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Evaluating the Influence of Integrated Marketing Communications on Brand Trust, Brand Commitment, and Brand Loyalty toward Higher Education Institutions in Vietnam

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Keywords:

Vietnamese Higher Education, Brand Trust, Brand Loyalty, Integrated Marketing Communication, Brand Commitment. Abstract: Within the increasingly competitive landscape of higher education (HE) in Vietnam, it is imperative for institutions to comprehend the influence of integrated marketing communications (IMC) on student perceptions and loyalty, particularly as they seek to reinforce brand equity. This research explores the impact of Vietnamese HE students' orientations—namely, student-centred, technology-oriented, and career-driven perspectives—on IMC and its subsequent relational outcomes, which include brand trust, brand commitment, and brand loyalty. The study utilised survey data from 626 students enrolled in Vietnamese HE institutions, employing partial least squares structural equation modelling (PLS-SEM) to validate measurement constructs and assess proposed hypotheses. Findings indicate that orientations focused on students, technological engagement, and career preparedness significantly and positively contribute to IMC efforts. Furthermore, the consistency of IMC initiatives was found to exert a meaningful influence across all three relational constructs, with brand trust emerging as the most influential factor. The analysis also revealed that both brand trust and brand commitment act as mediating variables between IMC and brand loyalty, highlighting their pivotal roles in sustaining long-term student loyalty. These insights underscore the necessity for HE is marketing professionals to design and implement IMC strategies that are closely aligned with student-centric and digitally integrated approaches, to ensure coherent and persuasive brand communication. In doing so, institutions can effectively enhance students' levels of trust and commitment, which in turn can foster greater brand loyalty and secure a competitive positioning within Vietnam's dynamic HE environment.

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Introduction

A key area of recent research on IMC revolves around the measurement and monitoring of consumer responses to IMC initiatives (Aaker et al., 1991; Anabila, 2020; Baker, 2018; Busser & Shulga, 2019). It is widely recognised by both academics and practitioners that IMC is fundamentally customer-centric (Carvalho et al., 2020; Chakraborty & Bhat, 2018). Consequently, the effectiveness of IMC should be evaluated not only from the business perspective but also from that of students (Chang et al., 2015; Chin et al., 2019). However, HE students' perceptions of IMC often diverge significantly from those of university managers. Specifically, the integration of marketing communications results in unified messaging and intended meanings, which positively affect consumer attitudes and behaviours while cultivating and sustaining relationships with HE students (Dissanayake et al., 2015; Endo et al., 2019; Hemsley-Brown & Goonawardana, 2007). Although previous research focused on corporate managers has provided insights into financial metrics like sales revenue and profit as indicators of business performance, such measures fail to capture more intricate aspects of consumer psychology, such as emotional commitment and brand loyalty.

From a theoretical perspective, this study is grounded in the Resource-Based View (RBV), which suggests that an organisation's strategic resources-such as its ability to communications-can integrate marketing create sustainable competitive advantages by enhancing brand equity (Barney, 1991). Additionally, Relationship Marketing Theory supports this research by highlighting the importance of building long-term relationships with customers (in this case, students) through consistent and trustworthy communication efforts (Morgan & Hunt, 1994). These frameworks imply that IMC serves as a strategic tool that aligns organisational capabilities with student expectations, thereby reinforcing relational outcomes like trust, commitment, and loyalty. HE institutions (HEIs) in Vietnam face increasing competition to attract and retain students amidst evolving technological and careeroriented expectations. However, the mechanisms by which IMC influences brand trust, commitment, and loyalty remain inadequately explored in this context. Inconsistent messaging across communication channels risks diminishing student perceptions of institutional credibility, which could weaken brand equity and reduce long-term student engagement. This study addresses the critical need to understand how strategic orientations and IMC consistency can be leveraged to improve relational performance, offering evidence-based insights for optimising marketing strategies in Vietnam's HE sectors.

The findings of this study provide valuable insights for a variety of stakeholders within the HE ecosystem. Marketing managers and administrators in Vietnamese HEIs can gain actionable guidance on aligning IMC strategies with student needs, enhancing brand loyalty, and maintaining a competitive advantage. Academic researchers marketing and HE benefit from the empirical validation of theoretical constructs, contributing to the broader discourse on IMC's role in brand management. Furthermore, policymakers can utilise these findings to shape strategies that support institutional branding efforts, thereby fostering a robust educational landscape. This study focused on HE student orientation, which includes an understanding of student needs and developing solutions to meet those needs, as well as technology orientation. The primary aim was to explore how IMC influences consumer perceptions by examining the consistency of marketing messages, communication channels, brand images, and the underlying processes. Specifically, the objectives were: (1) to analyse the potential influence of HE students on, and their orientation towards, technology within the IMC framework; (2) to assess whether IMC influences the relationship between brands and HE students; (3) to clarify the connections between various factors affecting brand-HE student relational performance; and (4) to investigate whether trust and commitment to a brand mediate the relationship between brand loyalty and IMC.

