An Empirical Evaluation of the Latent Structure of Brand Personality in Sport

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Abstract

This study seeks to establish an assessment tool to explore brand personality in sport. A random sample of 242 sports science students was surveyed and asked to evaluate brand personality in sport. The findings from an exploratory factor analysis revealed brand personality in sport possesses six dimensions; namely, energy, class, complexity, sincerity, ruggedness, and maturity. The confirmatory factor analysis suggested that the overall data fit the model satisfactorily. The scale developed here can be used as a baseline tool for future studies.

Keywords: *Marketing Scale Development, Brand Personality, Sport Brand*

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การประเมินเชิงประจักษ์โครงสร้างแฝงของบุคลิกภาพตราผลิตภัณฑ์ทางกีฬา

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บทคัดย่อ

งานวิจัยนี้มุ่งสร้างเครื่องมือในการประเมินมิติของบุคลิกภาพตราผลิตภัณฑ์ทางกีฬา งานนี้ใช้กลุ่ม
ตัวอย่างที่เลือกแบบสุ่มจากกลุ่มนักศึกษาที่เรียนวิชาทางวิทยาศาสตร์การกีฬาจำนวน **242** คน ผู้วิจัยให้
กลุ่มตัวอย่างประเมินบุคลิกภาพตราผลิตภัณฑ์ทางกีฬา ผลการวิเคราะห์ปัจจัยเชิงสำรวจพบว่าตราผลิตภัณฑ์
ทางกีฬามีบุคลิกภาพใน **6** มิติ ซึ่งได้แก่ พละกำลัง ความดูดีมีระดับ ความซับซ้อน ความจริงใจ ความ
สมบุกสมบัน และความเป็นผู้ใหญ่ การวิเคราะห์ปัจจัยเชิงยืนยันทำให้ทราบว่าข้อมูลทั้งหมดมีภาวะสารูป
สนิทดีกับโมเดล ผู้สนใจสามารถใช้สเกลที่สร้างขึ้นนี้เป็นเครื่องมือเปรียบเทียบพื้นฐานสำหรับการศึกษาใน
อนาคต

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Marketers, when promoting their products, have always been trying to identify certain traits or characteristics in their brands. In 1969, Reis and Trout stressed the importance of product positioning in the mind of consumers to solidify the branding process. The topic of brand personality has been studied for many decades in terms of its use and effectiveness, as can be seen in the works by de Chernatony (2001) and Keller (2003). Some have attempted to define it; others to develop a definition. The history of empirical study on brand personality had its beginning when Aaker (1997) defined the five dimensions of brand personality which constituted sincerity, excitement, competence, complexity, and ruggedness. Some found it to be internally reliable, but not to have construct validity. Others found Aaker's findings not generalizable to individual brands.

Embracing many general marketing practices, sport marketers have begun to question and, in turn, dissect the brand personality concept in the area of sporting events and sport-related products, given the unique characteristics often associated with sports. This study proposes to assess brand personality and the factors or characteristics that define sport teams as brands. The sport business is unique, and should be assessed as such; so should the team personality.

As previously mentioned, the primary focus of the majority of the research in this area has been on the characteristics of athlete endorsers or the match-up hypothesis; or alternatively, the fit between the athlete, the product, and the consumer, for example in the works by Kahle and Homer (1985) and Kamins (1990). In order to properly address this concept, it is necessary to reassess the classification and use of these characteristics drawn from various disciplines. Questions still arise as to whether these current brand personality conceptualizations are appropriate for sport (Braunstein & Ross, 2010).

Additionally, it is still unclear if current brand personality is an appropriate measure for academicians and practitioners to assess their product and market. Under these conditions, the purpose of this study was to continue this line of inquiry in the conceptualization and operationalization of brand personality. Specifically, this study seeks to formulate a brand personality measurement scale that will reveal the unique characteristics of sport brands.

