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Brand management in higher education: The University Brand Personality Scale

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ABSTRACT

Many universities leverage symbolic qualities with the potential of creating a brand personality useful in competitive differentiation. Drawing on a series of qualitative and quantitative studies consistent with psychometric scale development procedures, this study develops and validates a six-dimension University Brand Personality Scale (UBPS). The UBPS comprises prestige, sincerity, appeal, lively, conscientiousness, and cosmopolitan dimensions. Results suggest that the scale strongly relates to brand love, positive word-of-mouth, and students' intention to support their university as alumni. Theoretical implications and recommendations for university managers follow from study results.

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1. Introduction

Increasing competition between universities heightens the need for institutions to understand, manage, and leverage a strong brand position (Celly & Knepper, 2010; Hemsley-Brown & Goonawardana, 2007; Maringe & Gibbs, 2009). Consequently, more and more universities apply common marketing techniques including brand management to compete effectively (Chapleo, 2011; Hemsley-Brown & Oplatka, 2006). A university brand represents the totality of perceptions and feelings that stakeholders associate with that particular university (Ali-Choudhury, Bennett, & Savani, 2009; Batra, Ahuvia, & Bagozzi, 2012). Tangible perceptions like tuition fees and teaching quality (Alwi & Kitchen, 2014; Joseph, Mullen, & Spake, 2012) as well as symbolic and affective qualities like fun, excitement, and passion (Alwi & Kitchen, 2014; Bennett & Ali-Choudhury, 2009) encompass university brand.

For any organization, a brand constitutes a valuable asset when managed in a holistic, integrative manner that builds long-term brand health (Mirzaei, Gray, Baumann, Johnson, & Winzar, 2015). Brand personality captures “the set of human characteristics associated with a brand” (Aaker, 1997, p. 347). Based on Aaker's conceptualization, various studies suggest the influence of brand personality on consumer preference, behavior, and experience (Eisend & Stokburger-Sauer, 2013). However, the applicability of Aaker's scale across different

industrial or cultural contexts remains limited. In response, researchers offer a variety of industry- and culture-specific brand personality models ranging from regional (D'Astous & Boujbel, 2007; Ekinci & Hosany, 2006; Rojas-Méndez, Murphy, & Papadopoulos, 2013), to media (Valette-Florence & De Barnier, 2013), to corporate (Davies, Chun, Da Silva, & Roper, 2004), to retail (d'Astous & Lévesque, 2003), to non-profit brands (Venable, Rose, Bush, & Gilbert, 2005).

Given numerous context-specific conceptualizations, traditional corporate brand personality scales may not capture university personality precisely (Chapleo, 2010; Hemsley-Brown & Oplatka, 2006). Other studies claim that educational marketing research lacks sufficient theoretical grounding (Alessandri, Yang, & Kinsey, 2006). Furthermore, applications of traditional brand personality measures in higher education settings face challenges in replicating the theorized measurement results (e.g., Watkins & Gonzenbach, 2013). In practice, universities commonly employ personality attributes in their marketing efforts (Opoku, Hultman, & Saheli-Sangari, 2008). For instance, the University of South Carolina (USC) explicitly defines and integrates its brand personality in marketing communications (<http://www.sc.edu/toolbox/brandPersonality.php>). USC, and other universities, may benefit significantly from a more generalizable approach to measuring university brand personality.

The current research addresses the special issue topic by developing a theoretically based measurement model to assess brand personality in a higher education context. Specifically, qualitative and quantitative research studies conducted in Germany and in the U.S.A. provide data to operationalize university brand personality. The primary theoretical contribution is the development of the University Brand Personality

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Scale (UBPS) consisting of six dimensions: 1) prestige, 2) sincerity, 3) appeal, 4) lively, 5) conscientiousness, and 6) cosmopolitan. Considering the global nature of the higher education market (Hemsley-Brown & Oplatka, 2006), the research intends to develop a widely applicable scale capable of capturing UBPS for universities in multiple countries. Further, correlational evidence relates UBPS to university-related behavioral, intentional, and emotional outcomes relevant to theoretical models explaining student decision-making processes. Managerial implications include the provision of a measure to assess university brand personality to assist in constructing a desirable brand helping universities to attract students, faculty, sponsorships, and alumni support, while working to improve the overall image of the institution (Melewar & Akel, 2005).

2. Theory and literature review

2.1. Branding in higher education

Given that universities find themselves operating within dynamic and challenging environments, marketing strategy becomes a priority in assuring strong student and faculty recruitment and retention (Asaad, Melewar, Cohen, & Balmer, 2013). Consensus exists that understanding institutional branding (Duesterhaus & Duesterhaus, 2014) and clearly developing and communicating that brand is of great value to universities (Hemsley-Brown & Goonawardana, 2007). Yet, research on university brand image, identity, reputation, and meaning remains underdeveloped (Arpan, Raney, & Zivnuska, 2003; Melewar & Akel, 2005).

Prior research shows that higher education branding creates greater awareness and recognition among multiple constituencies (Chapleo, 2011), including employees (Judson, Aurand, Gorchels, & Gordo, 2009), when implemented successfully with modern communication tools (Chapleo, 2010). In addition, Joseph et al. (2012) identify the preference of students to select a modern university featuring an attractive campus with up-to-date technology. The literature also reflects numerous challenges associated with branding activities in university settings, for instance complex brand architectures (Hemsley-Brown & Goonawardana, 2007), internal challenges (Chapleo, 2010), and diverse needs of various stakeholder groups (Wæraas & Solbakk, 2009). As a result, Chapleo (2010) advises against simply applying commercial branding approaches without accommodating the specific nature of higher education contexts.

Another unique challenge within higher education research is the external stakeholders' influence on the success of the institution (Watkins & Gonzenbach, 2013). Therefore, understanding and managing brand perceptions of all stakeholders is essential to attain differentiation among competitors. While institutions can utilize tools such as university rankings to portray assurance of quality (Davies & Chun, 2008), students might not view these criteria as meaningful in selecting a suitable college (Duesterhaus & Duesterhaus, 2014). Indeed, Duesterhaus and Duesterhaus (2014) discuss the importance of emotional attributes students rely on when evaluating a potential university. These findings validate the necessity to not only develop measures from a student's perspective, but also to apply models that consider emotional or relational connections students seek.

