

LAMPIRAN 9 HASIL UJI RELIABILITAS

Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Brand Association	0.790	0.793	0.877	0.704
Brand Attachment	0.818	0.827	0.880	0.646
Brand Awareness	0.827	0.831	0.878	0.590
Brand Loyalty	0.857	0.866	0.897	0.634
Perceived Quality	0.871	0.882	0.902	0.606
eWOM	0.765	0.768	0.864	0.680

LAMPIRAN 10 HASIL UJI VALIDITAS DISKRIMINAN

Discriminant Validity

Fornell-Larcker Criterion

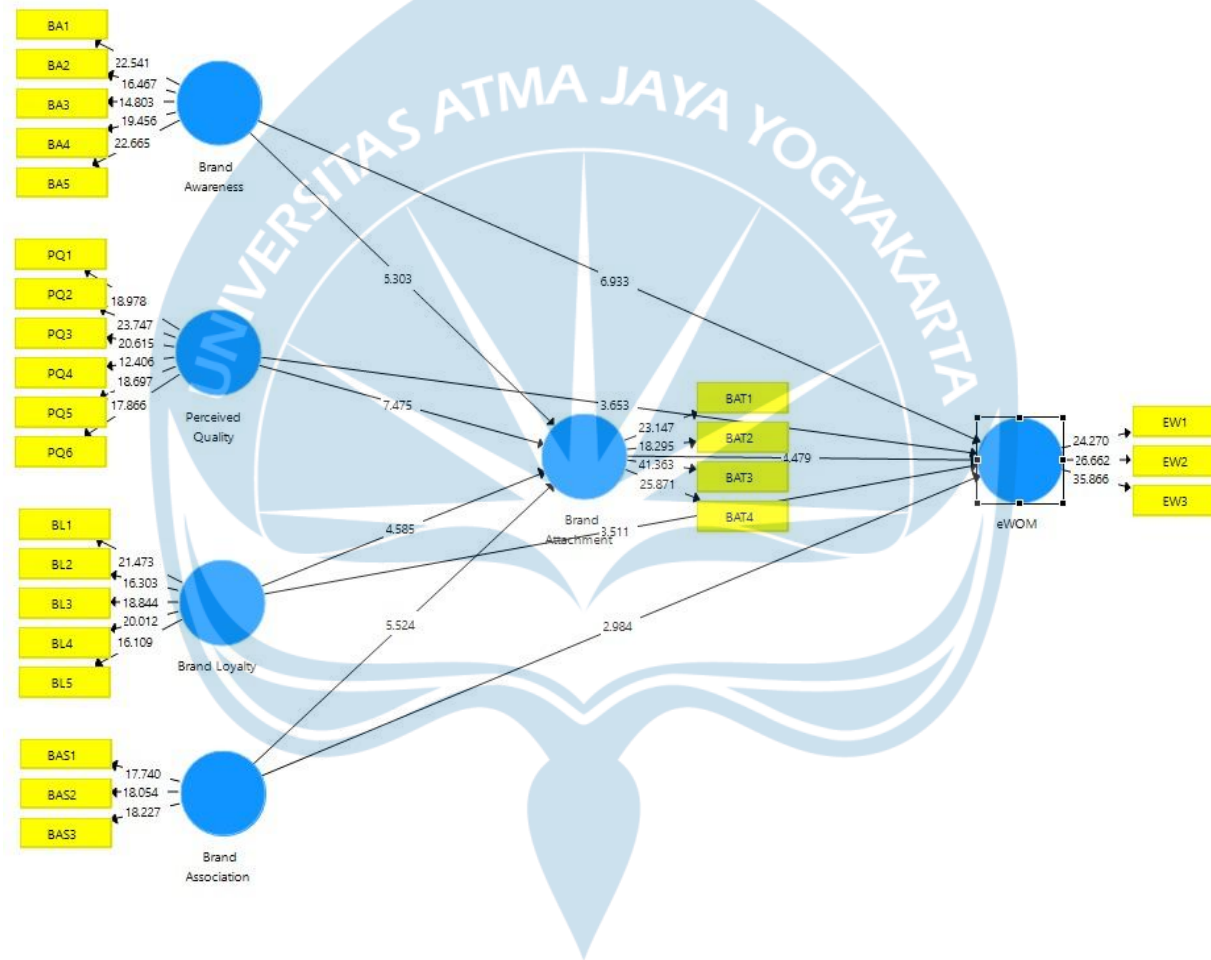
	Brand Association	Brand Attachment	Brand Awareness	Brand Loyalty	Perceived Quality	eWOM
Brand Association	0.839					
Brand Attachment	0.263	0.804				
Brand Awareness	-0.021	0.341	0.768			
Brand Loyalty	-0.060	0.267	0.058	0.796		
Perceived Quality	-0.083	0.314	-0.059	-0.104	0.779	
eWOM	0.218	0.635	0.487	0.277	0.275	0.825

LAMPIRAN 11 HASIL UJI KOEFISIEN DETERMINASI

R Square

	R Square	R Square Adjusted
Brand Attachment	0.410	0.395
eWOM	0.552	0.538

LAMPIRAN 122 MODEL PENELITIAN



LAMPIRAN 133 HASIL UJI HIPOTESIS

Path Coefficients

Mean, STDEV, T-Values, P-Values

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Brand Association -> Brand Attachment_	0.322	0.317	0.058	5.524	0.000
Brand Association -> eWOM_	0.168	0.168	0.056	2.984	0.003
Brand Attachment_ -> eWOM_	0.338	0.330	0.076	4.479	0.000
Brand Awareness -> Brand Attachment_	0.353	0.356	0.056	6.303	0.000
Brand Awareness -> eWOM_	0.377	0.381	0.054	6.933	0.000
Brand Loyalty -> Brand Attachment_	0.307	0.308	0.067	4.585	0.000
Brand Loyalty -> eWOM_	0.199	0.200	0.057	3.511	0.000
Perceived Quality -> Brand Attachment_	0.393	0.388	0.053	7.475	0.000
Perceived Quality -> eWOM_	0.226	0.229	0.062	3.653	0.000

Mean, STDEV, T-Values, P-Values

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Brand Association -> Brand Attachment_ -> eWOM_	0.109	0.105	0.033	3.343	0.001
Brand Awareness -> Brand Attachment_ -> eWOM_	0.120	0.118	0.032	3.692	0.000
Brand Loyalty -> Brand Attachment_ -> eWOM_	0.104	0.101	0.030	3.477	0.001
Perceived Quality -> Brand Attachment_ -> eWOM_	0.133	0.129	0.037	3.627	0.000

LAMPIRAN 144 JURNAL ACUAN PENELITIAN



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Customer-based brand equity and eWOM: the mediating effect of brand attachment in higher education

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MARKETING | RESEARCH ARTICLE

Customer-based brand equity and eWOM: the mediating effect of brand attachment in higher education

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ABSTRACT
The study aims to examine the relationship between customer-based brand equity, brand attachment, and electronic word-of-mouth in the context of higher education. Positive customer-based brand equity strengthens students' attachment to higher education institutions and encourages active sharing of experiences and opinions on social media platforms. This study used purposive sampling to select a sample of 707 postgraduate business students from business schools in Lima, Peru. The sample size was determined based on the total population and statistical power analysis, which guarantees an adequate sample size for robust analysis. Partial least squares structural equation modeling was used to test the proposed hypotheses. Results showed positive bilateral associations between customer-based brand equity and brand attachment and electronic word-of-mouth. Furthermore, brand attachment has a mediating role in the relationship between customer-based brand equity and electronic word-of-mouth. Additionally, customer-based brand equity can increase electronic word-of-mouth by directly increasing students' intention to share their experiences and indirectly fostering stronger brand attachment. Theoretical and practical implications of the association between study variables in higher education are discussed. Based on the results, specific strategies are proposed for practitioners to enhance the presence of higher education institutions on social media through student engagement in electronic word-of-mouth.

