

## Brand Personality in Sport: A Reexamination of the Concept and Development of an Evaluative Procedure

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Over the course of the twentieth century, marketers and advertisers began to experiment with various branding strategies that associated specific characteristics with a brand or product. As such, academicians have begun to examine brand personality (BP) in order to determine its influence on consumer's purchase intentions (e.g., Aaker, 1991, 1996, 1997; de Chernatony, 2001; Keller, 1993, 2003). As sport marketing has evolved, and has adopted many of the strategic tactics of general business, brand personality in sport (BPS) has become a hot topic in the sport management literature (e.g., Gladden & Funk, 2002; Gladden & Milne, 1999). While the primary focus has been on the characteristics of athlete endorsers (e.g., Boyd & Shank, 2004; Braunstein & Zhang, 2005, 2007; Fink et al., 2004), the conceptual development of these characteristics (i.e., personality) for sport brands has recently come into question (e.g., Gladden & Funk, 2002; Gladden & Milne, 1999; Parent & Séguin, 2008). The purpose of this study was to continue this line of inquiry in the conceptualization and operationalization of BPS. Specifically, this study sought to examine and adapt preexisting BP measurement tools in order to formulate a scale that will evaluate the unique characteristics and/or personalities of sport brands.

### Method

Measurements of BP were collected from 449 students affiliated with two universities. Two different universities in varying geographic locations were selected in order to collect diverse information regarding professional teams and account for regional differences. Students enrolled in a number of sport management, kinesiology, and general business courses were offered the opportunity to volunteer as study participants. The use of students was considered appropriate given that they are significant consumers of sport, and the use of this population is common in brand choice research (Biswas & Sherrell, 1993). The BP dimensions incorporated in the development of Brand Personality in Sport Scale (BPSS) included Aaker's (1996, 1997) original Brand Personality Scale, as well as other previous adaptations of the instrument for use in sport (Braunstein & Zhang, 2005, 2007; Musante et al., 1999; Tenser, 2004). All items were measured on a seven-point scale, where 1 = 'Totally Disagree' and 7 = 'Totally Agree'. Participants rated the degree to which they perceived each of the statements as accurately describing the professional team chosen as the object.

Exploratory factor analysis (EFA) and reliability tests were conducted using SPSS in order to examine the factor structure and assess the internal consistency of the factor model. The factor analysis method used maximum likelihood extraction with varimax rotation. Given that there were no a priori hypotheses regarding the number of factors that should emerge, a variety of criteria were used to decide on an appropriate number of factors to retain: the Kaiser criterion (Kaiser, 1970), the scree test (Zwick & Velicer, 1982), parallel analysis (Zwick & Velicer, 1982), and extent of interpretability (Fabrigar, Wegener, MacCallum, & Strahan, 1999). The validation of the scale was accomplished by submitting the collected data to a confirmatory factor analysis (CFA) using Linear Structural Relations (LISREL) 8.54 to estimate the proposed model for the scale items and constructs. Reliability estimates were assessed using Cronbach's alpha coefficient and the average variance extracted (AVE). The overall construct validity was also examined through tests of both discriminant and convergent validity.

### Results

The Kaiser criterion (Kaiser, 1970), assessing the number of factors with eigenvalues greater than 1.0, suggested 18 factors. The scree test (Zwick & Velicer, 1982) revealed a substantial drop in eigenvalues after six factors, suggesting six factors should be retained. Parallel analysis (Zwick & Velicer, 1982) also suggested retaining six factors, while the interpretability (Fabrigar et al., 1999) of factor loadings suggested retention of 6 factors. In contexts in which procedures produce different numbers of factors, it is suggested that a subset of models be examined to identify the structure that is most plausible (Ford, McCallum & Tait, 1986). As such, after an examination of each criterion the researchers decided upon a 6 factor solution, including: Competence (14 items), Sophistication (10 items), Sincerity/Wholesomeness (7 items), Ruggedness/Daring (3 items), Community-driven (3 items), Classic/Traditional (4 items).

The results of the CFA indicated that the data does provides an adequate fit to the model (RMSEA=.071, TLI=0.955, CFI=0.958). The reliabilities for 4 of the 6 factors met the minimum suggested levels of .70 (Nunnally & Bernstein, 1994). However, the AVE values for 4 of the 6 factors failed to achieve the recommended level of .50 (Fornell & Larcker, 1981). The Ruggedness factor was found to be unreliable. Discriminant validity was assessed through two methods: examination of the correlations between constructs (Anderson & Gerbing, 1988), and evaluation of the AVE values for each factor (Fornell & Larcker, 1981).

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No correlation failed the initial test, however, the AVE test of discriminant validity suggested that several of the proposed factors correlate with factors from which they should differ. The convergent validity of the scale was examined by inspecting each items loading on the construct on which it loaded, and the standard error for which it was associated (Anderson & Gerbing, 1988). The results of the data analysis indicate each of the items met this criterion. Research (Browne, MacCallum, Kim, Andersen, & Glaser, 2002; Hair et al., 1998) also suggested that when examining the residual matrix, the standardized residuals should not exceed a 2.58 absolute value. A small portion of the standardized residuals (11.9%) in the current research surpassed this criterion.

### Conclusions and Discussion

Overall, the findings suggest mixed results in terms of the fit of the newly adapted scale. While the CFA suggested the data adequately fit the model, the reliability and validity of the BPS scale in its current state do not provide a sufficiently sound instrument. However, we do believe that these findings (i.e., 6 factors with 41 items) are extremely important in the further development of the theoretical framework of BPS. As such, it is believed that this study provides a sound preliminary exploration of the operationalization of brand personality in sport. In addition to expanding the current theoretical framework on the construct, this work will hopefully lead to a scale that both practitioners and academicians can use to develop a more effective marketing mix for individual sport entities. Further theoretical, measurement, and managerial implications are discussed in the presentation.