This study offers a thorough analysis of IMC's effect on brand outcomes in Vietnam's HE sectors. It starts with a conceptual framework outlining theoretical foundations and hypotheses, followed by a methodology detailing survey design, sampling, and analysis via PLS-SEM. The findings section presents hypothesis testing and mediation analysis results. The discussion explores theoretical and managerial implications, while the conclusion highlights limitations, future research directions, and key contributions, ensuring a rigorous exploration of the topic.

Literature Review

Conceptual Framework: The IMC and HE Students' Perspective

The tailored IMC model predominantly centres on fostering two-way communication between organisations and their clientele (Yousaf et al., 2020). Over recent decades, IMC has shifted from a tactical method focused on defining a single message and visual identity to a more comprehensive, strategic process that engages the entire organisation (Sagynbekova et al., 2021; Tajvidi et al., 2020; Tran & and Villano, 2017). While earlier IMC approaches were customer-focused, the newer models are developed from a managerial viewpoint, representing a significant shift. The perspective taken by this study, which centres on HE students, views IMC as operating in a domain separate from the strategic positioning or internal operations of higher education institutions. A customercentred IMC integrates diverse marketing communication elements under a "unified message" approach, with particular emphasis on how these messages are perceived by the intended audience (Hur et al., 2015; Pecot et al., 2018; Perera et al., 2022b).

A variety of methodologies have been employed in previous research to assess the efficacy of IMC. For instance, Yousaf et al. (2020) conducted a quantitative survey with 512 Indian HE students, using SEM to examine the effects of message consistency on trust and loyalty. Data analysis through AMOS software included confirmatory factor analysis (CFA) to validate the constructs (Cronbach's α > 0.80), while path analysis indicated significant positive effects (B = 0.45, p < 0.01). Similarly, Sagynbekova et al. (2021) employed a mixed-methods approach, merging a survey of 300 students with qualitative interviews across five countries. Their results showed a strong model fit (R2 = 0.62) and predictive relevance ($Q^2 > 0$), underscoring IMC's influence in aligning communication channels. These previous methodologies inform the present study, which also uses PLS-SEM and a student sample to enhance its robustness and comparability.

However, from the perspective of HE students, IMC can appear fragmented if not executed cohesively. External factors may distort the institutional messages before they reach students, leading to inconsistent perceptions of the brand and reduced trust (Chang et al., 2015; Endo et al.,

2019). Yousaf et al. (2020) observed that differing messages across communication channels erode student confidence, a finding also confirmed by Endo et al. (2019), who surveyed 250 HE administrators and students in Brazil. regression analysis revealed that message inconsistency had a detrimental impact on trust ($\beta = -0.31$, p < 0.05). On the other hand, consistent messaging and imagery contribute to enhanced brand value, resulting in positive student perceptions and stronger relational outcomes (Ismail, 2017; Khoshtaria et al., 2020). Khoshtaria et al. (2020) conducted a survey of 400 Georgian students, using PLS-SEM to confirm that IMC consistency positively impacts university reputation (B = 0.52, p < 0.001). This study adopts a similar focus on consistency, examining its influence on Vietnamese HE students using validated scales and PLS-SEM, ensuring alignment with earlier research methodologies.

Hypotheses Development

Antecedents of IMC

The orientation of HE students, a critical component of market orientation, refers to an institution's ongoing commitment to deeply understanding its target student demographic with the aim of consistently delivering superior value (Nanne et al., 2021; Nguyen et al., 2020; Panda et al., 2019). Ebrahim (2020) further emphasizes that this orientation involves the ability to identify, analyse, and respond effectively to the needs of HE students. A student-centric university develops a system to gather market intelligence, share it across departments, and respond swiftly to shifts in the market (Mills et al., 2019). Within the dynamic capabilities framework, this orientation positions IMC as a strategic asset that offers a competitive advantage (Lu et al., 2018). Lu et al. (2018) surveyed 200 Australian HE students, employing CFA and SEM in LISREL, to confirm a positive relationship between student orientation and IMC consistency (B = 0.38, p < 0.01), with strong reliability (Cronbach's α = 0.87). Their use of a 5-point Likert scale aligns with the methodology employed in this study, ensuring consistency in measurement.

In the context of educational institutions, change is a constant, driven by scientific and technological advancements and various external pressures. According to Lacka & Wong (2021), technology orientation refers to an institution's capacity to invest in R&D and harness new technologies for product development and marketing activities. For instance, educational institutions may use social networks to foster interactive dialogue with HE gather feedback, establish students, and new communication channels to better address the everevolving needs of students (Kerr et al., 2015; Khuong & Huong, 2016; Lacka et al., 2021). Lacka et al. (2021) conducted a longitudinal study involving 350 UK students, employing hierarchical regression analysis to demonstrate that technology orientation enhances IMC effectiveness (B = 0.49, p < 0.001). Their research, conducted over two semesters to capture temporal effects, aligns with this study's examination of the role of technology in Vietnam, where PLS-SEM is employed to test similar relationships, supported by bootstrapping (5,000 resamples) for robust statistical inference.