Literature Review

Aaker (1997) argued that brands possess a set of human characteristics. As a result, brands are often portrayed as such in advertising campaigns. Aaker's creation of the Brand Personality Scale was known to be the first attempt to systematically and empirically study the subject matter. She conducted a survey of 309 candidate traits based on previous literature in psychology, marketing, and original qualitative research, and these traits were ultimately reduced to 114 traits including 37 brands. The final brand personality scale included 42 items or traits under five factors: sincerity (e.g., domestic, honest, genuine, and cheerful), excitement (e.g., daring, spirited, imaginative, and up-to-date), competence (e.g., reliable, responsible, dependable, and efficient), complexity (e.g., glamorous, charming, pretentious, and romantic), and ruggedness (e.g., tough, strong, outdoorsy, and rugged).

However, subsequent studies yielded thought-provoking results. On the one hand, Govers and Schoormans' (2005) longitudinal study confirmed Aaker's findings, examining the influence of product personality on a consumer's preference over time; on the other hand, Austin, Siguaw, and Mattila (2003) argued that Aaker's brand personality scale was not applicable to individual brands. Agreeing that a measurement study was necessary to fully understand the concept of brand personality, Austin and others (2003) reexamined Aaker's brand personality scale to determine the validity of those findings. They found that the constructs, though internally reliable, lacked construct validity.

Even though other brand and marketing researchers questioned the operationalization and validity of Aaker's original constructs, no one can deny their significance and actually the concepts have been referred to in later literature ever since their conception. The concept of brand personality continues to be used and examined in general business practices, particularly as the importance of branding has been stressed across a variety of disciplines. This focus on branding, concluding with the perception of a strong image in the mind of one's consumers (Reis & Trout, 1969), is ultimately a producer's nudge towards a potential customer's consumption. With a goal of developing roots for the eventual use of commercial imagery (i.e., print, television, and Internet advertising), it is important for marketers to focus on internal branding as the step prior to their projection of their brand's image. Specifically, while producers are, and should be, focused on the consumer's perception of the fit of the message with that of the organization's characteristics (Fink, Cunningham & Kensicki, 2004; Ohanian, 1991), they must take the time to first understand

the perception of their brand before they can launch an appropriate marketing campaign. As numerous researchers have found that fit, when appropriate, does influence a consumer's purchase intentions (Tripp, Jensen & Carlson, 1994; Wansink & Ray, 2000), it is important to develop a strong image as a sound foundation for a congruent message.

As previously mentioned, brand personality has received a lot of attention, and many studies have sought to conceptualize the construct and develop valid and reliable measurements in the general marketing literature (Aaker, 1997; de Chernatony, 2001; Keller, 2003). Sport marketing is not an exception in that it has adopted many of the strategic tactics of general business; brand personality in sport has become a much-researched topic in the sport management literature, for example, Gladden and Funk (2002), Gladden and Milne (1999), Parent and Séguin (2008). While the primary focus has been on the characteristics of athlete endorsers (Boyd & Shank, 2004; Braunstein & Zhang, 2005) and the conditions that facilitate the transfer of brand personality between a brand and a sport event/team (Gwinner & Eaton, 1999; Musante, Milne & McDonald, 1999), the conceptual development of these characteristics (i.e., personality) for sport teams as brands has recently come into question (Gladden & Funk, 2002; Gladden & Milne, 1999; Parent & Séguin, 2008).

In sport, there are a number of factors that influence brand personality, especially when we develop a measure for it; these determinants include packaging, distribution, communication strategies (Gwin & Gwin, 2003), consumer interaction to a brand (Nandan, 2005), and the logo and success of a team (Gladden & Milne, 1999). As such, we must take all of these concepts into account when we attempt to determine the factors that influence brand personality and an organization's marketing mix.

