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THE ROLE OF INNOVATION ACTIVITIES ON BRAND EQUITY AND BRAND PERFORMANCE: THE MODERATING EFFECTS OF ECONOMIC BENEFIT

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ABSTRACT**. **Although the link between innovation and brand performance has been studied, the impact of various dimensions of innovation activities on brand performance remains under explored, with inconclusive findings. This study aims to overcome these shortcomings and contribute to the literature by investigating the influence of brand innovation activities (processes, products, marketing, and retail stores) on brand equity (measured by customers' affective and cognitive mindsets) and brand performance in Vietnam. This study also examines the moderating effects of boundary conditions, including hedonic/utilitarian factors and economic benefits. Findings from the partial least squares structural equation modelling demonstrated that different types of brand innovation activities positively influence brand love, brand knowledge, and, subsequently, brand performance. The results also validated the positive synergistic interaction between economic benefits and brand love in influencing customer purchase intentions.

KEYWORDS: brand innovation, brand equity, brand performance, hedonic and utilitarian, economic benefits, emerging markets.

JEL classification: M30, M31.

Introduction

Innovation is a pivotal factor in fostering sustainable business growth, even during challenging periods marked by unpredictable conditions (Tellis *et al*., 2009; Want *et al*., 2005; Maâlej, 2022; Kučera, Fiľa, 2022.). More specifically, during the post-crisis recovery following the intense and uncertain conditions of catastrophic events, such as the global economic downturn or recent severe diseases, firms with continuing innovation operations may benefit greatly (Roper, Turner, 2020; Pham *et al.*, 2023). Flammer and Ioannou (2015) indicate that organisations with strong innovation capabilities may make adjustments following uncertain events to successfully fulfil their stakeholders' (investors, employees, and consumers) expectations, thereby increasing organisational resilience. However, evidence indicates that not all businesses can succeed in the innovation process, despite the fact that business innovation activity is essential for company survival and expansion (Zameer *et al*., 2019; Buhaichuk *et al.*, 2021; Khalifa *et al.*, 2023). The argument is that customers' innovation awareness is lower than that of professionals who choose innovation tactics. Experts favour functional or technical elements, whereas customers prioritise the experience achieved through innovation (Danneels, Kleinschmidtb, 2001; Rigelsky *et al.*, 2022; Wu, 2022).

Innovation precedes brand performance and offers businesses several benefits (Khalatur *et al.*, 2023). Particularly, companies that invest more in innovation activities are better able to take advantage of learning opportunities and technology sourcing to meet the demand for scarce resources (Benner, Tushman, 2003; Dunning, 1998). Thus, by persistently investing in innovation activities, businesses can improve performance, as evidenced by increased profitability (Roberts, 1999), forecasted future demand (Azar, Ciabuschi, 2017), and a strengthened ability to withstand and recover from economic catastrophes (Roper, Turner, 2020; Zameer *et al*., 2019). Additionally, the link between a brand's acceptance of innovation and its equity was highlighted by Aaker (2007) and Nørskov *et al*. (2015). Zameer *et al*. (2019) indicate that customers' awareness of innovation and their positive reactions impact the success of a company's innovation plans. Additionally, Arnold *et al*. (2011) emphasise that a necessary element of effective innovation is how consumers perceive brand innovation efforts. Thus, the relationship between brand innovation activities and brand equity could be used to determine brand performance (Kunz *et al*., 2011).

While brand equity and brand innovation have been linked to improved brand performance (Nørskov *et al*., 2015), little research has been conducted on how innovation activities across multiple dimensions affect brand equity and how these antecedents relate to final brand performance outcomes, as measured by customers' purchase decisions or their recommendations to others. Previous literature has mostly concentrated on how innovation affects customers' overall perception toward the brand (Zameer *et al*., 2019), primarily emphasising brand fondness rather than brand equity, which is recognised as a crucial element in the marketing sector (Chang *et al*., 2008; Hoeffler, Keller, 2003). The specific attributes of emerging markets, such as information heterogeneity and intense competitiveness, require increased studies in this area, which are predicted to significantly contribute to the global economy (Bang *et al*., 2016; Tran *et al*., 2022; Yi *et al*., 2022). Thus, this study addresses the dearth in this field by linking the important role of brand innovation activities and performance in emerging markets, of which Vietnam is a typical example.

