

The role of brand trust, brand love and brand loyalty in brand defence at public universities in Ho Chi Minh City

Tran Tu Uyen Le, Minh Tuan Phung*, Tan Lac Thien Vo

Faculty of Business Administration, Ton Duc Thang University, 19 Nguyen Huu Tho Street, Tan Hung Ward, Ho Chi Minh City, Vietnam

Received 24 October 2025; revised 24 January 2026; accepted 4 February 2026

Abstract:

Brand defence has recently been recognised as a distinct construct in consumer-brand relationship research; however, its application in higher education remains limited. This study examines how students respond to negative information about their university brand and investigates the roles of brand trust, brand love, and brand loyalty in shaping such behaviours. Using a quantitative approach, data were collected from 283 valid responses from students and alumni of public universities in Ho Chi Minh city, Vietnam. The data were analysed using SmartPLS 3 with Partial Least Squares Structural Equation Modelling (PLS-SEM), following a two-stage procedure consisting of measurement model assessment and structural path testing via bootstrapping. The results confirm that brand trust, brand love, and brand loyalty all have significant positive effects on brand defence behaviour. These findings extend consumer-brand relationship theory to the higher education context and provide practical insights for universities seeking to strengthen brand resilience in increasingly competitive and digitally driven environments.

Keywords: brand defence, brand love, brand loyalty, brand trust, higher education.

Classification numbers: 2.2, 3.3, 4.1

1. Introduction

In today's digital landscape, the rapid expansion of social media has made it easier than ever for individuals to share their experiences publicly, especially negative ones. Even minor issues, if left unresolved, can quickly escalate into reputational crises that threaten an organisation's brand image [1]. Within this context, brand protection emerges as a strategic imperative, functioning as a defensive mechanism against harmful narratives. Prior research indicates that strong emotional bonds between consumers and brands often lead to supportive behaviours when the brand faces adversity [2-4].

In higher education, this challenge is particularly pronounced. Public universities in Vietnam are under increasing pressure to achieve financial autonomy, intensifying competition not only among themselves but also with private institutions. While academic quality and infrastructure remain important, brand reputation has become a decisive factor in attracting students. Despite their historical prestige, public universities must now actively manage their image in a highly dynamic and competitive environment. This task is further complicated

by the influence of student-generated content on social media, where negative narratives often spread faster than positive ones. For instance, a false rumour in 2023 about a student at a public university in Ho Chi Minh City being assaulted during military training spread rapidly online, resulting in mass one-star ratings and boycott calls against the university. Although the rumour was later disproven, the reputational damage required significant effort to repair. Such incidents illustrate how vulnerable universities are to online discourse and why proactive brand management is essential.

Students increasingly voice their opinions through unofficial channels such as community fanpages and online groups, rather than formal feedback systems. Platforms like the Facebook community "University, Just Don't Study" (an English rendering of the Vietnamese pun Đại Học Đừng Học Đại), with over 2.7 million members, illustrate how even minor complaints about tuition fees or administrative policies can spark widespread debate. Moreover, users tend to share negative experiences more frequently than positive ones, amplifying reputational risks for universities. However, not all students contribute to brand criticism. In many cases, they act as defenders

*Corresponding author: Email: phungminhtuan@tdtu.edu.vn

of their university's reputation-correcting misinformation, expressing support, or maintaining neutrality to reduce the spread of negativity. This behaviour, known as brand defence, represents a valuable yet underexplored resource in the context of higher education.

Although brand defence has been studied in consumer markets, particularly in relation to physical products, there remains a significant gap in understanding this behaviour within service-based organisations such as universities [5, 6]. Universities offer long-term, relational services, and their brand is shaped not only by academic outcomes but also by the quality of relationships with students, alumni, and the broader community [7]. While some studies have examined students' positive word-of-mouth [8], few have addressed their active role in defending the brand.

This study aims to investigate brand defence behaviour among students at public universities in Ho Chi Minh City, Vietnam's largest urban centre with a diverse and competitive educational landscape. Specifically, it addresses two research questions: (1) How can brand defence behaviour be validly and reliably measured among university students? and (2) To what extent do brand love, brand trust, and brand loyalty influence students' brand defence behaviour, and does brand loyalty mediate the relationships between brand love, brand trust, and brand defence? By examining these antecedents of brand defence, this research seeks to validate a measurement scale suitable for the university context and to provide practical recommendations for student relationship management. Data collection was conducted between April 22 and May 20, 2025, targeting students from public universities in the city. The study is expected to make two main contributions. Theoretically, it extends brand defence research-previously examined mainly in physical-product and consumer-goods settings-to a long-term, relational service context, clarifying which dimensions of the construct are empirically applicable to higher education. Practically, it offers universities a validated diagnostic tool for assessing students' propensity to defend the institutional brand, together with guidance on cultivating trust, love, and loyalty as levers of brand resilience.

2. Research subjects and methods

2.1. Theoretical background

The consumer-brand relationship (CBR) theory provides a foundational lens for understanding how individuals form emotional and psychological bonds with brands. Rather than viewing consumption as transactional, CBR emphasises long-term relational engagement, where consumers integrate brands into their identity and social lives [9, 10]. In the context of higher education, this framework is particularly relevant. Students do not merely consume educational services; they co-create value

through sustained interaction with their university, making constructs such as trust, love, and loyalty applicable to the student-university relationship.

Brand attachment theory, rooted in J. Bowlby's (1977) work [11], explains how emotional bonds with brands develop through positive experiences and perceived safety. These attachments foster advocacy and defence behaviours, especially when the brand is threatened [12, 13]. Complementing this, social identity theory [14] posits that individuals derive self-esteem from group affiliations. In branding, this translates to consumers defending brands that reflect their social identity, perceiving attacks on the brand as personal threats [15, 16].

Brand defence behaviour (DEF) has emerged as a distinct construct, reflecting consumers' active efforts to protect brands from criticism. J. Colliander, et al. (2013) [17] identified six types of DEF: advocating, justifying, trivialising, stalling, vouching, and doubting. These behaviours range from direct rebuttals to humorous dismissals and cautious scepticism, illustrating the complexity of brand defence beyond traditional word-of-mouth.

Despite its relevance, DEF remains underexplored. M. Javed, et al. (2015) [18] conceptualised it as an advanced form of positive word-of-mouth, while S.K. Roy, et al. (2023) [6] developed a multidimensional scale comprising defending, advocating, and forgiving. Their findings confirmed that brand love and trust are significant antecedents of DEF, and that DEF positively influences brand loyalty. This study adopts S.K. Roy et al.'s scale to measure DEF in the context of public universities in Ho Chi Minh City.

However, the applicability of the "forgiving" dimension in the higher education context warrants careful consideration. Unlike typical CBR, the student-university relationship is characterised by prolonged emotional investment, high switching costs, and strong identity attachment. In this context, negative events or reputational threats are often perceived as deeply personal and value-laden, making unconditional forgiveness less conceptually relevant. Therefore, while this study initially adopts S.K. Roy, et al. (2023) [6] multidimensional conceptualisation of DEF, the suitability of each dimension is empirically examined within the public university setting.

