



# The Impact of University Brand Equity on Student Satisfaction and Engagement: A Study of Vietnamese Universities

Tran Thi Le Na\*, Tran Thi Men, Ngo Tri Thuong, Le Dinh Khanh Duy, Phan Xuan Duc, Nguyen Thi Ngan

Vinh University, Vinh City, Vietnam. \*Email: [nattl@vinhuni.edu.vn](mailto:nattl@vinhuni.edu.vn)

Received: 15 November 2024

Accepted: 28 February 2025

DOI: <https://doi.org/10.32479/irmm.18121>

## ABSTRACT

In the context of globalization and deeper international integration, higher education is facing significant challenges related to competition and sustainable development. Building and effectively managing university brands have become critical factors determining the success of universities. This study aims to examine the impact of university brand equity on the satisfaction and engagement of Vietnamese students. Specifically, the research focuses on analyzing how university brand equity influences student satisfaction and engagement, employing a structural equation modeling (SEM) approach to investigate the relationships among variables, including gender and academic year as moderating factors. Primary data were collected through online and offline surveys of Vietnamese students, resulting in 402 valid responses. Data processing and analysis were conducted using SPSS software, with hypothesis testing performed through T-tests and one-way ANOVA. The findings reveal that university brand equity is measured by four components: brand awareness, brand association, perceived quality, and brand loyalty. Furthermore, the results confirm that university brand equity significantly impacts the satisfaction and engagement of Vietnamese students.

**Keywords:** Brand Equity, Student Satisfaction, Student Engagement

**JEL Classifications:** I21,M10,M31

## 1. INTRODUCTION

Amid rapid advancements in technology and the processes of globalization and international economic integration, higher education institutions are facing escalating competitive pressures (Khoshtaria et al., 2020). Universities have recognized that brand building is not only a determinant of their survival and success but also a critical tool to enhance their competitive capabilities (Weinstein and McFarlane, 2017; Panda et al., 2019). According to Weinstein and McFarlane (2017), a brand is not merely a symbolic representation but a strategic asset of paramount importance.

Currently, universities are engaged in intense competition. A strong brand not only enables universities to attract students, faculty, and strategic partners but also ensures sustainability, long-term development, and enhanced standing in the educational market (Panda et al., 2019). Effective brand building and management

contribute to increasing enrollment numbers, attracting investments, fostering international collaborations, and improving educational outcomes. A robust brand also enhances student satisfaction and engagement, reducing dropout rates, academic deferrals, and transfers key indicators of a university's success. Furthermore, satisfied students are more likely to engage in positive word-of-mouth behaviors, creating significant ripple effects that attract additional applicants and promote the university's learning environment (Panda et al., 2019; Eldegwy et al., 2019). Studies by Pham (2014) and Trang et al. (2022) also indicate that brand equity not only influences a university's reputation but plays a crucial role in enhancing student satisfaction.

In the education sector, branding is also considered an essential risk management tool. A strong brand minimizes risks during the school selection process for students, instilling trust and confidence in the quality of education provided. Keller (1993) emphasized

that a brand with a positive and clear image can stimulate students' school choice intentions while enhancing their overall learning experience. In general, brand building is not only a strategic imperative but also a foundational element for higher education institutions to maintain and grow amidst global competition.

Despite the increasing importance of brand equity in university development, empirical research on this topic remains limited (Khoshtaria et al., 2020). In particular, the impact of brand equity on student satisfaction and engagement requires more in-depth exploration. Student satisfaction serves as a benchmark for educational service quality and a precursor to long-term engagement. Student engagement encompassing behavioral, cognitive, and emotional dimensions is reflected in their active participation in academic and extracurricular activities. Highly engaged students often maintain loyalty to their university even after graduation, contributing to the institution's prestige and reputation. Comprehensive research into these aspects will enable universities to allocate resources effectively and optimize brand development strategies to achieve greater student satisfaction and engagement.

As of 2023, Vietnam is home to approximately 237 universities, including 172 public and 65 private institutions, primarily concentrated in major economic centers. In this context, brand equity is not only a competitive tool among universities but also a decisive factor in student choice and loyalty.

However, brand building and development in Vietnamese universities have not yet been fully leveraged. Large public universities often rely on traditional factors such as long-standing history, educational quality, scientific research, and international cooperation to build their brands. While these provide a solid foundation, their branding strategies often lack innovation or fail to emphasize perceived value from the student's perspective. In contrast, private universities have adopted more modern branding approaches, including digital media promotion, substantial investment in facilities, and enriching the student experience. However, an overemphasis on aesthetics sometimes overshadows the actual quality of educational services.

With the above objectives, this study not only analyzes the role of brand equity in enhancing student satisfaction and engagement but also provides a scientific foundation to assist education managers in crafting effective brand development strategies. This is pivotal for Vietnamese universities to maintain a competitive edge in the long term while fostering the development of a high-quality workforce that meets regional and global demands.

## 2. THEORETICAL FOUNDATION

### 2.1. Theoretical Basis

#### 2.2.1. Brand - brand equity

##### 2.2.1.1. Brand - university brand

Branding, a crucial concept in business, represents the entirety of customer perceptions regarding a product, service, or enterprise. A brand encompasses impressions, emotions, and experiences, manifested through its name, symbols, imagery, messaging, or

core values (Aaker, 1991). The harmonious integration of these elements creates a unique brand identity, differentiating it and attracting customers. A brand is regarded as an indispensable component of a product or service, playing a significant role in assisting customers in identifying offerings in comparison to competitors in the market. Additionally, a brand functions as a protective tool for consumers and safeguards manufacturers against similar products offered by rival companies (Aaker, 1991).

In the context of higher education, a brand represents the functions that reflect how an organization operates and effectively fulfills the desires and needs of students (Temple, 2006). Furthermore, a university's brand is perceived as the overall impression of the knowledge, skills, imagery, beliefs, and real experiences that the institution has established in the minds of students and the community. These characteristics serve to distinguish this educational institution from others and provide a basis for evaluating the university's capacity to satisfy the desires and needs of students (Nguyen et al., 2016; Caywood, 2012).

##### 2.2.1.2. University brand equity

Brand equity is defined as the added value a brand brings, encompassing elements such as brand loyalty, recognition, perceived quality, brand associations, and other related assets (Aaker, 1991). According to Keller (1993), consumer perception of a brand evolves through brand marketing strategies, additional benefits provided by the brand (Simon and Sullivan, 1993), the overall value of the brand (Swait et al., 1993), differences in brand preference levels (Park and Srinivasan, 1994), and the overall quality and intention to choose the brand (Agarwal and Rao, 1996). Collectively, these definitions emphasize that brand equity represents the added value that a product or service provides (Srivastava and Shocker, 1991).

Brand equity is approached from three main perspectives: (1) the customer perception viewpoint, (2) the financial perspective, and (3) a combination of both aspects. Aaker (1996) defines brand equity as a set of intangible assets associated with a brand's name and symbol, which serve to enhance (or reduce) the value of a product or service for both businesses and customers. The key components of brand equity include brand loyalty, brand recognition, perceived quality, brand associations, and other proprietary assets such as trademark protection or relationships with distribution channels.

Keller (1993) asserts that brand equity forms when consumers become familiar with a brand and develop positive and unique emotional and cognitive associations with it. These factors not only contribute to the brand's reputation but also directly influence customer satisfaction.

Based on Aaker's (1996) theoretical framework, this study analyzes brand equity in the context of universities, focusing on student perceptions to evaluate brand value.

##### 2.2.1.3. Brand awareness

Brand awareness serves as the cornerstone of establishing a brand's value. It is a critical indicator reflecting consumer

behavior; the higher the recognition, the more firmly the brand image is established. In marketing and brand management, brand recognition describes the extent to which customers or the public can identify and recall a specific brand. This concept reflects customers' ability to distinguish, recognize, or remember a brand based on specific attributes and characteristics.

