeableness (Boies, Lee, Ashton, Pascal, & Nicol, 2001; Costa & McCrae, 1992; Goldberg, 1990; Geuens et al., 2009). Items like imaginative, innovative, creative, original, and reflective loaded on Openness. Conscientiousness consisted of four items; persistent, hard-working, leadable, and disciplined. An interesting result is that the Honesty factor emerged as a brand

personality dimension. Items like integrity, respectful, fair-minded, ethical, sincere, and dependable loaded high on the Honesty dimension. Two different human personality dimensions (i.e., Emotionality and Extraversion) among five dimensions of Big Five were combined within a dimension in the study. Although the factor has a good reliability, there were some construct validity problems. It is possible that unique (specific) variance exists between those two dimensions (i.e., Emotionality and Extraversion). The specific variance is defined as the “variance of each variable unique to that variable and not explained or associated with other variables in the factor analysis” (Hair et al., 2006, p. 103). Hair et al. (2006) stated that “this variance cannot be explained by the correlations to the other variables but is still associated uniquely with a single variable” (p. 117). One suggestion for future research would be to investigate the unique variance that is not explained by any factors in the model (Hair et al., 2006). In addition, it is possible that closely relevant personality traits between those two dimensions were included in the factor analysis. Because only six traits for each personality dimension were selected for the EFA, when conducting a factor analysis, other personality traits related to the two dimensions (i.e., Emotionality and Extraversion) should be included in future research.

Concerning the second research question in the study, the newly developed sport brand personality scale is similar to both the HEXACO dimensions of human personality and those of the Big Five dimensions. The newly developed five dimensions of sport brand personality presented resemble the Big-Five model and the HEXACO model except in two dimensions (i.e., Emotionality and Extraversion). This is especially true in

the case for Agreeableness, Openness, Conscientiousness, and Honesty (Geuens et al., 2009; Goldberg, 1990; Lee & Ashton, 2006). The results indicate that a sport brand (i.e., NFL) has similar personality dimensions as humans. In sum, this study contributes to the literature by (a) recognizing that defining the brand personality construct thoroughly can be a fundamental step in the process of developing a sport brand personality instrument; (b) developing a reliable and valid instrument that has five dimensional factors based on the rigorous brand personality definition; and (c) providing crucial information for brand managers or marketers to initiate effective positioning and advertising strategies. The findings of this research may provide sport marketers and brand managers in the sport industry with several practical implications.

Theoretical Implications

This study makes several important theoretical contributions to the literature on brand personality. First, defining the brand personality construct thoroughly can be an important step in the process of developing a sport brand personality instrument (Churchill, 1979). When developing an instrument for measuring a construct, researchers should be “exacting in delineating what is included in the definition and what is excluded” (Churchill, 1997, p. 67). I found that the Aaker’s (1997) definition of brand personality may embrace several other constructs (e.g., brand image, brand identity) beyond brand personality. For example, although the term ‘personality’ in psychology has a very definite meaning, Aaker’s definition of brand personality might lead to construct validity problems because the definition might include other non-human personality trait items beyond brand personality itself (Azoulay & Kapferer, 2003;

Geuens et al., 2009). Without having a rigorous definition about the construct, researchers may include other constructs beyond the construct that they really want to measure. In this case, they may have severe construct validity problems in the scale.

Second, I identified that the trait theory in personality psychology can be a fundamental theoretical base in the study of brand personality. Since brands, like persons, can be generally described with human personality traits in psychology, the lexical approach in psychology is appropriate to identify human personality traits both relevant and applicable to brands (Azoulay & Kapferer, 2003; Caprara et al., 2001). Based on the lexical approach or lexical hypothesis in psychology, this study shows that the personalities of brands are more likely to become encoded in human personality traits both relevant and applicable to sport brands. As a result, I identified that the newly developed sport brand personality scale is similar to dimensions of human personality scales (i.e., HEXACO, Big Five).