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Brand association; brand attachment; customer-based brand equity; electronic word-of-mouth; higher education

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Marketing; management education; management of technology & innovation

1. Introduction

Building brand equity is a key success factor across industries, including higher education (HE), which has increasingly recognized its importance in brand strategy development and implementation (Brandão & Ramos, 2024; Carvalho et al., 2021; Farjam & Hongy, 2015; Madeira et al., 2024; Mourad et al., 2020). In marketing and business sciences, particularly in the context of online engagement, brand equity is considered as the added value brands give to their products (Enes et al., 2024). This feature can be explained through three complementary perspectives: Cognitive psychology that focuses on consumer perceptions, information economics that emphasizes the utility of the brand, and financial markets that view brand equity as a financial indicator (Baalbaki & Guzmán, 2016).

Customer-based brand equity (CBBE) refers to the properties of a brand that influence customers' perceived value. It emerges when customers are aware of a brand and develop strong and positive associations with it (Keller, 1993; Mourad et al., 2020). Positive experiences and other forms of brand attachment enhance CBBE and foster customer loyalty behaviors, such as repurchasing, price sensitivity, and brand recommendations (Juhaidi et al., 2024; Langga et al., 2021; Perera et al., 2023; Troville, 2024), and word-of-mouth (WOM) (Brandão & Ramos, 2024; Iqbal et al., 2021).

WOM refers to the interpersonal sharing of marketing information, which significantly impacts customer perceptions and their purchase decisions as a trusted source of recommendations from friends,

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relatives, and social networks (Becker et al., 2024; Huete-Alcocer, 2017; Liu et al., 2024). Previous research has examined the role of CBBE in organizational differentiation, sustainability, purchase intentions, loyalty, and its drivers across sectors, including HE (Brandão & Ramos, 2024; Carvalho et al., 2021; Mourad et al., 2020; Qiao et al., 2022). However, the association of CBBE, brand attachment, and electronic word of mouth (eWOM) has not received enough attention (Carvalho et al., 2021; Dwivedi, 2024; Han & Stout, 2023).

The rise of the Internet has fostered the creation of eWOM, which utilizes digital platforms such as social networks, websites, and blogs to disseminate information more rapidly and broadly through various content forms, including text, images, audio, and video (Huete-Alcocer, 2017; Perera et al., 2023; Roy et al., 2024). eWOM enhances effective communication by reaching larger audiences and shaping consumer behavior and market trends globally and regionally (Chauhan & Gupta, 2024; Liu et al., 2024). Initially studied in forums and review sites, eWOM has evolved with social media. It reflects greater trustworthiness and reduces anonymity, as recommendations often come from trusted peers (Maru & Vijay, 2024; Tran et al., 2024). Various studies across industries, including banking, retail, and HE, have found the association of eWOM and willingness to buy, brand attachment, credibility, brand equity, and admission intentions (Augusto & Torres, 2018; Carvalho et al., 2021; Khan et al., 2025; Rajaobelina et al., 2021; Siji & Parsad, 2025; Tardin & Pelissari, 2021).

In HE, social media facilitates two-way communication between institutions and students, where positive experiences shared by current students and alumni greatly influence prospective students' decisions and encourage positive eWOM (Brandão & Ramos, 2024; Dwivedi, 2024; Shih et al., 2013). CBBE can drive eWOM (Keller, 1993; Langga et al., 2021; Mehdikhani & Valmohammadi, 2022; Park et al., 2010; Qiao et al., 2022), and this relationship could be mediated by brand attachment that sustains loyalty and supports brand equity (Brandão & Ramos, 2024; Iqbal et al., 2021). This is because brand attachment plays a pivotal role in establishing the relationship between brands and consumers, which indicates that individuals connect with brands through both cognitive and emotional resources (Li et al., 2020).

Despite the growing interest in CBBE, brand attachment, and eWOM, conceptual and methodological variations have been reported regarding the approach used and dimensions analyzed, which makes it difficult to reach conclusive and generalizable results. Moreover, these variables have not received enough academic attention in HEIs (Brandão & Ramos, 2024). The available evidence mainly addresses undergraduate student populations (Carvalho et al., 2021; Han & Stout, 2023; Ismail, 2025; Nguyen et al., 2025), whose decision-making is shaped by distinct factors (e.g. family influence, affordability) (Gerrath et al., 2023; Masa'deh et al., 2021). A few studies have included postgraduate students, whose academic choices are more autonomous and career-oriented processes (Brandão & Ramos, 2024; Huang, 2023; Kaushal & Ali, 2020; Mourad et al., 2020; Roy et al., 2023). Moreover, controversial findings regarding the determinants and dimensions of brand equity have been reported (Brandão & Ramos, 2024; Mourad et al., 2020).

To the best of our knowledge, limited research has examined the mediating role of brand attachment in the relationship between CBBE and eWOM, particularly outside of the higher education industry (Huang, 2023; Roy et al., 2023; Xie et al., 2019). Only four studies analyzed the mediating role of brand attachment between CBBE and eWOM, but in the smartphone industry (Iqbal et al., 2021), e-retail industry (Dananjoyo & Udin, 2025), and in HE in Sri Lanka (Perera, 2020) and Portugal (Ramos, 2020). In contrast, Brandão and Ramos (2024) analyzed the mediating role of brand equity between emotional brand attachment and eWOM in HEI from Portugal, India, and the USA.

Peru's postgraduate business education sector is characterized by rapid growth, strong competition, and widespread digital access, with over 1,000 new programs registered in 2023, and student registration over regional averages. High digital connectivity, 80% internet usage by 2024, increases the impact of electronic eWOM and social media on student decision-making and institutional evaluation (OECD, 2023; World Bank, 2024). Postgraduate business students make strategic, career-driven choices highly influenced by peer recommendations and institutional reputation, which highlights the importance of brand attachment and positive eWOM for institutional success (Brandão & Ramos, 2024). Nevertheless, academic research on the relationship between these variables remains

unexplored in Peru. Therefore, further research is necessary to gain a better understanding of the association between these variables, which will support the development of effective branding and recruitment strategies in the Peruvian higher education context.

To fill this gap, this paper aims to determine the association between CBBE, eWOM, and brand attachment in HE context, particularly using a sample of graduate business students from Peruvian business schools. To address this gap, the study addressed the following research questions:

- RQ1.** What is the association between CBBE and eWOM in the HE context?
- RQ2.** What is the association between CBBE and brand attachment in the HE context?
- RQ3.** What is the association between brand attachment and eWOM in the HE context?
- RQ4.** Does brand attachment mediate the association between CBBE and eWOM in the HE context?

Several factors support the relevance, pertinence, and significance of the current study. It is a novel exploration of the relationships between CBBE, brand attachment, and eWOM within the context of postgraduate business education in Peru, an educational industry that has experienced rapid expansion and high competition and increased digital engagement. Most of previous research has focused on service sectors, such as hospitality (Huang, 2023; Masa'deh et al., 2021), financial market (Augusto & Torres, 2018; Harun et al., 2019), and transportation industry (Gerrath et al., 2023; Khan et al., 2025) however, despite HE represents a distinct economic sector, as institutions provide long-term, experience-based services that involve high personal, financial, and emotional investment, research on this industry is limited (Brandão & Ramos, 2024; Perera, 2020; Ramos, 2020). These conditions make brand equity and eWOM particularly influential in shaping perceptions and decisions and offer valuable insights for developing the research on consumer behavior in this service setting.

The current study advances marketing and consumer behavior literature by clarifying the mediating role of brand attachment between CBBE and eWOM, extending established models (Aaker, 1991; Keller, 1993) to the higher education sector, which has been underexplored in this regard (Brandão & Ramos, 2024; Huang, 2023; Kaushal & Ali, 2020; Roy et al., 2023). Additionally, the findings of this study provide practical insights for higher education institutions and show that investments in building strong brand equity and fostering emotional connections with students can encourage positive eWOM and, consequently, enhance institutional reputation and support student recruitment and retention in a highly competitive and digitally connected market (Carvalho et al., 2021; Dwivedi et al., 2019; Liu et al., 2024). Finally, this research offers evidence-based guidance for practitioners seeking to support brand strategies and digital engagement to achieve sustainable growth.

From a methodological perspective, this study contributes by conceptualizing CBBE as a reflective-formative construct composed of brand associations, brand awareness, brand loyalty, and perceived quality (Yoo & Donthu, 2001). These four dimensions are treated as reflective indicators of CBBE, while CBBE itself is modeled as a formative construct formed by these dimensions. While some previous studies treat CBBE as a unidimensional construct, overlooking its multidimensional nature (Langga et al., 2021; Machado et al., 2019; Zollo et al., 2020), our approach highlights its complexity. In this sense, the study not only advances understanding of CBBE but also provides a framework for future research in this area.