2.2. Hypothesis development

Brand trust (TRU) is defined as the belief in a brand's reliability and integrity [19]. In education, trust reflects students' confidence in their university's consistency and ethical conduct, reducing perceived risk and fostering long-term commitment [20, 21]. Trust also mediates satisfaction and loyalty [22]. This study applies the trust scale developed by R.K. Jillapalli, et al. (2014) [23], focusing on reliability and integrity.

Brand love (LOV) represents the deepest emotional connection consumers can form with a brand. B.A. Carroll, et al. (2006) [24] define it as passionate emotional attachment, while N. Albert, et al. (2008) [25] identify dimensions such as attachment, passion, positive evaluation, and self-identification. Brand love develops through shared values and meaningful experiences, leading to loyalty and advocacy [26, 27]. In higher education, brand love arises from academic experiences, brand image, and perceived personality of the institution [28, 29]. This study uses the multidimensional scale by R. Batra, et al. (2012) [27], adapted by P.A. Rauschnabel, et al. (2016) [30] for university settings.

Brand loyalty (LOY) reflects consumers' enduring commitment to a brand, encompassing emotional attachment and behavioural intentions [31]. Loyalty promotes advocacy and brand resilience, especially in competitive environments [32, 33]. In education, loyalty manifests through students' willingness to recommend their university, pursue further studies, and remain engaged post-graduation. This study adopts V. Kaushal, et al.'s (2020) [34] loyalty scale, which captures these dimensions in the university context.

Building on these theoretical foundations, the study proposes three hypotheses. First, brand love is expected to positively influence brand defence behaviour. Emotionally attached consumers are more likely to defend their favourite brands against criticism, perceiving such attacks as personal threats [2, 5, 35].

H1: Brand love has a positive effect on brand defence behaviour.

Second, brand trust is hypothesised to positively influence brand defence. Trust reduces perceived risk and encourages consumers to share positive experiences and defend the brand against negative information [36, 37].

H2: Brand trust has a positive effect on brand defence behaviour.

Third, brand loyalty is expected to drive brand defence behaviour. Loyalty reflects a strong relational bond, and consumers often defend brands that are integral to their social identity [38-40].

H3: Brand loyalty has a positive effect on brand defence behaviour.

Based on these hypotheses, the proposed research model illustrates the relationships among brand love, brand trust, brand loyalty, and brand defence behaviour in the university context.

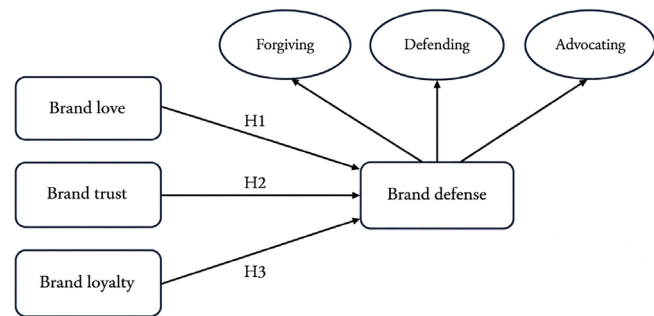


Fig. 1. The research model [6].

2.3. Research design

This study employs a quantitative approach to examine brand defence behaviour among university students. The research process was conducted in four stages. First, the study defined its objectives and reviewed relevant literature on CBR, focusing on brand love, brand trust, brand loyalty, and brand defence behaviour. Existing scales were adapted to suit the higher education context, ensuring relevance to the student population.

Second, a pilot test was conducted with a group of students to assess the clarity and appropriateness of the questionnaire. Feedback from 37 students at Ton Duc Thang University and academic supervisors was used to refine item wording and improve the overall structure of the survey instrument.

Third, the main survey was distributed online over a four-week period (22 April–20 May 2025) via platforms familiar to students, including Facebook, Zalo, email, and university academic groups. The questionnaire targeted undergraduate students, master's students, doctoral candidates, and alumni of public universities in Ho Chi Minh City, and comprised three parts: screening questions, 26 items measuring brand love, brand trust, brand loyalty, and brand defence, and a demographic section, requiring approximately five to seven minutes to complete. A total of 357 responses were collected. After data cleaning, 283 valid responses remained, meeting the minimum sample size required for structural equation modelling. The data were analysed using SmartPLS version 3, employing Partial Least Squares Structural Equation Modelling (PLS-SEM) to examine both the measurement and structural models. Following a two-stage approach recommended by J.F. Hair, et al. (2021) [41], reliability was first assessed, followed by convergent validity and discriminant validity of all constructs, and then causal relationships among brand love, brand trust, brand loyalty, and brand defence were tested using bootstrapping (5,000 resamples) to obtain path coefficients, t-statistics, and p-values. This approach is particularly suitable for exploratory research with complex models and moderate sample sizes. Although newer versions of SmartPLS are available, version 3

fully complies with current methodological standards and provides robust outputs for reliability, validity, and structural path testing, ensuring the accuracy of our findings.

To ensure measurement reliability, Cronbach's Alpha was used to assess internal consistency. Values above 0.70 are considered acceptable for exploratory studies, while values above 0.80 indicate strong reliability for confirmatory research [42]. Reliability was evaluated for each construct - brand love, brand trust, brand loyalty, and brand defence behaviour. Items failing to meet reliability standards were excluded to enhance the robustness of the final scale.

2.4. Instruments and measurement

Table 1. Measurement items of the survey.

Construct	Items	Source
Brand love	LOV1 I expect that university will be a part of my life for a long time to come	R. Batra, et al. (2012) [27]; P.A. Rauschnabel, et al. (2016) [30]; R.P. Bagozzi, et al. (2017) [43]
	LOV2 If university would go out of existence, I would feel anxiety	
	LOV3 Being a student at university makes my life more meaningful	R.K. Jilapalli, et al. (2014) [23]
	LOV4 I feel myself desiring university.	
	LOV5 I feel emotionally connected to university.	
	LOV6 Overall, my feelings towards university are positive	
Brand trust	TRU1 This university can be trusted	R.K. Jilapalli, et al. (2014) [23]
	TRU2 This university is expected to do what is right	
	TRU3 This university has high integrity.	
	TRU4 This university keeps its promises.	
Brand loyalty	LOY1 Encourage friends to study.	V. Kaushal, et al. (2020) [34]
	LOY2 Information to potential students	
	LOY3 Support as alumni	
	LOY4 Recommend the program	
	LOY5 Recommend the university	
	LOY6 Choose same university if had to	
Brand defence	DEF1 I will take their criticism as personally threatening and will argue for my university.	S.K. Roy, et al. (2023) [6]
	DEF2 I will protect my university against any criticism.	
	DEF3 I will not let people criticise my university.	
	DEF4 I will defend my university.	
	DEF5 I will share my experience about the university	
	DEF6 I will recommend my university.	
	DEF7 I will ask people to experience the university for themselves.	
	DEF8 I forgive my favourite brand.	
	DEF9 I feel angry toward this brand.	
	DEF10 Even though the negative information hurts me, I do not feel ill-will toward my favourite brand.	

