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## Antecedents and consequences of university brand identification

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## ABSTRACT

The study proposes and empirically tests a comprehensive model of student–university identification based on social identity theory. This study examines the role of university brand personality, university brand knowledge, and university brand prestige in developing student–university identification. Furthermore, the effects of student–university identification on various university-supportive behaviors such as university affiliation, suggestions for improvement, advocacy intentions, and participation in future activities are examined. Findings reveal that university brand knowledge and university brand prestige plays a key role in determining the student–university identification. In addition, students who identify with their university perceive their destiny as interweaved with the university which drives their desire to engage in university supportive behaviors. Findings suggest that universities should engage in branding activities that develop strong student–university identification in order to enhance the students' university supportive behaviors.

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## 1. Introduction

To overcome the challenges of competitive pressures, shrinking financial support from governments, decline in university-going population, and widespread changes in an educational environment, higher education institutions (hereafter HEI) are increasingly adopting marketing and branding strategies that are typically associated with the for-profit sector (Hemsley-Brown & Goonawardana, 2007; Stephenson & Yerger, 2014; Wilkins et al., 2015). In fact, main stream reports indicate that HEIs world over have seen an increase in their marketing and branding budget in the past few years (Chapleo, 2014). As the value offered by HEIs is being increasingly scrutinized, various researchers argue that branding cuts through the clutter in effectively communicating the value proposition of HEI's to students. Branding conveys a favorable image by communicating signals of quality and trust (Casidy, 2013). Perhaps, an important benefit of branding is its ability to turn students into university ambassadors by offering a sense of identification or belongingness with the HEIs (Mael & Ashforth, 1992; Wilkins et al., 2015).

University identification is a specific form of social identification characterized by students' attachment or belongingness with the university (Mael & Ashforth, 1992; Wilkins & Huisman, 2013). According

to social identity theory (Tajfel, 1978), university identification allows students to enhance their self-concept or self-image by associating with the university. Students who strongly identify with the university are likely to be more committed and perform beyond their role requirements. This allows the students to represent and support their university (Mael & Ashforth, 1992). Thus, university identification provides an opportunity for the students to develop a long-lasting relationship with the university. With consumerization changing students into customers and universities into service providers (Halbesleben & Wheeler, 2009), university identification has the potential to provide new and valuable insights into how branding can influence students' perceptions and behaviors towards the university.

However, very limited research evidence exists which examines the role of university identification in the HEI context (Stephenson & Yerger, 2014; Wilkins & Huisman, 2013). For example, university identification is found to influence the alumni's promotion, donation giving, competitive attitude, and seeking contact through website and social media (Porter, Hartman, & Johnson, 2011; Stephenson & Yerger, 2014). In addition, university identification is related to prospective students' behavioral intentions towards the university (Wilkins & Huisman, 2013). Among the current students, university identification is found to influence their perceptions towards university merchandise, well-being, and overall attitude and support towards the university (Cameron, 1999; Jiménez-Castillo, Sánchez-Fernández, & Iniesta-Bonillo, 2013). While these studies confirm that university identification can enhance students' perception towards the university, there is a lack of understanding of how university identification is formed and how this

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influences students' behavior towards the university? Therefore, this research has the following research objectives:

1. To examine the antecedents of university identification, and
2. To investigate the role of university identification on students' supportive behaviors towards the university.

Specifically, this study aims to provide a better understanding of the antecedents and consequences of university identification. While previous literature has identified antecedents such as prestige (Mael & Ashforth, 1992; Stephenson & Yerger, 2014), this study introduces university brand knowledge and university brand personality into the model. Similarly, this study examines the role of university identification on university supportive behaviors such as advocacy intentions, university affiliation, suggestions for improvement, and participation in future activities. The originality of this study relates to the development and examination of an integrated model of university brand identification in HEI context. The findings of this study have important implications for HEIs in developing and executing brand management strategies that turn students into university ambassadors. The rest of the paper is organized as follows. First, the theoretical background of the study is explained along with a review of relevant literature and proposed hypotheses. Next, the research methodology employed is detailed. Third, data analysis and results are explained. Finally, the implications are discussed along with the limitations and future research directions.

## 2. Theoretical background and hypotheses development

### 2.1. Social identity theory

Social identity theory (hereafter SIT: Tajfel, 1978) is based on the premise that individuals define their own identities with regard to certain groups and such identification enhances their self-identity. The identification with a social group involves both categorization of self within the group and tendency to view one's group with a positive bias compared to other rival groups. In fact, individuals with strong identification with a specific group define themselves in relations with the group and evaluate any group threats as threats to the self. Thus, identification with a specific group is directly related to the motive to enhance self-identity and self-regard (Tajfel, 1978).

SIT is applied in a wide variety of research areas such as understanding the social identities, motivations between identification with a group, multiple identities individuals inhabit, in-group relationships, and outcomes of identification of individuals, group, and social indicators. The growth of these research efforts has resulted in a variety of theoretical perspectives, including self-categorization theory, self-enhancement theory, and self-expansion theory among others. Self-categorization theory states that people tend to classify themselves and others into various social categories and view group membership as important in developing self-identity (Turner, 1975). Self-enhancement theory (Jones, 1973) suggests that individuals strive to see themselves positively and discount negative self-information. Aron and Aron's (1996) social expansion theory contends that social relationships involve expanding self to accommodate the other. As these competing theories can be interpreted by in-group identification, self-concept, and positive self-regard components of social identification theory, this study considers SIT in examining the antecedents and consequences of university identification.