Brand personality represents a measure capable of capturing the stakeholders bond to the university (Blackston, 1993). According to Watkins and Gonzenbach (2013), applying brand personality to higher education literature enables institutions to create brand distinctiveness and differentiation. Sung and Yang (2008) assess university personality as part of overall university image and identify a positive influence of university image on students' supportive attitude towards the institution. In contrast, Watkins and Gonzenbach (2013) ask students to determine brand personality of institutions by evaluating corresponding logos. However, results do not clearly support the hypothesized five-

factor structure (Aaker, 1997) based on low-factor loadings and cross-loadings from exploratory factor analysis.

Watkins and Gonzenbach (2013) also distinguish between academic and athletic identity of universities. Within the U.S.A., intercollegiate athletics is a major economic source and an effective recruitment tool (Harris, 2009; Southall, Southall, & Dwyer, 2009; Toma & Cross, 1998). However, beyond the American higher education market, intercollegiate athletics does not drive a university's overall image. As such, while a university brand personality measure should encompass various aspects of team spirit, such as liveliness and cosmopolitanism, the overall focus should remain on the academic personality to enhance generalizability across countries.

2.2. Brand personality

Prior research uses the brands-as-person metaphor to describe how, why, and when consumers relate to brands (Fetscherin & Heinrich, 2015; Fournier, 1998). Consumer-brand relationship theories often build on the assumption that consumers ascribe human attributes to brands (Rauschnabel & Ahuvia, 2014) in a process called anthropomorphism (Epley, Waytz, & Cacioppo, 2007). Brand personality researchers put emphasis on identifying and describing underlying dimensions of these human brand attributes (e.g. Aaker, 1997; D'Astous & Boujbel, 2007; Valette-Florence & De Barnier, 2013).

In her seminal article, Aaker (1997) identifies five distinct brand personality dimensions: 1) sincerity, 2) excitement, 3) competence, 4) sophistication, and 5) ruggedness. In a recent meta-analytic study, Eisend and Stokburger-Sauer (2013) provide empirical generalizations about antecedents and consequences of brand personality. The authors uncover support for brand personality's influence on a variety of outcomes, including brand attitudes, brand relationships strength, and purchase intention. In addition, brand personality is more effective in influencing outcome variables for more mature brands. This finding is especially relevant for the purpose of this study as many universities have long-standing histories.

2.2.1. Overview of prior brand personality scales

Prior research reveals criticisms of the Aaker (1997) scale. For example, Geuens, Weijters, and De Wulf (2009) discuss conceptual and empirical issues in an aggregated analysis of Aaker's scale, including relatively little observed within-brand variance. Moreover, replications of Aaker's scale in different cultures or product categories failed, motivating researchers to develop context-specific scales (Bosnjak, Bochmann, & Hufschmidt, 2007; Milas & Mlačić, 2007; Sung, Choi, Ahn, & Song, 2015). Table 1 provides an overview of these scales.

As reflected in Table 1, most scales are based on Aaker's (1997) groundwork and subsume human attributes, like gender, appearance-focused, or age-specific traits, as "brand personality" or "corporate character" (Davies, et al., 2004). A few studies focus exclusively on attributes derived from human personality research (Geuens et al., 2009).

Researchers then continue with item generation using mostly qualitative techniques, such as consumer/experts in-depth interviews and analyses of communication materials. Most of these studies use limited sources to identify items, which can lead to a loss of content validity (Rossiter, 2002). As these procedures often reveal a large quantity of items, reduction techniques are commonly applied. Typically, a survey using a reduced set of items among stakeholders serves as a calibration study. After employing exploratory factor analyses techniques to identify underlying dimensions and delete problematic items, confirmatory factor analyses typically follow (Gerbing & Anderson, 1988). As Table 1 shows, most studies follow these guidelines and conduct at least one confirmatory factor analysis on an additional sample.

3. Development of a University Brand Personality Scale

3.1. Study overview

The current research follows well-accepted, mainstream, psychometric scale development and validation procedures (Gerbing & Anderson, 1988) as illustrated by multiple authors (Babin, Boles, & Robin, 2000; Babin, Darden, & Griffin, 1994). The process begins with the construct's working definition; in this case, University Brand Personality represents the *human-like mental associations stakeholders have with and about a particular university*. Table 2 summarizes the research process.

Following the tradition in brand personality research (Table 1), the first stage consists of four qualitative studies that develop a comprehensive item pool. These studies include self-descriptions (studies 1 and 4) and descriptions from external stakeholders (studies 2 and 3). Whereas studies 1 and 2 focus on detailed descriptions of well-known (nonattended) universities, studies 3a and 3b focus on a larger sample of students describing the university each attends. Finally, study 4 applies an expert-validation of the proposed item pool.

The second stage involves quantitatively exploring the dimensional space and refining individual scales. Particularly, exploratory factor analysis provides insight into the dimensional structure of the item pool through qualitative research (calibration study 5).

The third stage involves confirming the proposed measurement theory. Based on different samples, studies 6 and 7 validate the factorial structure among German and American students, respectively (validation studies). Study 7 assesses the scale's influence on several outcome variables (examining nomological validity).

3.1.1. Study 1: Self-description of universities as personalities

Study 1 identifies items used by universities to describe their current or intended brand personality. University marketing and public relations documents commonly contain self-descriptions within mission statements, university goals, and even in marketing plans (Davies et al., 2004) that encompass universities core brand values. Opoku et al. (2008), for example, support this inference after content analyzing brand personality descriptions on university websites.