Marketing Implications

Given highly competitive markets where numerous quality equivalent brands exist in the sport industry, a well-established brand personality of sport brands can help sport brand managers or practitioners differentiate their brands from competitors beyond utilitarian or functional characteristics (Aaker, 1997; Austin et al., 2003; Azoulay & Kapferer, 2003; Diamantopoulos, Smith, & Grime, 2005). In addition, brand personality enables marketers to effectively communicate with their consumers about the brands as well as build strong relationships (Diamantopoulos et al., 2005). Diamantopoulos et al. (2005) argued that “a well-established brand personality can result in consumers having

stronger emotional ties to the brand and greater trust and loyalty, thus providing an enduring basis for differentiation which is difficult to copy” (p. 129). In addition, brand personality scales could help brand managers understand how their consumers identify and recognize their brand as well as their competitors’ brands (Das et al., 2012). Given the importance of brand personality as a marketing tool, sport brand managers and marketers may need a sport brand personality scale in order to measure their brands’ personality. Based on the understanding about their brands’ personality, practitioners could develop a unique and distinctive sport brand personality from that of competitors (Braunstein & Ross, 2010; Diamantopoulos et al., 2005; Tsiotsou, 2009). In addition, brand marketers and practitioners in sport organizations could use the information of their brands’ personality to develop and promote marketing strategies to effectively attract sport consumers or sponsors in order to survive in the highly competitive sport industry (Tsiotsou, 2012). More specifically, concerning Agreeableness among the five dimensional factors of brand personality in sport, this personality dimension may reflect an emphasis on sport organizations’ social responsibility (Davies, Chun, da Silva, & Roper, 2004). Agreeableness has been related to “a willingness to suspend one’s personal interest for the good of one’s social group” (Van Der Zee & Wabeke, 2004, p. 247). Previous research has indicated that empathy and social responsibility have a strong relationship with agreeableness (Van der Zee & Wabeke, 2004). For example, agreeable persons are likely to help, being motivated to maintain positive relations with others (Van der Zee & Wabeke, 2004, p. 247). Walker and Kent (2009) argued that “having a prosocial agenda means having a powerful marketing tool that can build and

shape a company's status, differentiate them in the market" (p. 761). Sport organizations have provided a number of marketing efforts to address their social concerns (Babiak & Wolfe, 2006, 2009). For example, several professional sport leagues in the U.S. (e.g., MLB, NBA, and NFL) have promoted socially responsible programs to address social concerns, such as the MLB's Greening program, the NBA's Read to Achieve program, and the NFL's Breast Cancer Awareness Month (Babiak & Wolfe, 2006, 2009; Walker & Kent, 2009). Another marketing effort for differentiating brands is related to the Openness dimension. Regarding the Openness dimension represented by several terms (i.e., imaginative, innovative, creative, original, and reflective), "a sport team that is perceived to be imaginative may provide more entertainment value to fans than other teams by calling plays and adopting strategies that are more creative and unique than other teams" (Carlson, Donovan, & Cumiskey, 2009, p. 379). Carlson et al. (2009) found that the brand personality dimension of Openness positively influenced identification with the sport team. Thus, for a sport team to be highly imaginative could contribute to the sport organization's distinctiveness from competitors (Carlson et al., 2009).

"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" (Tsiotsou, 2012, p. 249). Therefore, sport brand managers and marketers need to understand how their fans or sponsors assess their brands' personality using the newly developed instrument in the study (Tsiotsou, 2012). Then, marketing practitioners in sport organizations could determine which brand personality dimensions should be

deemphasized in order to make a strong relationship with their fans or sponsors (Tsiotsou, 2012). For example, concerning the Honesty dimension, brand managers or practitioners in sport organizations could utilize the sport brand personality instrument in order to examine the level of the Honesty dimension in their brands. They could capture the customer's perception of the organization's honesty and integrity using the scale (Lacey & Kennett-Hensel, 2010). Previous research has indicated that increasing the extent of consumers' perception of the Honesty dimension of brands can positively influence desirable customer behaviors and brand loyalty (Farrelly & Quester, 2003; Lacey & Kennett-Hensel, 2010; Westberg, Stavros, & Wilson, 2011). Moreover, previous studies have identified that the Honesty dimension can have both a positive or negative effect on sponsorship relationships (Westberg et al., 2011; Farrelly & Quester, 2003). Although sport organizations that are highly honest could attract sponsors, inappropriate or illegal behaviors perpetrated by athletes who belong to the sport organization may negatively affect the relationship with their sponsors who highly value the integrity of the sponsee's brands (Westberg et al., 2011; Wilson, Stavros, & Westberg, 2010). Therefore, sport brand managers and marketers may need to maintain and control the level of integrity of their sport organizations (Wakefield, 2007).