Moreover, previous studies on eWOM in HE have mainly explored the perceptions of undergraduate students (Carvalho et al., 2021; Han & Stout, 2023; Ismail, 2025; Perera et al., 2023). In this target population, decision-making tends to be more family-influenced and emotionally driven by factors such as proximity, affordability, and parental preferences. In contrast, postgraduate education represents a more autonomous and strategic decision-making process, which is often guided by career advancement goals. In this context, eWOM plays a critical role, as prospective students rely on peer recommendations and professional networks and also actively share their own experiences to inform others. By focusing on business postgraduate students, this study offers novel insights into how brand attachment mediates the relationship between CBBE and eWOM within a sector where peer validation and institutional reputation are particularly salient.

2. Literature review and hypothesis development

2.1. The association between CBBE and eWOM

Aaker (1996) defined CBBE as a group of assets (liabilities) associated with a brand's name and symbol that adds to (or detracts from) the value provided by a product or service to customers. For Aaker (1991), brand equity is composed of four dimensions, namely, brand awareness (i.e. capacity of customers to recognize and recall a brand), brand image, and brand associations (i.e. ideas, emotions, perceptions, images, experiences, beliefs, and attitudes of customers linked to the brand), perceived quality (i.e. judgment of the customers about the quality of a brand), and brand loyalty (i.e. attachment that customers have to a particular brand) (Coudounaris et al., 2024; Farjam & Hongy, 2015; Yoo & Donthu, 2001). Its dimensions have often been employed to assess customers' perceptions towards brand equity across different industries (Hoo et al., 2024; Singh et al., 2024; Srivastava et al., 2024). Aaker's model is often considered the most comprehensive brand equity model (Coudounaris et al., 2024; Farjam & Hongy, 2015; Yoo & Donthu, 2001). Thus, it could be a suitable alternative to analyze the CBBE in the Peruvian HEI context.

CBBE is the value that customers or users associate with a brand, which could influence their purchasing decisions and loyalty (Cabra-Fierro et al., 2021). Positive CBBE occurs when customers recognize the brand and have positive and significant brand associations stored in their memory (Keller, 1993). Accordingly, CBBE facilitates the development of a positive association between the customer and the brand. Indeed, businesses with strong brand equity can significantly influence customer engagement and encourage expressions of loyalty such as recommending the brand to others (Sürücü et al., 2019; Wong, 2018).

According to Lin et al. (2011), higher levels of CBBE may encourage stronger brand attachment among customers. As CBBE allows consumers to familiarize themselves with the brand, positive experiences could foster emotional appeal towards it. In contrast, previous research found that, in the online setting, eWOM could affect only the products and influence purchase decisions, but it does not directly affect the dimensions of brand equity (Langga et al., 2021; Lin et al., 2011; Mehdikhani & Valmohammadi, 2022; Qiao et al., 2022).

Based on the academic literature, CBBE influences engagement in eWOM. Xie et al. (2019) found that the four elements of brand equity are closely tied to and influence how customers of the short-video platform industry engage in eWOM, such as online discussions, recommendations, and sharing information about the brand. Schivinski et al. (2021) examined the effect of CBBE on customers' propensity to engage in brand-related social media behavior. They discovered that when customers have positive perceptions, attitudes, and knowledge about a brand, it boosts their behavioral engagement. This includes increased activities like consuming brand content, contributing to discussions, and creating or sharing brand-related posts on social media platforms (Schivinski et al., 2021). Likewise, Cambra-Fierro et al. (2021) examined the association between CBBE and customer engagement in private health services. Their findings indicated that when customers perceive a brand to have strong equity, it directly leads to higher levels of satisfaction with the brand and corporate reputation. It also indirectly contributes to increasing customer engagement and interaction with the brand.

Additionally, Harun et al. (2019) analyzed the association between brand equity and positive WOM. They developed a theoretical framework to assess the effects of customers' justice perception on their post-complaint mindsets in the banking industry. Their results showed that brand equity had a positive and significant impact on positive WOM. Based on their findings, they recommended more research to analyze this association in different economic and business contexts.

Conversely, eWOM marketing activities of Indian airlines in social media influence CBBE components (Khan et al., 2025). Similarly, Teng et al. (2017) observed that eWOM has a positive effect on CBBE. Within HE contexts, positive eWOM has a beneficial influence on CBBE, and negative eWOM has a relatively minor influence (Carvalho et al., 2021; Tardin & Pelissari, 2021).

Thus, the evidence supports the positive effect of CBBE on the intention to engage in WOM (Carvalho et al., 2021; Khan et al., 2025; Tardin & Pelissari, 2021; Xie et al., 2019). However, the effect of CBBE on eWOM in the HE context has not received enough academic and scientific attention. As customers

develop positive associations with a brand and preferences for it, their intention to engage in brand-related social media behavior, such as eWOM, could potentially increase (Park & Kim, 2008). Therefore, in the current study, the following research hypothesis is tested.

H1: CBBE has a positive and significant association with eWOM in the HE context.

2.2. The association between CBBE and brand attachment

Literature suggests that CBBE has a positive association with brand attachment. However, methodological variability and controversial findings have been reported in previous studies. Dennis et al. (2016) observed that CBBE has a positive, statistically significant association with brand attachment in a sample of recent graduates from HEI. Similarly, several authors have also demonstrated that CBBE positively influences brand attachment (Heidari et al., 2023; Lin et al., 2011; Mehdikhani & Valmohammadi, 2022). Conversely, brand attachment has a strong positive effect on CBBE and is a key predictor of customer behavior (Chinelato et al., 2023; Coudounaris et al., 2024; Li et al., 2020). Mehdikhani and Valmohammadi (2022) found that positive CBBE attracts consumers' attention and builds a connection with them.

Some previous studies found that brand equity is based on the consumer's brand emotional attachment (Keller, 1993; Langga et al., 2021; Lin et al., 2011; Mehdikhani & Valmohammadi, 2022; Qiao et al., 2022). Similarly, Heidari et al. (2023) explored the effect of social media marketing on online purchase intention using brand equity, brand attachment, and brand trust as mediating factors. They found that brand equity and brand attachment have a positive association. CBBE affects individuals' perception and thus their purchasing behavior in a positive way. Individuals who are well aware of the brand and committed to using it long-term will tend to increase their brand attachment over time, fostering a deeper connection with it. In line with these findings, Dennis et al. (2016) reported a strong and positive association between brand attachment and CBBE in a sample of HE students. In contrast, brand attachment did not directly influence CBBE but had a positive association with brand resonance, customer affective commitment (Qiao et al., 2022), along with brand loyalty (Kaushal & Ali, 2020).

The literature has shown that strengthening CBBE enables customers to build a stronger emotional connection with the brand (Heidari et al., 2023; Langga et al., 2021; Lin et al., 2011; Mehdikhani & Valmohammadi, 2022; Qiao et al., 2022; Yoo & Donthu, 2001). When customers perceive a brand positively through CBBE, they develop a stronger sense of trust, belonging, and alignment with the brand's values. Therefore, CBBE acts as a catalyst that enables enduring relationships between brands and customers, influencing their attitudes and behaviors positively (Enes et al., 2024; Hermanus & Ugobo, 2023). In this context, the study hypothesizes that strengthening CBBE among students in HEIs could lead to increased brand attachment as they experience a sense of trust, belonging, and shared values with the brand. This cycle of positive reinforcement through CBBE further solidifies the brand's position in the students' minds and strengthens their commitment to the brand. Consequently, consumers are more willing to adopt positive behaviors toward the brand (Ahn, 2019; Filho, 2021; Foroudi et al., 2021). According to Roy et al. (2023), there is still a lack of research on the association between CBBE and WOM. Besides, Heidari et al. (2023) recommended exploring this association in developing countries. Therefore, to fulfill this research gap, in the current study, the following hypothesis was proposed:

H2: CBBE has a positive and significant association with brand attachment in the HE context.