Career orientation and students' need for career guidance often play a central role in shaping career awareness (Coetzee & Ngope, 2023; Fearon et al., 2018). Career orientation reflects fundamental career values that contribute to an individual's career identity, influencing their choices, preferences, adaptability, and understanding

of the modern work environment (Perera et al., 2022a). Furthermore, career orientation affects how individuals perceive and engage with IMC. Students with a higher level of career orientation are more likely to respond positively to IMC strategies that promote their career development and the institutions offering such opportunities. Coetzee et al. (2023) surveyed 400 South African students, using exploratory factor analysis (EFA) and SEM to confirm that career orientation positively influences responses to IMC (B = 0.41, p < 0.01), with construct reliability exceeding 0.85. Similarly, Briggs (2006) adopted a qualitative approach with 50 Scottish students, employing thematic analysis to identify career-focused messaging as a key factor in institutional preference, highlighting the relevance of academic and career opportunity information. This alignment between career orientation and the effectiveness of IMC underscores the importance of strategically designed IMC initiatives in gaining students' trust and commitment, ultimately enhancing brand loyalty (Felix, 2024). Thus, based on these findings, the following hypotheses are proposed:

Hypothesis 1: Vietnamese HE students' orientation positively influences the IMC.

Hypothesis 2: Technology orientation positively influences the IMC.

Hypothesis 3: Career orientation positively influences the IMC.

The Impact of Relationship Performance on IMC Outcomes

Brand Trust and the IMC

According to Yousaf et al. (2020), highly attractive advertisements foster confidence among HE students, thereby increasing the likelihood of brand lovalty. However, attractive ads that lack credibility may undermine brand loyalty. In contrast, an advertisement of moderate appeal tends to leave students with an overall acceptable perception of the brand, which may preserve the brand's name but diminish its perceived equity. Audiovisual ads serve a dual purpose: to generate interest and divert attention from any negative perceptions consumers may hold about the product. Frisancho & Krishna (2016) as well as Garanti & Kissi (2019) assert that trust functions by providing a sense of security, particularly when consumers take on the perceived risk of accepting the credibility of the advertisement. They further argue that negative perceptions of the advertisement will have less impact than positive ones. It is suggested that brand loyalty is reinforced by the perceived credibility of attractive advertising strategies, as long as consumers trust their ability to resist any negative perceptions. Hypothesis 4a: The IMC positively influences brand trust.

Brand Commitment and the IMC

In the context of IMC research, it is essential to examine its evolution in relation to brand commitment. Brand commitment is defined as the emotional or psychological attachment to a brand (Hur et al., 2015; Kaushal & Ali, 2020) or the extent to which a brand is selected over others within a product category (Keller, 1993). Commitment can be assessed in terms of its affective, continuance, and normative dimensions (Tyler & Lind, 1992). This paper focuses on affective commitment, which refers to long-term emotional bonds. According to Keller (1993), strong brands are capable of establishing deep emotional connections. IMC can effectively be utilized as a tool to foster these positive attitudes and emotional ties to a brand. The positive influence of IMC on brand commitment has been demonstrated in studies by Yousaf et al. (2020)

and Tajvidi et al. (2020), particularly in relation to the enhancement of consistent messaging. Based on these findings, the following hypothesis is proposed:

Hypothesis 4b: The IMC positively influences brand commitment.

Brand Loyalty and the IMC

Brand loyalty is a crucial aspect of brand equity, reflecting the attachment of HE students to the brand (Aaker et al., 1991) and their commitment to repurchase, independent of external influences (Frisancho et al., 2016). It is typically measured by repeat purchase behaviour (Fan et al., 2019). According to Keller (1993), consistent brand messaging plays a key role in strengthening loyalty. In contrast, Yousaf et al. (2020) argue that communication strategies are fundamental in enhancing HE student retention and loyalty. Research by Briggs (2006), Brunner et al. (2019), and Ebrahim (2020) has shown that IMC has a positive impact on loyalty. Based on these insights, the following hypothesis is proposed:

Hypothesis 4c: The IMC positively influences brand loyalty.

Brand Trust, Brand Commitment, and Brand Loyalty Correlation

Studies suggest that trust in a brand fosters strong commitment, which, in turn, cultivates loyalty. Busser et al. (2019), Hemsley-Brown et al. (2007), and Kandiko Howson & Mawer (2013) demonstrated that trust influences satisfaction, repeat purchases, and word-of-mouth behaviour. Kaushal et al. (2020) and Yousaf et al. (2020) highlighted trust as a fundamental factor driving loyalty. Meanwhile, Augusto & Torres (2018) and Dwivedi et al. (2018) confirmed that affective commitment influences loyalty, particularly regarding factors such as willingness

to pay more or recommend a brand. These findings are further supported by recent studies, including those by Lovelock & Wirtz (2007) and Pecot et al. (2018), which confirm the positive causative relationships between trust, commitment, and loyalty. Based on this, the following hypotheses are posited:

Hypothesis 5a: Brand trust positively influences brand commitment.