Limitations and Future Research

This research is the first to develop a sport brand personality scale based on the rigorous definition of brand personality. Although the study developed a reliable and valid instrument for measuring sport brand personality, the study has several limitations. First, the current study examined and identified the brand personality of only

one sport league (the NFL). Moreover, data were collected from undergraduate students from one university. Since the NFL is one of the most popular sport leagues in the U.S., it seemed reasonable to select the league in order to examine brand personality for the study. However, concerning the issue of developing a generalizable brand personality scale across sport brands, using aggregated data across a number of professional sport leagues in the U.S., such as MLB, NBA, NHL, and NFL may be beneficial for generalizing the results beyond only one sport league. In addition, the samples were from one university which has its own culture and traditions. Therefore, the student samples may have relatively homogeneous characteristics. Thus, collecting aggregated data across a number of sport brands from a sample that represents the U.S. population may be beneficial in order to develop a generalizable instrument for measuring brand personality in sport.

Second, due to the convenience sampling method in the study, there was an imbalance in the proportion of genders in the data: 64.5% of group I was female and 62.2% of group II was male. Female and male students might have differed in how they described brand personality in the study. The imbalance of genders between group I and group II may have influenced the results of the study. In addition, it is possible that unexamined factors (e.g., team identification, brand loyalty, brand preference) may have influenced the results. For example, subjects who have a high level of team identification with a sport league may have a different perception of the brand personality of the league compared to subjects with a low identification. Therefore, future research might consider random sampling and random assignment.

Third, using a content analysis method, only the NBA mission statement was used to derive additional human personality traits both relevant and applicable to a sport brand (i.e., a professional sport league) because other professional leagues (e.g., MLB, NHL, MLS) do not have a mission statement in public (Azoulay & Kapferer, 2003). Although the NBA mission statement may contain the core values of professional sport leagues, it may not be representative of all sport leagues. Therefore, it is difficult to identify unique brand personality traits of other professional sport leagues.

In addition, as mentioned before, only 36 human personality traits were selected as the initial pool of items. The initial pool set of human personality traits may not encompass enough brand personalities of sport brands. Finally, although the notion of image congruence has received extensive attention in marketing contexts, few studies have utilized these approaches for examining personality congruence. Personality congruence studies may offer an intuitively valid explanation for understanding sport consumer behaviors. Therefore, the next phase of the research can be aimed at exploring the relationship between sport consumers' personalities and a sport brand personality. For example, the matching effect of personality congruence on consumer behavior may provide practitioners or researchers with important information in order to develop marketing strategies.

In addition, based on previous research in marketing contexts (Parker, 2009; Sirgy, 1982, 1986), it is expected that personality congruence may positively affect several predicted variables such as sport fans' brand choice, brand preference, and brand loyalty. Future research may develop a theoretical framework to examine the

relationship between the antecedents (i.e., five dimensions of brand personality), moderating variables (e.g., team identification, prior experience) and consequences (e.g., brand choice, brand preference, brand loyalty).

Conclusions

The purpose of this study was to develop a valid and reliable instrument for measuring brand personality in sport based on the rigorous definition of sport brand personality that excludes non-human personality traits, focusing on understanding the symbolic meanings of sport brands within a specific category (professional sport leagues in the U.S.). This research is the first to develop a sport brand personality scale based on the rigorous definition of brand personality. The study identified five factors and developed a valid and reliable five-dimensional instrument in order to measure sport brand personality. The findings make a contribution to the literature (a) recognizing that defining the brand personality construct thoroughly can be a fundamental step in the process of developing a sport brand personality instrument; (b) developing a reliable and valid measurement with five factors based on the rigorous definition of brand personality; and (c) providing marketing implications for practitioners to initiate effective marketing strategies. Further research on brand personality in sport should provide additional contributions to the field of sport management.

REFERENCES

- Aaker, J. L. (1997). Dimensions of brand personality. *Journal of Marketing Research*, 34, 347-56.
- Ailawadi, K. L., & Keller, K. L. (2004). Understanding retail branding: Conceptual insights and research priorities. *Journal of Retailing*, 80, 331-342.
- Allport, G. W. (1937). *Personality: A psychological interpretation*. New York: Holt.
- Allport, G. W., & Odbert, H. S. (1936). Trait-names: A psycho-lexical study. *Psychological Monographs*, 47(1), i-171.
- Alsem, K. J., & Kosteljik, E. (2008). Identity based marketing: A new balanced marketing paradigm. *European Journal of Marketing*, 42(9/10), 907-914.
- Arora, R., & Stoner, C. (2009). A mixed method approach to understanding brand personality. *Journal of Product & Brand Management*, 18(4), 272-283.
- Ashton, M. C., & Lee, K. (2001). A theoretical basis for the major dimensions of personality. *European Journal of Personality*, 15, 327-353.
- Ashton, M. C., & Lee, K. (2005). Honesty-Humility, the Big Five, and the Five-Factor Model. *Journal of Personality*, 73, 1321-1353.
- Ashton, M. C., & Lee, K. (2006). Further assessment of the HEXACO personality inventory: Two new facet scales and an observer report form. *Psychological Assessment*, 18(2), 182-191.
- Ashton, M. C., & Lee, K. (2007). Empirical, theoretical, and practice advantages of the HEXACO model of personality structure. *Personality and Social Psychology Review*, 11(2), 150-166.