Factors contributing to brand recognition may include logos, colors, imagery, advertising messages, or real-life experiences customers have with the brand (Aaker, 1991). The level of brand recognition significantly influences consumer decision-making behavior, as well-known brands are often more likely to appear in customers' "consideration sets," thereby impacting market performance (Huang and Sarigöllü, 2012). Therefore, building brand recognition is a core step in developing a strong brand and a foundation for reinforcing customer trust and credibility.

#### 2.2.1.4. Perceived quality

Perceived quality refers to customers' subjective evaluation of how well a product or service meets their needs and expectations. Factors influencing perceived quality include tangible attributes such as design and packaging, as well as intangible attributes like performance, reliability, and customer service. This evaluation is often highly personalized, depending on individual experiences, preferences, and expectations (Baalbaki and Guzmán, 2016).

The diversity among individuals leads to significant differences in perceived quality across customer groups (Aaker, 1991). This indicates that perceived quality is not only determined by the objective characteristics of a product but is also strongly influenced by psychosocial factors.

Enhancing perceived quality not only contributes to increased customer satisfaction but also creates a sustainable competitive advantage for businesses. When customers have positive experiences, they are more likely to engage in favorable interactions with the brand, such as repeat purchases, referrals, and demonstrating greater loyalty (Yoo et al., 2000). Perceived quality, therefore, plays a crucial role in building and maintaining brand equity, as consumers tend to prioritize brands associated with positive experiences over those associated with negative ones (Zeithaml, 1988).

#### 2.2.1.5. Brand association

Brand association plays a pivotal role in the consumer decision-making process (Swoboda et al., 2016). According to Aaker (1991), this concept refers to the cognitive, emotional, and behavioral connections that consumers establish with a brand, often tied to specific attributes, benefits, or values. These associations may include imagery, positive emotions, or personal experiences related to the brand.

In other words, brand association encompasses the entirety of the knowledge structures and mental symbols that consumers develop about a brand through both direct and indirect interactions. Consumers tend to recall information and characteristics of a product or service, such as the brand's dynamism, friendliness, luxury, or reliability (Huang and Sarigöllü, 2014). These

associations are encoded as perceived attributes, including the brand's personality, emotional value, and functional benefits it provides.

#### 2.2.1.6. Brand loyalty

Brand Loyalty, as defined by Iglesias et al. (2019), is a positive and enduring commitment between consumers and a specific brand, demonstrated through repeated purchasing behavior and sustained support for the brand's products or services. This factor plays a pivotal role in building brand equity, thereby creating a sustainable competitive advantage for businesses. Loyal consumers often exhibit a willingness to pay a premium price, lower sensitivity to promotional campaigns, and a reduced likelihood of switching to competitor brands (Liu et al., 2017). This indicates that loyalty is not merely a purchasing behavior but also a profound emotional bond between consumers and the brand.

Brand loyalty is considered a valuable intangible asset for businesses, contributing to the enhancement of brand equity and fostering sustainable competitive advantages (Yoo et al., 2000). Factors such as product/service quality, customer experience, brand image, and core values significantly influence consumers' loyalty decisions. When a brand consistently meets the needs and expectations of its customers, it establishes a strong and enduring connection, encouraging customers to become loyal brand ambassadors (Liu et al., 2017).

### 2.2.2. Student satisfaction and engagement

#### 2.2.2.1. Student satisfaction

Satisfaction is an emotional and psychological state that reflects an individual's perception when their experience with a product, service, or learning environment meets or exceeds their expectations. This concept is based on the "Expectation-Disconfirmation Theory" proposed by Oliver (1980), which emphasizes that an individual's satisfaction depends on the extent to which actual outcomes align with or surpass initial expectations. When expectations are fulfilled, individuals feel satisfied; conversely, when expectations are not met, disappointment or dissatisfaction arises.

In the context of education, satisfaction typically encompasses both tangible elements (such as service quality, teaching effectiveness) and emotional factors, such as the feeling of being respected and cared for. According to Weiner (1985), satisfaction is not merely a subjective assessment but also a measurable factor that can be evaluated through interactions and positive feedback from individuals about their experiences. Particularly in educational settings, student satisfaction is a crucial element that contributes to the creation of a positive learning experience, which in turn supports motivation and academic performance.

#### 2.2.2.2. Student engagement

Engagement, particularly within the educational context, refers to the extent to which an individual actively and proactively participates in academic and social activities at the institution. According to Finn and Zimmer (2012), engagement comprises three main elements: Behavioral engagement (demonstrated through participation in activities such as discussions and

assignments), cognitive engagement (involving focus and effort in learning), and emotional engagement (related to positive feelings towards the learning environment). Each of these components contributes to a dynamic learning system, where students not only acquire knowledge but also establish strong connections and interactions with their peers and instructors.

Within the learning environment, student engagement plays a crucial role in academic outcomes. When students engage actively, their motivation to learn is enhanced, leading to higher academic performance. Research by Marks (2000) suggests that academic engagement helps reduce dropout rates and increases graduation likelihood, as engaged students exhibit a positive attitude and a strong commitment to their academic pursuits. Engagement extends beyond participation in academic activities to include involvement in extracurricular activities and the creation of relationships within the academic community, fostering a balanced and enriching learning experience.

In general, satisfaction and engagement are two core aspects of measuring the quality of an individual's experience, especially in an academic context. Studies, such as those by Linnenbrink and Pintrich (2003), emphasize that when learners feel satisfied and engaged in their educational activities, they tend to achieve better outcomes, enhance their cognitive abilities, and develop more comprehensive personal skills.

## 2.2. Proposed Research Model

Brand equity has the potential to be a key factor influencing students' selection process, as it serves both as a risk mitigation tool and as a means of differentiation (Voyer and Ranaweera, 2015). According to the study by Koshtari et al. (2020), brand equity can positively affect students' experiences, enhancing their level of satisfaction and forming a strong bond between higher education institutions and students. Students who receive educational services that meet their expectations are more likely to respond positively to higher education. This, in turn, not only leads to positive communication and word-of-mouth behavior but also fosters student engagement with the institution (Panda et al., 2019; Eldegwy et al., 2019).

Student satisfaction is considered a comprehensive measure of the quality of education, enabling educational institutions to identify both strengths and weaknesses in their services and learning environments. According to Kotler and Fox (1995), student satisfaction is also linked to their loyalty and long-term commitment to the institution. Research shows that when students are satisfied with factors such as teaching quality, facilities, and the learning environment, they tend to engage more actively in both academic and extracurricular activities (Tessema et al., 2012).

In a study conducted by Appleton-Knapp and Krentler (2006), student satisfaction was found to impact academic performance and the development of soft skills, such as communication, critical thinking, and teamwork. These skills not only help students achieve high academic performance but also enable them to adapt effectively to job requirements after graduation. Moreover, satisfaction helps reduce dropout rates and increase

graduation rates, a crucial factor in measuring the effectiveness of an educational institution (Astin, 1999).

Student engagement refers to the extent to which students participate and invest in academic and social activities, a key factor influencing learning outcomes. Kuh (2001) emphasized that students with high levels of engagement tend to perform better academically and feel more satisfied with their learning experiences. The study by Fredricks et al. (2004) identified three types of engagement: behavioral, cognitive, and emotional. Behavioral engagement involves active participation in activities such as group work and discussions. Cognitive engagement relates to deep thinking, exploration, and knowledge acquisition. Emotional engagement reflects positive feelings, such as enjoyment and a sense of belonging to the learning community.

According to Bowen (2005), satisfaction and engagement are positively correlated, with each factor supporting and reinforcing the other. When students are satisfied, they tend to engage more actively in activities, which in turn strengthens their engagement. Conversely, when students are deeply engaged with the learning environment, they feel more satisfied with their learning experience (Schaufeli and Bakker, 2004). The combination of satisfaction and engagement helps students develop a positive and sustained attitude toward learning, which boosts their motivation and determination to achieve academic and career goals. In an educational environment, this not only enables students to achieve high performance but also enhances the institution's reputation, attracting more prospective students and establishing long-term prestige.