Methods

The present study collected measurements of brand personality from a multi-stage random sample of 242 students majoring in sports science at two public universities in Thailand. One half of the respondents were chosen at random from the universities located in Bangkok, and the other half were selected in a similar fashion from those outside of the metropolis. This was to ensure that the respondents would provide diverse information regarding professional teams and account for regional differences, and improve potential generalizability. Kline (1998) suggested that the sample size in a factor-analytic investigation should be at least twice as many as the number of variables. The study participants were

selected at random from a pool of students enrolled in sport management, sport marketing, sport communication, kinesiology, and biomechanics classes at each university. According to Biswas and Sherrell (1993), student samples in sport branding research are often used as samples as they are significant consumers of sport, and the use of this population is common in brand choice research.

The respondents were asked to rate on a scale of 1 to 7 the degree to which they perceived brand personality descriptor items as accurately describing Thai professional major-league football teams listed at the top of the questionnaire sheet. Football was arbitrarily chosen because of its vast popularity in Thailand. The brand personality descriptor items utilized in the current research included 71 unique characteristic terms reflecting potential dimensions of brand personality in sport. These items were developed through an extensive review of sport brand personality literature, and included personality characteristic items from a number of previously-developed scales purported to assess brand personality.

The brand personality dimensions incorporated into the instrument were derived from Aaker's (1997) original Brand Personality Scale, as well as other subsequent adaptations of Aaker's instrument for use in sport, for example, Braunstein & Zhang (2005), Musante et al. (1999), and Tenser (2004). All potential items were screened for overlap, leading to several characteristic items being eliminated due to redundancy or exact duplication. The final survey instrument included a total of 71 descriptor items, all measured on a seven-point scale, where "1" means totally disagree" and "7" means totally agree.

In this study, the sample was split into two groups by random assignment by using the random split function in a statistical computer program. As a consequence, half of the respondents were placed into either of two data files. The first batch (n = 142) was utilized for the exploratory factor analysis, while the second batch (n = 142) was reserved for the confirmatory factor analysis procedures.

To perform the exploratory factor analysis with the aid of a statistical software program, the factor structure was dissected and the most appropriate number of brand personality dimensions was determined for further assessment. The method of the exploratory factor analysis used was maximum likelihood extraction, while Varimax rotation was utilized to explore further deeper meanings. Given that there were no *a priori* hypotheses regarding the specific number of factors that should emerge, a variety of criteria were used to decide on an appropriate number of factors to retain, for instance, 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 second set of collected data to a confirmatory factor analysis using a structural modeling program. The purpose of the confirmatory factor analysis was to estimate the proposed model for the scale items and constructs that were discovered in the initial exploratory factor analysis. Kline (1998) suggested using multiple fit indices in order to generate adequate information in order to assess the overall data fit. Then, multiple goodness-of-fit measures were utilized to assess the results of the confirmatory factor analysis model estimation. Specifically, the goodness-of-fit measures used in the current study were root mean square error of approximation (RMSEA), the Tucker–Lewis index (TLI), and the comparative fit index (CFI).

In terms of reliability, the issue of most importance is the consistency of items within a measure. The reliability estimates were measured using Cronbach's alpha correlation coefficient and the average variance extracted (AVE). Cronbach's alpha coefficient is a test of internal consistency that tests the homogeneity of all the items in the instrument subscale. The variance explained by each of the identified constructs relative to the amount of variance attributed to measurement error (AVE) was also examined as a measure of reliability (Fornell & Larker, 1981).

In addition to evaluating the fit of the proposed model through the confirmatory factor analysis and examining the reliability estimates, attempts were made to further establish construct validity through tests of discriminant validity and convergent validity. Convergent validity was assessed by examining each item's loading on the construct on which it loaded and the standard error for which it was associated (Anderson & Gerbing, 1988). Discriminant validity was assessed through two methods: examination of the correlations between constructs (Anderson & Gerbing, 1988) and evaluation of the average variance extracted values. The latter method was proposed by Fornell and Larker (1981) as a measure of the shared or common variance in a latent variable, the amount of variance that is captured by the latent variable in relation to the amount of variance due to its measurement error (Dillon & Goldstein, 1984). In different terms, average variance extracted is a measure of the error-free variance of a set of items.