Source: Compiled by the authors from the cited studies.

The measurement model included 26 observed variables: six items for brand love [27, 30, 43], four items for brand trust [23], ten items for brand defence behaviour [6], and six items for brand loyalty [34]. All items were measured using a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree), allowing for nuanced responses and improved discriminant validity.

To contextualise brand defence behaviour, participants were presented with a scenario involving negative publicity about their university. Scenario-based measurement is widely used in marketing research [44, 45] as it simulates realistic conditions, minimises memory bias, and addresses ethical concerns related to recalling negative experiences [46]. The scenario described a student's positive experience at their university, followed by exposure to external criticism or rumours via social media or interpersonal channels. Participants were then asked how they would respond to such negative information. The scenario was adapted from L.A.N. Donovan, et al. (2012) [47] and validated through a preliminary test with student participants [6].

Sample size determination followed J.F. Hair, et al. (2021) [41] using the 10-times rule for PLS-SEM. The minimum sample size is ten times the largest number of structural paths directed at any endogenous construct. In the present model, brand defence receives three structural paths from brand love, brand trust, and brand loyalty; therefore, the minimum required sample size is 30 responses. The 283 valid responses substantially exceeded this minimum threshold, providing an adequate basis for the PLS-SEM analysis. A convenience sampling method was employed due to time constraints and resource limitations. The survey targeted students currently or previously enrolled in public universities in Ho Chi Minh City, verified through screening questions such as "Are you currently a student?", "Which university do you attend?", and "Did you study in Ho Chi Minh City?"

After data collection, responses were screened for completeness and validity. Of the 357 responses collected, 74 were excluded from analysis: some contained incomplete or missing answers, others displayed uniform response patterns (e.g., selecting the same scale point across all items, indicating inattentive responding), and a small number came from participants who did not meet the screening criteria (i.e., they were not currently or previously enrolled in a public university in Ho Chi Minh City). The remaining 283 valid responses were retained for analysis. This sample size substantially exceeded the minimum requirement for PLS-SEM based on the 10-times rule [41].

The final dataset was used to test the proposed research model and hypotheses. PLS-SEM was selected for its flexibility in handling complex models and its

suitability for exploratory research. The method allows for simultaneous assessment of measurement and structural models, providing insights into the relationships among brand love, brand trust, brand loyalty, and brand defence behaviour.

3. Results

3.1. Respondent demographics

Among the 283 valid responses, the majority were undergraduate students ($n=210$), spanning all study durations from less than one year to over four years. Master's students ($n=15$) were primarily concentrated in the 1-2 year range, consistent with the structure of postgraduate programs. One doctoral candidate reported a study duration exceeding four years. Additionally, 57 alumni indicated "graduated" as their study status, reflecting a clear distinction between current and former students.

Table 2 outlines key demographic characteristics, including gender, academic discipline, student status, and duration of study. Female respondents accounted for 58% ($n=164$), while males represented 42% ($n=119$), indicating a relatively balanced gender distribution. In terms of academic fields, Business and Management

was the most represented group (51.6%), followed by Engineering and Technology (20.8%) and Architecture and Construction (13.8%). Other disciplines such as Natural Sciences, Social Sciences, and Health Sciences were less represented. Undergraduate students accounted for the largest share of respondents ($n=210$, 74.2%), followed by alumni ($n=57$, 20.1%), master's students ($n=15$, 5.3%), and one doctoral candidate. Duration of study among current students ranged from less than one year ($n=93$) to more than four years ($n=21$), with master's students concentrated in the one-to-two-year range, consistent with the structure of postgraduate programmes.

The sample was obtained using convenience sampling, primarily targeting students from public universities and business-related majors. This led to uneven representation across disciplines and institutions, limiting the generalisability of the findings to the wider student population in Ho Chi Minh City. However, given the exploratory nature of the study and the use of PLS-SEM, this sampling approach remains appropriate, as the primary aim is to test the hypothesised relationships among brand love, brand trust, brand loyalty, and brand defence rather than to produce population-level estimates. Convenience sampling is also common in consumer behaviour studies, particularly in service and education contexts, where time and resource constraints are present [48]. This limitation is revisited in section 5.3.

Table 2. Respondent demographics.

N=283	Attributes	Frequency	Percent (%)
Gender	Male	119	42.0
	Female	164	58.0
Academic discipline	Engineering and Technology	59	20.8
	Business and Management	146	51.6
	Health Sciences	6	2.1
	Social Sciences and Humanities	7	2.5
	Natural Sciences	26	9.2
	Architecture and Construction	39	13.8
Student status	Bachelor's student	210	74.2
	Master's student	15	5.3
	Doctoral candidate	1	0.4
	Alumnus/alumna	57	20.1
Duration of study	Less than 1 year	93	32.9
	1 to 2 years	45	15.9
	2 to 3 years	19	6.7
	3 to 4 years	48	17.0
	More than 4 years	21	7.4
	Graduated (alumni)	57	20.1

Source: Authors' survey data (2025).

3.2. Measurement model evaluation

In this study, brand defence behaviour (DEF) is conceptualised as a second-order reflective construct composed of three dimensions: defending, advocating, and forgiving. Following J.F. Hair, et al. (2017) [48], the evaluation of the measurement model was conducted in two stages. The first stage assessed the reliability, convergent validity, and discriminant validity of the first-order constructs. Once these criteria were met, the second stage examined the second-order structure, treating the three dimensions as indicators of the overarching DEF construct. This two-step approach ensures analytical precision and minimises misinterpretation due to unresolved measurement issues at the base level.

During the assessment of the measurement model, the initial three-dimensional structure of DEF (defending, advocating, and forgiving) was evaluated. The results indicated that the "forgiving" dimension did not meet the recommended thresholds for construct validity. Specifically, several indicators associated with forgiving exhibited low outer loadings, resulting in an Average Variance Extracted (AVE) below the acceptable level of 0.50. In addition, discriminant validity concerns were observed, as the forgiving dimension showed insufficient distinction from other DEF dimensions. Following the guidelines proposed

by J.F. Hair, et al. (2017) [48] and M. Sarstedt, et al. (2022) [49], the forgiving dimension was therefore excluded to enhance the reliability and validity of the DEF construct. The refined DEF construct, comprising defending and advocating, demonstrated satisfactory measurement properties and was retained for subsequent structural model analysis.

3.2.1. Stage 1: First-order measurement model

Reliability and convergent validity: Table 3 presents the reliability and convergent validity results for the latent constructs. LOV, TRU, and LOY demonstrated strong internal consistency, with outer loadings exceeding 0.70, Cronbach's alpha ranging from 0.894 to 0.909, composite reliability (CR) between 0.919 and 0.930, and AVE values from 0.655 to 0.770. These metrics surpass the recommended thresholds, confirming high reliability and adequate convergent validity [48].

Table 3. Reliability and convergent validity (first-order).