Based on the theoretical foundation mentioned, the research group proposes a model as shown in Figure 1.

The scales are presented in Table 1.

The proposed hypotheses are as follows:

- Hypothesis H<sub>1</sub>: Perceived quality positively impacts student satisfaction.
- Hypothesis H<sub>2</sub>: Brand awareness positively impacts student satisfaction.
- Hypothesis H<sub>3</sub>: Brand associations positively impact student satisfaction.
- Hypothesis H<sub>4</sub>: Brand loyalty positively impacts student satisfaction.
- Hypothesis H<sub>5</sub>: Satisfaction positively impacts brand engagement.
- Hypothesis H<sub>6</sub>: There is a significant difference in brand engagement among gender groups.
- Hypothesis H<sub>7</sub>: There is a significant difference in brand engagement among student year groups.

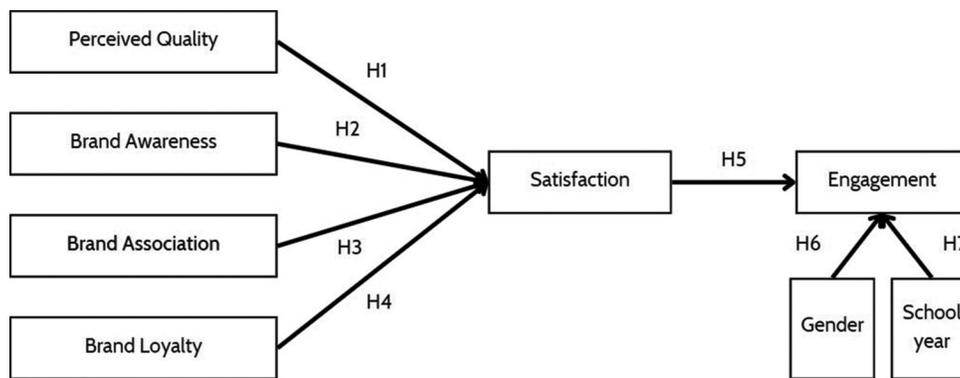
## 3. RESEARCH METHODOLOGIES

The study uses a 5-point Likert scale ranging from 1 - "Strongly Disagree" to 5 - "Strongly Agree" (Weijters et al., 2010), as well as SEM regression modeling and T-Test validation to demonstrate the correlation of variables consistent with the theoretical model.

**Table 1: Scales and reference sources**

Encryption	Observational variable	References source
<b>Brand awareness measurement scale (NBTH)</b>		
NBTH1	When choosing a field of study, I think of my school first	Aaker (1991); Cambra-Fierro et al. (2021); Yoo and Donthu (2001); Hemsley-Brown and Oplatka, (2006); Trang et al. (2022);
NBTH2	I can quickly recognize the symbol and characteristics of my school.	
NBTH3	I can distinguish my school from other schools The brand of my school stands out compared to other schools in the area.	
NBTH4	The brand of my school is very prominent compared to other schools in the area.	
NBTH5	When someone needs advice on the field I study, my school is the first place I remember.	
<b>Brand association measurement scale (LTTH)</b>		
LTTH1	My school is renowned for certain specialized training programs or fields of study.	Aaker (1991); Keller (1993); Yoo et al. (2000); Yoo and Donthu (2001); Rehnuma et al. (2008); Park et al. (2019); Cambra-Fierro et al. (2021);
LTTH2	My school is associated with scientific achievements and innovative entrepreneurship.	
LTTH3	My school actively engages in extracurricular activities and connections with businesses.	
LTTH4	I always have a positive sentiment towards my school.	
<b>Perceived quality measurement scale (CLCN)</b>		
CLCN1	The curriculum of my institution effectively meets the academic needs of students.	Yoo et al. (2000); Yoo and Donthu (2001); Buil et al. (2013); Cambra Fierro et al. (2021); Marques et al. (2020); Nguyen Tien Dung (2017)
CLCN2	The quality of faculty and student support services at my institution is excellent.	
CLCN3	While studying at this institution, I have developed strong qualities, knowledge, and skills.	
CLCN4	The quality of education provided by my institution is very high.	
CLCN5	My institution has adhered to its missions and commitments as communicated.	
<b>Brand loyalty measurement scale (TTTH)</b>		
TTTH1	Only when the major I want to study is unavailable at this University will I consider choosing another University.	Aaker (1991); Yoo et al. (2000); Yoo and Donthu (2001); Taylor and Cranton (2004); Hemsley-Brown and Oplatka (2006); Nguyen Tien Dung (2017); Trang et al. (2022)
TTTH2	If I were to choose a University again, I would still select this University.	
TTTH3	If I plan to continue my education at a higher level, I would still choose this University.	
TTTH4	I consistently speak positively about this University and recommend it to others.	
TTTH5	I am willing to introduce my University to everyone.	
<b>Brand engagement measurement scale (GKTH)</b>		
<b>Emotional engagement</b>		
GKTH1	I feel excited about studying at school.	Finn and Zimmer (2012); Fredricks et al. (2004); Fredricks et al. (2005); Md Yusof et al. (2017)
GKTH2	I feel happy and satisfied when participating in school activities.	
GKTH3	I always have a deep interest in my studies at school.	
GKTH4	My classroom is a highly engaging and fascinating place	
<b>Cognitive engagement</b>		
GKTH5	I frequently interact with the university's social media platforms.	Finn and Zimmer (2012); Fredricks et al. (2004); Fredricks et al. (2005); Md Yusof et al. (2017); Nguyen (1999)
GKTH6	I will actively engage with lecturers during my time at the university.	
GKTH7	I always share my school activities with people outside the university.	
GKTH8	Even without exams, I am self-disciplined in studying at home.	
GKTH9	I read additional books to gain a deeper understanding of the lessons we learn at school.	
GKTH10	When encountering new vocabulary in books, I seek ways to research and comprehend their meanings.	
GKTH11	If I do not comprehend the content I have read, I will reread it to grasp the information.	
<b>Brand satisfaction measurement scale (SHL)</b>		
SHL1	The achievements attained at this university make me proud.	Corno and Mandinach (1983 ); Zeithaml (1988); Sheth et al. (1991); LeBlanc and Nguyen (1999); Nguyen Thi Doan Tran (2020)
SHL2	I believe I made the right decision in choosing to study at this university.	
SHL3	I trust that what I have learned at this university will be applicable in real-life situations.	
SHL4	The degree in my field of study will help me secure a good income.	
SHL5	Choosing this university was a wise decision on my part.	
<b>Control variable</b>		
GTINH	Gender	
NAMHOC	Academic year	

Source: Compilation by the group of authors

**Figure 1:** Proposed research model

SPSS 20 and AMOS 20 software are employed for data processing and statistical modeling.

To conduct the quantitative research, the research team collected survey data from 7 universities in Vietnam. A total of 402 questionnaires were distributed. All 402 questionnaires were returned, with no invalid responses. Therefore, the total number of valid questionnaires is 402, meeting the research requirements. After distribution and completion, the survey forms were reviewed for validity, coded, and entered into Excel software for further processing.

Based on the 402 valid responses, the authors proceeded with coding. Once coded, the data was entered into SPSS 20 and AMOS 20 software. Hypotheses  $H_1$ - $H_5$  were tested using Cronbach's Alpha reliability test, EFA, followed by CFA and SEM analysis in AMOS software. Hypotheses  $H_6$  and  $H_7$  were tested using t-test and One-Way ANOVA in SPSS 20. The research team followed these sequential steps to process the data:

- First, Cronbach's Alpha reliability test
- Second, exploratory factor analysis (EFA)
- Third, confirmatory factor analysis (CFA)
- Fourth, structural equation modeling (SEM), hypothesis testing
- Fifth, control variable analysis.