### 2.2. University identification

Ashforth and Mael (1989) describe identification as the extent to which an individual perceives a sense of belongingness or oneness with an organization. Individuals who identify with the organization define their self in relationship to the organization and see the organization's successes and failures as their own. Thus, identification

represents the degree to which an organization expresses and enhances an individual's identity. The strength of the identification is determined by an individual's awareness, knowledge, and experience with the organization (Balmer & Liao, 2007). Brand identification occurs mainly through direct interactions between an individual and an organization. However, recent studies suggest that identification is a perceptual construct that describes the extent to which an individual psychologically accepts the organization as part of his or her self (Bhattacharya and Sen, 2003; Wilkins & Huisman, 2013). According to this view, non-members or individuals without any format ties or interactions can also identify with an organization.

In the present study, university identification is considered as a student's perceived sense of belongingness or oneness with the university following their direct interaction. University identification from the perceptual perspective is not considered in this study as this could be more relevant for alumni or other stakeholders of HEIs. Moreover, student's identification with the university as an outcome of their direct experiences is the dominant perspective in the higher education context (Halbesleben & Wheeler, 2009; Wilkins et al., 2015). University identification occurs when students perceive that the university's salient and unique characteristics are self-defining and enhance his or her self-identity (Cameron, 1999). Thus, identification is a process of self-definition that occurs following the connection between university's identity and student's identity. The more attractive students perceive the university's identity, the stronger will be their identification with the university which results in shared goals, identities, and values between the university and the students.

Based on SIT, this study postulates that students' attitudes and behaviors can be predicted by their identification with the university. Accordingly, when a student identifies with the university, their attitudes towards the university are more positive, as compared to those who do not identify with the university. For example, Park (2000) finds that university identification impacts students' attitude and intentions to purchase university merchandise. Similarly, Cameron (1999) finds that university identification influences students' self-esteem and self-efficacy which in turn impacts their goal-directed behaviors. Halbesleben and Wheeler (2009) developed and validated a scale on student identification with business school and found empirical support for the relationship between business school identification and student performance, likelihood to donate, and satisfaction. More recently, Porter, Hartman and Johnson (2011) demonstrate that both status and affective drivers determine college identification which influences alumni giving and promotions. Thus, university identification is a very significant factor in fostering students' university supportive behaviors.

### 2.3. Antecedents of university identification

Fig. 1 presents the research model proposed and tested in this study. The three antecedents of university identification are university brand personality, university brand knowledge, and university brand prestige. While university brand personality and university brand prestige captures university-based perceptions, university brand knowledge represents the individual-level antecedent of university identification. These factors are often cited in literature as key outcomes of university branding (Ahearne, Bhattacharya, & Gruen, 2005; Watkins & Gonzenbach, 2013). Since university branding involves a systematically planned and implemented process of creating a favorable and unique identity for the university, this study proposes that understanding how students evaluate and relate to the university could influence their identification with the university.

University personality refers to the extent to which students consider the personality traits of the university in terms of being friendly, stable, practical, and warmth (Sung & Yang, 2008). University brand personality is based on the idea that people select products and/or brands that correspond to their self-concept (Usakli & Baloglu, 2011). University brand personality can develop through both direct and indirect

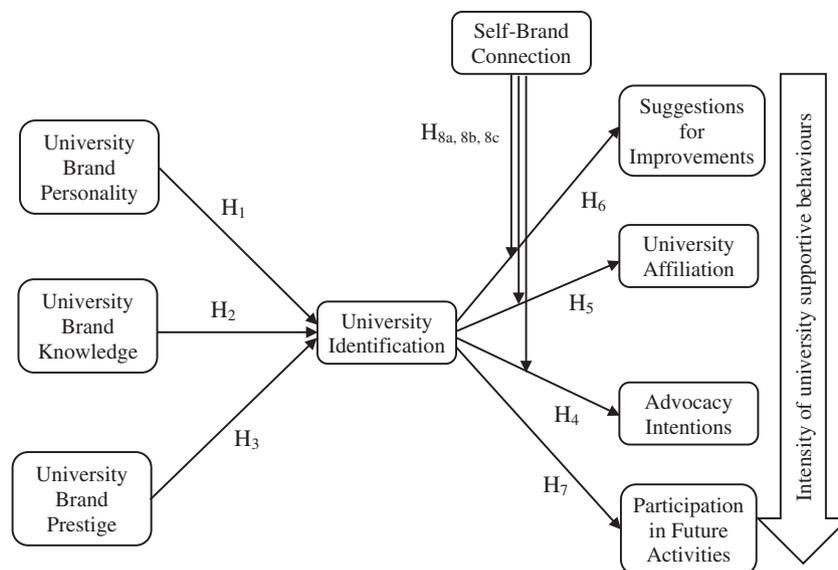


Fig. 1. Conceptual framework of the study.

interactions with the students. For example, prior research suggests that students' direct interaction with academic and administrative staffs leads to the development of a specific university brand personality (Sampaio et al., 2012). Similarly, universities can also develop brand personalities indirectly through its logo, prospectus, heritage, history, architecture, and location (Melewar & Akel, 2005). Brand personality allows for differentiation and competitive positioning and enables the students to identify themselves with the university and to express their personality.

Sung and Yang (2008) report that when students evaluate the university personality as favorable or congruent they are more likely to develop a supportive attitude of belongings to the university. This sense of belongingness helps students to develop a strong identification with the university. Similarly, Polyorat (2011) reports that brand personality dimensions of sincerity and competence have a greater impact on university identification than sophistication and excitement. More recently, Stephenson and Yerger (2014) find that the university brand assessed in terms of being distinctive, unique, positive image, and appealing has a positive influence on university identification. Social identity researchers argue that people are more likely to seek group affiliation with organizations that allows them to distinguish themselves from others in social contexts (Ahearne, Bhattacharya, & Gruen, 2005). As brand personality is a distinctive characteristic that allows the university to differentiate from others, students will strongly identify with their universities when favorable university brand personalities exist. Thus, in the HEI context, the more attractive the students perceive the university brand personality, the stronger will be their identification with the university. Based on the above discussion the following hypothesis is proposed. H<sub>1</sub>: University brand personality has a positive impact on university identification.