- Ashton, M. C., & Lee, K. (2008). The HEXACO model of personality structure and the importance of the H factor. *Social and Personality Psychology Compass*, 2(5), 1952-1962.
- Ashton, M. C., Lee, K., & Goldberg, L. R. (2004). A hierarchical analysis of 1,710 English personality-descriptive adjectives. *Journal of Personality and Social Psychology*, 87, 707-721.
- Ashton, M. C., Lee, K., Perugini, M., Szarota, P., de Vries, R. E., DiBlas, L., et al. (2004). A six-factor structure of personality-descriptive adjectives: Solutions from psycholexical studies in seven languages. *Journal of Personality and Social Psychology*, 86, 356-366.
- Austin, J. R., Siguaw, J. A., & Mattila, A. S. (2003). A re-examination of the generalizability of the Aaker brand personality measurement framework. *Journal of Strategic Marketing*, 11, 77-92.
- Azoulay, A., & Kapferer, J-N. (2003). Do brand personality scales really measure brand personality? *Brand Management*, 11(2), 143-155.
- Babiak, K., & Wolfe, R. (2006). More than just a game? Corporate social responsibility and super bowl XL. *Sport Marketing Quarterly*, 15, 214-222.
- Babiak, K., & Wolfe, R. (2009). Determinants of corporate social responsibility in professional sport: Internal and external factors. *Journal of Sport Management*, 23, 717-742.
- Block, J. (1995). A contrarian view of the five-factor approach to personality description. *Psychological Bulletin*, 117, 187-215.

- Boies, K., Lee, K., Ashton, M. C., Pascal, A., & Nicol, A. A. M. (2001). The structure of the French personality lexicon. *European Journal of Personality, 15*, 277-295.
- Bollen, K. A. (1989). *Structural equations with latent variables*. New York: Wiley.
- Borgatta, E. F. (1964). The structure of personality characteristics. *Behavioral Science, 9*, 8-17.
- Bosnjak, M., Bochmann, V., & Hufschmidt, T. (2007). Dimensions of brand personality attributions: A person-centric approach in the German cultural context. *Social Behavior and Personality, 35*(3), 303-316.
- Bower, B. (1999). When stones come to life: Researchers ponder the curious human tendency to view all sorts of things as alive. *Science News, 155*, 360-362.
- Boyer, P. (1996). What makes anthropomorphism natural? Intuitive ontology and cultural representations. *Journal of Royal Anthropology Institute, 2*, 83-97.
- Buresti, F., & Rosenberger, P. J. (2006). Brand personality differentiation in the Australian action-sports clothing market. *Marketing Bulletin, 17* (1), 1-16.
- Braunstein, J. R., & Ross, S. D. (2010). Brand personality in sport: Dimension analysis and general scale development. *Sport Marketing Quarterly, 19*, 8-16.
- Briggs, S. R. (1992). Assessing the five-factor model of personality description. *Journal of Personality, 60*(2), 253-293.
- Caprara, G. V., Barbaranelli, C., & Guido, G. (2001). Brand personality: How to make the metaphor fit? *Journal of Economic Psychology, 22*, 377-395.
- Carlson, J., Quazi, A., & Muthaly, S. (2002). Enhancing fan identification and brand equity in the online environment: A conceptual framework for professional sport