2.3. The association between brand attachment and eWOM

A strong emotional attachment to the brand leads customers to extend their relationship through behaviors such as repurchase intention, word-of-mouth (WOM) communication, ethically minded consumer behavior, willingness to pay premium prices, and even forgiving the brand for occasional misconduct. This is supported by research whose findings indicate that brand attachment fosters loyalty and positive consumer actions, while also enhances resilience to negative brand information (Brandão & Ramos, 2024; Dennis et al., 2016; Dwivedi et al., 2019). Regarding WOM, the influence of brand awareness on this variable has been empirically demonstrated in various service industries. For instance, Foroudi et al.

(2021) explored the role of brand attachment, brand characteristics, and congruence in strengthening brand attitude while boosting revisit intentions and WOM in the restaurant industry. Similarly, Ahn (2019) investigated the association between need satisfaction, brand attachment, revisit intention, and WOM in the hospitality industry. In the same direction, Filho (2021) reported that brand tribalism, a form of brand attachment, where consumers' identity and social connections are deeply intertwined with the brand, has a significant influence on loyalty brand, a main component of CBBE. As brand attachment positively affects CBBE, individuals with a stronger sense of connection with the brand could share positive eWOM (Brandão & Ramos, 2024; Mishra & Satish, 2016). However, this effect has not yet been determined in the HE context. Thus, the subsequent hypothesis was proposed:

H3. Brand attachment has a positive and significant association with eWOM in the HE context.

2.4. The relationship among brand attachment, CBBE, and eWOM

Literature reveals the association between CBBE, eWOM, and brand attachment. Some studies have shown that CBBE is a significant antecedent of eWOM intention and brand attachment (Xie et al., 2019). Besides, brand attachment is associated with positive eWOM; therefore, its promotion could encourage brand attachment and improve the value-added of brands (Rajaobelina et al., 2021). Likewise, Ilter et al. (2016) found that as brand attachment grows, positive WOM also increases in a sample of high school students; however, brand jealousy functions as a negative mediating role on the association between both variables. In the same direction, Lee (2018) found that brand attachment could increase eWOM by influencing online shoppers to publish online reviews. Moreover, Schivinski et al. (2021) reported that strong brand equity influences customers' engagement behavior in favor of brands on social media, such as eWOM.

Likewise, Gómez-Suárez and Veloso (2020) and Shih et al. (2013) found that brand emotional attachment has a mediating effect in the association between brand experience and WOM in the hotel industry. In line with previous studies, Loureiro et al. (2017) found that brand love is a fundamental mediator between online consumer brand engagement (OCBE) and eWOM in a millennial generation sample. Similarly, Iqbal et al. (2021) assessed the effect of brand experience, brand love, and brand reputation on eWOM in the smartphone industry. Their findings indicate a positive association between the smartphone brand reputation and brand experience, and customers' brand love and eWOM. Additionally, smartphone consumers' brand love has a mediator role in the relationships between brand reputation and eWOM, on the one hand, and brand experience and eWOM, on the other. Likewise, Çelik and Topuz (2021) found that smartphone brand love (brand attachment) has a positive and statistically significant association with repurchase intention, positive eWOM, and eWOM susceptibility in a sample of the Y generation.

However, research on the mediating effect of brand attachment in the association between CBBE and eWOM intention is still scarce (Brandão & Ramos, 2024; Iqbal et al., 2021). Overall, empirical evidence underscores the presence of a potential indirect effect (Augusto & Torres, 2018; Harun et al., 2019; Iqbal et al., 2021; Rasool et al., 2020). Thus, brand attachment could function as a mediating variable in the relationship between CBBE and eWOM and even strengthen it by deepening the emotional connection that drives consumers to engage more actively in sharing brand-related content (Iqbal et al., 2021). This enhanced brand attachment can potentially amplify the impact of CBBE on eWOM, mediating between brand equity and consumer behavior more robustly. Therefore, based on the literature review, the following research hypothesis is suggested.

H4. Brand attachment has a mediating effect in the association between CBBE and eWOM in a HE context.

In synthesis, CBBE has a fundamental role in shaping both the emotional attachment of customers to the institution and their willingness to engage in eWOM actions (Aaker, 1991, 1996; Keller, 1993; Mourad et al., 2020). In HE, strong CBBE enhances students' favorable perceptions and experiences, which fosters brand attachment (Dwivedi et al., 2019; Park et al., 2010). This emotional brand attachment could mediate the relationship between CBBE and eWOM (Dananjoyo & Udin, 2025; Iqbal et al., 2021; Perera, 2020; Ramos, 2020). While high CBBE can directly encourage students to share positive experiences and

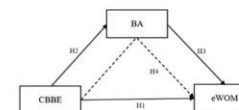


Figure 1. Theoretical model.

recommendations online, it also indirectly increases students' emotional ties to the brand (Huang, 2023; Kaushal & Ali, 2020; Roy et al., 2023). Thus, brand attachment functions as a complementary pathway through which CBBE obtains online support, which is especially relevant in the postgraduate business education context where peer influence and digital engagement are strong. This enhances the strategic importance for higher education institutions of investing in both brand equity and student attachment to promote positive eWOM and enhance institutional reputation (Carvalho et al., 2021). The integration of the hypotheses formulated in this section is shown in the theoretical model represented in Figure 1.

3. Methodology

3.1. Description of sample

The sample is made up of 707 business graduate students. However, after data cleaning and the removal of incomplete or invalid entries, 624 valid responses were retained for the statistical analysis. Table 1 describes the demographic characteristics of the sample. Regarding gender, 53% were men and 47% were women. Regarding age, the majority were between 30 and 39 years old (53.4%), followed by the 40–49 age group (28.5%), then 20–29 years old (10.4%), and finally, 7.7% were over 50 years old. Regarding marital status, 56.3% of participants were single, 38.5% were married, 5.0% were separated or divorced, and only 0.2% were widowed. Finally, regarding the educational program, 56.6% are enrolled in an MBA, 23.7% in Executive Education, and 19.7% in a specialized master's program.

The participants were invited to participate in the study and complete the survey via complementary procedures, such as email, WhatsApp messaging, SMS, and phone calls. In addition, regular reminders to complete the questionnaire were sent through these same channels. McMahon et al. (2003) and Phillips et al. (2016) argue that using mixed methods to contact participants and distribute data collection instruments increases the response rate.

3.2. Sampling technique

The research protocol was approved by the respective research ethical committee (reference number DPD-2024/52). Business postgraduate students formally registered in postgraduate business schools in Lima, Peru, participated in the current study. According to the Ministry of Education (2020), 95,000 individuals were registered in graduate programs in Peru. Based on this population, this study used purposive sampling with a confidence level of 95% and margin of error of 5%, to select an appropriate sample size could be 383 students. Complementarily, G*Power was used to determine the minimum sample size required to conduct statistical analysis (Erdfelder et al., 1996). An effect size of 0.05, a significance level of 0.05, and a power set at 80% were considered. Thus, the minimum sample size required is 295 observations to detect an R-squared of 0.25. Consequently, the sample of the current study was 707 postgraduate students.

The use of purposive sampling in this study has several limitations and produces potential biases for the study. First, purposive sampling is inherently subjective, as participants are selected based on specific characteristics determined by the researchers, which can lead to selection bias and limit the representativeness of the sample (Etikan et al., 2016). Therefore, findings may not be generalizable to all postgraduate students in Peru or to other higher education contexts. Second, participants answered an online survey; therefore, there is a risk of self-selection bias, because individuals who are more digitally engaged or have

Table 1. Demographic information.

Variables	Frequency	Percentage (%)
Gender		
Male	331	53
Female	293	47
Age		
20–29	65	10.4
30–39	333	53.4
40–49	178	28.5
Above 50	48	7.7
Marital status		
Single	352	56.3
Married	240	38.5
Separated/divorced	31	5.0
Widowed	1	0.2
Educational program		
Executive education	148	23.7
Specialized master's degree	123	19.7
MBA	353	56.6
Total	624	100

stronger opinions about their institution are more likely to participate, potentially skewing the results toward more active or satisfied students. Third, the dependence on self-reported data can introduce response bias, as participants may provide socially desirable answers or overstate their engagement and attachment. Finally, the cross-sectional nature of the sampling does not allow demonstrating causal relationships or conducting longitudinal analysis. Consequently, results should be interpreted with caution.