The Times Higher Education Ranking 2014 top ten university websites (located in the U.S.A. and the U.K.) also provide clues as to terms linked to university identities. The inspection process repeats among websites of 16 top German universities according to *WirtschaftsWoche* ("BusinessWeek"). Top universities obtain recognition at least in part through effective marketing. Thus, their websites reflect an intentional marketing strategy (Klassen, 2002). As a brand's history influences the role of brand personality (Eisend & Stokburger-Sauer, 2013), a relatively new private university ("Zeppelin University") and a traditional university with a long legacy ("University of Cologne") complete the sample. Upon analyzing details of 28 universities, data collection concluded as theoretical saturation occurred (Guest, Bunce, & Johnson, 2006). In other words, the marginal return on examining more universities diminished. In total, the process yields 48 personality-related adjectives.

3.1.2. Study 2: Identification of adjectives used by students to describe their universities

Whereas study 1 focuses on (intended) perception of universities from the universities' management side, findings do not indicate how those adjectives correspond to external stakeholders' perceptions. Therefore, a trained interviewer undertook semi-structured, in-depth interviews with five German consumers: two high-school graduates planning to enroll in a university (m, 20, and f, 20), one current student from a German university (m, 27), one alumni (f, 38), and one respondent without a higher education degree (m, 34). Current students and alumni describe their former or current university. Interviews commence with general questions about attitudes towards the particular

university. The main task was to describe the university "as a human being." After interpreting the results, 47 additional personality-related adjectives join the pool, bringing the total to 95 items.

3.1.3. Study 3: Supplementation of the adjectives

Study 3 involves a larger sample than study 2. Here, 186 undergraduate students of a German university completed an online survey. Students ($m_{age} = 22.3$; 71% females) described their university as a human being in a well-designed survey using an open-ended questionnaire (Smyth, Dillman, Christian, & McBride, 2009). Continue buttons of the survey appeared after 60 s, motivating respondents to reflect longer on questions. The undergraduate students identified 218 adjectives. To diversify the sample, 46 masters students named 14 additional personality items in a paper-pencil version of the online questionnaire. Study 3 compiles another 232 new items.

3.1.4. Study 4: Item reduction

In total, the three previous studies yield 327 items. Because the research involves two languages, a double-blind re-translation method validates the semantic equivalence of items worded in English or German. Two female bilingual coders (26 and 28 years) retranslated all items. Sixteen items required further discussion to reach consensus on a common expression. A third independent bilingual coder with an academic marketing background assessed the final translation of all items.

A set of 327 items is unwieldy in applying traditional quantitative procedures. Thus, the following steps provide initial item reduction. The process first eliminates items not used in everyday language (Rossiter, 2002). Therefore, two respondents rated the frequency of each word in everyday language and two respondents rated the appropriateness of items in describing a university (1 = very rarely to 7 = very frequently and 1 = not qualified at all to 7 = very qualified, respectively). Finally, expert judges rated face and content validity (Diamantopoulos, 2005; Rossiter, 2002). Two professionals from marketing and communications departments of universities rated item-appropriateness based on the brand personality concept.

Mean scores for each step (i.e., for appropriateness of use, to describe a university, and to measure a university's brand personality) provide a screening mechanism. The resulting pool retains only items with an average appropriateness of at least five across each respondent-group. For further validation of these preliminary items, an academic brand personality expert contrasted the complete and reduced list of items leading to the inclusion of seven previously deleted items providing a final pool of 72 items.

3.1.5. Study 5: Identification of university brand personality dimensions

Study 5 identifies the potential factor structure of university brand personality by applying calibration procedures. A total of 249 students ($m_{age} = 24.21$; 74.3% females; females are overrepresented at this university) from a German university participated in a survey titled "abstract perception of their university." Students answered: "We are interested in the personality or human characteristics that come to mind when thinking about [university]. Imagine [university] as a person. To what extent do the following words apply to [university] as a person?" Items were evaluated with 7-point Likert scales (1 = does not apply ... 7 = totally applies).

3.1.5.1. Results. Principal component analysis (PCA) followed by Oblimin rotation allows an examination of dimensionality and suggests items for deletion. A six-factor solution was most appropriate based on a variety of commonly applied criteria: inspection of scree plot, interpretability, and eigenvalues greater than unity (D'Astous & Boujbel, 2007; Sung & Tinkham, 2005).

To improve and validate the factor structure, items with low factor loadings ($<|0.50|$) and/or high cross-loadings ($>|0.30|$) are deleted

Table 1
Prior research on brand personality scale development.

Authors	Journal	Application	Scope	Item generation based on...						
				Content analyses/secondary data	Internal experts' statements (e.g., managers)	External experts (e.g., academics) or practice scales	Human personality scale or lexical approaches	Qualitative consumer interviews	Existing brand personality scales	Other methods
Aaker (1997)	JMR	Consumer brands	HC			✓	✓	✓		
Aaker, Benet-Martinez and Garolera (2001)	JPSP	Consumer brands	HC		✓	✓	✓	✓		
Caprara, Barbaranelli, and Guido, (2001)	JEP	Consumer brands	HP				✓			
d'Astous and Lévesque, (2003)	P&M	Stores	HC					✓	✓	
Davies et al. (2004)	CRR	Corporations	HC	✓	✓	✓		✓	✓	
Sung and Tinkham (2005)	JCP	Consumer brands	HC					✓	✓	
Venable et al. (2005)	JAMS	Non-profits organizations	HC		✓			✓	✓	
Ekinci and Hosany (2006)	JTR	Tourism destinations	HC						✓	
D'Astous and Boujbel (2007)	JBR	Countries	HC				✓	✓	✓	
Bosnjak et al. (2007)	SBP	Consumer brands	HC					✓	✓	
Milas and Mlačić (2007)	JBR	Croatian consumer brands	HC				✓			
Geuens et al. (2009)	IJRM	Consumer brands	HP			✓	✓	✓	✓	
Grohmann, (2009)	JMR	Consumer brands	HC				✓	✓		
Rojas-Méndez et al. (2013)	JBR	U.S.A.	HP					✓		
Valette-Florence and De Barnier (2013)	JBR	Media Brands	HC					✓		
Current study	JBR	Universities		✓	✓	✓	✓	✓	✓	✓

Journals: CRR: Corporate Reputation Review; IJRM: International Journal of Research in Marketing; JAMS: Journal of the Academy of Marketing Science; JBR: Journal of Business Research; JCP: Journal of Consumer Psychology; JEP: Journal of Economic Psychology; JMR: Journal of Marketing Research; JPSP: Journal of Personality and Social Psychology; JTR: Journal of Travel Research; P&M: Psychology and Marketing; SBR: Social Behavior and Personality.