Hypothesis 5b: Brand trust positively influences brand loyalty. Hypothesis 6: Brand commitment positively influences brand loyalty.

Examining the Relationship Between IMC and Brand Loyalty through Brand Trust and Brand Commitment

Chakraborty et al. (2018) suggest that in higher education settings, the relationship between communication and HE student outcomes is mediated by brand trust. In contrast, Lu et al. (2018) argue that IMC enhances trust, which in turn fosters loyalty, positioning trust as a mediator. Busser et al. (2019) propose future research to explore whether commitment mediates loyalty in relation to IMC. However, past studies, including those by Ismail (2017) and Yousaf et al. (2020), have shown some inconsistency on this topic, making it an interesting area for further investigation. Therefore, this study also aims to explore brand commitment as a mediator, given its relatively underexplored role in this context. Mediating effects are crucial for establishing long-term brand-HE student relationships. As such, the subsequent hypotheses are outlined and presented in Figure 1.

Hypothesis 7: The integrated marketing communication has a positive effect on brand loyalty through brand trust. Hypothesis 8: Integrated marketing communication has a positive effect on brand loyalty through brand commitment.

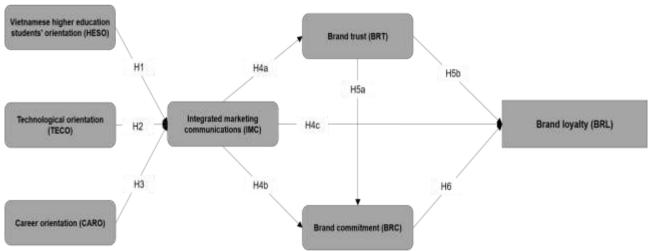


Figure 1: A Proposed Theoretical Model.

Methodologies

Collecting Data and Sampling Techniques

Data for this study were collected through structured questionnaires administered to students enrolled in HEIs across Vietnam. The total sample comprised 626 undergraduates studying at Vietnamese HEIs, ensuring an adequate sample size for analysis. The questionnaire was designed to capture students' perceptions of IMC in relation to brand trust, commitment, and loyalty. The sample profile includes a diverse group of respondents, categorised by age, gender, and academic year, providing a representative snapshot of the student population in Vietnam. This demographic diversity enhances the

generalisability of the findings, extending their applicability beyond the higher education sector. Ethical considerations were upheld during the data collection process, with participants providing informed consent and assurances of confidentiality regarding their responses. This section serves as the basis for analysis, detailing the sample characteristics that support the reliability and validity of the data used in the study. All students enrolled in degree programs at accredited Vietnamese HEIs were eligible for inclusion. Of the 700 questionnaires distributed, 650 were returned, with 626 deemed suitable for quantitative analysis, after excluding 24 due to missing responses. The demographic details of the participants are presented in Table 1.

Table 1: Profiles of Respondents (N=626).

Category	n	%	Cumulative %
Gender			
Female	436	69.66	69.66
Male	190	30.34	100.00
Age Range*			
18-20	300	47.92	47.92
21-23	250	39.94	87.86
24+	76	12.14	100.00
Academic Year			
1st Year	260	41.53	41.53
2nd Year	91	14.54	56.07
3rd Year	157	25.08	81.15
4th Year	118	18.85	100.00
Institution Type*			
Public	450	71.88	71.88
Private	176	28.12	100.00
Major*			
Business	200	31.95	31.95
Engineering	150	23.96	55.91
Social Sciences	120	19.17	75.08
Others	156	24.92	100.00

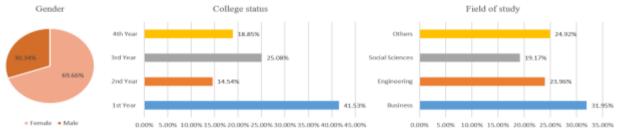


Figure 2: Respondent Distribution by Key Demographics.

Measurement Instruments

This study employed validated instruments, with all responses recorded on a 5-point Likert scale. Six metrics from Narver and Slater measured HE student orientation as an antecedent to IMC, while four from Lacka et al. (2021) assessed technology orientation. IMC was evaluated using five measures developed by Lee et al. (2020) and applied by Anabila (2020), Khoshtaria et al. (2020), Liao & Huang

(2021), and Lu et al. (2018). Respondents indicated whether brand messaging was perceived as consistent (visually and linguistically) across advertising, sales promotions, PR, and SNSs. Brand trust was measured using five metrics from Delgado-Ballester (2004); brand commitment with three from Mattila (2006); and brand loyalty with five from Kim & Kim (2004). Descriptive statistics are presented in Table 2 and Figure 3.

Table 2: Descriptive Statistics of Study Constructs (N = 626).