University brand knowledge is the students' perception of how knowledgeable s/he is about the communications, values, and benefits associated with the university. Extant literature suggests that brand knowledge is crucial at every stage of an individual's decision-making process, including need arousal, problem definition, information search, evaluating alternatives, purchase decision, consumption, and post-consumption phases. In fact, consumer researchers agree that consumer decision process depends heavily on the notion of consumer knowledge (Sujan, 1985). As university brand knowledge has the potential to influence how students gather and process information about the university and ultimately evaluates them, this study considers the antecedent role

of university brand knowledge in student-university identification. While the ability to acquire university brand knowledge may be influenced by a variety of factors, previous research suggests that brand communication activities such as information about the university mission and goals, major campus events, and internal communication generates brand knowledge and shared understanding (Lysonski & Durvasula, 2013).

The notion of university brand knowledge is dealt both directly and indirectly in the HEI literature. For instance, Brewer and Zhao (2010) find that university brand awareness which is considered as the knowledge about what the university represents is positively associated with students' opinion towards the brand and overall reputation of the institution. Beerli Palacio, Díaz Meneses, and Pérez Pérez (2002) suggest that the overall evaluation of university image is shaped by students' experience, knowledge, and feelings towards the higher education institution. Recently, Alwi and Kitchen (2014) find that university brand attributes derived from direct brand experience, university marketing communication, and observation of others is found to determine the students' attitude towards the university brand. These studies indicate the antecedent role of university brand knowledge in the formation of university identification. Moreover, according to the SIT (Tajfel, 1978), when students know about the distinct identity of the university brand and become aware of the university values and goals, they are more likely to share a sense of belongingness with the university. Thus, in the HEI context, the greater the students possess knowledge about the university brand, the stronger will be their identification with the university. Hence, the following hypothesis is proposed. H<sub>2</sub>: University brand knowledge has a positive impact on university identification.

University brand prestige refers to the relative high status position of the university (Mael & Ashforth, 1992). University brand prestige represents a cumulative of past and present marketing and branding activities and successes. University brand prestige is the overall appeal of the university that develops over time through brand communications and advertisements, as well as students' personal experiences with the university. Prior studies have included attributes such as innovation, involvement in the community, excellence in the student experience, and up-to-date programs as indicators of university prestige (Elsharnouby, 2015). University brand prestige is positively related to alumni involvement and financial donations, recruitment of students and academicians, and student-supportive behaviors (Sung & Yang, 2008; Baruch & Sang, 2012).

Although Stephenson and Yerger (2014) find a positive relationship between university prestige and university identification, literature is replete with conflicting views on the same (Mael & Ashforth, 1992; Stokburger-Sauer, Ratneshwar, & Sen, 2012). Despite the contrasting findings in the literature, this study contends that university prestige has a significant impact on university identification. SIT (Tajfel, 1978) suggests that the prestigious identity of the university allows students to enhance their self-esteem and meet their self-enhancement needs (Elbedweihy & Jayawardhena, 2014). In fact, students' self-enhancement goals such as the need for maintenance and affirmation of positive self-view can be achieved by viewing themselves in the university's reflected glory (Bhattacharya & Sen, 2003). Thus, students' extended-self is formed by the incorporation of the university brand that reflects positively onto the students' self. Thus, the following hypothesis is proposed. H<sub>3</sub>: University brand prestige has a positive impact on university identification.

#### 2.4. Consequences of university identification

This study examines the outcomes of university identification on university supportive behaviors such as advocacy intentions, university affiliation, suggestions for university improvements, and participation in future university activities. According to SIT (Tajfel, 1978) university identification allows students to express their self-concept, and this might influence them to engage in university supportive behaviors. Social exchange theory (Blau, 1964) provides further support for the relationship between university identification and university supportive behaviors. This theory proposes a reciprocal interdependence between the exchange parties whereby when a party provides a benefit, the receiving party should respond in kind. This suggests that when students identify with the university that meets their self-esteem needs they might reciprocate by promoting the university to others (Bhattacharya & Sen, 2003).

The organizational behavior and marketing literatures indicate that organization or brand identification is related to favorable brand attitudes and purchase intentions, recruitment of other employees, recommendation of the organization or the brand to others, providing suggestions and engaging in other extra-role behaviors (Bove et al., 2009; Balaji, 2014). Thus, brand identification is considered as an important driver of customers' attitudes and behaviors towards the university. Consequently, in the HEI context, this study proposes that university identification results in students engaging in a variety of supportive behaviors such as advocacy intentions, university affiliation, suggestions for improvements, and participation in future university activities.

Advocacy intentions refer to the act of promoting and safeguarding the interest of the university. Students' advocacy behaviors include positively speaking about the university, representing the university to external publics, recruiting for the university, and lending support to the university. Prior research has reported that identity salience leads to both direct and indirect promotions such as talking up the university to people they know, bringing up the university in a positive way in conversations with friends, and speaking favorably about the university in social situations (Porter, Hartman & Johnson, 2011; Stephenson and Yerger, 2014). These studies suggest that when students strongly identify with the higher education institution they are more likely to enjoy talking about their experiences at the institution with others and recommend the institution to other people. The above discussion frames the following hypothesis. H<sub>4</sub>: University identification has a positive impact on advocacy intentions.