## 4. RESEARCH RESULTS

### 4.1. Reliability testing of the Measurement Scale (Cronbach's Alpha)

Table 2 indicates that all measurement scales meet the requirements for the Cronbach's Alpha reliability coefficient, with values all above 0.7: The lowest being 0.758 (Brand Association) and the highest being 0.927 (Brand Engagement). The minimum correlation coefficient among the total variables is 0.449 ( $>0.4$ ), suggesting that the independent and dependent variables included in the model are both usable and effective.

After the preliminary assessment of the scale using Cronbach's Alpha coefficient, the factor groups met the conditions for analysis and were included in the exploratory factor analysis (EFA).

### 4.2. Exploratory Factor Analysis (EFA)

In the exploratory factor analysis (EFA), variables with a factor loading  $<0.50$  will be excluded. The extraction method employed

is Principal Axis Factoring, with Promax rotation and a stopping criterion of eigenvalue equal to 1. A scale is considered acceptable when the total variance explained is equal to or  $>50\%$ , and factor loadings are 0.50 or higher. Variables with an item-total correlation coefficient below 0.30 will also be excluded. The study accepts scales with a Cronbach's Alpha reliability coefficient of 0.60 or higher.

In the first analysis, the scales CLCN1, NBTH4, and SHL5 were excluded as they did not meet the specified criteria. The results from the second analysis indicated that the data satisfied the analytical requirements, with factor loadings exceeding 0.50. This demonstrates an appropriate correlation between the observed variables (indicators) and the selected factors in the model.

The research team obtained a KMO coefficient of 0.934, with Sig. value of 0.000 ( $<0.05$ ), confirming the appropriateness of the KMO measure for exploratory factor analysis and the statistical significance of the input data (Table 3). The Bartlett's test of spherical produced a Chi-square statistic of 496 with a significance level (Sig.) of 0.000, which is  $<0.05$ . Additionally, the extracted variance analysis indicated an extracted variance value of 64.418%, exceeding the 50% threshold. Therefore, all six factors, with each observed variable having a Factor Loading  $>0.5$ , demonstrate no poor variables. The rotated factor matrix is presented in Table 4.

### 4.3. Confirmatory Factor Analysis (CFA)

Following the exploratory factor analysis (EFA), the author conducted confirmatory factor analysis (CFA) to assess the model's fit with market data. To evaluate the degree of model fit, this study employs four primary indicators: Chi-Square, the comparative fit index (CFI), the goodness of fit index (GFI), and the root mean square error of approximation (RMSEA).

The author conducts CFA using AMOS software, aiming to examine the influence and impact of the factors. For the CFA analysis, the author utilizes the results from the EFA, incorporating six main factor groups for analysis: NBTH, LTTH, CLCN, TTTH, SHL, and SGK. Following the CFA analysis, the author obtains standardized analysis results, as presented in Table 5.

It can be observed that the Chi-square/df value is 2.217, which is  $<3$ , and the Sig. ( $P=0.000$ ), smaller than 0.05 (i.e.,  $<5\%$ ), ensuring

**Table 2: Results of Cronbach's alpha for the model variables**

Item	Scale mean if item deleted	Scale variance if item deleted	Corrected item-total correlation	Squared multiple correlation	Cronbach's alpha if item deleted
Variable NBTH: Cronbach's Alpha 0.817					
NBTH1	16.2114	6.781	0.633	0.629	0.775
NBTH2	16.0746	7.595	0.615	0.705	0.779
NBTH3	16.0249	7.067	0.701	0.662	0.753
NBTH4	16.0945	7.901	0.449	0.250	0.828
NBTH5	16.0522	7.466	0.668	0.721	0.765
Variable LTTH: Cronbach's Alpha 0.758					
LTTH1	11.4080	4.472	0.519	0.283	0.721
LTTH2	11.6841	4.077	0.584	0.348	0.685
LTTH3	11.5622	4.192	0.556	0.315	0.701
LTTH4	11.6667	4.013	0.565	0.331	0.697
Variable CLCN: Cronbach's Alpha 0.854					
CLCN1	15.5970	7.618	0.632	0.425	0.834
CLCN2	15.5771	7.372	0.753	0.577	0.803
CLCN3	15.6070	7.491	0.662	0.478	0.826
CLCN4	15.6468	7.680	0.617	0.392	0.838
CLCN5	15.6020	7.357	0.680	0.468	0.821
Variable TTTH Cronbach's Alpha 0.876					
TTTH1	14.7413	10.761	0.677	0.510	0.856
TTTH2	14.8209	10.377	0.776	0.625	0.831
TTTH3	14.8234	10.575	0.702	0.509	0.850
TTTH4	14.7861	11.016	0.720	0.535	0.846
TTTH5	14.6393	11.443	0.656	0.468	0.861
Variable SHL Cronbach's Alpha 0.861					
SHL1	15.3383	8.155	0.692	0.505	0.829
SHL2	15.5323	7.551	0.717	0.555	0.822
SHL3	15.4353	8.172	0.683	0.496	0.831
SHL4	15.4975	8.181	0.653	0.469	0.838
SHL5	15.5199	7.936	0.653	0.449	0.838
Variable SGK Cronbach's Alpha 0.927					
GKTH1	38.0473	43.162	0.710	0.579	0.920
GKTH2	38.0995	42.923	0.686	0.534	0.921
GKTH3	38.0025	43.020	0.703	0.589	0.920
GKTH4	38.1144	42.600	0.717	0.597	0.920
GKTH5	38.0995	43.412	0.690	0.493	0.921
GKTH6	38.0647	44.116	0.632	0.445	0.923
GKTH7	38.0697	43.786	0.684	0.569	0.921
GKTH8	38.1343	43.309	0.712	0.633	0.920
GKTH9	38.1866	42.526	0.757	0.605	0.918
GKTH10	38.0672	43.325	0.740	0.601	0.919
GKTH11	37.9950	43.815	0.701	0.549	0.920

Source: SPSS 20

**Table 3: KMO test of factors in the model KMO and Bartlett's test**

Kaiser-Meyer-Olkin measure of sampling adequacy	0.934
Bartlett's test of sphericity	
Approx. Chi-square	7846.484
df	253496
Sig.	0.000

Source: Statistical Package for the Social Sciences 20

statistical significance. Additionally, the following values were recorded: GFI is 0.867, >0.8; TLI is 0.920, >0.9; CFI is 0.929, >0.9; and RMSEA is 0.055, <0.1. These results indicate that the constructed model exhibits a good fit with the data.

Thus, based on the results of the CFA analysis, the measurement scales are confirmed to be reliable, and the concepts have achieved discriminant validity, ensuring the appropriateness for SEM structural model analysis (Figure 2).

#### 4.4. Analysis of the SEM Linear Model

Based on the results of the CFA analysis, the authors revised the SEM model (Figure 3).

Based on the SEM model, we observe that the model's results are consistent with the data, as reflected in the following indices: The Chi-square/df value is 2.887, which is <3, with a Sig. (P = 0.000), smaller than 0.05 (i.e., >5%), ensuring statistical significance. The GFI is 0.826, exceeding the threshold of 0.8, the TLI is 0.877, also >0.8, the CFI is 0.889, surpassing 0.8, and the RMSEA is 0.069, which is below 0.1. The hypotheses of the model are concluded as presented in Table 6.

#### 4.5. Analysis of the Model with Moderating and Control Variables

To assess whether there are differences in satisfaction and engagement across gender and academic year groups, the data is

presented through descriptive statistical tables, with the results as follows:

1. \* Regarding the control variable of gender

The test results indicate that the mean value for the male group (3.8193) is slightly higher than that of the female group (3.8004); however, this difference is minimal (Table 7).