- websites. *Australian and New Zealand Marketing Academy*, eds R.N. Shaw, S. Adam & H. McDonald, Deakin University, Melbourne, 731-740.
- Carlson, B. D., Donovan, D. T., & Cumiskey, K. J. (2009). Consumer-brand relationships in sport: Brand personality and identification. *International Journal of Retail & Distribution Management*, 37(4), 370-384.
- Cattell, R. B. (1943). The description of personality: Basic traits resolved into clusters. *Journal of Abnormal and Social Psychology*, 38, 476-506.
- Cattell, R. B. (1945). The descriptive of personality: Principles and findings in a factor analysis. *American Journal of Psychology*, 58, 69-90.
- Churchill, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16(1), 64-73.
- Covey, S. R. (1989). *The seven habits of highly effective people*. New York, NY: Simon & Schuster
- Costa, P. T., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) professional manual*. Odessa, FL: Psychological Assessment Resources, Inc.
- Cui, G., & Berg, S. V. D. (1991). Testing the construct validity of intercultural effectiveness. *International Journal of Intercultural Relations*, 15, 227-241.
- Cunningham, G. B. (2012). Theory and theory development in sport management. *Sport Management Review*, 1-4.
- Das, G., Guin, K. K., & Datta, B. (2012). Developing brand personality scales: A literature review. *The IUP Journal of Brand Management*, 9(2), 44-63.

- d'Astous, A., & Lévesque, M. (2003). A scale for measuring store personality. *Psychology & Marketing, 20*(5), 455-469.
- Davies, G., Chun, R., da Silva., & Roper, S. (2004). A corporate character scale to assess employee and customer views of organization reputation. *Corporate Reputation Review, 7*(2), 125-146.
- De Chernatony, L. (1999). Brand management through narrowing the gap between brand identity and brand reputation. *Journal of Marketing Management, 15*, 157-179.
- De Raad, B., Perugini, M., Hrebickova, M., & Szarota, P. (1998). Lingua Franca of personality: Taxonomies and structures based on the psycholexical approach. *Journal of Cross-Cultural Psychology, 29*, 212–232.
- Diamantopoulos, A., Smith, G., & Grime, I. The impact of brand extensions on brand personality: Experimental evidence. *European Journal of Marketing, 39* (1), 129-149.
- Digman, J. M., & Inouye, J. (1986). Further specification of the five robust factors of personality. *Journal of Personality and Social Psychology, 50*, 116-123.
- Digman, J. M., & Takemoto-Chock, N. K. (1981). Factors in the natural language of personality: Re-analysis, comparison, and interpretation of six major studies. *Multivariate Behavioral Research, 16*, 149-170.
- Epstein, S. (1977). Traits are alive and well. In D. Magnusson & N. S. Endler (Eds.), *Personality at the crossroads: Current issues in interactional psychology* (pp. 83-98). Hillsdale, NJ: Erlbaum.

- Farrelly, F., & Quester, P. (2003). The effects of marketing orientation on trust and commitment: The case of the sponsorship business-to-business relationship. *European Journal of Marketing*, 37(3/4), 530-553.
- Fink, J. S. (2012). Theory development in sport management: My experience and other considerations. *Sport Management Review*, 1-4.
- Freling, T. H., Crosno, J. L., & Henard, D. H. (2011). Brand personality appeal: Conceptualization and empirical validation. *Journal of the Academy of Marketing Science*, 39, 392-406.
- Freling, T. H., & Forbes, L. P. (2005). An examination of brand personality through methodological triangulation. *Brand Management*, 13(2), 148-162.
- Funk, D. C., Mahony, D. F., & Ridinger, L. (2002). Characterizing consumer motivation as individual difference factors: Augmenting the Sport Interest Inventory (SII) to explain level of spectator support. *Sport Marketing Quarterly*, 11(1), 33-43.
- Funk, D. C., Ridinger, L. L., & Moorman, A. M. (2003). Understanding consumer support: Extending the Sport Interest Inventory (SII) to examine individual differences among women's professional sport consumers. *Sport Management Review*, 6, 1-32.
- Geuens, M., Weijters, B., & De Wulf, K. (2009). A new measure of brand personality. *International Journal of Research in Marketing*, 26, 97-107.
- Gladden, J. M., & Funk, D. C. (2002). Developing an understanding of brand associations in team sport: Empirical evidence from consumers of professional sport. *Journal of Sport Management*, 16(1), 54-81.