Results

In compliance with the Kaiser rule, the components with eigenvalues under 1 were dropped. Therefore, there were 14 remaining factors. However, the scree test revealed a substantial drop in eigenvalues after these six factors, while the parallel analysis suggested retaining six factors. In contexts in which procedures produced different numbers of factors, the researchers should examine the models to determine which is most plausible (Ford, McCallum & Tait, 1986). The rotated solutions for these models can be scrutinized to see which model produces the most readily interpretable and theoretically sensible pattern of results (Comrey, 1978). Considering factor loadings, the researcher decided to retain six factors.

The item loadings were assessed to ensure that the items loaded significantly on the respective factors. Particular attention was paid to the number of significant items loading on the respective factors to avoid retaining factors with only one item or too many items that could be reasonably interpreted (Fabrigar et al., 1999; Fava & Velicer, 1992). Interpretability of respective factors was also an important criterion in selecting the number of factors to retain. Given the potential hazards of overfactoring and underfactoring, in addition to the extent to which the solutions were interpretable, the six-factor solution was accepted. The resulting structure of the instrument included 37 items assessing six factors; namely, energy (8 items), complexity (7 items), sincerity (7 items), class (5 items), ruggedness (5 items), and maturity (5 items).

A confirmatory factor analysis with robust maximum likelihood estimation was conducted on the 48 items, using LISREL v.8.54. The procedures yielded some fit indices that showed that the number of factors and their latent relations were valid, as suggested by the exploratory factor analysis previously conducted. In the model examined here, a variety of goodness-of-fit indicators, such as the RMSEA, TLI, and CFI values, were all above the acceptable levels. The RMSEA (.038) was well below the maximum cut-off of 0.10 (Steiger, 1998), while both the TLI (.82) and the CFI (.91) indicated an adequate fit of the data given that each met the recommended criterion of .90 (Kline, 1998). All in all, the confirmatory factor analysis confirmed the hypothesized structure.

As for the reliability of the constructs, Cronbach's alphas were computed for each of the six dimensions utilizing their corresponding items, as defined in the proposed model.

Table 1 shows the reliability of all six dimensions, which ranged from .71 to .90. Nonetheless, in 1994, Nunnally and Bernstein raised his suggested minimum acceptable reliability from .7 to .8; therefore, the class and maturity dimensions did not make the cut.

Fornell and Larcker (1981) suggested that the average variance extracted of any construct should be greater than the unique variance. More specifically, the average variance extracted values of each identified factor in a model should exceed a value of .50. The average variance extracted values in the current study were calculated by averaging the squared multiple correlations derived from the reported standardized loadings. These values ranged from .45 to .57, as shown in Table 1, and revealed that three of the six dimensions failed to meet the recommended criteria. Those were energy, complexity, and class dimensions. The sincerity, ruggedness and maturity dimensions were the only three brand personality dimensions that satisfied the .50 minimum average variance extracted criterion level.

Table 1: Reliability, average variance extracted, factor loadings, standard errors
          and t values of each dimension

Items	Loadings	SE	t
Energy (α = .87, AVE = .46)			
1. Successful	.724	.055	10.92
2. Efficient	.971	.053	11.18
3. Energetic	.754	.052	10.11
4. Superior	.760	.051	11.18
5. Goal-reaching	.758	.050	11.02
6. Respected	.776	.056	10.52
7. Reliable	.798	.053	9.98
8. Consistent	.701	.054	10.01
Complexity (α = .87, AVE = .49)			
1. Stylish	.828	.053	11.14
2. Modern	.748	.053	11.02
3. Complex	.731	.083	12.02
4. Glamorous	.791	.052	10.92