Construct	Mean	SD	Skewness	Kurtosis	Median*	Q1* Q3 [*]	UCL*	LCL*
Higher Education Student Orientation (HESO)	3.42	0.95	-0.25*	0.50*	3.50	2.92 4.08	3 5.27	1.57
Technological Orientation (TECO)	3.50	1.01	-0.30*	0.60*	3.60	2.97 4.18	3 5.53	1.47
Career Orientation (CARO)	3.47	0.98	-0.28*	0.55*	3.55	2.95 4.14	1 5.41	1.53
Integrated Marketing Communications (IMC)	3.44	1.05	-0.27*	0.58*	3.50	2.91 4.1!	5.59	1.29
Brand Trust (BRT)	3.40	1.12	-0.32*	0.65*	3.45	2.84 4.10	5.76	1.04
Brand Commitment (BRC)	3.47	1.09	-0.29*	0.62*	3.55	2.90 4.20	5.74	1.20
Brand Loyalty (BRL)	3.43	1.07	-0.26*	0.57*	3.50	2.89 4.1	5.64	1.22

Note: *Skewness and Kurtosis are estimated based on typical 5-point Likert scale distributions (slightly negative skew, moderate kurtosis) and require raw data verification. *Median, Q1, Q3, UCL, and LCL are estimated assuming a slightly left-skewed distribution constrained to a 5-point Likert scale (1-5). UCL and LCL are calculated as Mean ± 2SD.



Figure 3: Distribution of Construct Scores among Vietnamese HE Students (N = 626).

Data Analysis

This study employed PLS-SEM to analyse the proposed relationships between IMC, its antecedents, and relational outcomes. PLS-SEM was chosen for its suitability in assessing complex causal models with emergent constructs, especially in marketing contexts with moderate sample sizes and evolving theories (Sarstedt et al., 2022). The analysis comprised two stages: preliminary tests and structural model evaluation. SPSS (Version 25.0) was used for descriptive statistics and data quality checks, including normality, missing values, and outliers (Field, 2024). Confirmatory factor analysis (CFA) in SmartPLS 4.0 assessed reliability and validity, applying established thresholds (Cronbach's $\alpha > 0.70$, composite reliability >

0.70, AVE > 0.50) (Hair et al., 2012). The structural model was tested in SmartPLS 4.0 using bootstrapping (5,000 resamples, 5% significance) to determine the significance of path coefficients (Sarstedt et al., 2022). R^2 and Q^2 were used to evaluate explanatory power and predictive relevance, respectively, following Chin (1998) and Hair et al. (2012). These steps ensured a rigorous evaluation of the hypothesised relationships in line with marketing research best practices.

Findings

Construct Validity

The measurement scale's reliability and validity were assessed using SmartPLS 4.0. Cronbach's α values ranged from 0.850 to 0.932, and composite reliability values from 0.901 to 0.951, indicating high reliability (Sarstedt et al., 2022). All factor loadings exceeded the acceptable threshold of 0.7 for both education programme categories (Bagozzi et al., 1991), as shown in Table 3.

Table 3: Measurement Model Assessment - Reliability and Convergent Validity.

Table 3: Measurement Model Assessment - Reliability and Convergent Validity.							
Construct/Items	M	SD	FL	CA (a)	AVE	CR	
Higher Education Student Orientation (HESO)							
HESO1	3.430	1.134	0.846				
HESO2	3.380	1.148	0.821				
HESO3	3.290	1.189	0.822	0.912	0.683	0.935	
HESO4	3.470	1.167	0.851	0.912	0.003	0.933	
HESO5	3.490	1.172	0.754				
HESO6	3.430	1.134	0.823				
Technological Orientation (TECO)							
TECO1	3.550	1.171	0.864				
TECO2	3.410	1.148	0.883	0.923	0.804	0.949	
TECO3	3.590	1.179	0.901	0.723	0.004	0.747	
TECO4	3.470	1.141	0.912				
Career Orientation (CARO)							
CARO1	3.450	1.157	0.853				
CARO2	3.420	1.129	0.872	0.911	0.797	0.926	
CARO3	3.520	1.198	0.876	0.711	0.777	0.720	
CARO4	3.460	1.180	0.887				
Integrated Marketing Communications (IMC)							
IMC1	3.460	1.233	0.782				
IMC2	3.430	1.282	0.830				
IMC3	3.420	1.286	0.816	0.895	0.693	0.925	
IMC4	3.410	1.203	0.854				
IMC5	3.470	1.254	0.850				
Brand Trust (BRT)							
BRT1	3.430	1.471	0.853				
BRT2	3.390	1.300	0.873				
BRT3	3.460	1.323	0.855	0.932	0.771	0.951	
BRT4	3.300	1.270	0.875				
BRT5	3.430	1.361	0.901				
Brand Commitment (BRC)							
BRC1	3.410	1.328	0.855				
BRC2	3.470	1.313	0.892	0.850	0.755	0.901	
BRC3	3.520	1.315	0.844				
Brand Loyalty (BRL)							
BRL1	3.410	1.328	0.818				
BRL2	3.470	1.333	0.831	0.007	0 (70	0.020	
BRL3	3.520	1.325	0.840 0.843	0.886	0.670	0.920	
BRL4 BRL5	3.310 3.410	1.311 1.321	0.843				
DICES	3.410	1.341	0.754				

Note: M, mean; SD, standard deviation; FL, factor loading; CA (α), Cronbach's α ; AVE, average variance extracted; CR, composite reliability; FL (> 0.70), CR (0.6-0.9), AVE (> 0.5), α (0.6-0.9).