University affiliation refers to the extent to which students personally identify with the university through the display of the university logo, university stickers, and university merchandise. Affiliation is a visual form of promotion strategy whereby students publicly display their attachment with the university to friends and others. Existing research suggests that university affiliation is greater among students who

strongly identify with HEIs. For example, Stephenson and Yerger (2014) show that university identification is positively related to promotion strategy of wearing clothing with the school's logo. Similarly, Oja, Bass, and Gordon (2015) propose that after successful game students show a greater tendency to wear university clothing to display their identification with the university. Thus, the following hypothesis is proposed. H<sub>5</sub>: University identification has a positive impact on university affiliation.

Participation in future university activities relates to the willingness of students to attend future events and functions held and sponsored by the university. In the HEI context, Brown and Mazzarol (2009) find that students' perception of the university image in terms of the study environment, practicality, and conservatism is positively related to repurchase intentions through satisfaction. Similarly, Helgesen and Nesset (2007) report a positive influence of university college image on students' probability of attending the new courses and further education at the same university. Perin et al. (2012) demonstrate that affective commitment as determined by a strong sense of identification with the university determines the students' intentions to attend future events and courses in the university. The above discussion informs hypothesis six. H<sub>6</sub>: University identification has a positive impact on participation in future university activities.

Suggestions for improvement are a form of voice where students voluntarily share their opinions and contribute ideas to help the university provide better service to the students. Beaudoin (2005) suggests that student voice plays a crucial role in university improvement and student motivation and engagement. Student voice can contribute to the overall improvement in students' learning and university experience. Based on social exchange theory (Blau, 1964), this study proposes that students who have strong identification with the university will provide high levels of feedback to the university. This is because the university identification helps students achieve self-esteem and they reciprocate by offering suggestions for improvement. The above discussion informs the following hypothesis. H<sub>7</sub>: University identification has a positive impact on suggestions for improvement.

#### 2.5. Moderating role of self-brand connection

This study considers the moderating role of self-brand connection in the relationship between university identity and university supportive behaviors. Self-brand connection relates to the individual differences in the degree to which students incorporate the university brand into his or her self-concept (Aaker, Fournier, & Brasel, 2004). Self-brand connection is different from university identification as the latter answer the question of "who am I" only, whereas the former is an identity-based bonds in the broader social context (Stokburger-Sauer, Ratneshwar, & Sen, 2012). Self-brand connection is evident from the desire to communicate one's identity to others by attaching oneself to a reference group. Thus, self-brand connection has a communication aspect which is not present in university identification. As students often use the university brand to create and communicate their self-concept to others, self-brand connection plays a significant role in communicating the identification-based supportive behaviors to others.

Extant literature in consumer behavior indicates that self-brand connection can have a moderating effect on customers' evaluation of the brand. For example, Ferraro et al. (2013) finds that customers with high self-brand connection maintain a favorable view of the brand in the face of negative behavior because of their strong identification with the brand. Similarly, Spiggle, Nguyen, and Caravella (2012) find that customers with high self-brand connection prefer authentic brand extensions over the inauthentic ones as they strongly identify with the brand and hold positive attitudes towards the brand. Thus, individuals with high levels of self-brand connection are more likely to engage in supportive behaviors or activities. In the HEI context, students with high level of self-brand connection are more likely to engage in university supportive behavior because these behaviors allow them to

communicate their identification with the university to others. The self-expansion theory suggests that individuals seek to expand their self by including resources, perspectives, and identities of close others as one's own to accomplish their goals. Huang and Mitchell (2014) found that when brands have strong personalities, customers are able to easily identify and connect with them. This leads to a greater brand relationship quality for strong personality brands than weak personality brands. Similarly, Zhou et al. (2012) show that brand-community congruence affects customers' identification with the community and the brand. Thus, identification-based supportive behaviors such as advocacy intentions, university affiliation, and suggestions for improvement which involve communication aspect may be more pronounced for students who have higher self-brand connection compared to those with low self-brand connection. Thus, the following hypothesis is proposed. H<sub>8</sub>:

Self-brand connection moderates the relationship of university identification with (a) advocacy intentions, (b) university affiliation, and (c) suggestions for improvement.

### 3. Research method

#### 3.1. Measures and questionnaire development

The measures for all the constructs used in this research are adapted from past studies and appear in Table 1. Respondents indicated their levels of agreement with each statement on a 7-point Likert-type scale anchored at '1' strongly disagree and '7' strongly agree.

The face validity and content validity of the measures are assessed by three academic staffs and five doctoral students (Hair et al., 2006).