5. Flashy	.818	.051	10.41
6. Sophisticated	.758	.054	10.62
7. Attractive	.678	.065	10.13
Sincerity (α = .85, AVE = .56)			
1. Honest	.871	.056	11.11
2. Authentic	.778	.065	12.10
3. Sincere	.821	.055	10.72
4. Down-to-earth	.864	.059	11.02
5. Charming	.738	.057	10.64
6. Friendly	.872	.068	11.62
7. Business-oriented	.701	.061	10.49
Class (α = .78, AVE = .45)			
1. Traditional	.718	.059	10.22
2. Classic	.773	.057	11.74
3. Old-fashioned	.728	.055	10.02
4. Cultural Value	.738	.056	11.17
5. Upper-class	.738	.050	12.91
Ruggedness (α = .90, AVE = .57)			
1. Bold	.708	.062	11.77
2. Daring	.708	.041	10.19
3. Rugged	.710	.055	11.90
4. Hard-working	.725	.052	11.72
5. Challenging	.708	.059	11.18
Maturity (α = .71, AVE = .54)			
1. Charitable	.788	.056	10.10
2. Health-conscious	.738	.066	12.09
3. Inspirational	.778	.063	10.80
4. Family-oriented	.734	.052	11.21
5. Mature	.878	.061	11.39

A fundamental aspect of establishing construct validity is establishing convergent validity, and whether each of a proposed scale items contributes to its underlying theoretical construct. Specifically, if each indicator's loading on its posited underlying construct is greater than twice its standard error, then convergent validity can be verified (Anderson & Gerbing, 1988). The results of the data analysis for the current study indicated that each of the items met this criterion, as seen in Table 1. Often, the residual matrix produced by the confirmatory factor analysis is considered as another measure of the internal quality of a construct's items.

However, Hair and others (2005) suggest that when inspecting the residual matrix, the standardized values should not exceed a 2.58 absolute value. Consequently, after reviewing the standardized residuals produced by the analysis in the current study, it was found that only a relatively small percentage of the standardized residuals (11.9%) surpassed the recommended aforementioned criterion.

In terms of discriminant validity, according to Anderson and Gerbing (1988), the correlation between any two constructs should not be within two standard errors of unity. The results indicate that although some correlations between the constructs were quite high, none failed this initial test of discriminant validity, as shown in Table 2. However, evaluation of each construct's average variance extracted provides a more rigorous test of discriminant validity, and as Fornell and Larker (1981) suggest, the average variance extracted for each construct should be greater than the squared correlation between that construct and any other. Failing to meet this criterion denotes a lack of discrimination. As shown in Table 2, some of the proposed factors correlate with factors from which they should differ, and thus indicates that the variance accounted for by these factors explains less variance than the factors with which it correlates.

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Table 2: Correlations and standard errors (in parentheses) for the model

Factors	1	2	3	4	5	6
1. Energy	–					
2. Sincerity	.231	–				
	(.076)					
3. Complexity	.211	.209	–			
	(.019)	(.034)				
4. Class	.290	.214	.632	–		
	(.083)	(.061)	(.016)			
5. Ruggedness	.287	.490	.437	.128	–	
	(.016)	(.056)	(.071)	(.040)		
6. Maturity	.401	.279	.257	.351	.311	–
	(.025)	(.021)	(.033)	(.040)	(.037)	

Conclusions and Discussion

The findings reveal mostly congruent results in terms of the fit of the newly-adapted scale. While the confirmatory factor analysis suggests that the data adequately fit the model, the reliability and validity of the brand personality scale, in its current state, also provide a sufficiently sound instrument. Moreover, it is believed that these findings——six factors with 37 items——provided a sound foundation for the further development of the theoretical framework of brand personality.

Generally speaking, the estimates of reliability provided good results. All of the factors demonstrated relatively good reliability estimates in the Cronbach's alpha coefficients, ranging from .71 to .90. The average variance extracted values had a minimum of .45 and a maximum of .57; half of the factors turned out to be over .50. The energy, complexity and class dimensions showed good alpha levels, but gave poor average variance extracted estimates. The rest of the factors showed relatively high reliability in both criteria.