Additionally, the association between brand innovation activities, equity, and performance may be affected by systemic aspects such as extraordinary events. Particularly, Jin *et al*. (2022) acknowledge that innovation performance is more vulnerable to extraordinary diseases that may negatively affect brand performance due to failure in innovation activities (Iqbal *et al*., 2020; Sharma *et al*., 2022), while Chu *et al*. (2018) indicate that market unpredictability amplifies the positive influence of innovation on brand performance. These mixed results indicate the failure to incorporate the pertinent boundary conditions into the literature. Thus, this study develops a conceptual framework (*Figure 1*) that incorporates the specific context indicated by customers' consumption motivations in the post-crisis era (represented by hedonic/utilitarian factors and economic benefits).

Our study intends to bridge the following research gaps. First, unlike Nørskov *et al*. (2015), our study considers customers' cognition-based and affection-based mindsets to determine brand equity. Specifically, brand love reflects an affective mindset (Schweidel *et al*., 2011; Yeung, Wyer Jr., 2005), and brand knowledge represents a cognitive mindset (Chaudhuri, Holbrook, 2001; Keller, 2003). Second, as few studies have examined the multiple facets of brand equity and how they function as a bridge between innovation efforts and brand performance (Yi *et al*., 2022), our research concentrates on and extends these relationships. Third, it is important to incorporate boundary conditions to examine the link between brand equity and brand performance; thus, this study extends the literature by

exploring the moderating effects of hedonic/utilitarian factors and economic benefits on customer purchasing behaviour.

The remainder of this paper is organised as follows. Section 1 presents the theoretical foundation and relevant literature on which the research model is built. The method for obtaining measurements and gathering data is described in detail in Section 2. The empirical findings are discussed in Section 3, followed by the contributions and conclusions of the study.

1. Literature Review

1.1 Brand Equity and Brand Purchase

Categorisation theory posits that consumers rely on their memories to classify objects into distinct categories; it facilitates their understanding and information processing regarding product purchases or recommendations (Ma *et al*., 2014). Brandt *et al*. (2011) acknowledge that customers establish a network to associate specific brand attributes with a brand's unique value. Additionally, customers engage in the comparative categorisation of products, aggregating them to form an overall perception of the brand, which, in turn, influences brand evaluation (Zameer *et al*., 2019). In this framework, customers' perceptions of a particular brand are viewed as associative networks that allow them to categorise the brand's products and distinguish them from those of their competitors (Loken *et al*., 2002; Ma *et al*., 2014), particularly in emerging markets with significant dynamic changes and intense competitiveness (Bang *et al*., 2016). Similarly, Loken (2006) and Sun *et al*. (2017) propose that customers formulate brand evaluations based on their perceptions, experiences, backgrounds, emotions, and brand knowledge.

According to Nørskov *et al*. (2015), brand equity is formed overtime through customers' cumulative experiences and impressions. Therefore, salient cues specific to consumers are preferred to generate brand equity (Park, Srinivasan, 1994). From this perspective, brand equity refers to how consumers perceive a brand's overall strength. This implies that brand equity is based on the rank of a specific brand in consumers' minds. Consequently, a brand's success is largely determined by its distinctiveness and customers' choices over those of its rivals (Keller, 2003).

In this study, we carefully review and construct brand equity across multiple aspects. The distinctions between cognition and affection, which are characteristics of mentality used to define how customers perceive a brand, are prominently highlighted in pertinent psychological research (Baumgarth, Schmidt, 2010). However, previous studies on brand equity (Yi *et al*., 2022) have separately discussed the cognition- and affect-based paths, or conceptually combined them to measure brand equity as customers' overall perception of brand strength (Nørskov *et al*., 2015). Unlike Nørskov *et al*. (2015) and Yi *et al*. (2022), this study determines brand equity by consumers' cognitive and affective mindsets. Particularly, we categorise brand love as an affective mindset, whereas brand knowledge represents a cognitive mindset.

Brand love is defined as individuals' positive sentiment towards a certain brand (Yeung, Wyer Jr., 2005). Carroll and Ahuvia (2006) and Ahuvia (2005) define brand love as the intensity of passion and favourable emotions, such as love, for a brand. Additionally, Langner *et al*. (2015) highlight the distinction between brand love and interpersonal love based on the logical and altruistic premise that human love is a natural trait, whereas brand

love is created through customer–brand interactions. According to Fornell *et al*. (2006), brand love is distinct from contentment and esteem because it is congruent with customers' intense emotional reactions and entails the integration of a brand into consumers' identities. Elster (1999) acknowledges that brand love is essential for creating brand equity and may have a significant impact on brand choice, which, in turn, encourages brand purchase.

In contrast, brand knowledge reflects customers' cognitive attitudes rather than the entirety of their emotional reactions (Schweidel *et al*., 2011; Yeung, Wyer Jr., 2005). The degree to which people are knowledgeable about a brand is defined as brand knowledge (Keller, 2003). This can be attributed to consumers' general brand awareness, which represents their capacity to remember and capture a brand's activities (Keller, 1993). Anderson (2013) explains that brand knowledge connects consumers' memories through brand-related information, allowing them to identify the brand rather than its rivals.