**Table 4: Rotated factor matrix**

Item	Pattern Matrix <sup>a</sup>					
	Component					
	1	2	3	4	5	6
GKTH9	0.925					
GKTH10	0.914					
GKTH11	0.720					
GKTH8	0.687					
GKTH5	0.675					
GKTH2	0.669					
GKTH4	0.648					
GKTH3	0.630					
GKTH1	0.624					
GKTH7	0.565					
GKTH6	0.548					
TTTH2		0.908				
TTTH1		0.820				
TTTH3		0.753				
TTTH4		0.656				
TTTH5		0.541				
CLCN3			0.755			
CLCN5			0.745			
CLCN2			0.709			
CLCN4			0.551			
NBTH5				0.894		
NBTH2				0.850		
NBTH3				0.709		
NBTH1				0.685		
SHL2					0.695	
SHL3					0.684	
SHL1					0.623	
SHL4					0.543	
LTTH2						0.746
LTTH1						0.713
LTTH3						0.664
LTTH4						0.613

Extraction method: Principal component analysis. Rotation method: Promax with Kaiser normalization. a. Rotation converged in 6 iterations. Source: Compiled from research findings

**Table 5: Evaluation indicators for CFA results based on standardized coefficients**

No	Criteria	Value
1	Chi-square/df	2.217
2	P-value của Chi-square	0.000
3	GFI	0.867
4	TLI	0.920
5	CFI	0.929
6	RMSEA	0.055

Source: AMOS analysis. CFA: Confirmatory factor analysis, CFI: Comparative fit index, GFI: Goodness of fit index

**Table 6: Hypothesis testing results of the model**

Hypothesis	Relationship	Regression weight	S.E.	C.R.	P	Conclusion
H <sub>1</sub>	SHL <--- NBTH	0.061	0.034	1.808	0.071	Acceptable at the level of 10%
H <sub>2</sub>	SHL <--- LTTH	0.261	0.048	5.454	***	Acceptable at the level of 5%
H <sub>3</sub>	SHL <--- CLCN	0.304	0.044	6.95	***	Acceptable at the level of 5%
H <sub>4</sub>	SHL <--- TTTH	0.528	0.052	10.187	***	Acceptable at the level of 5%
H <sub>5</sub>	GKTH <--- SHL	0.862	0.081	10.58	***	Acceptable at the level of 5%

Source: Compiled from research findings

The Sig. (2-tailed) value of the T-test is 0.788 > 0.05. From this result, we can reject the difference between gender groups regarding student engagement with universities (rejecting H<sub>0</sub>). It can be concluded that there is no statistically significant difference in the mean value of brand engagement between the male and female groups (Table 8).

2. \*Regarding the control variable of academic year

The mean value of the academic year variable (GKTH) across the groups is relatively consistent, ranging from 3.6943 (Other years) to 3.8899 (Final year) (Table 9).

Based on preliminary assessments, the results indicate that there may not be a significant difference in the level of student engagement across different academic years. However, to obtain more accurate results, the authors conducted an ANOVA test.

The dependent variable is the level of student engagement, measured on a scale from 1 to 5. The independent variable is the academic year, categorized into the following groups: Final year, penultimate year, 1<sup>st</sup> year, and other years. Levene's test yielded a Sig. value of 0.738, which is >0.1. This indicates that there is insufficient evidence to reject the hypothesis of no difference between the groups. Therefore, the authors proceeded with a deeper ANOVA test to assess the variation in student engagement across the academic year groups.

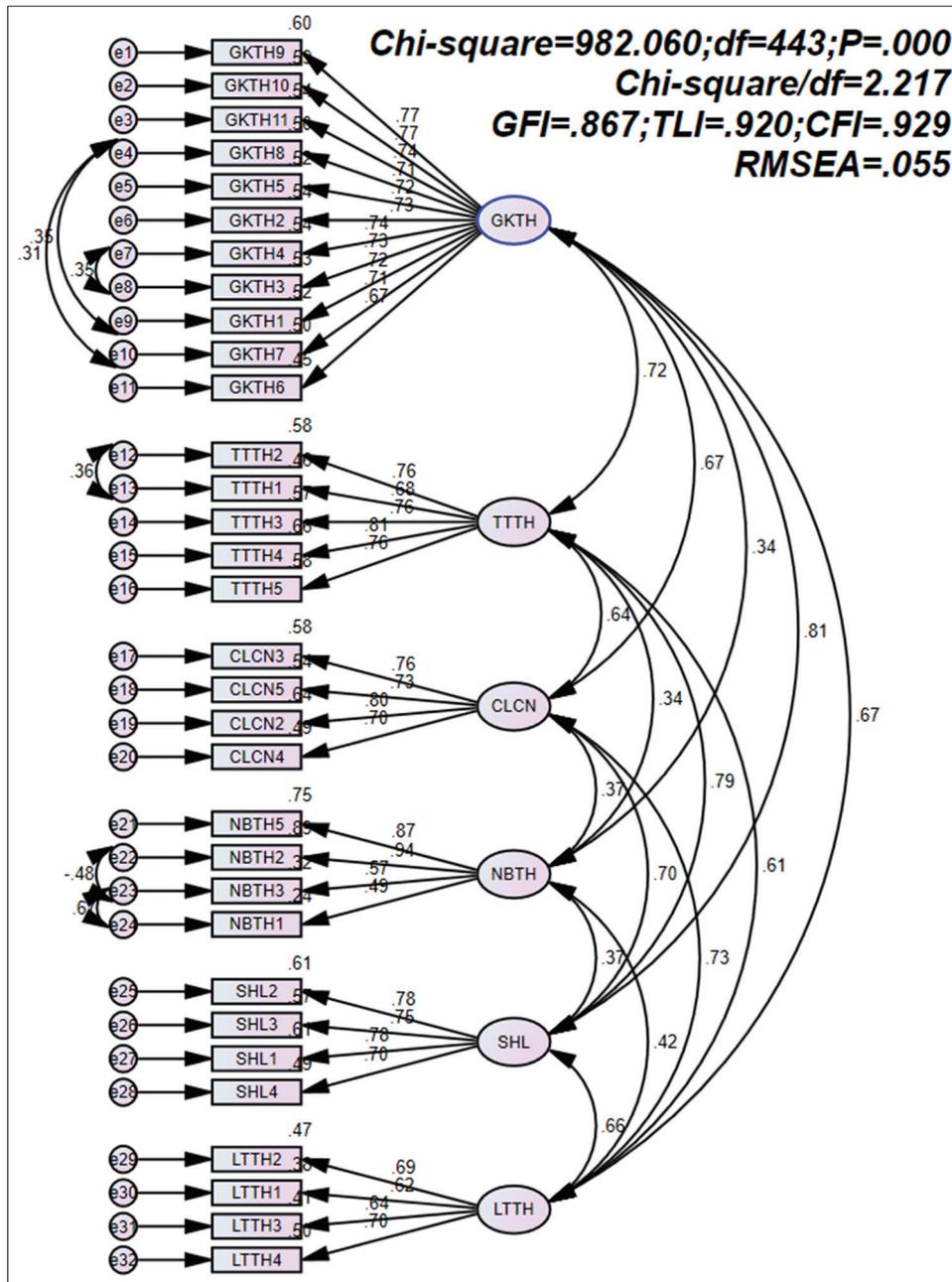
The result shows a Sig. value of 0.96 < 0.5 (Table 10). Therefore, it can be concluded that there is a statistically significant difference in student engagement with universities in Vietnam based on academic year. Hence, hypothesis H7 is accepted at a significance level of 10%. The ANOVA results indicate a trend suggesting that student satisfaction may vary across different academic years. This also implies that there could be other factors, besides the academic year, influencing student satisfaction.

Thus, the results of the final regression model test are presented in Figure 4.

The authors draw the following conclusions.