- Goldberg, L. R. (1982). From ace to zombie: Some explorations in the language of personality. In C. D. Spielberger & J. N. Butcher (Eds.), *Advances in personality assessment* (Vol. 1, pp. 203-234). Hillsdale, NJ; Erlbaum.
- Goldberg, L. R. (1990). An alternative 'description of personality': The Big Five factor structure. *Journal of Personality and Social Psychology*, 59, 1216-1229.
- Hahn, D-W., Lee, K., & Ashton, M. C. (1999). A factor analysis of the most frequently used Korean personality trait adjectives. *European Journal of Personality*, 13, 261-282.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed.). Upper Saddle River, NJ: Prentice Hall.
- Heere, B. (2010). A new approach to measure perceived brand personality associations among consumers. *Sport Marketing Quarterly*, 19, 17-24.
- Herbst, U., & Merz, M. A. (2011). The industrial brand personality scale: Building strong business-to-business brands. *Industrial Marketing Management*, 40, 1072-1081.
- John, O. P. (1990). The 'Big Five' factor taxonomy: Dimensions of personality in natural language and in questionnaires. In *Handbook of Personality: Theory and Research*. Ed. L. A. Pervin. New York: Guilford.
- Kapferer, J. N. (1998). *Strategic Brand Management* (2nd ed.). Kogan Page, New York, NY and London.
- Kapferer, J. N. (2008). *The New Strategic Brand Management* (4th ed.). Kogan Page, PA and London.

- Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *The Journal of Marketing*, 57(1), 1-22.
- Keller, K. L. (2008). *Strategic Brand Management. Building, measuring and managing brand equity* (3rd ed.). Upper Saddle River, NJ: Prentice Hall.
- Keller, K. L., & Richey, K. (2006). The importance of corporate brand personality traits to a successful 21st century business. *14*, 74-81.
- Kim, H. S. (2000). Examination of brand personality and brand attitude within the apparel product category. *Journal of Fashion Marketing and Management*, 4(3), 243-252.
- Kim, C. K., Han, D., & Park, S. B. (2001). The effect of brand personality and brand identification on brand loyalty: Applying the theory of social identification. *Japanese Psychological Research*, 43(4), 195-206.
- Kim, Y. K., & Trail, G. (2010). Constraints and motivators: A new model to explain sport consumer behavior. *Journal of Sport Management*, 24, 190-210.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York: Guilford Press.
- Konecnik, M., & Go, F. (2008). Tourism destination brand identity: The case of Slovenia. *Brand Management*, 15(3), 177-189.
- Lacey, R., & Kennett-Hensel, P. A. (2010). Longitudinal effects of corporate social responsibility on customer relationships. *Journal of Business Ethics*, 97, 581-597.
- Lee, K., & Ashton, M. C. (2004). Psychometric properties of the HEXACO personality inventory. *Multivariate Behavioral Research*, 39(2), 329-358.

- Lee, K., & Ashton, M. C. (2006). Further assessment of the HEXACO personality inventory: Two new facet scales and an observer report form. *Psychological Assessment, 18*(2), 182-191.
- Lee, H. S., & Cho, C. H. (2009). The matching effect of brand and sporting event personality: Sponsorship implications. *Journal of Sport Management, 23*, 41-64.
- Lee, H. S., & Cho, C. H. (2012). Sporting event personality: Scale development and sponsorship implications. *International Journal of Sports Marketing & Sponsorship, 14*(1), 51-68.
- Lee, E. J., & Rhee, E. Y. (2008). Conceptual framework of within-category brand personality based on consumers' perception (WCBP-CP): The case of men's apparel category in South Korea. *Brand Management, 15* (6), 465-489.
- Lee, K., & Ashton, M. C. (2006). Further assessment of the HEXACO personality inventory: Two new facet and an observer report form. *Psychological Assessment, 18*(2), 182-191.
- Lee, K., Ogunfowora, B., & Ashton, M. C. (2005). Personality traits beyond the Big Five: Are they within the HEXACO space? *Journal of Personality, 73*, 1437-1463.
- McCrae, R. R., & Costa, P. T. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology, 52*, 81-90.

- McCrae, R. R., & Costa, P. T. (1989). The structure of interpersonal traits: Wiggins's circumplex and Five-Factor model. *Journal of Personality and Social Psychology, 56*(4), 586-595.
- McCrae, R. R., & Costa, P. T. (1997). Personality trait structure as a human universal. *American Psychologist, 52*(5), 509-516.
- Milas, G., & Mlačić, B. (2007). Brand personality and human personality: Findings from ratings of familiar Croatian brands. *Journal of Business Research, 60*, 620-626.
- Musante, M., Milne, G. R., & McDonald, M. A. (1999). Sport sponsorship: Evaluating the sport and brand image match. *International Journal of Sports Marketing and Sponsorship, 1*, 32-37.
- Norman, W. T. (1963). Toward an adequate taxonomy of personality attribute: Replicated factor structure in peer nomination personality ratings. *Journal of Abnormal and Social Psychology, 66*, 574-583.
- Norman, W. T. (1967). *2800 personality trait descriptors: Normative operating characteristics for a university population*. Ann Arbor: University of Michigan, Department of Psychology.
- Ogilvy, D. (1983). *Ogilvy on Advertising*, Vintage Books, New York, NY.
- Park, B. (1986). A method for studying the development of impressions in real people. *Journal of Personality and Social Psychology, 51*, 907-917.
- Parker, B. T. (2009). A comparison of brand personality and brand user-imagery congruence. *Journal of Consumer Marketing, 26*(3), 175-184.