Previous research has also demonstrated the influence of brand love and knowledge on brand purchase. Particularly, customers who love a brand are more likely to respond favourably to its marketing initiatives, which, in turn, influence brand preference and subsequent purchase intentions (Keller, 2003). Additionally, in the context of emerging markets, customers may form their knowledge of a brand through social media, which helps them understand the features of the company's products and services, thereby making purchasing decisions based on this information (Kladou *et al*., 2017). Thus, we propose the following hypothesis regarding the relationship between brand equity and brand purchases:

H1a-b: Brand love and brand knowledge, which are components of brand equity, positively impact brand purchase.

Brand love, formed by customers' positive feelings, is the primary factor influencing the recommendation intention of a brand's current buyers. Gounaris and Stathakopoulos (2004) indicate that brand love, which precedes customers' affection toward a company's products, results in customer brand loyalty. According to Vigripat and Chan (2007), companies that offer a good service can create positive experiences for customers, thereby improving their love for the brand. Thus, there is a high probability that these customers will recommend the brand's products to other customers.

Moreover, Amaro *et al*. (2020) suggest that electronic word-of-mouth (e-WOM), word-of-mouth (WOM), WOM intensity, recommendations, and revisit intentions are significantly influenced by customers' understanding of brands, which are shaped by their experiences with the brand. This means that when customers are aware of the benefits of a brand's products, and these attributes provide positive value to them, there is a high probability that customers will recommend the brand to others. Furthermore, Danaher and Rust (1994) and Dabholkar *et al*. (1996) demonstrated that high-quality products or services lead to deep customer cognition toward brands, subsequently increasing the likelihood of customers recommending these products or services. Thus, we propose the following hypothesis:

H2a-b: Brand love and brand knowledge, which are components of brand equity, positively impact brand recommendation.

Brand purchase, formed by customers' positive feelings towards a brand, significantly impact brand recommendations (Chowdhury, Khare, 2011). Additionally, advice and recommendations from relevant and influential individuals become increasingly significant after customers make purchasing decisions regarding high-quality products or services (Zhao, Bacao, 2021).

Anderson and Fornell (1994) also demonstrated that when buyers make a purchase decision for a product and experience satisfaction, contentment occurs, increasing the likelihood of repurchasing the product and making recommendations. In line with this view, Trivedi and Raval (2016) indicate that customers' positive experiences with a product or service will facilitate positive perceptions, motivating them to recommend it to their families or friends. Thus, we propose the following hypothesis:

H3: Brand purchase is positively related to brand recommendation.

1.2 The Relationship between Brand Innovation Activities and Brand Equity

The unique characteristics of emerging markets, such as market heterogeneity, information asymmetry, and resource shortages, challenge brands in generating and sustaining competitive advantages (Bang *et al*., 2016). In this context, innovation activities would assist brands in differentiating their offerings in the market (Yi *et al*., 2022).

In general, innovation is distinguished by two aspects: technological and non-technological. The literature focuses on the technological aspect of innovation. Damanpour (1987) states that technological innovation includes incorporating new technology into goods and services and changing their production methods. Additionally, Damanpour and Aravind (2012) show that innovation is a series of actions that include developing, generating, and implementing ideas to create new services or goods, process technologies, marketing strategies, and organisational structures.

The antecedence of innovation is also highlighted, along with exploration and exploitation orientations. An exploitation strategy entails "the refinement and extension of existing competencies, technologies, and paradigms", and is known as incremental innovation. In contrast, an exploration strategy is defined as "the experimentation with new alternatives" and is associated with radical innovation. Regarding radical innovation, companies that spend resources on new knowledge and capabilities, such as implementing new production technologies, may develop new markets and meet future market demands at an early stage (Slater *et al*., 2009). In contrast to radical innovation, businesses that practice incremental innovation strengthen their competitive advantage by improving manufacturing process efficiency and lowering variance (Benner, Tushman, 2003). According to previous research, consumer perceptions of a company's innovation efforts may increase brand equity or brand performance (Yi *et al*., 2022). We follow Zameer *et al*. (2019) and Yi *et al*. (2022) in classifying perceived innovation into four types (process, product, marketing, and retail) to investigate the conversion of innovation activities into brand equity.

Product innovation refers to the production or enhancement of goods or services in a market (Kahn, 2018). Im and Workman Jr (2004) define the quantity of new products available in the market as the primary driver of a firm's product innovation. Yi *et al*. (2022) acknowledge that customers' perceptions of product innovation are influenced by the differentiation of new or improved items from a company's existing offerings. Nørskov *et al*. (2015) and Aksoy (2017) examined the relationship between product innovation and brand evaluation and highlighted the advantages of innovative goods and services on a company's value.