As sampling technique could have introduced selection bias, since participants were chosen based on subjective criteria, efforts were made to mitigate this risk by clearly defining inclusion criteria and ensuring participant diversity across gender, age, and education program to enhance the reliability of findings (Campbell et al., 2020).

3.3. Data collection techniques

Data collection procedures were conducted in October 2024. A self-administered survey questionnaire was designed to be answered in Google Forms. The questionnaire is organized as follows: a brief presentation of the study, a confidentiality statement regarding the handling of information, a written informed consent statement, and the following dimensions: CBBE: Brand awareness (5 items), CBBE: Perceived quality (6 items), CBBE: Brand loyalty (5 items), CBBE: Brand associations (3 items), Brand attachment (4 items), eWOM intention (3 items).

The indicators used in this study were adapted from those used in previous research. The constructs for customer-based brand equity (CBBE) were measured using the four dimensions established in Aaker's (1991) and Keller's (1993) models: brand awareness, brand associations, perceived quality, and brand loyalty. These are widely recognized and employed in brand equity research across various industries (Girard & Pinar, 2021), including HE (Menon & Barani, 2016) and have been previously validated (Coudounaris et al., 2024; Girard & Pinar, 2021; Mourad et al., 2020; Yoo & Donthu, 2001). The scale proposed by brand awareness was assessed using the scale proposed by Dennis et al. (2016) for HEI. Similarly, the indicators for brand attachment (Dennis et al., 2016) and eWOM (Cheung & Lee, 2012) were also based on established scales from the literature, ensuring the reliability and validity of the measurement instruments by grounding them in well-cited literature.

These scales, originally written in English, were translated into Spanish. Particularly, the double translation method was employed to obtain the Spanish version of the scales. The translation was reviewed by two experts in research and academic writing to check for accuracy and coherence. A 5-point Likert scale was used to assess individuals' responses to each statement, ranging from 1 (strongly disagree), 2 (disagree), 3 (neither agree nor disagree), 4 (agree) to 5 (strongly agree). Appendix A shows the list of the indicators adopted in the current research.

To assess the accuracy and coherence of the survey and each of its statements, a pilot test was conducted with 30 individuals not included in the sample. As suggested by Connelly (2008), this procedure may confirm the accuracy and coherence of the statements.

To address concerns related to the use of self-reported data and the potential inflation of relationships among constructs due to common method bias, Harman's single-factor test was used. This test involves conducting an exploratory factor analysis on all measurement items to determine whether a single factor emerges or if one general factor accounts for the majority of the covariance among measures (Podsakoff et al., 2012). Results indicated that the first unrotated factor accounted for less than 50% of the total variance, which suggests that common method bias was not a significant threat. Complementary procedures were implemented, such as guaranteeing respondent anonymity, to further mitigate the risk of method bias (Podsakoff et al., 2012). Therefore, the relationships among CBBE, brand attachment, and electronic word-of-mouth observed are not artificially overstated due to the measurement method.

3.4. Data analysis

PLS-SEM was used to evaluate the research hypotheses because it is a well-suited technique for theory development, particularly when data is not normally distributed (Hair et al., 2021). Additionally, PLS-PM offers higher statistical power compared to covariance-based structural equation modeling (CB-SEM), and it is recommended for studying complex relationships in theoretical models. Before estimating the PLS-SEM, common method bias was assessed using Harman's single-factor test. The results showed that the first factor accounted for 48.74% of the total variance. Because this value is below the conservative 50% threshold, common method bias is unlikely to be a critical concern in this study.

PLS-SEM involved the assessment of the measurement model followed by the estimation of the structural model. First, the evaluation of the measurement model covered both reflective and formative constructs to confirm that both types adhered to established recommendations in the academic literature (Hair et al., 2021). The final step involved estimating the structural model using a bootstrapping procedure, following Streukens and Leroi-Werelds (2016), which enabled the assessment of each research hypothesis. Overall, PLS-SEM is a widely used technique in influential research on eWOM (Cheung et al., 2020; Wang et al., 2019). According to Hair et al. (2021), PLS-SEM is the preferred technique for researchers when the study aims to facilitate theory development, as is the case in the present study.

4. Results

The proposed model comprised six reflective constructs: four factors related to CBBE [brand knowledge (BK), perceived quality (PQ), brand loyalty (BL), brand associations (BS)], brand attachment (BA), and eWOM (EW). To represent CBBE, a formative construct was employed. Evaluation of the measurement model involved two parts, following the recommendations from Hair et al. (2021). First, evaluation of reflective constructs, which included: (1) indicator reliability, (2) internal consistency, (3) convergent validity, and (4) discriminant validity. Then, evaluation of the formative construct which included: (1) collinearity, and (2) significance and relevance of outer weights.

Regarding indicator reliability, most outer loadings exceeded the recommended threshold of 0.70, indicating adequate reliability (see Appendix A). One item (i.e. CM3) had a loading between 0.40 and 0.70, which is still considered acceptable due to content validity. Two items (one from the BS construct and one from the BA construct) had loadings below 0.40 and were therefore removed from the analysis to ensure indicator reliability. Table 2 reports the results of the internal consistency, convergent validity, and discriminant validity. To assess the internal consistency of each construct, Cronbach's alpha (α) was

Table 2. Evaluation of reflective constructs.

Construct	α	AVE	HTMT values				
			BK	PQ	BL	BS	BA
BK	0.832	0.600					
PQ	0.939	0.766	0.742				
BL	0.915	0.748	0.898	0.811			
BS	0.780	0.694	0.647	0.660	0.738		
BA	0.942	0.853	0.604	0.528	0.712	0.761	
EW	0.931	0.878	0.627	0.575	0.734	0.686	0.842

Note: BK: brand knowledge; PQ: perceived quality; BL: brand loyalty; BS: brand associations; BA: brand attachment; EW: eWOM.

calculated using the conventional cutoff point of 0.70 (Nunnally, 1978). All constructs exceeded this threshold, indicating adequate internal consistency reliability. The average variance extracted (AVE) was used to evaluate the convergent validity of each construct. Results show values above 0.5, which suggests that the constructs possess adequate convergent validity. Finally, discriminant validity was assessed using the heterotrait-monotrait (HTMT) ratio of correlations (Henseler et al., 2015). In this case, HTMT values below 0.85 were obtained, which confirms the discriminant validity of the measurement model.

To represent CBBE, a reflective-formative construct composed of brand associations, brand awareness, brand loyalty, and perceived quality was employed (Yoo & Donthu, 2001). To estimate this reflective-formative construct, the disjoint two-stage approach was executed (Sarstedt et al., 2019), as also applied in recent empirical studies (Avolio et al., 2025). To evaluate the formative construct, collinearity was assessed, and the significance and relevance of each outer weight were evaluated. Table 3 displays the results of the assessment. Regarding collinearity, the variance inflation factor (VIF) was used. Particularly, VIF values below 5 suggest an adequate level of collinearity (Hair et al., 2021). In the study context, VIF values were lower than the cutoff point of 5, which indicates the absence of collinearity issues (Table 3).

On the other hand, the significance and relevance of the outer weights were evaluated. Brand associations and brand loyalty obtained positive and significant outer weights. In contrast, brand awareness and perceived quality were reported as nonsignificant.

The estimation of the structural model comprised a bootstrapping process with 10,000 subsamples. Results allowed us to assess the significance and identification of the sign of the path coefficients representing the research hypotheses (Table 4). Regarding the explanatory power, the model recorded an R-squared of 0.668, slightly above the cutoff point of 0.65 (Hair et al., 2021). Additionally, the f-squared values ranged from 0.107 to 1.149, indicating low to substantial effect sizes, which confirms that the predictors contribute notably to the explained variance in the dependent variable. Finally, the standardized root mean square residual (SRMR) was 0.06, indicating an adequate model fit since the value is below the recommended threshold of 0.08 (Hu & Bentler, 1998), which support the overall adequate fit of the model to the sample data.