**Table 1**  
Measurement validation.

Constructs and items (Source)	$\lambda$	t	$\alpha$	$\rho$	Ave
<i>University brand personality (UP)</i> (Sung & Yang, 2008)					
Friendly	0.84	41.72	0.87	0.91	0.72
Stable	0.87	46.51			
Practical	0.84	44.56			
Warmth	0.84	44.00			
<i>University brand knowledge (UK)</i> (Baumgarth & Schmidt, 2010)					
I am aware of the [university] goals.	0.78	29.71	0.83	0.88	0.66
I have sound knowledge about the values represented by the [university].	0.84	47.69			
I understand how students can benefit from the [university].	0.78	27.23			
I know how [university] differentiates us from the competitors.	0.85	52.04			
<i>University brand prestige (UPR)</i> (Mael & Ashforth, 1992)					
People think highly of the [university].	0.76	26.43	0.79	0.86	0.62
The [university] maintains a high standard of academic excellence.	0.81	36.57			
It is considered prestigious to be an alumnus of the [university].	0.85	47.11			
[University] has a rich history.	0.70	18.86			
<i>Student-university identification (UI)</i> (Jones & Kim, 2011)					
This [university] reflects who I am	0.86	53.41	0.78	0.87	0.69
I find it easy to identify with [university].	0.84	39.35			
This [university] has as great deal of personal meaning for me as it helps me become a type of student I want to be	0.80	39.07			
<i>Advocacy intentions (AD)</i> (Zeithaml et al., 1996; Stephenson & Yerger, 2014)					
I will recommend [university] to others	0.90	85.39	0.87	0.91	0.72
I will recommend [university] to those who ask or seek my advice	0.90	86.29			
I will recommend others on the [university] social media (e.g. Facebook or twitter)	0.86	58.68			
I will post positive comments about the [university] on my social media (e.g. Facebook)	0.72	23.72			
<i>Suggestions for university improvements (IM)</i> (Bove et al., 2009)					
I would make suggestions to [university] as to how it can be improved	0.80	17.79	0.84	0.89	0.68
I would let the [university] know of ways that could make it better serve my needs	0.87	48.60			
I would share my opinions with my [university] if I felt they might be of benefit	0.87	53.80			
I would contribute ideas to my [university] that could help it improve service	0.73	13.94			
<i>Affiliation with university (UA)</i> (Johnson & Rapp, 2010)					
I would wear cloths (apparel) with my [university] logo	0.87	48.84	0.87	0.92	0.81
I would display a sticker (e.g. car or self) with my [university]	0.91	79.47			
I would display merchandize (e.g. umbrella, mug) with my [university]	0.91	72.91			
<i>Participation in future university activities (PFA)</i> (Bove et al., 2009)					
I would attend future events being sponsored by my [university]	0.91	50.02	0.81	0.91	0.84
I would attend future functions held by my [university]	0.92	56.95			
<i>Self-brand connection (SBC)</i> (Cable & DeRue, 2002)					
My personal values matches with the [university] values and culture	0.84	48.37	0.83	0.90	0.74
The values of [university] are consistent with how I see myself.	0.87	63.28			
The [university] values and culture provide a good fit to the things I valued in my life	0.87	76.47			

Notes:  $\lambda$ —Standardized loading; t—t-value;  $\alpha$ —Cronbach's alpha;  $\rho$ —Composite reliability; AVE—Average variance extracted.

The construct definitions along with the measurement items are provided to the pre-test respondents who confirmed the appropriateness of the items in measuring the constructs. Further, they evaluated the measurement items and survey questionnaire for completeness, wording, clarity, structure, and the appropriateness of the items. Drawing on their suggestions, minor modifications of a few items are made. Following this, the questionnaire is administered to a pilot sample of 10 respondents for feedback on readability and clarity, as well as ease of completion of the questionnaire (Isaac & Michael, 1995). Based on the pre-test and pilot study, the final questionnaire was administered.

### 3.2. Sampling method and procedure

Malaysia is chosen as the study context as the country's higher education sector has undergone substantial changes in the recent past in terms of number of student enrolments, the number of higher education institutions, and government policies (Alwi & Kitchen, 2014). A convenience sample is used to collect responses from students enrolled in business management programs at three universities in Malaysia. Convenience sampling is used as the study objective was to test the relationship among the variables rather than provide point and interval estimates of the variables (Calder, Phillips, & Tybout, 1981). Since this study is interested in the theoretical explanation rather than generalization, convenience sampling is helpful and should not produce any detrimental effects on the findings (Sternthal, Tubott, Calder, and Richard, 1994). The survey questionnaire was administered in classrooms in group sessions supervised by a team member and the class instructor. The instructor is asked not to share the research topic with the students so that the responses are not biased. Students were also instructed that the questionnaire is germane to their overall university experience and not specific to any class.

The response rate was 100% as all students volunteered to participate in the study. A total of 461 responses are collected of which 298 are from a leading private university and 163 are from two public universities in Malaysia. Students studying in public and private universities may have distinct university experiences and this might influence their identification with the university. However, the type of institution (public university and private university) did not have a significant impact on the relationship between the variables in this study. Thus, both the samples are treated as one and pooled sample was used for further analysis and hypothesis testing (Wilkins et al., 2015). 52% of the respondents are males and rest females; 58% is in the age group of 21–26 years; 55% are enrolled in the undergraduate program; and 83% are Malaysians. The sample distribution according to ethnicity was 52% Malay, 26% Chinese, 10% Indians and 13% others. This correlates approximately with the Malaysia census data on ethnic groups' distribution.

The sample size meets the statistical requirement recommended by Hair et al. (2006) of 5 to 10 observations for each variable and mirrors the earlier research in HEI contexts. Furthermore, the G\*Power 3.0 reveals that a sample size of 109 can estimate medium effect sizes at 80% statistical levels (Faul et al., 2007). Based on the above, the sample size of 461 in this study is considered adequate for detecting a medium effect size.

### 3.3. Common method bias

As the data is collected on a self-reported questionnaire, common method bias could bias the estimates of the relationship among the study constructs. Both procedural and statistical remedies as recommended by Podsakoff et al. (2003) are used for controlling the common method bias. For procedural remedies, the respondents are assured of anonymity and informed that there was no right or wrong answer. Well-established measures are used to reduce ambiguity and the items are counterbalanced to control for priming effects. The statistical remedies included Harman's single-factor test to assess the presence of common method bias (Podsakoff et al., 2003). The results of the

exploratory factor analysis of all items using the principle component factor analysis did not reveal a dominant factor. In all, seven factors accounted for 67% of the variance with the first factor accounting for 34% of the variance which suggests that common method bias is not a major issue in this study.