Process innovation involves the application of novel techniques, fresh products or services, or manufacturing procedures (Manual, 2005). Kahn (2018) demonstrated how companies can improve their performance by reducing production costs and increasing

manufacturing efficiency. Businesses can effectively communicate their process innovations through the media, which increases positive customer perceptions.

Marketing innovation refers to new strategies that businesses use to launch new or improved products and services to the market (Zameer *et al*., 2019). It aligns with a company's marketing initiatives, media relations, and advertising tactics, such as the 4Ps concept (Gupta, Barua, 2016). In essence, when customers perceive a brand employing various delivery techniques to offer them current or upcoming goods and services, it applies marketing innovation.

Retail store innovation largely focuses on the physical setting of an exhibition shop, which is used to convey to customers the distinctive value and brand experience (Zameer *et al*., 2019). Chuchu *et al*. (2018) illustrated the relationship between retail atmosphere, brand experience, and customer attitude, highlighting the link between retail store innovation and store environment. According to Kumar and Kim (2014), a retail business's design directly affects how consumers perceive it. Prior studies have shown that innovations in products, processes, and marketing sometimes result in store-related behaviours (Frank *et al*., 2016). Thus, consumers' perceptions of a brand are influenced by the knowledge and experience they have gained from using it, which, in turn, affects brand equity.

The concept of innovation comprises five distinct qualities – benefit, compatibility, complexity, trainability, and observability - which provide a framework for innovation adopters according to the innovation dissemination theory (Feeny, Rogers, 2003). According to Ostlund (1974), each perceived element is significant because of its impact on consumer purchase intentions and brand equity. Therefore, customers' positive attitudes toward a brand increase as their perceptions of brand innovation increase. Based on this discussion, we propose the following hypotheses:

H4a-d: Perceived innovation activities, entailing process, product, marketing, and store dimensions, positively impact brand love.

H5a-d: Perceived innovation activities, entailing process, product, marketing, and store dimensions, positively impact brand knowledge.

1.3 The Moderating Effect of Hedonic/Utilitarian (HU) Factors on the Relationships among Brand Love, Brand Knowledge, and Brand Purchase

Hedonic factors refer to the emotional or psychological benefits consumers derive from a product or service, such as pleasure, excitement, or enjoyment, whereas utilitarian factors refer to the functional or practical benefits consumers derive from a product or service, such as usefulness, efficiency, or convenience (Chaudhuri, Holbrook, 2001). The literature indicates that HU factors can moderate the relationship between brand love and purchase behaviour in different ways. Kesari and Atulkar (2016) indicate that HU elements may accelerate the nexus between brand love and consumer satisfaction, thereby affecting customer loyalty and purchase patterns. Fournier and Alvarez (2012) found that emotional and functional factors play a role in the association between a brand's positive customer sentiment and their purchasing behaviour.

HU elements may also moderate the relationship between brand knowledge and purchase behaviour by influencing customers' emotional responses to the brand. Accordingly, advertising tactics and HU goods and services interact to influence brand love. Particularly, emotional advertising is more effective for products with hedonic value, while logical

advertising is more appropriate for utilitarian-valued products (Jun *et al*., 2009). Additionally, emotional marketing is more successful for utilitarian and hedonic value-based services (Jun *et al*., 2009). Thus, HU elements can have a beneficial impact on brand purchasing, as demonstrated by the success of advertising campaigns. Sarkar (2014) indicates that popular brands tend to be found in highly hedonic and less practical product categories, including coffee shops, alcoholic beverages, perfumes, stylish bikes, fashion items, and resorts. However, Carroll and Ahuvia (2006) demonstrated that brand love and product hedonism are positively correlated. As brand purchases can now be affected both favourably and unfavourably by the two aforementioned elements, the degree of HU characteristics may impact how brand love affects brand purchases. Additionally, hedonic motives and their components favourably influence customer purchases (GÃ¼ltekin, 2012).