Figure 2 presents the estimation output of the theoretical model, while Figure 3 displays the results generated by the SmartPLS statistical software. These findings demonstrate that all research hypotheses were supported. Firstly, CBBE has a positive and statistically significant association with the intention to engage in eWOM ($\beta=0.281$, p -value < 0.001, CI 95% [0.188; 0.365]). Secondly, CBBE has a positive and statistically significant association with brand attachment ($\beta=0.732$, p -value < 0.001, CI 95% [0.684; 0.770]). Thirdly, brand attachment recorded a positive and statistically significant association with the intention to engage in eWOM ($\beta=0.583$, p -value < 0.001, CI 95% [0.506; 0.661]). Fourthly, brand attachment has a positive and statistically significant mediating effect on the association between CBBE and the intention to engage in eWOM ($\beta=0.427$, p -value < 0.001, CI 95% [0.369; 0.487]).

To test the predictive power of the model, two strategies were applied: (1) Q-squared values, and (2) the root mean square error (RMSE) and mean absolute error (MAE) values. Q² values above 0 indicate

Table 3. Evaluation of formative constructs.

Dimension of CBBE	Weight	T-statistic	p-Value	VIF
BK	0.038	0.56	0.580	2.704
PQ	-0.069	1.029	0.312	2.445
BL	0.658	8.818	***	3.782
BS	0.469	9.511	***	1.744

Note: BK: brand knowledge; PQ: perceived quality; BL: brand loyalty; BS: brand associations.

***p-value < 0.001.

Table 4. Bootstrapping results.

Hypothesis	β	T-statistic	p-Value	F-Squared	CI 95%
CBBE $\rightarrow$ EW	0.280	6.419	***	0.107	[0.188; 0.365]
CBBE $\rightarrow$ BA	0.731	34.221	***	1.149	[0.684; 0.770]
BA $\rightarrow$ EW	0.585	15.290	***	0.468	[0.506; 0.661]
CBBE $\rightarrow$ BA $\rightarrow$ EW	0.427	14.745	***		[0.369; 0.487]

Note: ***p-value < 0.001; CI 95%: bias-corrected 95% confidence intervals.

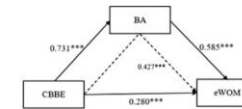


Figure 2. Estimation output.

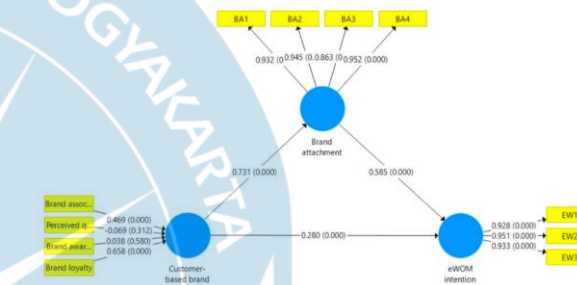


Figure 3. Estimation output - SmartPLS.

Table 5. Predictive power.

Indicators	Q-squared	RMSE		MAE	
		PLS-SEM	LM	PLS-SEM	LM
BA1	0.519	0.676	0.681	0.519	0.521
BA2	0.475	0.744	0.753	0.574	0.583
BA3	0.376	0.792	0.797	0.613	0.618
BA4	0.429	0.759	0.761	0.578	0.588
EW1	0.449	0.718	0.732	0.559	0.570
EW2	0.437	0.732	0.743	0.573	0.583
EW3	0.414	0.746	0.758	0.564	0.573

that a model has relevant predictive power, while lower RMSE and MAE values suggest greater predictive accuracy (Shmueli et al., 2019; Ulkey et al., 2025; Yu et al., 2023). Results are displayed in Table 5. All Q² values are above 0, indicating that the model has relevant predictive power. Furthermore, all RMSE and MAE values for the PLS-SEM model are lower than those of the linear model (LM), suggesting that PLS-SEM provides higher predictive power than the naive LM benchmark.

5. Discussion

The paper aims to determine the association between CBBE, eWOM, and brand attachment in HEIs, using a sample of graduate business students from Peruvian Business schools. Findings indicate that CBBE has a positive association with brand attachment and eWOM, while brand attachment has a positive association with eWOM. Furthermore, brand attachment has a complementary mediating role in the association between CBBE and electronic word-of-mouth. Besides, CBBE can increase eWOM from two complementary perspectives: It can directly increase students' intention to share their experiences and

indirectly foster stronger brand attachment. In any case, CBBE encourages positive eWOM on social media platforms.

Our findings confirm that CBBE has a significant, positive influence on both brand attachment and the intention to engage in eWOM recommendations (Juhaidi et al., 2024; Langga et al., 2021; Perera et al., 2023; Troiville, 2024). Furthermore, brand attachment directly encourages eWOM (Brandão & Ramos, 2024; Iqbal et al., 2021) and also mediates the relationship between CBBE and eWOM (Dananjoyo & Udin, 2025; Iqbal et al., 2021; Perera, 2020; Ramos, 2020), which reinforces the importance of fostering emotional connections with students to maximize advocacy (Perera, 2020; Ramos, 2020).

As conceptualized in the current study, CBBE is multidimensional and encompasses brand associations, loyalty, awareness, and perceived quality. Notably, the results highlight that among these, brand associations and loyalty exert the strongest effects on both brand attachment (Juhaidi et al., 2024; Langga et al., 2021; Perera et al., 2023; Troiville, 2024), and WOM (Brandão & Ramos, 2024; Iqbal et al., 2021). This reinforces the notion that in the education sector, characterized by strong personal investment and long-term engagement, trust and identification with the brand, through brand associations and loyalty, are vital drivers of positive behavioral outcomes. This is consistent with foundational brand equity theories (Aaker, 1991; Keller, 1993) and recent empirical studies, whose results highlight the pivotal role of brand attachment in higher education, where it enhances commitment, satisfaction, trust, and loyalty, ultimately fostering favorable consumer behaviors and brand equity (Dwivedi et al., 2019; research on brand experience and equity in higher education).

A particularly distinguishing aspect of the current research is its focus on the Peruvian postgraduate sector, a fast-evolving, highly competitive, and digitally advanced educational environment. In this context, decision-making is an autonomous and career-oriented process. The digitalization of HE and widespread internet access (over 80% by 2024 in Peru) have increased the confidence on peer recommendations and eWOM via social media channels (OECD, 2023; World Bank, 2024). In contrast, in the undergraduate education level, choices are often more family-influenced and based on emotional or practical considerations (Carvalho et al., 2021; Han & Stout, 2023; Ismail, 2025).

Our findings are consistent with existing evidence across service and non-service industries, such as the smartphone industry (Iqbal et al., 2021), the e-retail industry (Dananjoyo & Udin, 2025), and in HE in other countries, such as Sri Lanka (Perera, 2020) and Portugal (Ramos, 2020). Various studies have found that higher CBBE leads to greater brand attachment, which subsequently promotes positive eWOM (Juhaidi et al., 2024; Langga et al., 2021; Troiville, 2024). Similarly, positive eWOM could reinforce brand equity, which suggests a bilateral association between brand perception and brand support (Brandão & Ramos, 2024; Mishra & Satish, 2016; Ramos, 2020). The mediating role of brand attachment coincides with previous studies that found that emotional brand attachment enhances loyalty and recommendation behaviors (Dananjoyo & Udin, 2025; Iqbal et al., 2021; Park et al., 2010), especially in HEI (Perera, 2020; Ramos, 2020).

However, there are important contextual variations. While previous research has often examined the direct effects of eWOM on CBBE, this study underlines the complementary mediating role of brand attachment between CBBE and eWOM (Dananjoyo & Udin, 2025; Iqbal et al., 2021), especially in higher education (Huang, 2023; Kaushal & Ali, 2020; Perera, 2020; Ramos, 2020; Roy et al., 2023; Xie et al., 2019). The model's strong explanatory power ($R^2 = 0.668$) further attests to its contextual relevance, which may reflect the distinctive decision-making environment of Peruvian business postgraduate students, who are highly active on digital platforms and value peer validation.

Additional factors, such as brand credibility, social brand engagement, alumni networks, and cultural variables, also play significant roles in shaping brand attachment and eWOM. The literature suggests that consistent communication and a strong institutional reputation can strengthen both brand attachment and eWOM (Becker et al., 2024; Chu & Kim, 2011). Social media engagement and trust networks are especially powerful in markets with high digital connectivity, like Peru, as they can amplify the speed and reach of both positive and negative eWOM (Chauhan & Gupta, 2024; Liu et al., 2024).