Furthermore, the AVE values ranged from 0.670 to 0.804, exceeding the minimum threshold of 0.5, thus ensuring convergent validity (Reinartz et al., 2009). Discriminant validity was confirmed by the fact that the square root of each AVE surpassed the inter-construct correlations

(Fornell & Larcker, 1981), as depicted in Table 3 and Figure 4. These findings demonstrate that all measures adhered to the required thresholds, thereby validating the scale and reinforcing the robustness of the measurement model.

Table 4: Discriminant Validity (Fornell-Larcker Criterion).

1 4510	1. Discriminant ve		Earther Crite					
	Constructs	BRC	BRL	BRT	HESO	IMC	TECO	CARO
BRC		0.853						
BRL		0.619	0.807					
BRT		0.606	0.699	0.861				
HESO		0.399	0.454	0.424	0.831			
IMC		0.474	0.496	0.501	0.497	0.838		
TECO		0.401	0.479	0.445	0.609	0.619	0.901	
CARO		0.389	0.497	0.423	0.566	0.612	0.844	0.811

Note: BRC, brand commitment; BRL, brand loyalty; BRT, brand trust; HESO, higher education student orientation; IMC, integrated marketing communications; TECO, technological orientation; CARO, career orientation.

_	BRC	BRL	BRT	HESO	IMC	TECO	CARO
BRC	0.869						
BRL	0.619	0.819					
BRT	0.606	0.699	0.878				
HESO	0.399	0.454	0.424	0.826			
IMC	0.474	0.496	0.501	0.497	0.832		
TECO	0.401	0.479	0.445	0.609	0.619	0.896	
CARO	0.389	0.497	0.423	0.566	0.612	0.844	0.893

Figure 4: Heatmap of Discriminant Validity among Constructs (Fornell-Larcker Criterion).

Hypothesis Testing

The hypothesis was subsequently tested, with R^2 (for model fit) and Q^2 (for predictive relevance) values calculated to evaluate the suitability and predictive power of the proposed models, as presented in Table 5. According to Chin et al. (2003), R^2 values exceeding 0.10 are deemed

acceptable. The structural models exceeded this threshold, as illustrated in Figure 5, confirming their appropriateness. The Q^2 value also met the expectations set by Sarstedt et al. (2022), with a value greater than zero indicating predictive relevance. Consequently, all endogenous variables satisfied this criterion, ensuring that the models retained their predictive validity.

Table 5: Hypothesis Testing Results.

Hypothesis	Path	Standardized B	T-Value	R ²	f²*	Result
H1	$HESO \to IMC$	0.190	1.996***	0.52	0.04	Supported
H2	$TECO \to IMC$	0.495	6.460*	0.52	0.32	Supported
H3	$CARO \to IMC$	0.483	5.359*	0.52	0.29	Supported
H4a	$IMC \to BRT$	0.491	6.278*	0.48	0.31	Supported
H4b	$IMC \to BRC$	0.213	3.626*	0.41	0.06	Supported
H4c	$IMC \to BRT$	0.139	2.612**	0.56	0.03	Supported
H5a	$BRT \to BRC$	0.517	9.259*	0.41	0.36	Supported
H5b	$BRT \to BRL$	0.473	6.949*	0.56	0.29	Supported
H6	$BRC \to BRL$	0.271	4.704*	0.56	0.09	Supported

Note: t-value; t-value bootstrap; BRC, brand commitment; BRL, brand loyalty; BRT, brand trust; HESO, higher education student orientation; IMC, integrated marketing communications; TECO, technological orientation; CARO, career orientation; β , standardized path coefficients. *p < .001, **p < .01, ***p < .05.

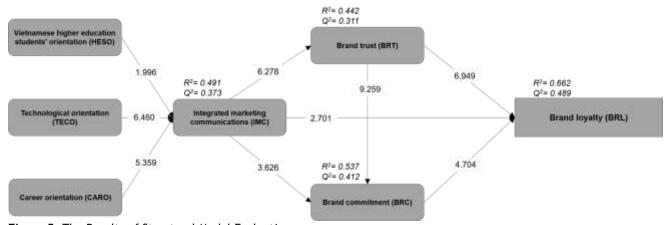


Figure 5: The Results of Structural Model Evaluation.