The literature indicates that consumers' inclinations to purchase products are positively influenced by their level of hedonistic motives (Musnaini *et al*., 2017). Accordingly, HU elements, combined with customers' product knowledge, may impact brand purchases. Thus, we propose that by enhancing the emotional bond between customers and the brand, hedonic elements can significantly impact the relationship between brand love and brand purchase. By affecting consumers' perceptions of the brand's functional benefits, utilitarian characteristics, such as utility and efficiency, can increase the nexus between brand love and purchase intention. Thus, we propose the following hypothesis:

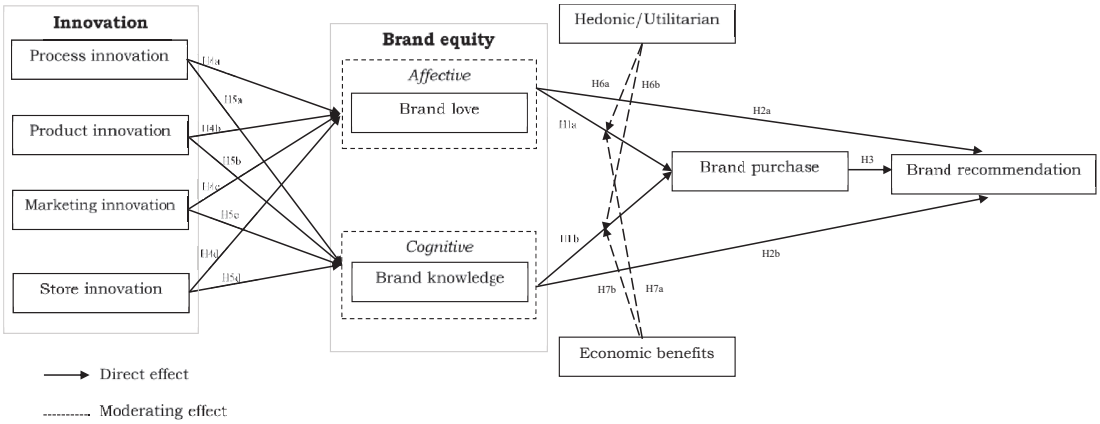
H6a-b: Customers' perceptions of HU elements of a brand significantly enhance the relationship between brand love, brand knowledge, and brand purchase.

1.4 The Moderating Effect of Economic Benefits (EB) on the Relationship among Brand Love, Brand Knowledge, and Brand Purchase

Customers' perceptions of EB, such as low prices or discount programs, have a remarkable impact on their purchasing journey. Previous studies have indicated that brand attitude and EB positively affect brand purchase intentions (Maknunah, Rachmat, 2020). This means that when customers have a positive attitude or feelings toward a brand, combined with the EB that the brand offers, it will accelerate the possibility that these customers will choose to purchase the brand's products.

Urbany *et al*. (1996) indicate that many customers consistently seek information to understand the brand, and their purchasing decisions are often affected by their perceptions of the brand's EB, such as discount programs or savings from the company's products. This finding aligns with that of Yusuf and Sunarsi (2020), who indicate that price, in addition to customers' brand knowledge, is a key selection criterion for consumers. Thus, EB may accelerate purchase intentions when customers are aware of a brand's product information. Therefore, we propose the following hypothesis:

H7a-b: Customers' perception of EB of a specific brand significantly enhances the relationship between brand love, brand knowledge, and brand purchase.



Source: created by the authors.

Figure 1. **Research Framework Model**

Based on the above discussion, we propose the conceptual research model shown in *Figure 1*.

2. Methodology

2.1 Data Collection

To ensure the readability of our proposed measurements in the Vietnamese context, we conducted a preliminary test involving 15 students and 15 staff members from a university in Southern Vietnam. Participants were asked to recall three brand names associated with the following product categories: fashion, skincare, and smartphones. Specifically, the categories included three apparel brands (H&M, Zara, and Uniqlo), three skincare brands (Innisfree, La Roche-Posay, and Kiehl's), and three smartphone brands (Apple, Samsung, and Oppo). These categories were chosen because of their popularity, relevance, and wide availability in retail stores across Vietnam, all of which are necessary for the store innovation construct. The pre-test yielded valuable feedback from the participants, which was used to refine the measurement items, including the formulation of the questions.

The study was conducted in Vietnam, which is an emerging market, with participants who are consumers of diverse brands. We focused on young customers aged 18–25 years, a group commonly highlighted as the main drivers of the modern economy (Francis, Hoefel, 2018), particularly in emerging markets. The participants are consumers of three product categories: technology, fashion, and cosmetics. We conducted a hybrid survey recruiting voluntary participants from college students working in Ho Chi Minh City, one of Vietnam's largest cities. We collected data on different dates and times from August to October, 2022.

Before performing the survey, all respondents were informed about the goals of the research, particularly highlighting the voluntary nature of completing either the online or paper-based survey. Next, the participants were asked two initial questions to determine the retail stores of the brands they had recently visited and whether they had used the brand's products. If the participants confirmed that they had neither visited any stores of the listed

brands in the past 30 days nor used any products from the selected brands, they were instructed to discontinue the survey.