Such results can be hypothesized to have been caused by some reasons. The primary reason for the incongruent findings is the unequal number of items for each factor. Specifically, the energy, complexity and class dimensions were measured using 8 items, and probably needed to have more items in each of them. Particularly, the class factor might not have had enough items to fully measure the concept of team ranking; alternatively, the items might not intrinsically represent the concept. One suggestion for future research would be to investigate if these items are truly linked conceptually to class standing, and if so, then how to better reflect the idea when measuring the dimension.

In terms of validity assessment, the results proved to be more encouraging. While the examination of convergent validity results showed evidence of good convergent validity, the discriminant validity tests were not as conclusive. One criterion showed good results, while the other tests of discriminant validity showed problems with the measure. The majority of the issues of discriminant validity were based on the community-driven factor. Of interest are the fairly high correlations between complexity and class (.832).

While the conceptual linkage between some of these factors is logical, discriminant validity still needs to be addressed in future research. The idea of being involved and committed to the community can be very clearly linked to the idea of an organization being sincere. Therefore, the correlation between these two factors does make conceptual sense.

The results of this study show promising structures for the brand personality model. However, it is clear that additional work must be completed to ensure a sound measurement tool for the future.

Future research can also be conducted in order to heighten the discriminant validity of the measure. The conceptual linkage between dimensions needs to be investigated further in order to truly partial out what items comprise each factor. Or, some dimensions can be grouped together if more items are added and correlations are found. Interestingly, the excitement and competence factors proposed by Aaker (1997) were not found in the current study. Nevertheless, the items for energy were close to those under Aaker's competence dimension.

Brand personality is an important construct for managers to understand in order to effectively market and position a brand. That is, sport marketers could utilize collected brand personality information in the development of marketing and positioning strategies for their organizations. Specifically, sport organizations can utilize the brand personality information as a point of differentiation for the brand, and perhaps to position the brand against competitors. It is vitally important for organizations to develop an understanding of competitors' brand personality in order to optimize marketing strategies. Too often organizations are narrowly focused on identifying images associated with their own organizations while ignoring the associations linked to the competition. Through a more complete understanding of both the home organization and that of competitors, sport teams could direct resources into promoting the brand personality dimensions that are in need of change or strengthening.

Sport teams can use the brand personality tool developed in the current study to assess the current brand personality of the club, and then to determine if specific characteristics need to be strengthened, augmented, or even deemphasized. In some instances there may be one specific brand personality dimension that reflects well on the organization, and thus the organization would want to leave it untouched. Often, these characteristics are in line with the vision, mission, and values of the organization. In other instances, there may be a desired brand personality dimension that should be evoked, and thus needs to be strengthened to realize its full potential. Finally, it is possible that there may be situations in which an organization has a strong negative brand personality dimension reflecting poorly on the brand. In such cases, some particular brand personality dimensions

need to be deemphasized and diminished in order to remove the negative connotation (Braunstein & Ross, 2010). In all of these situations, effective measurement of the brand personality is crucial to the management and marketing of a successful brand.

It is also suggested that this, and other brand personality measurement tools, be utilized for sponsorship management purposes. Several researchers (Gwinner, 1997; Musante, Milne & McDonald, 1999) have suggested the importance of image matching in sponsorship management; in addition, such measures of brand personality provide a way to assess a brand's personality prior to signing any sponsorship contract agreements. That is, this tool could be used to assess the personality of a brand or potential sponsor in order to determine if the sponsorship partnership is a good fit for the image of each organization. Furthermore, in terms of sport celebrity endorsements, brand personality tools can provide academics and practitioners with a scale through which the match-up hypothesis (Kahle & Homer, 1985) can be applied.

The findings of the current research lead the way for a number of future studies. The dimensions detected in the exploratory factor analysis revealed intriguing findings, especially the items constituting those factors. Specifically, the results suggest that perhaps sport teams as brands have a personality that consists of several layers, and could be managed and marketed on multiple levels. For example, the dimensions of energy and its individual items seem to give off some of the images for the core product for sport organizations. To be exact, the traits of being reliable, goal-reaching, and efficient reflect sports and sport products of a competitive nature.