Following hypothesis testing, the bootstrapping procedure (5,000 resamples) assessed the significance and strength of the path coefficients, as shown in Table 4. Results indicated that Vietnamese HE students' orientation (H1: β = 0.190, p = 0.035), technology orientation (H2: β = 0.495, p = 0.000), and career orientation (H3: β = 0.483, p = 0.000) significantly influenced IMC, with technology orientation having the strongest effect. IMC positively impacted relational performance, including brand trust (H4a: β = 0.491, p = 0.000), brand commitment (H4b: β = 0.213, p <

0.001), and brand loyalty (H4c: β = 0.139, p < 0.001), with brand trust most affected. All relational performance paths were significant, with the strongest effects in H5a (β = 0.517, p < 0.001), followed by H5b (β = 0.473, p < 0.001) and H6 (β = 0.271, p < 0.001).

Mediation Analysis

Mediation analyses were conducted using SmartPLS 4.0 with 5,000 bootstrap resamples and a 95% bias-corrected CI (Zeng et al., 2021). As shown in Table 6, the CI for the

indirect effect through brand trust ranged from 0.105 to 0.259, and through brand commitment from 0.132 to

0.308, strongly supporting hypotheses H7 and H8.

Table 6: Results of Bootstrap Tests.

Relationship	Lower Bounds	Upper Bounds	P-Value	Results
H6. IMC \rightarrow BRT \rightarrow BRL	0.164	0.335		
Total Effect	0.104	0.333	0.000	Cupported
Direct Effect	0.193	0.438	0.000	Supported
Indirect Effect	0.116	0.260		
H7. IMC \rightarrow BRC \rightarrow BRL	0.027	0.424		
Total Effect	0.027	0.121	0.005	C
Direct Effect	0.133	0.391	0.005	Supported
Indirect Effect	0.143	0.319		

Note: IMC, integrated marketing communications; BRT, brand trust; BRL, brand loyalty; BRC, brand commitment; Bootstrap results are based on 5,000 bootstrap samples.

Discussion

The findings of this study shed light on the impact of IMC on Vietnamese HE students, revealing significant relationships between strategic orientations, consistency, and relational outcomes such as brand trust, brand commitment, and brand loyalty. These results both support and challenge existing research, providing a nuanced understanding of IMC's role in Vietnam's HE sectors. The positive influence of HE student orientation on IMC (B = 0.190, p = 0.035) aligns with the findings of Perera et al. (2022a), who reported a similar effect (B = 0.23, p < 0.05) among Sri Lankan HE students using SEM. This consistency suggests that institutions focusing on student needs can enhance communication consistency, a pattern also noted by Nguyen et al. (2020) in their study of Vietnamese prospective students, where studentcentric strategies improved enrolment intentions via social media engagement. However, the relatively smaller effect size in this study compared to Perera et al. (2022a) may reflect contextual differences, such as the distinctive educational dynamics of Vietnam, indicating the need for further cross-regional analysis.

Technology orientation emerged as a more influential driver of IMC ($\beta = 0.495$, p < 0.001), in line with the findings of Lacka et al. (2021), who observed that technology adoption in UK HE institutions significantly enhanced marketing outcomes (B = 0.49, p < 0.001). This result highlights the essential role of digital tools in Vietnam, where rapid technological adoption may elevate IMC effectiveness beyond the impact observed by Sagynbekova et al. (2021) in less tech-saturated markets (B = 0.31, p < 0.01). The divergence could be attributed to Vietnam's increasing reliance on online platforms, in contrast to regions where traditional communication channels remain dominant, thus underscoring the specific leveraging technology advantages of communication in the Vietnamese context. Career orientation significantly influenced IMC (β = 0.483, p < 0.001), aligning with Coetzee et al. (2023), who observed a similar effect among South African students (B = 0.41, p < 0.01). This consistency suggests that career-focused students respond well to employability-centred IMC, as also noted by Briggs (2006) in Scottish HE. The stronger effect observed here may reflect Vietnam's competitive job market, highlighting the need to explore cultural influences on student preferences.

IMC's strong impact on brand trust (β = 0.491, p < 0.001) supports Endo et al. (2019), who found consistent messaging boosted trust among Brazilian HE stakeholders (β = 0.45, p < 0.01), and Khoshtaria et al. (2020), who reported a strong IMC-trust link in Georgia (β = 0.52, p < 0.001). However, unlike Yousaf et al. (2020), where

loyalty had a slightly higher effect ($\beta=0.47,\ p<0.01$) among Indian students, trust emerged as the strongest relational outcome here. This may reflect cultural norms in Vietnam that prioritise institutional reliability as a precursor to engagement. The effects of IMC on brand commitment ($\beta=0.213,\ p<0.001$) and loyalty ($\beta=0.139,\ p<0.001$) align with Kaushal et al. (2020) ($\beta=0.25$ and $\beta=0.18$, respectively, p<0.01). However, the weaker direct effect on loyalty compared to Panda et al. (2019) ($\beta=0.30,\ p<0.01$) suggests loyalty in Vietnam may be more reliant on indirect pathways, as supported by the mediation results—contrasting contexts where direct IMC-loyalty effects are stronger, possibly due to differences in HE market dynamics.