- Phau, I., & Lau, K. C. (2001). Brand personality and consumer self-expression: Single or dual carriageway? *Journal of Brand Management*, 8(6), 428-444.
- Piedmont, R., McCrae, R. R., & Costa, P. T. (1991). Adjective check list scales and the five-factor model. *Journal of Personality and Social Psychology*, 60(4), 630-637.
- Pritchard, M. P., & Funk, D. C. (2010). The formation and effect of attitude importance in professional sport. *European Journal of Marketing*, 44(7), 1017-1036.
- Plummer, J. T. (1985). Brand personality: a strategic concept for multinational advertising. In *Marketing Educators' Conference*. NY: Young & Rubicam.
- Plummer, J. T. (2000). How personality makes a difference. *Journal of Advertising Research*, 40(6), 79-83.
- Plunkett, J. W. (2008). *Plunkett's sport industry almanac 2008: Sport industry market research, statistics, trends & leading companies*. Houston, TX: Plunkett Research.
- Rathnayake, C. V. (2008). Brand personality and its impact on brand feelings: A study among young television viewers. *South Asian Journal of Management*, 15 (2), 7-24.
- Ross, S. D. (2008). Assessing the use of the brand personality scale in team sport. *International Journal of Sport Management and Marketing*, 3, 2008.
- Sirgy, M. J. (1982). Self-concept in consumer behavior: A critical review. *Journal of Consumer Research*, 9, 287-300.
- Sirgy, M. J. (1986). *Self-congruity: Toward a Theory of Personality and Cybernetics*. New York, NY: Praeger Publishers.

- Smith, A., Graetz, B. R., & Westerbeek, H. M. (2006). Brand personality in a membership-based organization. *International Journal of Nonprofit and Voluntary Sector Marketing, 11*, 251-266.
- Stevens, J. (2002). *Applied multivariate statistics for the social sciences* (4th ed.). Mahwah, NJ: Erlbaum.
- Sung, Y., & Tinkham, S. F. (2005). Brand personality structures in the United States and Korea: Common and culture-specific factors. *Journal of Consumer Psychology, 15*(4), 334-350.
- Sweeney, J. C., & Brandon, C. (2006). Brand personality: Exploring the potential to move from factor analytical to circumplex models. *Psychology & Marketing, 23*(8), 639-663.
- Tsiotsou, R. (2012). Developing a scale for measuring of personality of sport teams. *Journal of Service Marketing, 26*(4), 238-252.
- Tupes, E. C., & Christal, R. E. (1961). *Recurrent personality factors based on trait ratings*. (USAF Tech. Rep. No. 61-97). US AirForce: Lackland Air Force Base, TX.
- Tupes, E. C., & Christal, R. E. (1992). Recurrent personality factors based on trait ratings. *Journal of Personality, 60*, 225-251.
- VandenBos, G. R. (2009). *APA college dictionary of psychology*. Washington, DC: American Psychology Association.
- Van Der Zee, K., Wabeke. (2004). Is trait-emotional intelligence simply or more than just a trait? *European Journal of Personality, 18*, 243-263.