Construct	Items	Outer loading	Cronbach's alpha	CR	AVE
Brand defense	DEF1	0.762	0.861	0.893	0.480
	DEF2	0.77			
	DEF3	0.755			
	DEF4	0.768			
	DEF5	0.804			
	DEF6	0.793			
	DEF7	0.822			
	DEF8	0.473			
	DEF9	0.129			
	DEF10	0.525			
Brand love	LOV1	0.785	0.894	0.919	0.655
	LOV2	0.743			
	LOV3	0.829			
	LOV4	0.856			
	LOV5	0.83			
	LOV6	0.807			
Brand loyalty	LOY1	0.849	0.909	0.930	0.690
	LOY2	0.84			
	LOY3	0.793			
	LOY4	0.869			
	LOY5	0.868			
	LOY6	0.759			
Brand trust	TRU1	0.866	0.900	0.930	0.770
	TRU2	0.867			
	TRU3	0.888			
	TRU4	0.888			

Source: Authors' calculations using SmartPLS 3, based on survey data (2025).

However, the initial results for DEF were less satisfactory. Although Cronbach's Alpha (0.861) and CR (0.893) were acceptable, the AVE was 0.480, below the minimum threshold of 0.50. Among the ten indicators, DEF1 to DEF7 had acceptable loadings (0.755-0.822), while DEF8 (0.473), DEF9 (0.129), and DEF10 (0.525) showed weak loadings. DEF9, in particular, fell below the minimum acceptable level of 0.40, indicating poor contribution to the construct.

Based on these findings, DEF9 was removed from the model. A re-evaluation showed that DEF8 and DEF10 still had low loadings (0.475 and 0.519, respectively), but the AVE for DEF improved to 0.533, meeting the required threshold. Further consideration of discriminant validity was necessary before deciding whether to retain or exclude DEF8 and DEF10.

Discriminant validity: The C. Fornell, et al. (1981) [50] criterion revealed that DEF violated discriminant validity with brand loyalty. Specifically, the square root of the AVE for DEF (0.693) was lower than its correlations with brand love (0.715) and brand loyalty (0.767), indicating insufficient separation between constructs.

Following recommendations by J.F. Hair, et al. (2017) [48] and M. Sarstedt, et al. (2022) [49], discriminant validity must be established before proceeding with second-order modelling. To ensure construct validity, DEF8 and DEF10 were removed. This action allowed revised reliability and convergent validity results, showing that all remaining indicators met the required standards.

Outer loadings ranged from 0.76 to 0.891, Cronbach's Alpha values from 0.894 to 0.909, and CR values from 0.919 to 0.930. AVE values exceeded 0.50 for all constructs, with DEF reaching 0.632 and TRU peaking at 0.770. These results confirm that each set of indicators adequately explains the variance of its corresponding latent construct.

Three methods were used to confirm discriminant validity: Fornell-Larcker, cross-loadings, and the Heterotrait-monotrait ratio (HTMT). Fornell-Larcker Criterion: The square root of AVE for each construct was greater than its correlations with other constructs. For example, DEF had a square root AVE of 0.795, higher

Table 4. Heterotrait-monotrait.

	Brand defense	Brand love	Brand loyalty	Brand trust
Brand defense				
Brand love	0.760			
Brand loyalty	0.814	0.809		
Brand trust	0.709	0.720	0.749	

Source: Authors' calculations using SmartPLS 3, based on survey data (2025).

than its correlations with brand love (0.693), brand loyalty (0.747), and brand trust (0.644), confirming discriminant validity.

Cross-loadings: Each indicator loaded highest on its intended construct, with no evidence of cross-loadings, indicating clear conceptual boundaries between constructs. HTMT ratio (Table 4): All HTMT values were below the recommended threshold of 0.90. Specifically, HTMT between DEF and LOV was 0.760, between DEF and LOY was 0.814, and between DEF and TRU was 0.709. These results further support discriminant validity.

Collectively, these tests confirm that the refined measurement model meets all reliability and validity criteria, providing a sound basis for structural model analysis and second-order construct modelling.

3.2.2. Stage 2: Second-order measurement model

Based on the validated first-order constructs, the study proceeded to model DEF as a second-order reflective construct. In this structure, defending and advocating serve as reflective dimensions of DEF. The forgiving dimension was excluded due to low reliability and poor discriminant validity in the first-order analysis.

This approach aligns with S.K. Roy, et al. (2023) [6], who conceptualised DEF as a multidimensional construct. However, the exclusion of the forgiving dimension reflects the empirical realities of the current dataset and ensures the integrity of the measurement model.

Reliability and convergent validity of second-order construct: Table 5 presents the results of the second-order measurement model. The composite reliability and AVE values for the second-order DEF construct met the recommended thresholds, confirming that the construct is reliably measured through its two dimensions. This validation supports the use of DEF as a higher-order construct in subsequent structural model testing.

Brand defence behaviour (DEF) was modelled as a second-order reflective construct comprising two validated dimensions: Advocating (DEF5-DEF7) and defending (DEF1-DEF4). The forgiving dimension was excluded due to low reliability and poor discriminant validity in earlier analysis. The outer loadings of the two retained dimensions were 0.926 and 0.904, respectively, indicating strong associations with the higher-order construct.

The second-order DEF scale demonstrated high internal consistency and convergent validity, with Cronbach's alpha=0.806, composite reliability (CR)=0.911, and AVE=0.837. These values exceed recommended thresholds (J.F. Hair, et al. (2017)) [48], confirming the robustness of the construct.

Table 5. Reliability and convergent validity (second-order).

Construct	Items	Outer loading	Cronbach's alpha	CR	AVE
Brand defence	DEF5, DEF6, DEF7	0.926	0.806	0.911	0.837
	DEF1, DEF2, DEF3, DEF4	0.904			
Brand love	LOV1	0.786	0.894	0.919	0.655
	LOV2	0.743			
	LOV3	0.830			
	LOV4	0.856			
	LOV5	0.829			
	LOV6	0.807			
Brand loyalty	LOY1	0.849	0.909	0.930	0.690
	LOY2	0.840			
	LOY3	0.793			
	LOY4	0.869			
	LOY5	0.868			
	LOY6	0.759			
Brand trust	TRU1	0.866	0.900	0.930	0.770
	TRU2	0.867			
	TRU3	0.888			
	TRU4	0.889			

Source: Authors' calculations using SmartPLS 3, based on survey data (2025).

The remaining first-order constructs also met reliability and validity criteria. LOV showed Cronbach's alpha=0.894, CR=0.919, and AVE=0.655, with item loadings ranging from 0.743 to 0.856. LOY had Cronbach's alpha=0.909, CR=0.930, and AVE=0.690, with loadings between 0.759 and 0.869. TRU achieved Cronbach's alpha=0.900, CR=0.930, and AVE=0.770, with loadings from 0.866 to 0.889. These results confirm that all constructs are measured reliably and exhibit strong convergent validity.

Discriminant validity: Discriminant validity was assessed using three criteria: Fornell-Larcker, cross-loadings, and the HTMT. Results confirmed that the refined measurement model met all requirements.