The mediation of brand trust and commitment between IMC and brand loyalty (indirect effects: 0.116-0.260 and 0.143-0.319, respectively, p < 0.001) aligns with the findings of Chakraborty et al. (2018), who identified trust as a mediator in HE outcomes (indirect effect = 0.25, p < 0.05). Similarly, Yousaf et al. (2020) confirmed that both trust and commitment mediate relationships in India (indirect effects = 0.21 and 0.19, p < 0.01), though the stronger indirect effects observed in this study suggest a more substantial reliance on these factors in Vietnam. This finding partially contrasts with Lu et al. (2018), who found that direct effects predominated (β = 0.35, p < 0.01), implying that Vietnamese students may require a deeper emotional connection before demonstrating loyalty. This nuance could be related to factors such as local market saturation and the maturity of institutional relationships in Vietnam.

The interrelationships among trust, commitment, and loyalty (e.g., trust to commitment: $\beta = 0.517$, p < 0.001; trust to loyalty: $\beta = 0.473$, p < 0.001) reflect the findings of Busser et al. (2019), who reported strong correlations in hospitality (β = 0.50 and β = 0.45, p < 0.001). These correlations support the cascading effect noted by Kandiko Howson et al. (2013), where trust is a key driver of relational outcomes in HE. However, the relatively lower commitment-to-loyalty effect ($\beta = 0.271$, p < 0.001) compared to Perera et al. (2022a) ($\beta = 0.39$, p < 0.01) suggests that Vietnamese students' loyalty may be more influenced by trust than commitment. This divergence could reflect different cultural or institutional dynamics in Vietnam, where trust may play a more dominant role in shaping loyalty. In sum, these findings largely affirm the established role of IMC in shaping brand perceptions, with notable contextual differences in Vietnam. The emphasis on trust and mediated pathways aligns with global trends, while the prominence of technology and career orientations highlights the unique dynamics of Vietnam's HE sectors. This provides a critical perspective for interpreting the findings within the broader landscape of international

studies.

Conclusion, Limitations and Future Research

This study offers strong empirical evidence on the influence of IMC within Vietnam's higher education sector, addressing two underexplored areas: the impact of student orientation, technology orientation, and career orientation on IMC, and the subsequent effects of IMC on relational outcomes-brand trust, brand commitment, and brand loyalty—from a student perspective. The results indicate that student orientation, technology orientation, and career orientation significantly enhance IMC, with technology and career orientations showing the strongest effects. Additionally, IMC was found to positively influence brand trust, brand commitment, and brand loyalty, with trust emerging as the most significant outcome. By integrating consistent messaging with studentcentred and technology-driven approaches, institutions can enhance relational performance and brand loyalty. Based on these insights, higher education administrators are advised to adopt cohesive communication strategies that utilise digital platforms and career-oriented messaging to build trust and commitment, thereby strengthening student loyalty and enhancing institutional competitiveness. Despite its contributions, the study has certain limitations. First, it did not consider students' financial circumstances or personal attributes, such as income levels, lifestyle, motivations, or personality traits, which may influence perceptions of IMC and brand loyalty. These variables could act as potential moderators, affecting relational outcomes. Second, the focus on the higher education sector in Vietnam limits the generalisability of the findings to other sectors, such as manufacturing or services, where IMC dynamics may differ. Third, the single-country context restricts understanding of how cultural or socioeconomic variations might influence the effectiveness of IMC.

To address these limitations, future research should include financial and personal variables as potential moderators of IMC's effects on brand-related outcomes, thereby providing a more nuanced understanding of student decision-making processes. For example, examining fee sensitivity or lifestyle factors could uncover mechanisms that affect brand loyalty. Expanding this model to other industries such as healthcare or retail would also enhance its external validity. Moreover, cross-cultural studies comparing Vietnam with other regions are recommended to explore how cultural contexts shape the effectiveness of IMC.

Statement Declaration

Availability of data and material: The datasets used and analysed during the current study are available from the corresponding author on reasonable request.

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Authors' Contributions Statement: Thao T. T. Nguyen, Tri D. Le, Khoa T. Tran, Hang T. M. Nguyen, and Phuoc V. Nguyen: Conceptualization, Methodology, Data collection,

Formal analysis, Writing - Original Draft, Visualization. Thao T. T. Nguyen, Tri D. Le, Khoa T. Tran, Hang T. M. Nguyen, and Phuoc V. Nguyen: Data collection, Validation, Writing - Review & Editing. Thao T. T. Nguyen and Phuoc V. Nguyen: Supervision, Project Administration, Writing - Review & Editing. They all agreed to take responsibility for all aspects of the work.

Ethical Approval: Research procedures were conducted in accordance with the ethical guidelines set forth in the Declaration of Helsinki.

Informed consent: When the interviews started, the research aims were communicated to the respondents, who were also informed that their participation was completely voluntary and that they might be able to terminate at any time. Respondents received their verbal, informed consent. To secure the confidentiality of respondents, transcripts were pseudonymized.

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