At the outset, invitations were extended to three e-commerce social communities in Vietnam. Meanwhile, the research team approached 500 business majors and invited them to voluntarily participate in the survey. Students were provided with the choice to complete either an online or a physical questionnaire. Four hundred and twelve surveys were collected, including 62 online and 350 paper-based questionnaires. Finally, speeders and incomplete responses were deleted to enhance the accuracy of the data. Particularly, we excluded responses that comprises a single consistent answer for most questions and those that did not include responses for all questions.

After excluding 40 invalid responses, 372 surveys were used as the final sample. Most respondents were women (75.2%) and fell within the 18–25 age bracket (93%). Approximately 96% of the respondents had completed a bachelor's program.

1.2 Measures

We adapted the measurement scales from prior research and modified the questionnaires (see *Appendix* 1) to fit the setting of this study. Specifically, the constructs of innovation activities, including four items on process innovation (PIP), five items on product innovation (PIPD), four items on marketing innovation (MP), and four items on store environment innovation (SEP), were adapted from Zameer *et al*. (2019).

Customer cognitive mindset was measured using two items of brand knowledge (BK) developed by Chaudhuri and Holbrook (2001). Customers' affective mindsets were measured using eight items of brand love (BL) from Carroll and Ahuvia (2006). Three items for brand purchase (BP) and two for brand recommendations (BRD) were adopted from Chaudhuri and Holbrook (2001) and Zameer *et al*. (2019). Additionally, two moderating variables of EB and HU factors, were adapted from Tran (2021) and Voss *et al*. (2003). Seven-point Likert scales ranging from 1 ("totally disagree") to 7 ("totally agree") were used to evaluate these items.

This study used the partial least squares structural equation modelling (PLS-SEM) technique to examine the net-effect links among latent variables to investigate the relationship between innovation activities, brand equity, and brand performance. The PLS-SEM merges measurement and structural models into simultaneous assessments (Gefen *et al*., 2011). Therefore, this method can be used to represent the connections between several predictors and criteria variables. The measurements were validated using the SmartPLS software, and the model was tested. To obtain validated results, 5,000 bootstrapping replications from the original sample were performed, as advised by Hair Jr *et al*. (2017). It has been suggested that bootstrap confidence interval (CI) further demonstrates the stability of the coefficient estimation.

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3. Empirical Results

3.1 Measurement Model Analysis

The outcomes of the measurement model's convergent validity test are presented in the Appendix. Owing to its low outer loading, items PIDP1 and PIDP2 of product innovation perception were excluded from further analysis. The loading values, Cronbach's alpha (CA), composite reliabilities (CR), and average variance extracted (AVE) values of the remaining indicators all met the minimum convergent validity thresholds, with values of 0.7, 0.7, 0.7, and 0.5, respectively (Hair Jr *et al*., 2017). Furthermore, all variance inflation factor (VIF) ratios of the indicators were lower than the recommended threshold of 3.3 (Kock, 2015). Specifically, the VIF value of HU6 was the highest at 3.544, while that of PIP1 was the lowest at 1.288, suggesting that the structural models' components exhibit acceptable collinearity.

Table 1. Discriminant validity (HTMT and Fornell-Larcker Criterion)

HTMT criterion										
	BK	**BL**	**BP**	**BRD**	**EB**	**HU**	**MP**	**PIDP**	**PIP**	**SEP**
BK	1									
BL	0.76									
BP	0.67	0.63								
BRD	0.68	0.69	0.59							
EB	0.55	0.51	0.57	0.56						
HU	0.79	0.88	0.62	0.71	0.59					
MP	0.57	0.64	0.45	0.51	0.45	0.62				
PIDP	0.48	0.62	0.48	0.48	0.30	0.57	0.77			
PIP	0.56	0.50	0.46	0.54	0.33	0.49	0.65	0.72		
SEP	0.53	0.73	0.47	0.49	0.38	0.69	0.72	0.64	0.50	
Fornell-Larcker criterion										
	BK	**BL**	**BP**	**BRD**	**EB**	**HU**	**MP**	**PIDP**	**PIP**	**SEP**
BK	0.88									
BL	0.62	0.81								
BP	0.54	0.57	0.90							
BRD	0.52	0.61	0.51	0.92						
EB	0.40	0.43	0.48	0.45	0.83					
HU	0.65	0.81	0.56	0.62	0.50	0.80				
MP	0.45	0.58	0.40	0.43	0.36	0.56	0.85			
PIDP	0.37	0.54	0.41	0.39	0.24	0.49	0.66	0.86		
PIP	0.43	0.44	0.40	0.45	0.26	0.43	0.55	0.59	0.80	
SEP	0.43	0.66	0.42	0.42	0.32	0.62	0.63	0.55	0.43	0.86

Source: created by the authors.