Analyses: CFA: Confirmatory Factor Analysis; EFA: Exploratory Factor Analysis; SEM: Structural Equation Modeling.

Scope: HP: Human Personality; HC: Human Characteristics (such as personality, age, gender).

Item reduction based on...	Factor extraction and validation	Number of dimensions	Dimensions (facets are provided in parentheses)
✓	Study 1: n = 631 (EFA), U.S.A. Study 2: n = 180 (CFA), U.S.A.	5	Sincerity (Down-To-Earth, Honest, Wholesome, Cheerful), Excitement (Daring, Spirited, Imaginative, Up-To-Date), Competence (Reliable, Intelligent, Successful), Sophistication (Upper-Class, Charming), Ruggedness (Outdoorsy, Tough)
✓	Study 1: n = 1495 (EFA), Japan Study 2: n = 114 (CFA), bilingual students (Japanese, English) using English translations Study 3: n = 692 (EFA), Spain Study 4: n = 101 (CFA), Spain	5	'Japanese' dimensions: Excitement (Talkativeness, Freedom, Happiness, Energy), Competence (Responsibility, Determination, Patience), Peacefulness (Mildness, Naivety), Sincerity (Warmth), Sophistication (Elegance, Style) 'American' dimensions: Excitement (Daring, Spiritedness, Imagination, Contemporary), Competence (Reliability, Intelligence, Success), Ruggedness (Masculinity, Toughness), Sincerity (Down-To-Earth, Honesty, Wholesomeness, Cheerfulness), Sophistication (Class, Charm)
	Study 1: n = 1568 (EFA), Italy	2	'Spanish' dimensions: Excitement (Happiness, Youth, Independence), Sincerity (Thoughtfulness, Realness), Sophistication (Style, Confidence), Peacefulness (Affection, Naivety), Passion (Intensity, Spirituality) Two-factor solution without explicit factor names: Factor 1 consists of items that are known from human personality dimensions Agreeableness and Emotional Stability; Factor 2 consists of items that are known from Extraversion and Openness to Experience.
✓	Study 1: n = 26 (each 4 brands; EFA), Canada Study 2: n = 226 (EFA), Canada Study 1: n = 719 (EFA), UK Study 2: n = 4626 (EFA/CFA), UK	5 7	Enthusiasm, Sophistication, Genuineness, Solidity, Unpleasantness Agreeableness (Warmth, Empathy, Integrity), Enterprise (Modernity, Adventure, Boldness), Competence (Conscientiousness, Drive, Technocracy), Chic (Elegance, Prestige, Snobbery), Ruthlessness (Egoism, Dominance), Informality, Machismo.
	Study 1: n = 320 students (EFA/CFA), U.S.A. Study 2: n = 337 students (EFA/CFA), Korea	6, 8	Pooled dataset: Eight factors (Competence, Trendiness, Likeableness, Western, Sophistication, Ruggedness, Tradition, Ascendancy) US dataset: Six factors (Likeableness, Trendiness, Competence, Sophistication, Traditionalism, Ruggedness, White Collar, Androgyny) Korean dataset: Competence, Trendiness, Likeableness, Passive Likeableness, Sophistication, Ascendancy, Ruggedness, Traditionalism
	Study 4: n = 376 faculty and staff (EFA), U.S.A. Study 5: n = 355 students (EFA), U.S.A. Study 6: n = 1029 (CFA), U.S.A.	4	Integrity, Nurturance, Sophistication, Ruggedness
✓	Study 1: n = 148 in UK about destinations outside the U.S.A., and n = 102 in European airports; total: n = 250 (EFA/CFA)	3	Sincerity, Excitement, Conviviality
✓	Study 1: n = 174 students (EFA), Canada Study 2: n = 170 (CFA), Canada	6	Agreeableness, Wickedness, Snobism, Assiduousness, Conformity, Unobtrusiveness
✓	Study 1: n = 131 (EFA/CFA), Germany Study 2: n = 184 (CFA), Germany n = 267 students (EFA), Croatia	4	Drive (Excitement, Boredom), Conscientiousness, Emotion, Superficiality.
	Study 1: n = 1235 (EFA), Belgium Study 2: n = 12,789 (CFA), Belgium Study 3: n = 4500 (from study 2). Test–retest correlations, Belgium	5 5	Extraversion, Agreeableness, Conscientiousness, Emotional Stability, Intellect Conscientiousness/Responsibility, Extraversion/Activity, Emotional Stability/Emotionality, Agreeableness/Aggressiveness, Openness/Simplicity
	Study 4: n = 401 (CFA/SEM), U.S.A. Study 5: n = 2204 (CFA), France, Germany, Italy, Netherlands, Poland, Romania, Spain, Switzerland, Turkey		
	Study 1: n = 169 students (EFA/CFA), U.S.A. Study 2–7 replicated, validated and applied scale in different contexts	2	Masculine, Feminine
	Study 1: n = 477 (EFA, CFA), China	3	Amicableness, Resourcefulness, Self-Leftedness
	Study 1: n = 780 (EFA/CFA/SEM), France	5	Respectability (wisdom, conventionally), Disingenuousness, Conviviality (Natural, Agreeableness), Assertiveness, Charm (Seduction, Elegance)
✓	Study 5: n = 249 (EFA/CFA), Germany Study 6: n = 340 (CFA), Germany Study 7: n = 211 (CFA/SEM), U.S.A.	6	Prestige, Sincerity, Appeal, Lively, Conscientiousness, Cosmopolitan

(Hair, Black, Babin, & Anderson, 2006; Peterson, 2000). The final six-factor solution explains 68.5% of the total item variance, which is above the recommended threshold of 0.50.