According to the Fornell-Larcker criterion, the square root of AVE for each construct exceeded its correlations with other constructs. For instance, DEF had a square root AVE of 0.915, higher than its correlations with LOV (0.693), LOY (0.750), and TRU (0.641). Similarly, LOV (0.809), LOY (0.831), and TRU (0.877) also satisfied this criterion, indicating clear conceptual separation.

Cross-loading analysis further supported discriminant validity. Each indicator loaded highest on its intended construct, with no evidence of overlap. The two dimensions of DEF-advocating and defending-had loadings of 0.926 and 0.904, respectively, significantly higher than their loadings on other constructs.

HTMT values were all below the recommended threshold of 0.90 [51]. The highest HTMT value was between DEF and LOY (0.871), while other pairs remained well within acceptable limits. These results confirm that the constructs are distinct in the perception of respondents, supporting the validity of the measurement model.

3.3. Structural model evaluation

3.3.1. Multicollinearity assessment

Variance Inflation Factor (VIF) values were examined to assess multicollinearity among independent variables. As shown in Table 6, all VIF values were below the commonly accepted threshold of 3.3. The highest VIF was observed for DEF and LOY at 2.576, indicating no serious multicollinearity issues.

These results confirm that the structural model does not violate the assumption of linear independence among predictors. Therefore, the model is suitable for further hypothesis testing without requiring adjustments for multicollinearity.

Table 6. Variance Inflation Factor results.

	Brand defence	Brand love	Brand loyalty	Brand trust
Brand defence				
Brand love	2.389		1.738	
Brand loyalty	2.576			
Brand trust	2.063		1.738	

Source: Authors' calculations using SmartPLS 3, based on survey data (2025).

3.3.2. Hypothesis testing

Following the validation of the measurement model, the structural model was assessed to examine the relationships among latent constructs and test the proposed hypotheses. Table 7 presents the path coefficients, sample means, standard deviations, t-statistics, and p-values.

The analysis confirms that LOV positively influences brand DEF, with a path coefficient of 0.254 ($t=3.875$, $p<0.001$). This finding supports H1 and indicates that emotional attachment motivates students to defend their university brand.

Table 7. Hypothesis results.

	Original sample	Sample mean	Standard deviation	T statistics	P values	Result
Brand love -> Brand defence	0.254	0.254	0.065	3.875	0.0001	H1 was supported
Brand trust -> Brand defence	0.170	0.170	0.055	3.072	0.002	H2 was supported
Brand loyalty -> Brand defence	0.449	0.448	0.067	6.726	0.0001	H3 was supported

Source: Authors' calculations using SmartPLS 3 (bootstrapping, 5,000 resamples), based on survey data (2025).

TRU also shows a significant positive effect on DEF ($\beta=0.170$, $t=3.072$, $p=0.002$), suggesting that trust enhances students' willingness to engage in protective actions, validating H2.

LOY exerts the strongest influence on DEF ($\beta=0.449$, $t=6.726$, $p<0.001$), confirming H3 and highlighting loyalty as the most powerful driver of brand defence.

Collectively, these results demonstrate that the proposed model effectively explains the relationships among brand-related constructs in higher education.

3.3.3. R-square values

Table 8. R-square (R^2) values.

	R^2	Adjusted R^2
Brand defence	0.621	0.617
Brand loyalty	0.612	0.609

Source: Authors' calculations using SmartPLS 3, based on survey data (2025).

The adjusted R^2 for DEF is 0.617, meaning that 61.7% of its variance is explained by LOV, TRU, and LOY. Similarly, LOY has an adjusted R^2 of 0.609, indicating that brand love and trust account for 60.9% of its variance. These values reflect strong explanatory power, exceeding thresholds for moderate effect sizes in behavioural research [48].

3.3.4. F-square values

To assess the individual contribution of each predictor, the study examined f^2 values, which measure the effect size of each independent variable on the dependent variable. Table 9 presents the results, interpreted according to J. Cohen's (2013) [52] guidelines: small (0.02), medium (0.15), and large (0.35).

Table 9. F-square (f^2) values.

	Brand defence	Brand love	Brand loyalty	Brand trust
Brand defence				
Brand love	0.071		0.375	
Brand loyalty	0.205			
Brand trust	0.036		0.187	

Source: Authors' calculations using SmartPLS 3, based on survey data (2025).

Effect size analysis shows that LOY has a medium effect on DEF ($f^2=0.205$), while LOV ($f^2=0.071$) and TRU ($f^2=0.036$) have small effects. For LOY, LOV exerts a large effect ($f^2=0.375$), and TRU a medium effect ($f^2=0.187$).

These findings indicate that while all predictors contribute meaningfully to the model, brand loyalty plays a particularly prominent role in driving brand defence behaviour. The f^2 values confirm the practical significance of the relationships, complementing the statistical significance observed in the hypothesis testing.

4. Discussion

This study provides empirical evidence for a refined model of brand defence behaviour among university students in Vietnam, extending CBR theory to the higher education context. Brand defence was initially conceptualised as a three-dimensional construct comprising defending, advocating, and forgiving, consistent with S.K. Roy, et al. (2023) [6]. In this study, however, the construct was refined to two dimensions after the forgiving component failed to meet convergent and discriminant validity criteria. This finding diverges from S.K. Roy, et al. (2023) [6], who validated all three dimensions in consumer-goods settings, and points to a boundary condition of the original scale: in long-term, high-investment service relationships such as higher education, forgiveness may operate differently than it does for physical products, where a single unsatisfactory transaction can more easily be overlooked.

The finding that brand love, trust, and loyalty all significantly and positively influence brand defence corroborates prior work by F. Ali, et al. (2021) [2] in the restaurant industry and M. Javed, et al. (2015) [18] in the cosmetics and consumer-electronics sectors, lending cross-industry support to the proposition that strong consumer-brand bonds motivate protective behaviour when a brand is criticised [35, 38]. This study extends that literature by showing that brand loyalty is not only a direct antecedent but also the strongest predictor of brand defence and a partial mediator of the effects of brand love and brand trust—a mediating role also reported by M. Javed, et al. (2015) [18] in a commercial setting, but not previously tested in higher education. This suggests that in a relational service context, where students' involvement with the brand accumulates gradually over several years rather than through discrete purchase episodes, long-term relational commitment—rather than short-term emotional attachment alone—is the more critical proximate driver of protective behaviour, consistent with J. Colliander, et al. (2013) [17], who observed that online brand defenders tend to be embedded, long-standing community members rather than casual customers.

These results also resonate with social identity theory [14] and brand attachment theory [11], both discussed in the theoretical background: when the university becomes integral to a student's identity, criticism is experienced as a personal threat [15, 16], motivating loyal students in particular to respond. This pattern echoes findings from R. Ahluwalia, et al. (2000) [53] and M. Lisjak, et al. (2012) [38], who showed that highly committed consumers are the most likely to counter-argue negative information, and extends these insights to higher education, a setting in

which the “product” is an extended, co-created experience rather than a discrete purchase.