These findings reveal the need for HEIs to strategically invest in building and communicating their brand equity, particularly by supporting brand associations and loyalty. This approach enhances emotional attachment and promotes positive eWOM, which can be a decisive factor in student recruitment and retention in a competitive educational market such as Peru (Carvalho et al., 2021; Dwivedi et al.,

2019; Liu et al., 2024). Institutions are also encouraged to use the potential of digital engagement and peer advocacy to develop emotionally centered strategies that impact both the tangible and affective dimensions of student choice (Mourad et al., 2020; Srivastava et al., 2024).

Some additional factors other than CBBE and brand attachment, such as perceived value, service quality, brand credibility and trust, emotional drivers, alumni networks, and perceived usefulness and ease of use of eWOM platforms, play important roles in shaping eWOM in HE. Evidence indicates that perceived value and student satisfaction are among the strongest predictors of positive eWOM, as satisfied students who perceive high value in their educational experience are more likely to share favorable recommendations online via social network (Chu & Kim, 2011; Hennig-Thurau et al., 2004; Kim & Park, 2023). Besides, service quality, observed in staff professionalism and campus services, encourages students to advocate for their institutions (Boulding et al., 1993; Han & Stout, 2023; Mishra & Satish, 2016). Additionally, brand credibility and trust are strong precursors for both attachment and eWOM. The students who trust their institution are more willing to recommend it, often because trust reduces perceived risk in decision-making processes (Becker et al., 2024; Liu et al., 2024; Roy et al., 2024; Tran et al., 2024). Social media engagement increases eWOM, as high interactivity and a sense of community on digital platforms promote encouragement among students (Carvalho et al., 2021; Chauhan & Gupta, 2024; Chu & Kim, 2011; Dwivedi, 2024). Additionally, emotional drivers, such as self-expression and social identity, motivate students to engage in eWOM when they relate their personal identity to the institution's brand (Berger, 2014; Park et al., 2010). Moreover, active alumni networks and a strong community enhance the scope and diversity of eWOM, especially in postgraduate education, where career outcomes are salient (Han & Stout, 2023; Liu et al., 2024). Finally, the perceived usefulness and ease of use of eWOM platforms, as explained by the Technology Acceptance Model, can further facilitate student participation in eWOM (Maru & Vijay, 2024).

5.1. Theoretical implications

Our results validate the dynamic association between CBBE, brand attachment, and eWOM in the business HE context as the hypotheses evaluated were confirmed. CBBE has a positive association with eWOM intention, which contributes to the ongoing academic debate on this relationship. Results support the positive influence of brand equity on eWOM reported in previous studies (Brandão & Ramos, 2024; Carvalho et al., 2021; Chinelato et al., 2023; Harun et al., 2019; Schivinski et al., 2021; Xie et al., 2019). As this relationship has been underexplored in the HE context (Brandão & Ramos, 2024), the current study extends the applicability of brand equity theory to the Peruvian postgraduate level.

Our findings indicate that a positive perception of students towards the HEI could motivate them to share their experiences and opinions on social media platforms. eWOM has been increasingly recognized as an influential marketing tool, as information available through the Internet becomes more relevant in the customer decision-making process (Tapanainen et al., 2021). Thus, CBBE emerges as an important antecedent of eWOM intention in the context of postgraduate education. This finding may reflect how brand equity positively shape students' evaluations of their academic institution. Given that postgraduate students often place high value on peer recommendations and professional networks, it is probable that they share their positive perceptions, experiences, and opinions through online platforms. As social and digital networks play a critical role in the decision-making process for prospective students (Siji & Parsad, 2025), this could influence the institution's visibility and appeal.

Results indicate that CBBE has a positive bilateral statistically significant association with brand attachment. Thus, the results contribute to the ongoing discussion regarding the effects of emotional connection with the brand on the creation and dissemination of positive content about the brand online, particularly among business schools. Moreover, individuals with a stronger sense of connection with the brand could share positive eWOM (Brandão & Ramos, 2024; Mishra & Satish, 2016), which positively influences brand equity. In contrast, negative eWOM has a minor impact. While this relationship has been previously empirically addressed (Brandão & Ramos, 2024; Ghorbanzadeh et al., 2024), this study advances the literature by presenting situated evidence within the context of Peruvian postgraduate education on CBBE as a multidimensional construct, made up of brand associations, brand loyalty, brand

awareness, and perceived quality. This approach acknowledges the complex nature of CBBE. By modeling CBBE as a higher-order construct, the study offers a more comprehensive understanding of how its different dimensions interact each other and with eWOM and brand attachment to reveal and explain students' perceptions and behaviors. This enables a more accurate representation of the brand equity formation process and provides a robust framework for future research to examine the distinct and combined effects of these dimensions.

Findings reveal a positive statistically significant association between brand attachment and the intention to engage in eWOM in the business HE context. This result aligns with Ahn (2019), Filho (2021), and Foroudi et al. (2021), who found that brand attachment significantly influences engagement in electronic word of mouth (eWOM) within service industries. As brand attachment positively affects CBBE, individuals with a stronger sense of connection with the brand are more likely to perceive the institution favorably and feel emotionally invested in its reputation. This emotional bond can enhance their motivation to share positive eWOM, either by recommending the institution to peers, sharing personal success stories, or defending the brand online. In the context of business higher education, where reputation and peer influence are especially relevant, such voluntary advocacy behaviors can significantly contribute to the institution's visibility, credibility, and student recruitment efforts (Brandão & Ramos, 2024).

Brand attachment has a positive and statistically significant indirect effect on the relationship between CBBE and the intention to engage in eWOM in the HE context. This finding confirms that brand attachment serves a mediating role in this association and provides evidence into the underlying mechanism through which brand equity influences student behavior (Dananjoyo & Udin, 2025; Iqbal et al., 2021; Perera, 2020; Ramos, 2020). While previous studies have examined the direct effects between CBBE, brand attachment, and eWOM (Brandão & Ramos, 2024; Iqbal et al., 2021; Li et al., 2025; Rasool et al., 2020), this study advances the literature by integrating these constructs into a single model and empirically validating the mediating role of brand attachment (Dananjoyo & Udin, 2025; Iqbal et al., 2021; Perera, 2020; Ramos, 2020). Therefore, it offers a more comprehensive understanding of how emotional and cognitive brand perceptions interact to influence students' willingness to engage in positive eWOM. As noted by Brandão and Ramos (2024), brand attachment connects the brand with consumers, which in turn increases the likelihood of consumers advocating for the brand.

Finally, the growing importance of online platforms in the decision-making process requires a deeper analysis considering the dynamics leading to eWOM intention (Yang, 2022). In this context, the study adds to the knowledge regarding the relevance of CBBE and brand attachment in encouraging the generation of substantial positive information on online platforms. In particular, results suggest that CBBE has two channels regarding its effect on eWOM intention. CBBE has a direct effect on eWOM intention and an indirect effect through the mediating role of brand attachment (Dananjoyo & Udin, 2025; Iqbal et al., 2021; Perera, 2020; Ramos, 2020). While most previous research has focused on the outcomes of eWOM, recently, the antecedents of eWOM, such as customer satisfaction (Nguyen et al., 2025) and generative artificial intelligence adoption (Ali et al., 2025; Kumar & Malhotra, 2025) have been explored. In this context, our findings reveal the complexity of CBBE in increasing the intention to engage in eWOM among students, which should be further explored in further research across different sectors.

5.2. Practical implications

Based on the findings, a comprehensive approach that promotes brand equity, emotional bonds, trust, satisfaction, digital engagement, and student involvement is essential for maximizing eWOM in higher education. Practitioners in HEIs could focus on brand loyalty and brand associations, as both were the only significant dimensions of CBBE. This could strengthen the overall CBBE and increase brand attachment and eWOM intention. Moreover, brand attachment and eWOM intention could be used to develop performance indexes to evaluate the effectiveness of implementing such a strategy.

Social media analytics represent an increasingly popular source of information regarding the interaction between the online audience and the company (Lee, 2018; Wang et al., 2021). This approach provides valuable insights to assess the impact of digital marketing on informed decision-making in the HE

sector. HEIs should actively monitor and analyze social media interactions to identify key drivers of brand attachment and eWOM among students. Institutions can design targeted campaigns that emphasize emotional connection with the brand, such as alumni success stories or personalized engagement. Additionally, insights from social media analytics can guide adjustments in branding strategies to strengthen CBBE. Regular tracking of eWOM indicators can also help institutions respond quickly to student feedback and enhance their digital presence.