- Venable, B. T., Rose, G. M., Bush, V. D., & Gilbert, F. W. (2005). The role of brand personality in charitable giving: An assessment and validation. *Journal of Academic Marketing Science*, 33(3), 295-312.
- Villegas, J., Earnhart, K., & Burns, N. (2000). The brand personality scale: An application for the personal computer industry. In *Proceedings of the 108th Annual Convention for the American Psychological Association*. Washington, DC: American Psychological Association.
- Walker, M., & Kent, A. (2009). Do fans care? Assessing the influence of corporate social responsibility on consumer attitudes in the sport industry. *Journal of Sport Management*, 23, 743-769.
- Wakefield, K. L. (2007). *Team Sports Marketing*, Oxford: Elsevier.
- Wee, T. T. T. (2004). Extending human personality to brands: The stability factor. *Journal of Brand Management*, 11(4), 317-330.
- Westberg, K., Stavros, C., & Wilson, B. (2011). The impact of degenerative episodes on the sponsorship B2B relationship: Implications for brand management. *Industrial Marketing Management*, 40, 603-611.
- Wilson, B., Stavros, C., & Westberg, K. (2010). A sport crisis typology: Establishing a pathway for future research. *International Journal of Sport Management and Marketing*, 7 (1), 21-32.
- Zentes, J., Morschett, D., & Schramm-Klein, H. (2008). Brand personality of retailers: An analysis of its applicability and its effect on store loyalty. *The International Review of Retail, Distribution and Consumer Research*, 18(2), 167-184.

APPENDIX A
RECRUITING LETTER



TEXAS A&M UNIVERSITY
Department of Health and Kinesiology

Dear a Student:

Thank you for your willingness to participate in this study.

You are part of a special group of volunteers we have selected to explore brand personality both applicable and relevant to professional a sports league (i.e., NFL) in the U.S.

Your assistance is entirely voluntary and you may refuse to answer any question on the survey if it makes you feel uncomfortable. All data will be dealt with anonymously, and no individual taking part in the study will be identified. That is, no participant will be identified in any sort of report that might be given or published. Your participation in this study is completely voluntary. Further, there are no risks associated with participation. Finally, you will benefit from participating in the study by helping to further the understanding of brand personality in sport.

If you have any questions about this study, please contact Chanho Kang at (979) 599-8696 or email to chanhokang@hlkn.tamu.edu.

This research study has been reviewed by the Human Subjects' Protection Program and/or the Institutional Review Board at Texas A&M University. For research-related problems or questions regarding your rights as a research participant, you can contact these offices at (979) 458-4117 or irb@tamu.edu.

Sincerely,

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APPENDIX B
QUESTIONNAIRE

SECTION I

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Agreeable	1	2	3	4	5	6	7
Emotional	1	2	3	4	5	6	7
Adventurous	1	2	3	4	5	6	7
Creative	1	2	3	4	5	6	7
Consistent	1	2	3	4	5	6	7
Dependable	1	2	3	4	5	6	7
Civil	1	2	3	4	5	6	7
Fearless	1	2	3	4	5	6	7
Daring	1	2	3	4	5	6	7
Flexible	1	2	3	4	5	6	7
Dedicated	1	2	3	4	5	6	7
Ethical	1	2	3	4	5	6	7
Considerate	1	2	3	4	5	6	7
Ruthless	1	2	3	4	5	6	7
Dynamic	1	2	3	4	5	6	7
Imaginative	1	2	3	4	5	6	7
Disciplined	1	2	3	4	5	6	7
Fair-minded	1	2	3	4	5	6	7
Courteous	1	2	3	4	5	6	7
Sentimental	1	2	3	4	5	6	7
Enthusiastic	1	2	3	4	5	6	7
Innovative	1	2	3	4	5	6	7
Hard-working	1	2	3	4	5	6	7
Integrity	1	2	3	4	5	6	7
Generous	1	2	3	4	5	6	7
Stable	1	2	3	4	5	6	7
Friendly	1	2	3	4	5	6	7
Original	1	2	3	4	5	6	7
Leadable	1	2	3	4	5	6	7
Respectful	1	2	3	4	5	6	7
Tolerant	1	2	3	4	5	6	7
Tense	1	2	3	4	5	6	7
Lively	1	2	3	4	5	6	7
Reflective	1	2	3	4	5	6	7
Persistent	1	2	3	4	5	6	7
Sincere	1	2	3	4	5	6	7
Tense	1	2	3	4	5	6	7

SECTION II

Q1. Gender: FEMALE MALE

Q2. What year were you born? (e.g., 1988 _____)

Q3. Nationality (e.g., United States) _____

Q4. Education: (Please mark the current status)

- a. Undergraduate, Freshmen
- b. Undergraduate, Sophomore
- c. Undergraduate, Junior
- d. Undergraduate, Senior
- e. Graduate (master degree)
- f. Graduate (doctoral degree)
- g. Others (e.g., ELI): _____
- h. Decline to Respond

Q5. Ethnicity

- a. African American
- b. Asian
- c. Hispanic
- d. White American
- e. Pacific Islander
- f. Others _____
- g. Decline to Respond