- First, Perceived quality has a positive impact on student satisfaction with an effect coefficient of +0.304. Hypothesis H<sub>1</sub> is accepted.
- Second, Brand awareness has a positive impact on student satisfaction with an effect coefficient of +0.061. Hypothesis H<sub>2</sub> is accepted.
- Third, Brand association has a positive impact on student satisfaction with an effect coefficient of +0.261. Hypothesis H<sub>3</sub> is accepted.

Figure 2: Confirmatory factor analysis



Source: AMOS 20 analysis

Table 7: Average values of student engagement with universities in vietnam by gender group

GTINH (gender)	Group statistics			
	n	Mean	Standard deviation	Standard error mean
GKTHtb				
Male	161	3.8193	0.74299	0.05856
Female	241	3.8004	0.59097	0.03807

Source: Compiled from research findings

- Fourth, brand loyalty has a positive impact on student satisfaction with an effect coefficient of +0.528. Hypothesis H<sub>4</sub> is accepted.
- Fifth, satisfaction has a positive impact on student engagement with an effect coefficient of +0.862. Hypothesis H<sub>5</sub> is accepted.

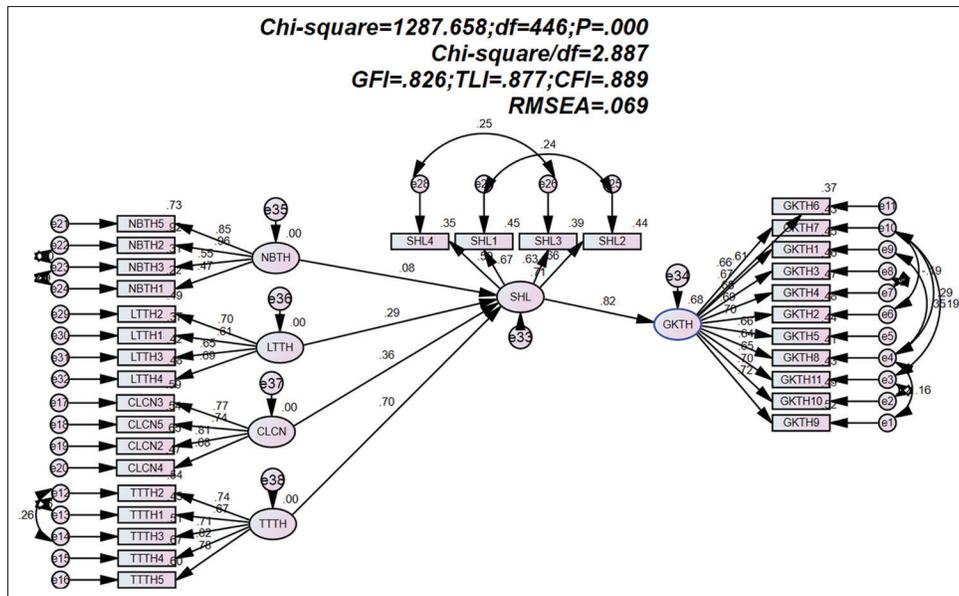
- Sixth, there is no significant difference in student engagement across gender groups. Therefore, Hypothesis H<sub>6</sub> is rejected.
- Seventh, there is a tendency for differences in student engagement across academic year groups (with the highest level in the final year). Therefore, Hypothesis H<sub>7</sub> is accepted.

## 5. DISCUSSION OF RESEARCH RESULTS AND MANAGERIAL IMPLICATIONS

### 5.1. Discussion of Research Results

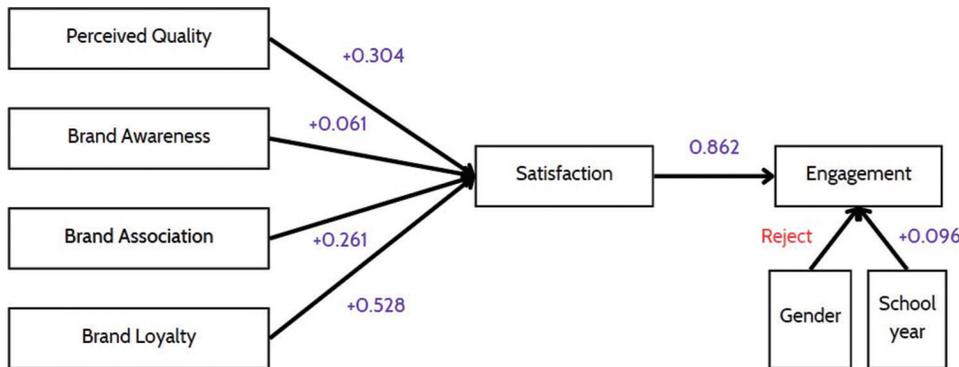
The research results indicate that the components of brand equity have a positive and significant impact on student satisfaction. Specifically, with a significance value (sig) of <0.1 and a standardized Beta coefficient of 0.061, this means

**Figure 3:** Results of the structural equation modeling structural model illustrating the relationships between factors (standardized coefficients)



Source: AMOS 20

**Figure 4:** Results of the proposed model testing



**Table 8: Testing the difference between male and female in brand engagement**

GKTHtb	Independent samples test								
	Levene's test for equality of variances		t-test for equality of means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Standard error difference	95% confidence interval of the difference	
								Lower	Upper
GKTHtb									
Equal variances assumed	6.933	0.009	0.282	400	0.778	0.01884	0.06677	-0.11243	0.15011
Equal variances not assumed			0.270	289.367	0.788	0.01884	0.06984	-0.11862	0.15630

Source: Compiled from research findings

that when the university's brand recognition increases by 1 unit, student satisfaction increases by 0.061 units. With a significance value (sig) of <0.05 and a standardized Beta coefficient of 0.261, this means that when the university's brand association increases by 1 unit, student satisfaction increases by 0.261 units. With a significance value (sig) of <0.05 and a standardized Beta coefficient of 0.304, this means that when the perceived quality of the university increases by 1 unit, student

satisfaction increases by 0.304 units. With a significance value (sig) of <0.05 and a standardized Beta coefficient of 0.528, this means that when brand loyalty to the university increases by 1 unit, student satisfaction increases by 0.528 units. Among the components of brand equity, brand loyalty has the strongest impact on student satisfaction, followed by perceived quality and brand association, which have the second and third strongest impacts on student satisfaction, respectively. Brand

**Table 9: Descriptive statistics of the control variable - academic year**

NAMHOC (Academic year)	Descriptives			
	n	Mean	Standard deviation	Standard error
Final year	148	3.8899	0.66173	0.05439
Penultimate year	96	3.8157	0.63022	0.06432
1 <sup>st</sup> year	31	3.8587	0.65882	0.11833
Other year	127	3.6943	0.65668	0.05827
Total	402	3.8080	0.65526	0.03268

Source: Compiled from research findings

**Table 10: ANOVA test between academic year groups**

GKTHtb	ANOVA				
	Sum of Squares	df	Mean Square	F	Sig.
Between groups	2.721	3	0.907	2.130	0.096
Within groups	169.457	398	0.426		
Total	172.178	401			

Source: Compiled from research findings. ANOVA: Analysis of variance

recognition also has an impact on student satisfaction, but its effect is the weakest of the four components of brand equity. These results align with the author's initial expectations and are consistent with previous studies in various contexts (Sürücü et al., 2019; Foroudi, 2019). The research also indicates that student satisfaction is positively related to student engagement, with a significance value (sig) of  $<0.05$  and a Beta coefficient of 0.862. Thus, when student satisfaction increases by 1 unit, student engagement increases by 0.862 units. This result aligns with the author's initial expectations and is similar to the findings of Hsu and Huang (2012), Su et al. (2015), and Walsh et al. (2009). The study also reveals a difference in engagement levels across academic years, with final-year students exhibiting the highest engagement.

Therefore, although research on brand equity in the context of higher education is still rare, the findings of this study show that the relationships between brand equity, satisfaction, and engagement have been validated in the higher education context, consistent with studies from other industries and contexts.