Table 1 shows the discriminant validity of all constructs using the heterotrait-monotrait (HTMT) ratio and Fornell-Larcker criteria (Fornell *et al*., 2006). Particularly, the HTMT values were less than 0.9, as recommended by Hair Jr *et al*. (2017), and the square root of each construct's AVE exceeded the correlation between the other constructs, thereby confirming the HTMT results (*Table 1*). Thus, the results demonstrate that all inner constructs were uncorrelated.

3.2 SEM Analysis

Table 2 reports the structural model assessment results after controlling for demographic variables. Particularly, customers' PIDP was revealed to have a positive correlation with BL, which represents the affective aspect (β = 0.142, ρ = 0.046, CI is [0.03, 0.282]), while PIP had a positive association with BK, which represents the cognitive aspect (β = 0.243, ρ = 0.001, CI is [0.1, 0.375]).

Table 2 Structural model analysis

Effect on endogenous variables	Path coefficients	t-value	p-value	Confidence interval		f^2	Decision
				2.5%	97.5%		
1. Brand purchase (Q^2= 0.333; Adj. R^2= 0.474)							
Brand love	0.228	2.319	**0.002****	0.022	0.420	0.035	**H1a: Supported**
Brand knowledge	0.247	2.665	**0.008****	0.073	0.431	0.061	**H1b: Supported**
2. Brand recommendation (Q^2=0.340; Adj. R^2= 0.429)							
Brand purchase	0.188	2.750	**0.006****	0.055	0.323	0.043	**H3: Supported**
Brand love	0.384	5.919	**0.000****	0.251	0.508	0.144	**H2a: Supported**
Brand knowledge	0.185	2.197	**0.028****	0.024	0.346	0.041	**H2b: Supported**
3. Brand love (Q^2= 0.303; Adj. R^2= 0.506)							
Process innovation	0.075	1.215	0.225	-0.043	0.184	0.012	H4a: Not supported
Product innovation	0.142	1.999	**0.046***	0.003	0.282	0.024	**H4b: Supported**
Marketing innovation	0.165	2.880	**0.004****	0.051	0.281	0.028	**H4c: Supported**
Store innovation	0.451	8.586	**0.000****	0.343	0.551	0.242	**H4d: Supported**
4. Brand knowledge (Q^2= 0.196; Adj. R^2= 0.285)							
Process innovation	0.243	3.421	**0.001****	0.100	0.375	0.056	**H5a: Supported**
Product innovation	-0.015	0.170	0.865	-0.226	0.168	0.005	H5b: Not Supported
Marketing innovation	0.201	2.731	**0.006****	0.054	0.347	0.028	**H5c: Supported**
Store innovation	0.210	2.974	**0.003****	0.067	0.346	0.040	**H5d: Supported**

Notes: the null hypothesis of constant variance was rejected if the p-value was lower than 0.05 (Hair Jr et al., 2017). Statistical significance is at 1% (**). The standardised root mean square residual (SRMR) = 0.034.

Source: created by the authors.

Additionally, the statistical results demonstrate a positive association between MP and all dimensions of cognitive and affective aspects, indicated by BK (β = 0.201, ρ = 0.006, CI is [0.054, 0.347]) and BL (β = 0.165, ρ = 0.004, CI is [0.051, 0.281]). Furthermore, high BL and BK were affected by the high likelihood of customers' store environment perception - SEP (β = 0.451, ρ = 0.000, CI is [0.343, 0.551], β = 0.21, ρ = 0.003, CI is [0.067, 0.346]).

The statistical results also showed that BL and BK significantly increase customers' BP (BL→BP β = 0.228, ρ = 0.002, CI is [0.022, 0.420], BK→BP β = 0.247, ρ = 0.008, CI is [0.073, 0.431]) and BRD (BL→BRD β = 0.384, ρ = 0.000, CI is [0.251, 0.508], BK→BRD β = 0.185, ρ = 0.028, CI is [0.024, 0.346]). Furthermore, BP is positively related to BRD (β =

0.188, ρ = 0.006, CI is [0.055, 0.323]). However, the results indicate non-statistically significant relationships between PIP and BL and PIPD and BK. These statistical results confirmed the proposed hypotheses (accepting *H4a and H5b*), indicating that customers' perceptions of brand innovation activities significantly influence their brand evaluation by cognitive and affective mindsets in various ways.