Taken together, these findings highlight the strategic importance of fostering loyalty through consistent positive experiences and transparent policies, rather than relying on emotional appeals or trust-building alone. In an era where reputational risks are amplified by digital platforms, mobilising students as brand defenders can serve as a powerful, low-cost mechanism for brand resilience. At the same time, the exclusion of the forgiving dimension suggests that models of brand defence developed in consumer-goods contexts cannot be transplanted wholesale into service and educational settings, reinforcing the need for context-specific validation of CBR constructs [6, 7]; this and other limitations are discussed further in section 5.3.

5. Conclusions

5.1. Theoretical implications

This study contributes to the theoretical understanding of brand defence behaviour by refining its conceptualisation within the context of higher education. Drawing on the multidimensional framework proposed by S.K. Roy, et al. (2023) [6], the research confirms that brand defence can be effectively measured through two dimensions—advocating and defending—rather than the original three. This adjustment was necessary after empirical testing revealed that the forgiveness dimension lacked convergent validity and failed to demonstrate discriminant validity, particularly in relation to brand loyalty.

The findings suggest that the nature of student-university relationships differs significantly from typical consumer-brand interactions. Unlike emotional or transactional engagements in consumer goods sectors [17, 54], the university experience involves substantial investment of time and financial resources. As a result, students tend to evaluate institutional shortcomings more critically, making forgiveness a less applicable construct in this context. This highlights the need to reconsider or redefine forgiveness when applying brand defence theory to service-oriented sectors such as education.

The study also extends theoretical discussions by validating the roles of brand love, brand trust, and brand loyalty as antecedents of brand defence behaviour. The established relationships among these constructs reinforce existing literature on consumer-brand dynamics [5, 6, 53], while offering new insights into how these factors operate in long-term service relationships. Loyalty, in particular, emerged as the most influential driver, underscoring its central role in motivating protective behaviour.

Overall, the research advances brand relationship theory by adapting and validating a multidimensional construct in a novel context and explicitly grounding its implications in established frameworks. Specifically, it extends CBR Theory [9, 10], Brand Attachment Theory [11], and Social Identity Theory [55, 56] to the higher-education setting. By doing so, the study clarifies how emotional bonds, perceived safety, and identity-based commitment influence students' willingness to defend their university brand. Loyalty is positioned as the strongest activating mechanism for brand defence, enriching theoretical models of consumer-brand dynamics in long-term service relationships.

5.2. Managerial implications

The findings of this study demonstrate that the brand defence behaviour scale can be effectively adapted for university students in Ho Chi Minh City, offering meaningful insights for higher education managers seeking to build sustainable brand strategies. Students, as a key public, play a vital role in shaping and protecting institutional reputation, yet many universities have not fully leveraged this potential.

Currently, student relationship management remains fragmented across departments. Marketing and communications often focus on external branding and recruitment, while student affairs concentrate on internal policies and support services, as outlined in Circular No. 10/2016/TT-BGDĐT. This separation limits the strategic integration of student engagement into brand development. Universities should reconsider their organisational structures to foster cross-functional collaboration, ensuring that brand-building efforts are aligned with student relationship strategies.

Public universities in Vietnam possess inherent advantages-established reputation, academic quality, and affordable tuition. However, regulatory compliance alone is insufficient for brand enhancement. Institutions must proactively design comprehensive student relationship strategies that go beyond administrative functions. This study proposes a three-pillar approach: cultivating brand love, reinforcing brand trust, and fostering brand loyalty.

To nurture brand love, universities should create personalised, inspiring learning experiences that resonate with students' values and emotions [28, 29, 57]. Trust can be built through consistent, transparent practices and student-centred policies [20, 58, 59]. Loyalty, identified as the strongest predictor of brand defence, requires long-term commitment and emotional investment [60-62].

Some public universities have successfully implemented cross-departmental committees to evaluate student-brand relationships, involving key units such as

admissions, communications, student affairs, academic departments, and alumni relations. Such initiatives promote cohesive and strategic student engagement, strengthening institutional brand resilience.

Practically, these insights translate into actionable strategies for universities. Institutions should design integrated approaches that foster emotional engagement (brand love), reinforce trust through transparent and student-centred policies, and build loyalty via long-term relationship programs and alumni engagement. For example, personalised learning experiences, clear communication of institutional values, and cross-functional committees can strengthen identity-based commitment and mobilise students as brand advocates and defenders in competitive, digitally driven environments. By linking these results to theory, universities can design interventions that not only strengthen emotional and relational bonds but also activate brand defence behaviours, ensuring resilience in competitive, digitally driven environments.

5.3. Limitations and future research

While this study offers valuable insights into brand defence behaviour among university students, several limitations should be acknowledged. First, the measurement of the "forgiving" dimension proved challenging. Future research should explore how students interpret forgiveness in the context of institutional shortcomings and identify which types of negative information they are willing to overlook versus those that prompt withdrawal of support.

Second, the study did not examine potential moderating variables that may influence the relationships between brand love, brand trust, and brand defence behaviour. Prior research (S.K. Roy, et al. (2023)) [6] suggests that individual traits, such as personality, may alter the strength of these psychological drivers. Incorporating such moderators could enrich theoretical understanding and enhance the model's applicability.

Lastly, the sample was collected using convenience sampling and was limited to students from public universities in Ho Chi Minh City, with an overrepresentation of business-related majors; both factors constrain the generalisability of the findings. The cultural and institutional characteristics of this region, together with the uneven distribution across disciplines, may differ from those of other geographic areas, private institutions, or more representative probability samples. Future studies should employ broader or probability-based sampling strategies and expand the sample across diverse regions and university types to validate and generalise the model more broadly within Vietnam's higher education landscape.

CRediT author statement

Tran Tu Uyen Le, Tan Lac Thien Vo: Software, Data curation, Writing - Original draft preparation, Visualisation, Investigation, Project administration, Literature review, Revision, Formal analysis, Formatting; Minh Tuan Phung: Conceptualisation, Methodology, Supervision, Validation, Resources, Funding acquisition, Structuring, Writing-Reviewing and Editing.

ACKNOWLEDGEMENTS

This research is funded by Vietnam National Foundation for Science and Technology Development (NAFOSTED) under grant number 502.02-2021.56.

COMPETING INTERESTS

The authors declare that there is no conflict of interest regarding the publication of this article.