### 3.4. Analysis

Partial least squares structural equation modeling (i.e. PLS-SEM) with SmartPLS 2.0 (Ringle, Wende & Will, 2005) is used to test the proposed research hypotheses. The PLS-SEM is an appropriate method given the sample size, non-normal data distribution, and exploratory nature of the study (Hair, Sarstedt, Ringle, & Mena, 2012). In PLS-SEM, R-square values of the endogenous variables and effect size, significant levels, and t-values of the structural paths are used for model evaluation (Fornell & Cha, 1994). Bootstrapping resampling with 1000 resamples is carried out to estimate the standard errors and t-values (Chin, 1998).

## 4. Results

### 4.1. Measurement validation

Table 1 presents the psychometric properties of all latent constructs. As illustrated in Table 1, the loadings ( $\lambda$ ) of each reflective measure on its corresponding construct are greater than the threshold levels of 0.50 (Hair et al., 2006). The Cronbach's alpha ( $\alpha$ ) of all constructs is greater than 0.70, and the composite reliability (CR) values are greater than 0.80, indicating adequate internal consistency for the constructs (Hair et al., 2006). The average variance extracted (AVE) values of the constructs are greater than the cutoff value of 0.50 (Hair et al., 2006) providing convergent validity of the measurement model.

As recommended by Fornell and Larcker (1981), discriminant validity is assessed by examining the AVE and squared correlations between the constructs. As illustrated in Table 2, all constructs met the discriminant validity as the AVE for each construct was greater than the squared correlation with other constructs.

### 4.2. Structural model and hypothesis testing

The predictive validity is assessed using the measures of explained variance. The  $R^2$  value of university identification is 0.41 and the  $R^2$  of advocacy intentions is 0.36, which are large effect sizes (~ 25%, Cohen, 1988). The  $R^2$  value of university affiliation is 0.16, the  $R^2$  value of suggestions for improvement is 0.14, and the  $R^2$  value of participation in future university activities is 0.12, which are medium effect sizes (~ 9%, Cohen, 1988). Moreover, the goodness-of-fit (GoF) value of the study is 0.40, which exceeds the threshold value of 0.36 for large effect sizes of  $R^2$  (Wetzels, Odekerken-Schröder, & Van Oppen, 2009). This indicates good overall predictive validity of the model. The average variance

**Table 2**  
Descriptive statistics, correlations and discriminant validity.

	UP	UK	UPR	UI	AD	IM	UA	PFA	SBC
UP	(0.72)	0.22	0.25	0.14	0.18	0.05	0.05	0.06	0.20
UK	0.47	(0.66)	0.18	0.34	0.17	0.11	0.10	0.25	0.43
UPR	0.50	0.43	(0.62)	0.19	0.21	0.11	0.03	0.08	0.29
UI	0.38	0.58	0.44	(0.69)	0.35	0.16	0.08	0.10	0.49
AD	0.42	0.42	0.46	0.59	(0.72)	0.15	0.05	0.11	0.25
IM	0.23	0.33	0.33	0.40	0.39	(0.81)	0.17	0.35	0.10
UA	0.23	0.32	0.18	0.29	0.22	0.41	(0.68)	0.20	0.08
PFA	0.24	0.50	0.28	0.32	0.34	0.59	0.45	(0.84)	0.15
SBC	0.45	0.66	0.54	0.70	0.52	0.31	0.28	0.39	(0.74)
Mean	5.02	4.72	5.09	4.40	4.46	5.02	4.44	4.63	4.53
SD	0.91	0.98	0.89	0.99	1.20	1.26	0.97	1.24	0.91

Notes: Diagonal values represent average variance extracted. Lower half of the diagonal represents the correlations between the constructs and upper half of the diagonal represents square of the correlations between the constructs.

accounted (AVA) for the endogenous variable is 0.23, which is greater than the cutoff value of 0.10 (Falk & Miller, 1992). This suggests that the structural model exhibits adequate explanatory power.

Age, gender, and type of institution are used as control variables. This helps to account for respondent heterogeneity and avoid any confounding influences on the results. The results show that control variables did not have a significant effect on university identification. The explained variance ( $R^2$ ) of university identification with the control variables ( $R^2 = 0.414$ ) and without them ( $R^2 = 0.406$ ) showed no significant difference ( $F$ -square = 0.02) (Aiken & West, 1991).

Table 3 presents the estimated path coefficients,  $t$ -values, and  $R^2$  of endogenous constructs. As illustrated in Table 3, the results confirm most of the hypotheses. In particular the standardized path coefficients for  $H_2$  ( $\gamma = 0.52, t = 10.35, p < 0.01$ ) and for  $H_3$  ( $\gamma = 0.19, t = 4.30, p < 0.01$ ) affirm the positive relationship between university brand knowledge and university brand prestige with university identification.  $H_1$  does not receive support as university brand personality did not have a significant impact on university identification ( $\gamma = 0.02, t = 0.24, p = 0.81$ ). University identification is positively related to advocacy intentions ( $\gamma = 0.60, t = 17.76, p < 0.01$ ), in support of  $H_4$ . The resulted supported  $H_5$  as university identification has a positive impact on university affiliation ( $\gamma = 0.40, t = 8.24, p < 0.01$ ). In support of  $H_6$ , university identification has a positive influence on students' intentions to participate in future university activities ( $\gamma = 0.37, t = 7.54, p < 0.01$ ). Finally, the anticipated positive relationship between university identification and suggestions for university improvement ( $H_7$ ) also receives support ( $\gamma = 0.34, t = 7.63, p < 0.01$ ).