Aaker (1996) suggests that a specific brand identity perspective is viewing the brand as an organization, of which organizational attributes such as complexity and consumer concern are emphasized. Furthermore, some intangible components of the extended brand were detected and believed to make up additional layers of the sport team's brand personality. Specifically, this research identified the factors of class and sincerity as being dominant dimensions of the brand personality construct. Interestingly, these dimensions are based on intangible consumer perceptions, and cannot be measured based upon preset criteria. That is, the classic dimension represents the perception of a team as being traditional or old-school (Aiken & Sukhdial, 2004), while sincerity can be characterized as

fan-oriented or authentic. These dimensions are highly subjective and can often differ between teams and individuals.

The proposition of a layered brand personality also suggests reconceptualization for the sport brand personality construct around the complete "brand" rather than just the team. That is, the brand for a sport organization includes much more than just the team that plays during competitions. The components for a sport brand are varied and incorporate, but are not limited to, the front-office personnel, brand extensions, and the facilities associated with the team. Perhaps it is necessary to take a few steps back, and begin the development of a sport brand personality scale by examining the construct in this manner. As Churchill (1979) proposes, the first step in scale development is the specification of the construct's domain. Through this process, a more complete understanding of all the elements that encompass a sport brand might be possible.

While branding has become an integral part of the marketing exchange process between producers and consumers, it is only productive when the consumer buys into the marketing entity's developed brand. If a consumer has a clear image of a brand, consistent with that of the producer, this could lead to a very clear marketing message (Braunstein & Ross, 2010). However, it is not good when a consumer does not associate the brand with the characteristics that the producer is attempting to develop and, in turn, focusing marketing efforts on. Under such a circumstance, the brand personality scale was developed in order to make possible an analysis of the effectiveness of the projected sport brand with the consumer.

Not only are the findings presented here vital to the scale refinement in the area of brand personality, they contribute to an understanding of the theoretical framework and application by providing a sound preliminary exploration of the operationalization of brand personality in sport. In addition to expanding upon current theories and applications in this area, this work can be applied in developing a more effective marketing mix that will benefit sport enterprises and as well appeal to academics.

References

Aaker, D. A. (1996). *Building strong brands*. New York: The Free Press.

Aaker, J. L. (1997). Dimensions of brand personality. *Journal of Marketing Research, 34*, 347-357.

Aiken, D., & Sukhdial, A. (2004). Exploring the old school concept: Adding definition to a "new" market segmentation dimension. *Sport Marketing Quarterly, 13*, 73-81.

Anderson, J., & Gerbing, D. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 10*, 411-423.

Austin, J., Siguaw, J., & Mattila (2003). An assessment of the Aaker brand personality framework: Method, measurement and conceptual issues. *Journal of Strategic Marketing, 11*(2), 77-92.

Biswas, A., & Sherrell, D. (1993). The influence of product knowledge and brand name on internal price standards and confidence. *Psychology and Marketing, 46*(1), 31-46.

Boyd, T. C., & Shank, M. D. (2004). Athletes as product endorsers: The effect of gender and product relatedness. *Sport Marketing Quarterly, 13*, 82-93.

Braunstein, J. R., & Ross, S. D. (2010). Brand personality in sport: Dimension analysis and general scale development. *Sport Marketing Quarterly, 19*, 18-16.

Braunstein, J. R., & Zhang, J. J. (2005). Dimensions of athletic star power associated with generation Y sport consumption. *International Journal of Sports Marketing and Sponsorship, 6*, 242-67.

Churchill, G. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research, 16*(1), 64-73.

Comrey, A. (1978). Common methodological problems in factor analytic studies. *Journal of Consulting and Clinical Psychology, 46*, 648-659.

de Chernatony, L. (2001) A model for strategically building brands. *Journal of Brand Management, 9*(1), 32-44.

Dillon, W. R., & Goldstein, M. (1984). *Multivariate analysis: Methods and applications*. New York: Wiley.