REFERENCES

- [1] G. Christodoulides, M.H.E.E. Gerrath, N.T. Siamagka (2021), "Don't be rude! The effect of content moderation on consumer-brand forgiveness", *Psychology & Marketing*, **38**(10), pp.1686-1699, DOI: 10.1002/mar.21458.
- [2] F. Ali, S. Dogan, M. Amin, et al. (2021), "Brand anthropomorphism, love and defence: Does attitude towards social distancing matter?", *The Service Industries Journal*, **41**(1-2), pp.58-83, DOI: 10.1080/02642069.2020.1867542.
- [3] Y. Choi, M.W. Kroff, J. Kim (2021), "Developing brand advocacy through brand activities on Facebook", *Journal of Consumer Marketing*, **38**(3), pp.328-338, DOI: 10.1108/JCM-10-2019-3460.
- [4] U. Tuškej, U. Golob, K. Podnar (2013), "The role of consumer-brand identification in building brand relationships", *Journal of Business Research*, **66**(1), pp.53-59, DOI: 10.1016/j.jbusres.2011.07.022.
- [5] A. Japutra, Y. Ekinci, L. Simkin (2014), "Exploring brand attachment, its determinants and outcomes", *Journal of Strategic Marketing*, **22**(7), pp.616-630, DOI: 10.1080/0965254X.2014.914062.
- [6] S.K. Roy, G. Singh, A. Japutra, et al. (2023), "Circle the wagons: Measuring the strength of consumers' brand defence", *Journal of Strategic Marketing*, **31**(4), pp.817-837, DOI: 10.1080/0965254X.2021.1999305.
- [7] M. Mourad, C. Ennew, W. Kortam (2011), "Brand equity in higher education", *Marketing Intelligence & Planning*, **29**(4), pp.403-420, DOI: 10.1108/02634501111138563.
- [8] M.S. Balaji (2015), "Investing in customer loyalty: The moderating role of relational characteristics", *Service Business*, **9**(1), pp.17-40, DOI: 10.1007/s11628-013-0213-y.
- [9] S. Fournier (1998), "Consumers and their brands: Developing relationship theory in consumer research", *Journal of Consumer Research*, **24**(4), pp.343-373, DOI: 10.1086/209515.
- [10] S. Fournier, C. Alvarez (2012), "Brands as relationship partners: Warmth, competence, and in-between", *Journal of Consumer Psychology*, **22**(2), pp.177-185, DOI: 10.1016/j.jcps.2011.10.003.
- [11] J. Bowlby (1977), "Aetiology and psychopathology in the light of attachment theory", *British Journal of Psychiatry*, **130**(3), pp.201-210, DOI: 10.1192/bjp.130.3.201.
- [12] R.A. VanMeter, D.B. Grisaffe, L.B. Chonko (2015), "Of 'likes' and 'pins': The effects of consumers' attachment to social media", *Journal of Interactive Marketing*, **32**(1), pp.70-88, DOI: 10.1016/j.intmar.2015.09.001.
- [13] A. Ahmadi, A. Ataei (2024), "Emotional attachment: A bridge between brand reputation and brand advocacy", *Asia-Pacific Journal of Business Administration*, **16**(1), pp.1-20, DOI: 10.1108/APJBA-11-2021-0579.
- [14] M.B. Brewer (1991), "The social self: On being the same and different at the same time", *Personality and Social Psychology Bulletin*, **17**(5), pp.475-482, DOI: 10.1177/0146167291175001.
- [15] C.B. Bhattacharya, S. Sen (2003), "Consumer-company identification: A framework for understanding consumers' relationships with companies", *Journal of Marketing*, **67**(2), pp.76-88, DOI: 10.1509/jmkg.67.2.76.18609.
- [16] E. Becerra, V. Badrinarayanan (2013), "The influence of brand trust and brand identification on brand evangelism", *Journal of Product & Brand Management*, **22**(5/6), pp.371-383, DOI: 10.1108/JPBM-09-2013-0394.
- [17] J. Colliander, A.H. Wien (2013), "Trash talk rebuffed: Consumers' defence of companies criticized in online communities", *European Journal of Marketing*, **47**(10), pp.1733-1757, DOI: 10.1108/EJM-04-2011-0191.
- [18] M. Javed, S. Roy, B. Mansoor (2015), "Will you defend your loved brand?", *Consumer Brand Relationships: Meaning, Measuring, Managing*, pp.31-54, Palgrave Macmillan UK.
- [19] R.M. Morgan, S.D. Hunt (1994), "The commitment-trust theory of relationship marketing", *Journal of Marketing*, **58**(3), pp.20-38, DOI: 10.2307/1252308.
- [20] S.W. Carvalho, M. Mota (2010), "The role of trust in creating value and student loyalty in relational exchanges between higher education institutions and their students", *Journal of Marketing for Higher Education*, **20**(1), pp.145-165, DOI: 10.1080/08841241003788201.
- [21] S.P. John, R.D. Villiers (2024), "Factors affecting the success of marketing in higher education: A relationship marketing perspective", *Journal of Marketing for Higher Education*, **34**(2), pp.875-894, DOI: 10.1080/08841241.2022.2116741.
- [22] Ø. Helgesen, E. Nesset (2007), "What accounts for students' loyalty? Some field study evidence", *International Journal of Educational Management*, **21**(2), pp.126-143, DOI: 10.1108/09513540710729926.
- [23] R.K. Jillapalli, R. Jillapalli (2014), "Do professors have customer-based brand equity?", *Journal of Marketing for Higher Education*, **24**(1), pp.22-40, DOI: 10.1080/08841241.2014.909556.
- [24] B.A. Carroll, A.C. Ahuvia (2006), "Some antecedents and outcomes of brand love", *Marketing Letters*, **17**(2), pp.79-89, DOI: 10.1007/s11002-006-4219-2.
- [25] N. Albert, D. Merunka, P.V. Florence (2008), "When consumers love their brands: Exploring the concept and its dimensions", *Journal of Business Research*, **61**(10), pp.1062-1075, DOI: 10.1016/j.jbusres.2007.09.014.
- [26] E. Wallace, I. Buil, L.D. Chernatony (2014), "Consumer engagement with self-expressive brands: Brand love and WOM outcomes", *Journal of Product & Brand Management*, **23**(1), pp.33-42, DOI: 10.1108/JPBM-06-2013-0326.
- [27] R. Batra, A. Ahuvia, R.P. Bagozzi (2012), "Brand love", *Journal of Marketing*, **76**(2), pp.1-16, DOI: 10.1509/jm.09.0339.
- [28] J. Hemsley-Brown, I. Oplatka (2015), "University choice: What do we know, what don't we know and what do we still need to find out?", *International Journal of Educational Management*, **29**(3), pp.254-274, DOI: 10.1108/IJEM-10-2013-0150.
- [29] N. Nguyen, G. Leblanc (2001), "Corporate image and corporate reputation in customers' retention decisions in services", *Journal of Retailing and Consumer Services*, **8**(4), pp.227-236, DOI: 10.1016/S0969-6989(00)00029-1.