4.3. Moderating effects of self-brand connection

To examine the role of self-brand connection, hierarchical regression analysis is conducted. The variables are mean-centered before the creation of the interaction term to reduce the potential problem of multicollinearity (Aiken & West, 1991). University identification was entered in the first step as the predictor; self-brand connection is added in the second step; and the interaction term of university identification and self-brand connection is entered in the third step to assess the interaction between the two variables. Inspection of the final model (see Table 4 for a summary of results) shows the moderating effect of self-brand connection and university identification on university affiliation (interaction term  $\beta = 0.17, p < 0.01$ ). As can be seen in Fig. 2, the slope of high SBC is more than low SBC. Thus, self-brand connection makes the effects of university identification on university affiliation more effective. In other words, the positive relationship between university identification and university affiliation for those who have higher SBC is stronger. This provides support for  $H_{8b}$ .

Similarly, self-brand connection is found to moderate the relationship between university identification and suggestions for improvements (interaction terms  $\beta = 0.10, p < 0.05$ ). As can be seen in Fig. 3, the slope of high SBC is more than low SBC. This indicates that positive relationship between university identification and suggestions for

Table 3  
Structural model results.

Hypothesized paths	$\gamma$	$t$	$R^2$
$H_1$ University personality → University identification	0.01	0.24	
$H_2$ University knowledge → University identification	0.52*	10.35	
$H_3$ University prestige → University identification	0.19*	4.30	0.41
$H_4$ University identification → Advocacy intentions	0.60*	17.76	0.36
$H_5$ University identification → University affiliation	0.40*	8.24	0.16
$H_6$ University identification → Participation in activities	0.37*	7.54	0.13
$H_7$ University identification → Suggestions for improvement	0.34*	7.63	0.12

Notes: The  $t$ -value estimation used bootstrapping resampling procedure in Smart PLS 2.0 (461 cases and 1000 resamples).  
\*  $p < 0.01$ .

Table 4  
Summary of hierarchical regression analysis results.

Hierarchical regression analysis for self-brand connection			
Predictors	AD	UA	IM
UI	0.45*	0.34*	0.20*
SBC	0.21*	0.08	0.17*
UI × SBC	0.03	0.17*	0.10**
$R^2$	0.37	0.19	0.12
$F$ -statistic	90.55*	35.61*	21.19*

\*  $p < 0.01$ .  
\*\*  $p < 0.05$ .

improvement for those who have higher SBC is greater than those with lower SBC, providing support for  $H_{8c}$ .

4.4. Discussion and implications

The primary objective of this study is to investigate how university brand personality, university brand knowledge, and university brand prestige relate to students' university supportive behavior through university identification. The findings of this study underscore the significance of university identification as a basic psychological process that enables students to engage in university supportive behavior of varying levels of intensity, namely suggestions for improvement, affiliation, advocacy intentions, and participation in future activities. The study also indicates the moderating role of self-brand connection in determining the university supportive behaviors. The findings of this study contribute to the body of knowledge about university branding and higher education.

5. Theoretical contributions

5.1. The role of university identification in university supportive behaviors

Extant literature in organizational behavior and marketing indicates that individuals who strongly identify with a brand or an organization perceive it as part of their self and express this association through various supportive behaviors (Ahearne, Bhattacharya, & Gruen, 2005; Elbedweihy & Jayawardhena, 2014). Extending this argument to the case of HEI, this study finds that university identification positively influences both low-to-medium supportive behaviors such as suggestions for improvement and university affiliation as well as high-intensity behaviors such as advocacy intentions and participation in future university activities. For example, if providing positive recommendations about the university is perceived to aid the university in meeting its objectives, the students with strong university identification are more likely to take up the role of brand ambassadors and serve as efficient information conduits. This is supported by results which show that students with strong university identification are more likely to engage in advocacy behaviors. Similarly, results show that students with strong university identification are more willing to provide suggestions for university improvement as they construe the university performance to contribute to their own expectations and identification. These findings add to the debate on the relationship between identification and brand-oriented behaviors (Bhattacharya & Sen, 2003).

5.2. The role of university brand prestige and brand knowledge on university identification

With respect to the university brand prestige role, the study shows that students' belief about the high-status perception of university results in positive self-view and greater self-esteem. This result is consistent with Bhattacharya and Sen (2003) who suggest that identifying with a prestigious brand enables individuals to view themselves in the "reflected glory of the company" (p. 80). The enhancement of self-esteem provided by the high-prestige university allows the students

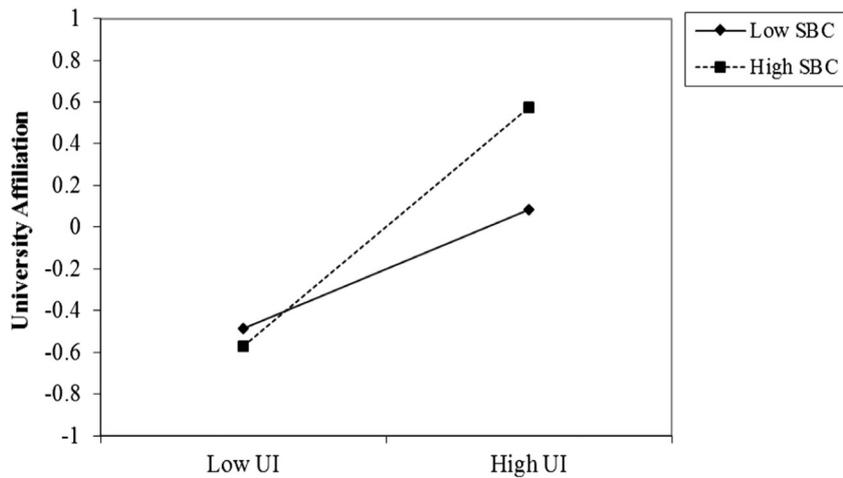


Fig. 2. Moderating role of self-brand connection on university affiliation.

to strongly identify with the university. University brand knowledge has received little attention among university branding researchers (Stephenson & Yerger, 2014). The findings of this study provide empirical support for the link between university brand knowledge and university identification. When students are knowledgeable about the values and beliefs represented by the university, they are likely to develop a shared sense of purpose that binds them to the university. Brand performance did not have a significant impact on the university brand identification. A possible reason for this is that while a brand personality can help student distinguish the university from others, congruence between the university and student personality might determine their identification with the university.