3.1.5.2. Scale inspection. Reliability analyses show alpha coefficients above the established threshold of 0.70 (Nunnally, 1978) for each dimension, as shown in Table 3. Using existing brand personality scales as a reference in naming, 1) prestige (accepted, leading, reputable, successful, considerable), 2) sincerity (humane, helpful, friendly, trustworthy, fair), 3) appeal (attractive, productive, special), 4) lively (athletic, dynamic, lively, creative), 5) conscientiousness (organized, competent, structured, effective), and 6) cosmopolitan (networked, international, cosmopolitan) dimensions represent university brand personality space.

3.1.5.3. Robustness tests. Replications using different estimation (e.g., PCA or ML) and rotation methods (e.g., Varimax) lead to similar solutions. A series of replications based on different sub-samples, such as gender, students' main university division, age, or number of semesters, confirms avoidance of biases caused by sampled distribution. Additionally, a confirmatory factor analysis (CFA) on the six-factor structure also provides evidence of good psychometric characteristics (see Table 4). In sum, supplementary analyses support the robustness of the model.

The Fornell and Larcker (1981) procedure examines discriminant validity. The average variance extracted (AVE) within each pair of dimensions is compared with the square of bivariate correlations between these two dimensions. Evidence of discriminant validity exists in this study as AVE values all are above each squared construct correlation (Hair et al., 2006).

3.1.6. Study 6: Scale validation

3.1.6.1. Fit validity. While study 5 provides first insights into the underlying structure of university brand personality, study 6 validates this structure with a different sample. Based on a sample of 340 students from a German university, a CFA with the appropriate constraints applied to the item covariance matrix (maximum likelihood estimation with robust error terms in MPlus 7.1) provides a tool for validation (Muthén & Muthén, 2012). The resulting χ^2 -value of 566.7 and $df = 237$ is significant at $p < 0.001$, with model CFI of 0.91 (above 0.9), RMSEA of 0.06 (less than 0.08), and SRMR of 0.06. Thus, the fit validity is adequate to move forward.

3.1.6.2. Convergent and discriminant validity. All factor loadings are above 0.50 and significant on a 0.001 level. Construct composite reliability (all C.R. ≥ 0.77) and AVE (all AVE ≥ 0.53) reflect adequate convergent validity (Hair et al., 2006). In sum, results provide further support for the proposed factor structure.

3.1.6.3. Nomological validity. Nomological validity results if a construct behaves as expected in a network of related variables. Two items,

“[university name] has a strong personality” and “[university name] has a distinct personality” ($\alpha = 0.88$) from Freling, Crosno, and Henard (2011) brand personality appeal scale, provide an initial assessment. This procedure is in line with recent research in branding (e.g., Batra et al., 2012). As expected, brand personality distinctiveness correlates significantly and positively with all dimensions ($r_{\text{prestige}} = 0.71$; $r_{\text{sincerity}} = 0.58$; $r_{\text{appeal}} = 0.64$; $r_{\text{lively}} = 0.54$; $r_{\text{conscientiousness}} = 0.56$; $r_{\text{cosmopolitan}} = 0.51$; all $p < 0.001$).

3.1.7. Study 7: Replication/extension in the U.S.A

Study 7 aims to replicate and validate the UBPS in a different cultural context. This is an important step because intercultural replications of existing brand personality scales often fail (Geuens et al., 2009). In addition, study 7 provides further evidence of nomological/predictive validity by exploring how university brand personality relates with various outcome variables (Eisend & Stokburger-Sauer, 2013). In this case, brand love, positive word-of-mouth, and student's intention to support their university as alumni are included (Batra et al., 2012; Duesterhaus & Duesterhaus, 2014).

An online survey request appearing in email newsletters and eLearning systems for students from different departments of a mid-sized North-American university provides data for this study. In all, 211 students ($m_{\text{age}} = 26.2$; 51.7% females) took part in the survey.

The questionnaire consists of the same items as in the previous quantitative studies. Moreover, the survey assesses behaviorally related constructs (word-of-mouth), psychological relationship between students and their university (brand love), and intentions (alumni support) are included. The positive word-of-mouth (WOM) scale consists of three items (Zeithaml, Berry, & Parasuraman's, 1996) applied in a higher education context (Alwi & Kitchen, 2014). Love towards the university contains an adapted brand love mini scale with seven items (Bagozzi, Batra, & Ahuvia, 2014). Finally, alumni support comprises three items inspired by Diamond and Kashyap (1997). An overview of the different constructs and corresponding items is shown in Appendix A.

3.1.7.1. Construct validity results. The analysis first addresses the fit of the UBPS measurement theory using CFA. The overall model χ^2 of 392.1 ($df = 237$) ($p < 0.01$) and the corresponding CFI of 0.96, model RMSEA of 0.06, and SRMR of 0.05 all suggest the measurement theory constraints adequately model the observed covariances (Hair et al., 2006). As shown in Table 3, all factor loading estimates exceed |0.50| and each factor displays adequate convergence in the form of C.R. and AVE values above 0.70 and 0.50, respectively. Furthermore, the lowest AVE exceeds the highest squared ϕ element. Thus, construct validity is evident by strong fit validity, convergent validity, and discriminant validity. The UBPS shows good psychometric properties in the U.S.A.

3.1.7.2. Nomological validity. Further analyses address the relationships between each personality factor and the three measured outcome constructs. The procedures involve three structural models featuring direct paths from all six UBPS factors on word-of-mouth, alumni support, and

Table 2
Study overview.