Furthermore, strengthening brand equity poses a complex challenge requiring collaboration and effective communication across different areas, as well as long-term dedication and commitment to achieve significant changes. In light of the results, focusing on brand attachment represents an alternative that also increases the intention to engage in eWOM, particularly among postgraduate students. To enhance brand attachment, HEIs can implement initiatives such as student ambassador programs that empower current students to represent and promote the institution online and offline. Organizing interactive events, both virtual and in-person, where students can build a sense of belonging and emotional connection to the institution, can also be effective. Additionally, integrating personalized digital communication (e.g., emails highlighting individual achievements or tailored academic opportunities) and storytelling campaigns that spotlight student success stories and shared values can further reinforce the emotional bond between students and the institutional brand.

Recently, more extensive scales that enable practitioners to conduct a comprehensive assessment of the different dimensions of brand attachment to identify opportunities to strengthen this dimension and thus increase the intention to engage in eWOM have been developed. For example, Sharif and Lemine (2021) implemented an extensive scale of brand attachment to measure the emotional connections between students and HEIs. Similarly, other authors have proposed multidimensional scales for a comprehensive evaluation of brand attachment in the HE context (Brandão & Ramos, 2024; Kaushal & Ali, 2020). Using these tools could identify specific areas of brand attachment that should be strengthened to increase the eWOM intention. Based on the results, interventions could be designed to improve the lower-performing dimensions, followed by administering the same scale post-intervention to assess its impact and make necessary adjustments.

6. Conclusions

Findings provide helpful insights for understanding how CBBE and brand attachment work together to drive eWOM in Peruvian postgraduate business education. They demonstrate that CBBE enhances eWOM both directly and indirectly through the mediation of brand attachment. By extending established models of brand equity and addressing a gap in higher education research (Brandão & Ramos, 2024; Huang, 2023; Kaushal & Ali, 2020; Mourad et al., 2020; Roy et al., 2023), the study highlights the critical roles of digital engagement and peer influence in a digitally mature and competitive environment where student choices are career focused.

Results coincide with and expand previous studies showing that strong brand equity and emotional connections foster loyalty and eWOM, support institutional reputation and recruitment (Becker et al., 2024; Carvalho et al., 2021; Dwivedi et al., 2019; Liu et al., 2024). By focusing on the unique characteristics of the postgraduate sector, where autonomous, strategic decision-making prevails, the research underlines the need for context-sensitive brand management, particularly through enhancing brand associations, loyalty, and emotionally engaging digital communication.

The present study makes a theoretical contribution as it models and validates the mediating effect of brand attachment on the CBBE-eWOM relationship among postgraduate business students in a digitally mature and highly competitive HE industry. It clarifies how brand equity encourages positive digital promotion and extends established branding frameworks into an under-studied, high-stakes service sector (Brandão & Ramos, 2024; Huang, 2023; Mourad et al., 2020; Roy et al., 2023). It proves robust evidence that brand attachment is a pivotal pathway through which institutional brand equity enhances peer-influenced reputation and student recruitment (Dananjoyo & Udin, 2025; Iqbal et al., 2021; Perera, 2020; Ramos, 2020). Besides, it fills a critical gap in the literature and offers new directions for both scholarly and practical brand strategy in HE.

From a practical perspective, these findings indicate that HEIs should focus on strengthening brand associations and loyalty to build robust brand equity and cultivate authentic emotional bonds with students by enhancing brand attachment and eWOM. Institutions can effectively boost student engagement and positive online advocacy by implementing strategies such as targeted digital storytelling, ambassador programs, and alumni involvement, and encouraging the sharing of experiences on social media. The use of social media data and multidimensional assessment tools enables HEIs to monitor student perceptions, identify emotional drivers, and continuously evaluate and optimize branding efforts in real time. Ultimately, this comprehensive, evidence-based approach supports recruitment and retention in an increasingly competitive and rapidly evolving educational environment.

6.1. Limitations

This study had some limitations. The use of convenience sampling, based on the accessibility of participants within the business school, may have introduced selection bias, which could limit the representativeness of the sample and, consequently, the generalizability of the findings. The research focused exclusively on students from a business school, who are immersed in a more specialized academic environment with a strong emphasis on business and management topics. This context may lead to distinct perceptions and behaviors about brand equity, brand attachment, and eWOM intention. As such, findings could not be fully generalizable to students from other academic disciplines or educational levels. Besides, the scope of exogenous variables included in the model may be limited. While key antecedents of eWOM, such as CBBE and brand attachment, were examined, other relevant predictors were not included. This may limit the capacity of the model to explain eWOM intention within the HE context. Finally, the use of a structured questionnaire may not fully encompass the diversity of opinions or experiences of individuals and may bias responses. Therefore, mixed methods are highly recommended as they allow for a deeper understanding of perceptions and behavior in digital environments.

6.2. Recommendations for future studies

To address the limitations of the current study, future research could employ an experimental design to evaluate the effect of CBBE interventions on eWOM. Particularly, intervention programs focused on brand loyalty and brand associations could provide valuable insights about the bilateral influence of eWOM and CBBE. Moreover, future studies could address this research problem in Social and Economic Science undergraduate students. Age differences between undergraduate students and graduate students regarding the two dimensions of CBBE, brand attachment, and engagement in eWOM could be explored using multigroup analysis in the PLS-SEM context. Finally, it is recommended to prove the relationships among CBBE, brand attachment, and eWOM determined in this research within the business HEI in other contexts and industries in developing countries, where evidence remains limited. By expanding this research, institutions in developing countries can gain a deeper understanding of how these dynamics play out, ultimately promoting positive outcomes for institutions and students.

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Ethical approval

This study received ethical approval from the Centrum PUCP Ethics Committee (reference number DPD-2024/52) on September 19th, 2024.

Author contributions

CRedit: Juan O'Brien Cáceres: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Writing – original draft, Pablo José Arana Barbier: Investigation, Project administration, Supervision.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Data availability statement

The data of this study are available upon request from the corresponding author.

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Appendix A

Table A1. Research instrument and outer loadings.

Statements	OL
CBBE: Brand awareness (Girard & Pinar, 2021)	
CM1. The business school is well known	0.784
CM2. The business school is among the first to come to mind when one thinks of all business schools in the country	0.770
CM3. The business school's logo is instantly recognizable	0.658
CM4. The business school is known to offer specialized degree programs	0.815
CM5. The business school's degree programs are well known	0.833
CBBE: Perceived quality (Girard & Pinar, 2021)	
CP1. The faculty are knowledgeable in their fields	0.816
CP2. The faculty are polite in responding to students	0.859
CP3. The faculty care about students' needs	0.890
CP4. The faculty are responsive to student needs	0.897
CP5. The faculty are willing to help students	0.913
CP6. The faculty are accessible for students' questions and concerns	0.872
CBBE: Brand loyalty (Girard & Pinar, 2021)	
FM1. The business school is one of the first choices of prospective students	0.773
FM2. The business school's graduates recommend the university to others	0.892
FM3. The business school's graduates are loyal to the university	0.866
FM4. The business school's graduates are proud of the university	0.913
FM5. Its students/graduates are proud to have other people know that they will have/have a degree from the business school	0.874
CBBE: Brand associations (Girard & Pinar, 2021)	
AM1. The business school employs state-of-the-art technology in educating its students	0.815
(removed) The business school offers an internship program	–
AM2. The business school's career center helps students search for jobs	0.853
AM3. The business school organizes alumni networking events	0.831
Brand attachment (Dennis et al., 2016)	
BA1. To what extent is the university part of you?	0.932
(removed) To what extent do you feel personally connected to the business school?	–
BA2. To what extent do you feel emotionally bonded to the business school?	0.945
BA3. To what extent does the business school say something to other people about who you are?	0.863
BA4. To what extent is this business school part of you and who you are?	0.952
eWOM intention (Cheung & Lee, 2012)	
EW1. I intend to share my experiences in the business school with other members in social media more frequently in the future.	0.928
EW2. I will always provide my experiences in the business school at the request of other members in social media	0.951
EW3. I will try to share my experiences in the business school with other members in social media in a more effective way	0.933

Note: OL: Outer loadings.