## 5.2. Management Implications

First, in order to enhance student satisfaction and engagement, universities should focus on strengthening communication and promotional activities by leveraging social media platforms such as Facebook, Instagram, and TikTok. Universities should create engaging content, share success stories of students, and highlight notable school activities to attract attention and interaction from students. Additionally, organizing events, seminars, and extracurricular activities is an effective way to enhance brand recognition. These events not only allow students to experience and connect with the university but also create opportunities for the university to promote its image and values to the broader community. Building a strong and recognizable brand image will help the university differentiate itself and capture students' interest.

Second, universities must establish clear core values and brand positioning, emphasizing their strengths such as high-quality education, an excellent faculty, or pioneering research and innovation programs. This helps position the university as a high-quality educational institution in the minds of students, parents, and the community. Strengthening connections between the university and businesses through internship programs, seminars, or joint projects creates opportunities for students to engage with real-world work. This not only provides practical value to students but also enhances the university's prestige and brand association in the eyes of stakeholders. Additionally, organizing events such as job fairs and university-business forums will allow students to experience a real work environment while affirming the university's role in supporting career development. Improving academic and psychological support services by creating a comprehensive student support system, from academic counseling to career guidance and psychological support, will help students overcome learning challenges and establish a friendly, dedicated, and trustworthy brand image. Furthermore, implementing programs supporting student entrepreneurship or scientific research is an effective way to affirm the university's brand value and strengthen its connection with students. Encouraging students to participate in building the brand image is also crucial. Offering students opportunities to engage in brand-building and promotion projects through activities such as content creation, event organization, or promotional video production not only provides practical experience but also fosters a sense of belonging to the university's brand. Additionally, organizing periodic creative content competitions, logo design contests, or brand slogan creation events can encourage students to use their creativity and contribute to shaping the university's image.

Moreover, universities should align their brand with social and sustainable values, such as environmental protection, sustainable development, or community support, as this can create more positive associations in the minds of stakeholders, especially students. Universities can implement this strategy by integrating social values into both academic and extracurricular activities.

Third, universities must prioritize teaching quality by recruiting outstanding faculty, innovating teaching methods, and applying advanced technologies. Along with this, investing in modern infrastructure such as laboratories, digital libraries, and comfortable campus facilities not only enhances the learning experience but also helps students feel proud to study at the university.

Fourth, supporting students through career counseling services, scholarships, and diverse extracurricular activities is an effective way to build a deep connection between students and the university. These efforts help students develop both professional and soft skills, contributing to increased satisfaction and loyalty to the university brand. Additionally, the university should focus on communication strategies to promote the outstanding achievements of faculty, students, and alumni. Notably, strategic collaboration with businesses to expand internship and employment opportunities for students is a key factor in creating practical value and enhancing the university's prestige.

### 5.3. Limitations of the Study

First, the students participating in the survey were all enrolled in universities located in major cities, and most of them attended public universities. Therefore, future research should address the issue of expanding the scope of the study and include a more diverse range of university types.

Second, the sample size was limited, and the generalization of the findings would be enhanced with a larger sample size. Additionally, the study sample could be further expanded to include final-year high school students. Thus, future research will aim to include a broader sample, incorporating final-year high school students.

## 6. CONCLUSION

The study "The Impact of University Brand Equity on Student Satisfaction and Engagement - A Study of Vietnamese Universities" has explored and clarified the complex relationship between brand equity, student satisfaction, and student engagement with universities in Vietnam. Through an analysis of data from a reliable survey sample, the study provides significant findings with deep practical implications for education administrators and stakeholders interested in building and developing university brands.

The research findings indicate that university brand equity, comprising four core components - brand awareness, brand association, perceived quality, and brand loyalty - plays a crucial role in shaping student satisfaction and engagement with their universities. When these factors are effectively managed and developed, they contribute to increased student satisfaction and engagement. Among these four components, brand loyalty emerges as the most influential factor, highlighting the importance of fostering and maintaining student loyalty through positive experiences, high - quality support services, and a strong, lasting connection with the institution.

Based on these findings, the study presents important practical implications. Universities must not only focus on the quality of education but also adopt a strategic approach to building and managing their brand. Prioritizing brand loyalty by enhancing student experiences, improving service quality, and fostering strong relationships with students is a key determinant of long-term success. Additionally, strengthening brand awareness and creating a positive brand image are essential in attracting and retaining students, thereby enhancing the university's reputation and position in the higher education market.

Another notable finding is that there is no significant difference in brand engagement levels between male and female students. This suggests that branding strategies can be applied uniformly across genders rather than requiring differentiation. However, the study acknowledges the influence of academic year on student engagement levels, although this effect is not particularly strong and may be influenced by other factors.

This research not only provides empirical evidence on the role of brand equity in fostering student satisfaction and engagement but also opens avenues for future studies. Further research could expand

the scope of investigation, explore additional factors influencing student engagement, or compare different types of universities to gain deeper insights into brand equity in higher education.

## REFERENCES

- Aaker, D.A. (1991), *Managing Brand Equity: Capitalizing on the Value of a Brand Name*. New York: The Free Press.
- Aaker, D.A. (1996), Measuring brand equity across products and markets. *California Management Review*, 38, 102-120.
- Agarwal, M.K., Rao, V.R. (1996), An empirical comparison of consumer-based measures of brand equity. *Marketing Letters*, 7(3), 237-247.
- Appleton-Knapp, S.L., Krentler, K.A. (2006), Measuring student expectations and their effects on satisfaction: The importance of managing student expectations. *Journal of Marketing Education*, 28, 254-264.
- Astin, A.W. (1999), Student involvement: A developmental theory for higher education. *Journal of College Student Development*, 40(5), 518-529.
- Baalbaki, S., Guzmán, F. (2016), A consumer-perceived consumer-based brand equity scale. *Journal of Brand Management*, 23, 229-251.
- Bowen, G.A. (2005), Preparing a qualitative research-based dissertation: Lessons learned. *The Qualitative Report*, 10(2), 208-222.
- Buil, I., De Chernatony, L. và Martínez, E. (2013), Examine the role of advertising and sales promotion in creating brand equity. *Tạp chí nghiên cứu kinh doanh*, 66, 115-122.
- Cambra-Fierro, J., Fuentes-Blasco, M., Huerta-Álvarez, R., Olavarria, A. (2021), Customer-based brand equity and customer engagement in experiential services: Insights from an emerging economy. *Service Business*, 15, 467-491.
- Caywood, C.L. (2012), *The Handbook of Strategic Public Relations and Integrated Marketing Communications*. United States: McGraw-Hill.
- Corno, L., & Mandinach, E. B. (1983), The role of cognitive engagement in classroom learning and motivation. *Educational Psychologist*, 18(2), 88-108.
- Eldegwy, A., Elsharnouby, T.H., Kortam, W. (2019), University Social Augmenters Brand Equity: Do University Social Augmenters Possess Brand Characteristics? An Abstract. Finding New Ways to Engage and Satisfy Global Customers. In: *Proceedings of the 2018 Academy of Marketing Science (AMS) World Marketing Congress (WMC) 21*, p459-460.
- Finn, J.D., Zimmer, K.S. (2012), Student engagement: What is it? Why does it matter? In: Christenson, S.L., Reschly, A.L., Wylie, C., editors. *Handbook of Research on Student Engagement*. Boston, MA: Springer, p97-131.
- Foroudi, P. (2019), Influence of brand signature, brand awareness, brand attitude, brand reputation on hotel industry's brand performance. *International Journal of Hospitality Management*, 76, 271-285.
- Fredricks, J.A., Blumenfeld, P., Friedel, J., Paris, A. (2005), School engagement. In: Moore, K.A., Lippman, L.H., editors. *What Do Children Need to Flourish: Conceptualizing and Measuring Indicators of Positive Development*. Germany: Springer, p305-321.
- Fredricks, J.A., Blumenfeld, P.C., Paris, A.H. (2004), School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 74(1), 59-109.
- Hemsley-Brown, J., Oplatka, I. (2006), Universities in a competitive global marketplace: A systematic review of the literature on higher education marketing. *International Journal of Public Sector Management*, 19, 316-338.
- Hsu, C.H.C., Huang, S. (2012), An Extension of the theory of planned behavior model for tourists. *Journal of Hospitality and Tourism Research*, 36(3), 390-417.