Study	Objective	Sample/Method	Findings
1	Identification of adjectives	Content analyses of 28 self-descriptions of universities based on publicly available information on universities websites.	48 adjectives
2	Identification of adjectives	Five semi-structured qualitative interviews with (potential) students and alumni.	+ 47 adjectives
3	Identification of adjectives	Study 3a: 146 online surveys; Study 3b: 46 paper-pencil surveys. Qualitative analysis of responses to open-ended survey questions.	+ 232 adjectives (in total: 327 adjectives)
4	Reduction of items	Item-reduction based on rating from students and experts.	Reduced: 72 adjectives
5	Calibration study	EFA/CFA among 249 students (Germany).	6 dimensions
6	Validation of scale	CFA among 340 students (Germany).	6 dimensions validated among students in Germany.
7	Further validation	CFA/SEM among 211 students (U.S.A.).	6 dimensions validated among students in the U.S.A. UBPS influences outcome variables.

brand love. Table 5 displays results and suggests similar patterns for each of these three constructs. Sincerity, appeal, lively, and conscientiousness tend to relate positively to each outcome construct. In contrast, results suggest that prestige relates negatively to WOM (-0.35), alumni support (-0.29), and brand love (-0.29). Furthermore, in line with prior research on brand personality (Eisend & Stokburger-Sauer, 2013), not all dimensions relate to all constructs included in the examination of nomological validity (i.e., cosmopolitan did not relate to investigated target constructs). Nonetheless, the overall pattern suggests nomological validity.

4. General discussion and conclusion

4.1. Summary

Brand positioning represents an important strategic effort for today's universities (Chapleo, 2011). This research provides a key step in developing measurement theory related to university brand personality and identifies six university brand personality dimensions:

- 1) prestige (accepted, leading, reputable, successful, considerable)
- 2) sincerity (humane, helpful, friendly, trustworthy, fair)
- 3) appeal (attractive, productive, special)
- 4) lively (athletic, dynamic, lively, creative)
- 5) conscientiousness (organized, competent, structured, effective)
- 6) cosmopolitan (networked, international, cosmopolitan),

Results of study 7 suggest that UBPS correlates with brand love, WOM, and students' intention to support their university after graduation. However, not all dimensions correlate equally with brand love. In contrast to generally positive relationships, the prestige dimension displays negative relationships. Furthermore, this study identifies brand love as another important dependent variable in university marketing efforts. The correlational evidence is both managerially and theoretically relevant.

Table 3
Exploratory factor analysis.

Item	F1	F2	F3	F4	F5	F6
Accepted	0.77	-.10	-.01	-.01	-.05	0.10
Leading	0.76	0.13	0.06	0.03	-0.01	0.07
Reputable	0.74	-0.14	0.09	0.08	0.04	0.04
Successful	0.63	-0.23	-0.01	-0.03	-0.11	0.10
Considerable	0.57	0.07	0.22	0.26	-0.12	-0.04
Humane	0.05	-0.80	-0.03	0.04	0.05	0.03
Helpful	-0.14	-0.74	0.04	-0.01	-0.11	0.10
Friendly	0.00	-0.72	0.19	0.12	0.00	-0.07
Trustworthy	0.16	-0.69	0.03	-0.03	-0.07	-0.01
Fair	0.10	-0.66	-0.01	0.09	-0.11	-0.06
Productive	0.09	0.01	0.83	0.05	0.00	-0.04
Special	-0.08	0.02	0.91	-0.03	0.03	0.05
Attractive	0.16	-0.11	0.57	-0.04	-0.08	0.00
Athletic	0.15	0.05	-0.10	0.88	0.05	-0.11
Dynamic	-0.06	-0.10	0.11	0.63	-0.10	0.16
Lively	0.00	-0.09	0.16	0.56	-0.05	0.16
Creative	-0.12	-0.20	0.07	0.56	-0.11	0.16
Organized	-0.05	0.04	0.04	-0.02	-0.95	-0.12
Competent	0.04	0.01	0.01	-0.02	-0.88	-0.01
Structured	0.16	-0.19	-0.04	-0.03	-0.62	0.13
Effective	-0.02	-0.09	0.00	0.18	-0.61	0.18
International	-0.01	0.05	0.05	0.07	0.03	.87
Cosmopolitan	0.08	-0.23	0.00	-0.04	0.05	.75
Networked	0.19	0.19	0.00	0.07	-0.12	.66
Cronbach's alpha	0.88	0.85	0.76	0.79	.86	.78
Mean	4.66	4.97	4.69	4.23	4.61	5.19
SD	1.02	1.00	1.23	1.11	1.10	1.11

Method: Principal component analyses, Oblimin-rotation ($\delta = 0$). Loadings above .5 shown in bold.

4.2. Theoretical contribution

The theoretical contribution of this study is threefold: First, the results develop and validate a psychometric measurement theory in the form of UBPS. Theory suggests a *unique* underlying structure of university brand personality. Second, the results extend prior research on university branding by examining the influence of brand personality on student responses including word-of-mouth and alumni support. Third, this research ties together brand personality, brand love, and university marketing. As such, the work provides a useful foundation for the development of integrative theoretical models.

4.2.1. The university brand personality concept

Prestige emerges as one of six UBPS factors. Brand personality scales in other contexts generally do not include prestige. One exception is d'Astous and Levesque's (2003) store personality scale, which includes a dimension named genuineness (reputable, thriving, leader, imposing). The prestige personality factor represents a university's overall reputation, perceived successfulness, and snob appeal. A truly prestigious university, like a truly prestigious finance house or prestigious restaurant, is not for everybody. In addition, universities can display prestige by striving for Ivy League status or by establishing rigorous admission standards, which subsequently rules out many potential students.

From an anthropomorphic perspective, universities could gain a prestigious personality by carefully selecting people with whom they engage. Any direct or indirect contact of an individual and even mere association with a brand can shape brand personality trait perceptions (Plummer, 1985; McCracken, 1989). Therefore, if the student body of a university consists primarily of upper-class, conceited, or snobbish individuals, perceptions of the institution's personality change as a result. Many students may see the resulting exclusivity as unappealing and as not developing the warmth that leads to commitment. In general, the role of university brand prestige implies that not all consumers value ostentatiousness in people or universities.