### 5.3. The role of self-brand connection

Finally, the results show that self-brand connection moderates the university identification and university supportive behaviors linkages. Self-brand connection impacts the identification-based supportive behaviors, especially the low-to-medium intensity supportive behavior such as suggestions for improvement, but not high-intensity behaviors. A possible explanation for this finding is that the self-brand connection can occur at different levels (Ashraf & Merunka, 2013) and this might affect the transferability of attitudes and values between the university and students. This is consistent with SIT (Lam Ahearne, & Schillewaert, 2012). These results extend the understanding of the role of self-brand connection in university supportive behaviors.

### 5.4. Implications for higher education institutions

The findings of this study provide further insights into the significance of branding and brand identification within the HEI context. Results show that prestige and knowledge are influential drivers of students' perception of identification with the university. This indicates that universities would benefit from investing in branding efforts and brand management process in developing a strong university identification. The strategic brand marketing efforts for the internal and external audience should convey a strong, exceptional and distinctive identity and strengthen the positive associations of the university's brand identity in students' and parents' mind. Universities would also be well-served by having designated managers and administrators managing the university brand. For example, University of Johannesburg, South Africa has created the marketing and brand management positions to strategically position the university in the minds of the target audience through both strategic marketing and awareness-raising campaigns.

Universities are hereby advised not to overlook students and view them as potential conduits of information in improving the social, learning, and psychological environments. Creating strong university identification among the students involves improving the core and supporting value proposition activities and creating an exceptional student experience. When students engage with university through various experiential activities, they will build personal relationships and reciprocate by engaging in greater levels of university supportive behaviors and become genuine 'university ambassadors'. Results also

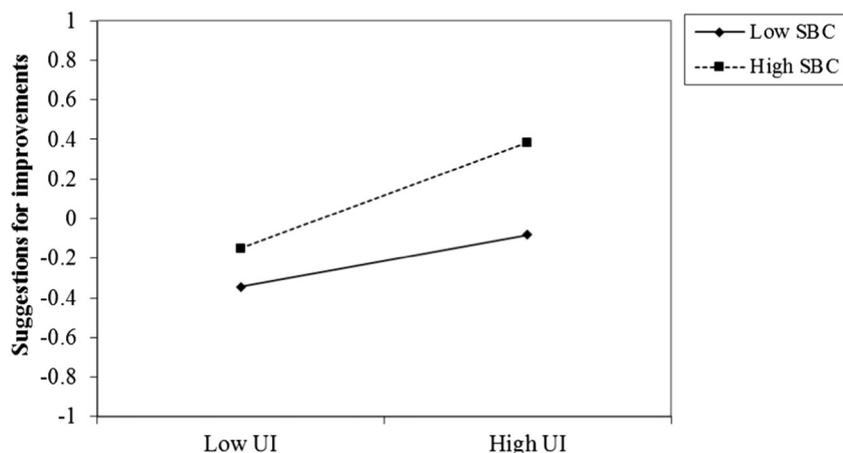


Fig. 3. Moderating role of self-brand connection on suggestions for improvement.

show that self-brand connection moderates the relationship between university identification and university affiliation. Thus, universities in their internal branding and marketing communication activities are advised to provide cues to the students about how the university configures an identity relevant to them. For example, University of Northampton in UK and a major university in Western Australia developed a highly engaging brand campaign to improve the internal awareness and deliver the core brand message and values to its students and target audience. Such branding activities help students better understand the university characteristics and personality, and this motivates them to engage in university supportive behaviors. To enhance self-brand connection, universities might look into factors such as academic experience, faculty and campus quality, and student-centered processes.

### 5.5. Limitations and future research directions

The findings of this study must be considered in light of some limitations. First, this study focuses mainly on three constructs namely university brand personality, university brand prestige, and university brand knowledge as antecedents of university identification. Future research could examine other social exchange variables like perceived organizational support and trust (He, Pham, Baruch, & Zhu, 2014). Second, future studies could examine the relationships between the university branding activities and university identification from a dyadic perspective. Moreover, future research studies can utilize EFQM (European Foundation for Quality Management) excellence models to better understand the enablers and outcomes of university brand identification.

Third, future research can carry out a cross-cultural study to replicate the research model. Specifically, since Malaysia is a relational-oriented culture, student's identification-promoted supportive behaviors are stronger (Lam, Ahearne, & Schillewaert, 2012). Future researchers can test the university identification model in more individualistic cultures and compare the applicability of the model cross-culturally. Finally, the study design was cross-sectional, which restricts the ability to assert casual links. Future research could examine university identification, its antecedents and consequences overtime to explicate the causal relationships among the variables.

## 6. Conclusion

In conclusion, this study examines an integrated model of university identification in higher education institutions. The results show that university brand prestige and university brand knowledge are key determinants of university identification. Findings also show that students who strongly identify with the university engage in supportive behaviors such as advocacy intentions, affiliation, participation, and suggestions for improvement. These results provide an important step in the advancement of university branding from both theoretical and managerial perspectives. From a theoretical perspective, the present study provided empirical evidence of the antecedents and consequences of university identification. From a managerial perspective, the findings suggest that universities must develop strong student-university identification to motivate students' university supportive behaviors.

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