- Huang, R., Sarigöllü, E. (2012), How brand awareness relates to market outcome, brand equity, and the marketing mix. *Journal of Business Research*, 65(1), 92-99.
- Huang, R., Sarigöllü, E. (2014), Assessment of brand equity measures. *International Journal of Market Research*, 56(6), 783-806.
- Iglesias, O., Markovic, S., Rialp, J. (2019), How does sensory brand experience influence brand equity? Considering the roles of customer satisfaction, customer affective commitment, and employee empathy. *Journal of Business Research*, 96, 343-354.
- Keller, K.L. (1993), Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, 57(1), 1-22.
- Khoshtaria, T., Datuashvili, D., Matin, A. (2020), The impact of brand equity dimensions on university reputation: An empirical study of Georgian higher education. *Journal of Marketing for Higher Education*, 30(2), 239-255.
- Kotler, P., Fox, K. (1995), *Strategic Marketing for Educational Institutions*. Upper Saddle River, NJ: Prentice-Hall.
- Kuh, G.D. (2001), Assessing what really matters to student learning: Inside the national survey of student engagement. *Change: The Magazine of Higher Learning*, 33, 10-17.
- LeBlanc, G., Nguyen, N. (1999), Listening to the customer's voice: Examining perceived service value among business college students. *International Journal of Educational Management*, 13(4), 187-198.
- Linnenbrink, E.A., Pintrich, P. (2003), The role of self efficacy beliefs in student engagement and learning in the classroom. *Reading and Writing Quarterly*, 19, 119-137.
- Liu, M.T., Wong, I.A., Tseng, T.H., Chang, A.W.Y., Phau, I. (2017), Applying consumer-based brand equity in luxury hotel branding. *Journal of Business Research*, 81, 192-202.
- Marks, H.M. (2000) Student engagement in instructional activity: Patterns in the elementary, middle, and high school years. *American Educational Research Journal*, 37, 153-184.
- Marques, S., Mariano, J., Mendonça, J., (2020), Determinants of Ageism against Older Adults: A Systematic Review. *International Journal of Environmental Research and Public Health*, 17, Article 2560.
- Md Yusof, M.Y., Shaw, D., El-Sherbiny, Y.M., Dunn, E., Rawstron, A.C., Emery, P., Vital, E.M. (2017), Predicting and managing primary and secondary non-response to rituximab using B-cell biomarkers in systemic lupus erythematosus. *Annals of the Rheumatic Diseases*, 76, 1829-1836.
- Nguyen, B., Yu, X., Melewar, T.C., Hemsley-Brown, J. (2016), Brand ambidexterity and commitment in higher education: An exploratory study. *Journal of Business Research*, 69(8), 3105-3112.
- Nguyen Tien Dung, (2017), Model of factors affecting the value efficiency of some public universities specializing in economics and business administration, doctoral dissertation, National Economics University, Vietnam.
- Oliver, R.L. (1980) A Cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, 17, 460-469.
- Panda, S., Pandey, S.C., Bennett, A., Tian, X. (2019), University brand image as competitive advantage: A two-country study. *International Journal of Educational Management*, 33(2), 234-251.
- Park, J.A., Sung, J.M., Son, J.M., Na, K., Kim, S.K. (2019), Athletes' brand equity, spectator satisfaction, and behavioral intentions. *Asia Pacific Journal of Marketing and Logistics*, 31(2), 541-558.
- Park, C. S., & Srinivasan, V. (1994), A survey-based method for measuring and understanding brand equity and its extendibility. *Journal of Marketing Research*, 31(2), 271-288.
- Pham, T.M.L. (2014), Brand equity of universities as perceived by students-a study at universities in Ho Chi Minh city. *Journal of Economics and Development*, 200, 79-87.
- Rehnuma, A., et al. (2008), An empirical study of brand equity in higher education. *Journal of Marketing for Higher Education*, 18(1), 1-19.
- Schaufeli, W.B., Bakker, A.B. (2004), Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25(3), 293-315.
- Sheth, J.N., Newman, B.I., Gross, B.L. (1991), Why we buy what we buy: A theory of consumption values. *Journal of Business Research*, 22(2), 159-170.
- Simon, C.J., Sullivan, M.J. (1993) The measurement and determinants of brand equity: A financial approach. *Marketing Science*, 12, 28-52.
- Srivastava, R., Shocker, A. (1991), Brand Equity: A Perspective on Its Meaning and Measurement. MSI Report, p91-124.
- Su, Y.L., Lin, T.M.Y., Chang, S.T. (2015), Exploring the impact factor of positive word-of-mouth influences satisfied customers. *Total Quality Management and Business Excellence*, 26(3-4), 430-444.
- Sürücü, Ö., Öztürk, Y., Okumus, F., Bilgihan, A. (2019), Brand awareness, image, physical quality and employee behavior as building blocks of customer-based brand equity: Consequences in the hotel context. *Journal of Hospitality and Tourism Management*, 40, 114-124.
- Swait, J., Erdem, T., Louviere, J., Dubelaar, C. (1993), The equalization price: A measure of consumer-perceived brand equity. *International Journal of Research in Marketing*, 10(1), 23-45.
- Swoboda, B., Weindel, J., Hälsig, F. (2016), Predictors and effects of retail brand equity – A cross-sectoral analysis. *Journal of Retailing and Consumer Services*, 31, 265-276.
- Taylor, E.W., Cranton, P. (2004), Transformative learning theory: A critical review. In: Mezirow, J., Taylor, E.W., editors. *Transformative Learning in Practice: Insights from Community, Workplace, and Higher Education*. Rotterdam: SensePublishers.
- Temple, P. (2006), Branding higher education: Illusion or reality? *Perspective*, 10(1), 15-19.
- Tessema, M., Ready, K., Yu, W.C. (2012), Factors affecting college students' satisfaction with major curriculum. *International Journal of Humanities and Social Science*, 2, 34-44.
- Trang, H.M., Lap, N.T., Rate, T.K. (2022), Assessing the factors affecting brand equity at Can Tho university based on student perceptions. *Ho Chi Minh City Open University Journal - Social Sciences*, 17(2), 106-120.
- Voyer, P.A., Ranaweera, C. (2015), The impact of word of mouth on service purchase decisions: Examining risk and the interaction of tie strength and involvement. *Journal of Service Theory and Practice*, 25(5), 636-656.
- Walsh, G., Beatty, S.E., Shiu, E.M.K. (2009), The customer-based corporate reputation scale: Replication and short form. *Journal of Business Research*, 62(10), 924-930.
- Weijters, B., Cabooter, E., Schillewaert, N. (2010), The effect of rating scale format on response styles: The number of response categories and response category labels. *International Journal of Research in Marketing*, 27(3), 236-247.
- Weiner, B. (1985), An attributional theory of achievement motivation and emotion. *Psychological Review*, 92(4), 548-573.
- Weinstein, A.T., McFarlane, D.A. (2017), Case study-how a business school blog can build stakeholder relationships and create added value in an MBA marketing program. *Journal of Strategic Marketing*, 25(2), 101-113.
- Yoo, B., Donthu, N. (2001), Developing and validating a multidimensional consumer-based brand equity scale. *Journal of Business Research*, 52, 1-14.
- Yoo, B., Donthu, N., Lee, S. (2000), An examination of selected marketing mix elements and brand equity. *Journal of the Academy of Marketing Science*, 28(2), 195-211.
- Zeithaml, V.A. (1988), Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing*, 52(3), 2-22.