Sincerity is the second UBPS dimension and shares similarities with the sincerity dimension of the Aaker brand personality scale. The differences expressed by items such as fairness and helpfulness might arise from the strong interaction between students and universities. In contrast, Aaker's sincerity items focus less on personal interactions, which accurately reflects relationships between consumers and non-institutional brands.

The UBPS dimension of appeal reflects desirable traits of the university as a person. Most prior research fails to include a dimension addressing personality's appeal. Davies et al.'s (2004) corporate character scale includes related items such as "stylish" and "elegant," and other researchers measure charm (Valette-Florence & De Barnier, 2013). By identifying how special or attractive potential stakeholders perceive the institution to be, universities can leverage perceived benefits to differentiate themselves from the competition.

While the lively dimension of UBPS is somewhat similar to the excitement dimension of general brand personality (Aaker, 1997; Bosnjak et al., 2007), lively for a university emphasizes creative and athletic meanings. A potential explanation is the athletic identity component of universities identified in various studies (Alessandri, 2007; Southall et al., 2009). Especially in the U.S.A., consumers associate many universities with their sports teams over and above any academic prowess (Toma & Cross, 1998). Thus, athletic personality of a university can become an integral part of its brand personality.

In an interpersonal setting, conscientiousness describes how well organized and structured a person is perceived as (Costa & McCrae, 1992). In UBPS, administrative processes, behavior of university employees, and perceived teaching quality may drive perceived conscientiousness of a university (McCracken, 1989; Plummer, 1985). In Aaker's (1997) scale, the competence factor shows similarity with the conscientiousness factor discovered here. In addition, other brand personality scales,

Table 4
Overview of confirmatory factor analyses results.

Dataset	Study 5	Study 6	Study 7
Sample	249 students	340 students	211 students
Country	Germany	Germany	U.S.A.
<i>Overall model fit</i>			
χ^2 (p)	375.2	566.7	392.1
$\chi^2/237$ df	1.58	2.39	1.66
CFI	0.95	0.92	0.96
TLI	0.94	0.91	0.95
RMSEA	0.05	0.06	0.06
SRMR	0.05	0.06	0.05
<i>Factor 1: Prestige</i>			
C.R.	0.88	0.88	0.92
AVE	0.60	0.61	0.70
Accepted	0.82	0.80	0.81
Leading	0.68	0.72	0.91
Reputable	0.85	0.83	0.84
Successful	0.76	0.76	0.86
Considerable	0.76	0.78	0.77
<i>Factor 2: Sincerity</i>			
C.R.	0.85	0.89	0.92
AVE	0.54	0.61	0.69
Humane	0.72	0.77	0.77
Helpful	0.73	0.80	0.89
Friendly	0.78	0.81	0.84
Trustworthy	0.73	0.76	0.86
Fair	0.71	0.76	0.81
<i>Factor 3: Appeal</i>			
C.R.	0.77	0.77	0.77
AVE	0.53	0.53	0.73
Productive	0.62	0.71	0.80
Special	0.75	0.68	0.89
Attractive	0.75	0.83	0.87
<i>Factor 4: Lively</i>			
C.R.	0.79	0.81	0.91
AVE	0.50	0.50	0.73
Athletic	0.72	0.78	0.77
Dynamic	0.57	0.56	0.91
Lively	0.78	0.78	0.84
Creative	0.72	0.76	0.89
<i>Factor 5: Conscientiousness</i>			
C.R.	0.86	0.83	0.96
AVE	0.60	0.55	0.85
Organized	0.76	0.70	0.90
Competent	0.81	0.71	0.95
Structured	0.75	0.70	0.92
Effective	0.79	0.85	0.91
<i>Factor 6: Cosmopolitan</i>			
C.R.	0.78	0.81	0.72
AVE	0.54	0.59	0.69
International	0.77	0.80	0.79
Cosmopolitan	0.67	0.73	0.82
Networked	0.77	0.78	0.88

such as Milas and Mlačić (2007) and D'Astous and Boujbel (2007), identify similar dimensions.

The final dimension “cosmopolitanism” describes whether people view a university as a closed or open institution. Only the country personality scale includes a cosmopolitanism dimension (Rojas-Méndez et al., 2013). In a higher education setting, this dimension may play an important role as students evaluate institutions based on their relationships with companies or other universities. For students, these personality traits could signal study abroad or job opportunities through university networks. Considering growing competition among universities for international students (Hemsley-Brown, 2012), cosmopolitanism provides a competitive advantage.

4.2.2. The role of university brand prestige

The contrasting negative effects of prestige are potentially interesting. Specifically, results suggest a negative relationship between prestige and both word-of-mouth and brand love. The prestigious personality of the university emanates from its perceived success and reputation, which can come across as not welcoming to students and inconsistent with a warm and caring personality. Considering that prestige is unrelated to alumni support, prestige's negative effect may lie predominantly with other stakeholders, who lack strong ties with the institution. In addition, leading universities tend to charge higher tuition and fees resulting in potentially greater financial burden for students. Future studies should investigate if students with varying levels of post-graduation debt (from student loans, etc.) view prestige differently than students with little debt.

4.2.3. Brand love

The application of brand love in a university branding context seems relevant (Hemsley-Brown & Oplatka, 2006; Nguyen & LeBlanc, 2001; Rindfleisch, 2003). While prior research investigates related concepts and their influence on brand love, such as consumer personality (Rauschnabel, Ahuvia, Ivens, & Leischnig, in press) or anthropomorphism (Rauschnabel & Ahuvia, 2014), this study examines the relationship between university brand personality and brand love. The results advance the understanding of psychological mechanisms leading to brand love. Future higher-education research should consider using brand love as a potential outcome variable (Albert, Merunka, & Valette-Florence, 2008; Batra et al., 2012).

4.3. Managerial contribution

In practice, brand management is a complex endeavor requiring a holistic perspective on brands, their value, and factors driving performance. When managing a brand's health, university marketers need to account for several factors, including brand personality (Mirzaei et al., 2015). University marketing professionals should carefully plan and implement strategic brand personality development in a perspective that integrates other issues, such as brand equity and overall marketing effectiveness (Mirzaei, Gray, & Baumann, 2011).