Fabrigar, L., Wegener, D., MacCallum, R., & Strahan, E. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods, 4*, 272-299.

Fava, J., & Velicer, W. (1992). The effects of overextraction on factor and component analysis. *Multivariate Behavioral Research, 27*, 387-415.

Fink, J. S., Cunningham, G. B., & Kensicki, L. J. (2004). Utilizing athletes as endorsers to sell women's sport: Attractiveness versus expertise. *Journal of Sport Management, 18*, 350-367.

50

Ford, J., McCallum, R., & Tait, M. (1986). The application of exploratory factor analysis in applied psychology: A critical review and analysis. *Personnel Psychology, 39*, 291–314.

Fornell, C., & Larcker, D. (1981) Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39–50.

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.

Gladden, J. M., & Milne, G. R. (1999). Examining the importance of brand equity in professional sport. *Sport Marketing Quarterly, 8*(1), 21–29.

Govers, P. C. M., & Schoormans, J. P. L. (2005). Product personality and its influence on consumer preference. *Journal of Consumer Marketing, 22*(4), 189–197.

Gwin, C., & Gwin C. (2003). Product attributes model: A tool for evaluating brand positioning. *Journal of Marketing Theory and Practice, 11*(2), 30–42.

Gwinner, K. (1997). A model of image creation and image transfer in event sponsorship. *International Marketing Review, 14*(3), 145–158.

Gwinner, K. P., & Eaton, J. (1999). Building brand image through event sponsorship: The role of image transfer. *Journal of Advertising, 28*(4), 47–57.

Hair, J., Black, B., Babin, B., Anderson, R., & Tatham, R. (2005). *Multivariate data analysis* (6th ed.). Upper Saddle River, NJ: Prentice Hall.

Kahle, L. R., & Homer, P. M. (1985). Physical attractiveness of celebrity endorser: A social adaptation perspective. *Journal of Consumer Research, 11*, 954–961.

Kaiser, H. (1970). A second generation little jiffy. *Psychometrika, 35*(4), 401–415.

Kamins, M. A. (1990). An investigation into the match-up-hypothesis in celebrity advertising: When beauty be only skin deep. *Journal of Advertising, 19*(1), 4–13.

Keller, K. L. (2003). *Strategic brand management: Building, measuring and managing brand equity* (2nd ed.). Englewood Cliffs, NJ: Prentice Hall.

Kline, P. (1998). *The new psychometrics: Science, psychology and measurement.* London: Routledge.

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*(1), 32–37.

Nandan, S. (2005). An exploration of the brand identity–brand image linkage: A communications perspective. *Brand Management, 12*(4), 264–278.

Nunnally, J., & Bernstein, I. (1994) *Psychometric theory* (3rd ed.). New York: McGraw-Hill.

Ohanian, R. (1991). The impact of celebrity spokesperson's perceived image on consumer's intention to purchase. *Journal of Advertising Research, 31*(1), 46–52.

Parent, M., & Séguin, B. (2008). Toward a model of brand creation for international large-scale sporting events. *Journal of Sport Management, 22*, 526–549.

Reis, A., & Trout, J. (1969). *Positioning: The battle for your mind*. New York: McGraw-Hill.

Steiger, J. (1998). A note on multiple sample extensions of the RMSEA fit index. *Structural Equation Modeling, 5*, 411–419.

Tenser, J. (2004). Endorser qualities count more than ever. *Advertising Age, 75*(45), S2–S4.

Tripp, C., Jensen, T. D., & Carlson, L. (1994). The effects of multiple product endorsements by celebrities on consumers' attitudes and intentions. *Journal of Consumer Research, 20*, 535–547.

Wansink, B., & Ray, M. L. (2000). Estimating an advertisement's impact on one's consumption of a brand. *Journal of Advertising Research, 40*(6), 106–113.

Zwick, W., & Velicer, W. (1982). Factors influencing four rules for determining the number of components to retain. *Multivariate Behavioral Research, 17*, 253–269.