- [30] P.A. Rauschnabel, N. Krey, B.J. Babin, et al. (2016), "Brand management in higher education: The university brand personality scale", *Journal of Business Research*, **69**(8), pp.3077-3086, DOI: 10.1016/j.jbusres.2016.01.023.
- [31] R.L. Oliver (1999), "Whence consumer loyalty?", *Journal of Marketing*, **63**, pp.33-44, DOI: 10.2307/1252099.
- [32] Y. Zhang, C. Gu, M. Wang (2014), "Brand loyalty in higher education: The mediating role of brand image", *International Journal of Business and Management Innovation*, **3**(9), pp.28-33.
- [33] J. Sasmita, N.M. Suki (2015), "Young consumers' insights on brand equity: Effects of brand association, brand loyalty, brand awareness, and brand image", *International Journal of Retail & Distribution Management*, **43**(3), pp.276-292, DOI: 10.1108/IJRDM-02-2014-0024.
- [34] V. Kaushal, N. Ali (2020), "University reputation, brand attachment and brand personality as antecedents of student loyalty: A study in higher education context", *Corporate Reputation Review*, **23**(4), pp.254-266, DOI: 10.1057/s41299-019-00084-y.
- [35] C.W. Park, D.J. MacInnis (2006), "What's in and what's out: Questions on the boundaries of the attitude construct", *Journal of Consumer Research*, **33**(1), pp.16-18, DOI: 10.1086/504122.
- [36] J.S. Chiou, C. Drege, S. Hanvanich (2002), "Does customer knowledge affect how loyalty is formed?", *Journal of Service Research*, **5**(2), pp.113-124, DOI: 10.1177/109467002237494.
- [37] N. Meilatinova (2021), "Social commerce: Factors affecting customer repurchase and word-of-mouth intentions", *International Journal of Information Management*, **57**, DOI: 10.1016/j.ijinfomgt.2020.102300.
- [38] M. Lisjak, A.Y. Lee, W.L. Gardner (2012), "When a threat to the brand is a threat to the self: The importance of brand identification and implicit self-esteem in predicting defensiveness", *Personality and Social Psychology Bulletin*, **38**(9), pp.1120-1132, DOI: 10.1177/0146167212445300.
- [39] M. Hassan, L.V.C. Ariño (2016), "Consumer devotion to a different height: How consumers are defending the brand within Facebook brand communities", *Internet Research*, **26**(4), pp.963-981, DOI: 10.1108/IntR-03-2015-0090.
- [40] P. Harrigan, S.K. Roy, T. Chen (2021), "Do value cocreation and engagement drive brand evangelism?", *Marketing Intelligence & Planning*, **39**(3), pp.345-360, DOI: 10.1108/MIP-10-2019-0492.
- [41] J.F. Hair, G.T.M. Hult, C.M. Ringle, et al. (2021), *Partial Least Squares Structural Equation Modelling (PLS-SEM) Using R: A Workbook*, Springer Nature, 197pp.
- [42] J.F. Hair, M. Sarstedt, C.M. Ringle, et al. (2012), "An assessment of the use of partial least squares structural equation modelling in marketing research", *Journal of the Academy of Marketing Science*, **40**(3), pp.414-433, DOI: 10.1007/s11747-011-0261-6.
- [43] R.P. Bagozzi, R. Batra, A. Ahuvia (2017), "Brand love: Development and validation of a practical scale", *Marketing Letters*, **28**(1), pp.1-14, DOI: 10.1007/s11002-016-9406-1.
- [44] T.W. Andreassen, S. Streukens (2013), "Online complaining: Understanding the adoption process and the role of individual and situational characteristics", *Managing Service Quality: An International Journal*, **23**(1), pp.4-24, DOI: 10.1108/09604521311287632.
- [45] K. Karande, V.P. Magnini, L. Tam (2007), "Recovery voice and satisfaction after service failure: An experimental investigation of mediating and moderating factors", *Journal of Service Research*, **10**(2), pp.187-203, DOI: 10.1177/1094670507309607.
- [46] P.A. Dabholkar, B.I. Spaid (2012), "Service failure and recovery in using technology-based self-service: Effects on user attributions and satisfaction", *The Service Industries Journal*, **32**(9), pp.1415-1432, DOI: 10.1080/02642069.2011.600518.
- [47] L.A.N. Donovan, J.R. Priester, D.J. MacInnis, et al. (2012), "Brand forgiveness: How close brand relationships influence forgiveness", *Consumer-Brand Relationships*, pp.184-203, Routledge.
- [48] J.F. Hair, L.M. Matthews, R.L. Matthews, et al. (2017), "PLS-SEM or CB-SEM: Updated guidelines on which method to use", *International Journal of Multivariate Data Analysis*, **1**(2), pp.107-123, DOI: 10.1504/IJMDA.2017.087624.
- [49] M. Sarstedt, J.F. Hair, M. Pick, et al. (2022), "Progress in partial least squares structural equation modelling use in marketing research in the last decade", *Psychology & Marketing*, **39**(5), pp.1035-1064, DOI: 10.1002/mar.21640.
- [50] C. Fornell, D.F. Larcker (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, **18**(1), pp.39-50, DOI: 10.2307/3151312.
- [51] J. Henseler, C.M. Ringle, M. Sarstedt (2015), "A new criterion for assessing discriminant validity in variance-based structural equation modelling", *Journal of The Academy of Marketing Science*, **43**(1), pp.115-135, DOI: 10.1007/s11747-014-0403-8.
- [52] J. Cohen (2013), *Statistical Power Analysis for The Behavioral Sciences*, Routledge, 567pp, DOI: 10.4324/9780203771587.
- [53] R. Ahluwalia, R.E. Burnkrant, H.R. Unnava (2000), "Consumer response to negative publicity: The moderating role of commitment", *Journal of Marketing Research*, **37**(2), pp.203-214, DOI: 10.1509/jmkr.37.2.203.18734.
- [54] M.D. Dalman, M.W. Buhe, J. Min (2019), "The differential influence of identification on ethical judgment: The role of brand love", *Journal of Business Ethics*, **158**(3), pp.875-891, DOI: 10.1007/s10551-017-3774-1.
- [55] H. Tajfel (1978), *Differentiation Between Social Groups: Studies in The Social Psychology of Intergroup Relations*, Academic Press, 490pp.
- [56] B.E. Ashforth, F. Mael (1989), "Social identity theory and the organization", *Academy of Management Review*, **14**(1), pp.20-39, DOI: 10.2307/258189.
- [57] A.C. Ahuvia (2005), "Beyond the extended self: Loved objects and consumers' identity narratives", *Journal of Consumer Research*, **32**(1), pp.171-184, DOI: 10.1086/429607.
- [58] S. Hashim, N.M. Yasin, S.A. Ya'kob (2020), "What constitutes student-university brand relationship? Malaysian students' perspective", *Journal of Marketing for Higher Education*, **30**(2), pp.180-202, DOI: 10.1080/08841241.2020.1713278.
- [59] S.C. Chen (2022), "University branding: Student experience, value perception, and consumption journey", *Journal of Marketing for Higher Education*, pp.1-20, DOI: 10.1080/08841241.2022.2109092.
- [60] A. Yousaf, A. Mishra, M. Bashir (2018), "Brand trust, institutional commitment, and their impact on student loyalty: Evidence for higher education in India", *Studies in Higher Education*, **45**(4), pp.878-891, DOI: 10.1080/03075079.2018.1558441.
- [61] F. Ali, Y. Zhou, K. Hussain, et al. (2016), "Does higher education service quality affect student satisfaction, image and loyalty? A study of international students in Malaysian public universities", *Quality Assurance in Education*, **24**(1), pp.70-94, DOI: 10.1108/QAE-02-2014-0008.
- [62] V. Kaushal, S. Sharma, G.M. Reddy (2019), "A structural analysis of destination brand equity in mountainous tourism destination in northern India", *Tourism and Hospitality Research*, **19**(4), pp.452-464, DOI: 10.1177/1467358418781442.