The current research provides university managers with an assessment tool for measuring their institution's as well as competitors' brand personality. Based on established procedures in scientific and applied literature streams (Aaker, 1996; Burnett & Hutton, 2007; Malär, Nyffenegger, Krohmer, & Hoyer, 2012), university marketing managers should assess their institution's current position and develop ideal UBPS profiles. Celly and Knepper (2010) discuss the importance of assessing

Table 5
Standardized relationships between UBP dimensions and outcome-variables.

	Brand love ($R^2 = .55$)	Alumni support ($R^2 = .22$)	WOM ($R^2 = .42$)
Prestige	−0.29*	−0.29 ^T	−0.35*
Sincerity	0.27 ^T	−0.09 ^{n.s.}	0.36*
Appeal	0.30*	0.25 ^{n.s.}	0.17 ^{n.s.}
Lively	0.39****	0.26 ^T	0.27 ^T
Conscientiousness	0.117 ^{n.s.}	0.28*	0.20 ^T
Cosmopolitan	0.02 ^{n.s.}	0.05 ^{n.s.}	0.05 ^{n.s.}
χ^2	692.9	572.6	465.9
df	384	303	303
χ^2/df	1.80	1.89	1.54
CFI	0.93	0.93	0.96
TLI	0.93	0.92	0.95
RMSEA	0.06	0.07	0.05
SRMR	0.05	0.05	0.04

Statistically significant ($p < 0.05$) relationships shown in bold.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

^T $p < .10$.

and understanding a university's current competitive positioning in developing a unified branding strategy and achieving strong brand positioning. The UBPS can assist in these efforts.

Once university managers identify discrepancies between ideal and current positions, they can tailor branding activities towards brand personality traits that the institution needs to improve on. For example, if a university is not lively enough, a focus on promoting athletic activities and events can overcome this deficiency. However, caution needs to prevail in assuming that higher personality scores always lead to a more positively perceived personality. Study 7 suggest that a narrow focus on the university's success – a strategy frequently observed among institutions – may not foster warm relationships with existing students.

4.4. Limitations and future research

As any research, this study has its limitations. First, the empirical results include only Germany and the U.S.A. Many more contexts deserve research, such as schools in emerging economies, or those in systems like the French *Grandes Ecoles*. Furthermore, student samples provide estimates of the factor structure, leaving out other important stakeholders like potential students, alumni, or staff.

Besides addressing these limitations, future research may focus on identifying ideal point positioning using UPBS factors. Future studies can also contribute to prior personality segmentation research by identifying consumer groups based on the dimensions' magnitude (Ivens & Valta, 2012) or by their influence on target variables (Vaette-Florence, Guizani, & Merunka, 2011).

Prior research in interpersonal impression management has shown that brand personality traits may carry over and affect the personality of the brand's owner (Fennis & Pruyn, 2007). In a university context, other individuals could perceive a students' personality differently depending on the university attended. Examining potential influences of the university's brand personality on a student's personality as perceived by others provides an additional avenue for future research. While several possible explanations exist for contrasting positive and negative effects, future research should consider a detailed analysis of potential mediating and moderating variables.

Moreover, universities are complex systems of various subbrands (Hemsley-Brown & Goonawardana, 2007; Hemsley-Brown & Oplatka, 2006). Besides the core university brand, institutions use various branding strategies for different campuses, schools, departments, and athletic teams. Understanding the role of brand consistency could prove important. In general, universities should “focus on clearly articulating and developing their brand, and developing harmony within the brand architecture ... [, and] ... universities should acknowledge schools' and faculties' contributions to the identity of the brand.” (Hemsley-Brown & Goonawardana, 2007, p. 942, see also Melewar & Jenkins, 2002). Drawing on Diamantopoulos, Smith, and Grime (2005), assessing the role of different brand personalities through the lens of brand extension theories could provide valuable insights to marketing academia and practice.

Finally, recent research shows that higher education plays a critical role for country competitiveness (Baumann & Winzar, 2014). Consequently, the role of brand personality in university marketing and success carries importance into the public policy perspective. While all countries compete for human resources, future research may create value for several stakeholder categories by linking dimensions of university branding, university performance, and national competitiveness. A particular focus on cultural variables (Baumann & Hamin, 2011) or country personality (Rojas-Méndez et al., 2013) may be required in this context.

In conclusion, the current study examines the conceptualization and role of brand personality for universities. University marketing managers can utilize the findings for higher education branding while scholars should continue investigating branding activities for

universities. This research, in keeping with the theme of this special issue, provides a scale from which future research into the higher education of marketing may grow.

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Appendix A. Measurement model results (study 7)

Word-of-mouth (Zeithaml et al., 1996; Alwi & Kitchen, 2014)

(1 = never, 7 = always)

Talk to your friends about positive aspects of [university].

Encourage friends to enroll at the [university].

Talk to other people about the positive features of the [university].

$\alpha = 0.92$; C.R. = 0.79; AVE = 0.81

Alumni support (inspired by Diamond & Kashyap, 2007)

(1 = strongly disagree, 7 = strongly agree)

After graduation, I could imagine donating money to my university.

If I can support my university in any way in the future, I am willing to do so.

As an alumni, I am planning to support future students.

$\alpha = 0.93$; C.R. = 0.72; AVE = 0.70

Brand love (Batra et al., 2012; Bagozzi et al., 2014), adjusted based on discussions with a university brand manager and a pilot-study with N = 255 American students)

(1 = strongly disagree, 7 = strongly agree)

I expect that [university] will be a part of my life for a long time to come.

If [university] would go out of existence, I would feel anxiety.

Being a student at [university] makes my life more meaningful.

I feel myself desiring [university].

I feel emotionally connected to [university].

Overall, my feelings towards [university] are positive.

$\alpha = 0.93$; C.R. = 0.70; AVE = 0.67

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