We also evaluated the model using a cross-validated redundancy index (Q^2) for endogenous reflective constructs. A Q^2 value greater than zero implies that the model has predictive relevance. The results, summarised in *Table 2*, confirm that the structural model had satisfactory predictive relevance for all endogenous constructs. Additionally, we computed the standardised root mean square residual (SRMR), which should be below 0.08, as recommended by Henseler *et al*. (2016). The research model achieved an SRMR of 0.034, indicating an appropriate fit. Furthermore, as f^2 measures the strength of the explanation between exogenous and endogenous variables (Cohen, 2013; Henseler *et al*., 2009), the results of the effect size (*Table 2*) confirmed the small, medium, and large significant effects of the two dimensions of brand equity—BL and BK— on brand performance.

Finally, four control variables—occupation, gender, income, and education—were incorporated into the analysis to determine whether they impact the correlations examined in this study. After inclusion, no discernible changes were observed in the influence of the endogenous variables.

Table 3. Mediating and moderating effect analysis

	Effect on endogenous variables	Path coefficients	t-value	p-value	Confidence interval 2.5%	97.5%
1.	PIP → BK→ BP → BRD	0.010	2.040	**0.041****	0.002	0.023
2.	BK → BP → BRD	0.044	2.272	**0.023****	0.010	0.088
3.	MP → BK → BP	0.048	2.027	**0.043****	0.009	0.104
4.	MP → BL → BRD	0.064	2.529	**0.011****	0.017	0.117
5.	PIP → BK → BP	0.060	2.050	**0.040****	0.014	0.125
6.	SEP → BL → BRD	0.173	4.954	**0.000****	0.106	0.244
7.	SEP → BL → BP	0.103	2.222	**0.026****	0.010	0.198
8.	HU*BL→BP	-0.091	0.762	0.446	-0.332	0.125
9.	HU*BK→BP	-0.010	0.092	0.927	-0.234	0.239
10.	EB*BL→BP	0.192	2.156	**0.031****	0.023	0.366
11.	EB*BK→BP	-0.149	1.780	0.075	-0.312	0.011

Notes: the null hypothesis of constant variance was rejected if the p-value is lower than 0.05 (Hair et al., 2017). Statistical significance is at 1% (**).

Source: created by the authors.

We further explored the mediating effect of brand equity on the relationship between brand innovation and brand performance. We extended the analysis by investigating the indirect effects between the variables, following Nitzl *et al*. (2016). The results revealed that BP significantly mediated the relationship between BK and BRD (β = 0.044, ρ = 0.023). Furthermore, EB was identified as a moderator of the relationship between BL and BP (β = 0.192, ρ = 0.031). These results confirmed H7a; however, H6a, H6b, and H7b are not supported (*Table 3*).

Conclusions and Discussions

The link between innovation and brand performance has gained significant attention in the literature. However, there is a lack of evidence regarding the perception of brand innovation activities and brand equity with the synthesis of boundary conditions, particularly in crucial contexts such as emerging markets (Bang *et al*., 2016, Yi *et al*., 2022), thereby driving the importance of studies in this field. Therefore, the primary objective of this study was to investigate the influence of perceived innovation activities on brand equity, assessed by customers' cognitive and affective mindsets, while considering the moderating effects of customers' purchase motivation and perception of EB.

The PLS-SEM analysis revealed a significant effect of the cognitive and affective aspects of brand equity on BP. These results suggest that brands benefit from establishing an intense emotional relationship with customers or fostering a rational-based value relationship. However, achieving both statuses is a rare feat for brands operating in emerging markets owing to resource limitations (Bang *et al*., 2016).

The path analysis also demonstrated that PIP had a positive effect on the cognitive aspect of brand equity, whereas PIPD had a positive effect on the affective aspect, subsequently leading to customer BP. Moreover, the statistically positive effect of store and MP activities on both customers' affective and cognitive mindsets highlights the crucial role of store environment and marketing strategies. This suggests that physical stores and marketing campaigns are the most visible and effective approaches for brands to showcase their innovations to improve customers' emotions and enhance their brand awareness. These findings imply that brands should allocate resources to store and MP activities to enhance customers' connections with the brand, particularly in resource- constrained situations dominated by young customers. Moreover, these findings highlight that PIPD is an additional activity that enhances customers' emotional experiences, whereas PIP may foster customers' brand knowledge.

This study fills a gap in the literature by considering the boundary conditions in the relationship between brand innovation activities and brand performance. Empirical evidence indicates that only perceived EB plays a significant moderating role in the relationship between BL and BP. This implies that brands may reap greater benefits by executing campaigns that emphasise economic advantages, particularly when targeting young customers who have strong emotional connections with the brand.

Theoretical contribution

The literature has two major theoretical limitations. First, the intervening variables between innovation and brand performance have been overlooked. Second, few previous studies have interlinked important boundary conditions. This study addresses these theoretical shortcomings by incorporating an important intervening factor (brand equity constructed using multiple dimensions) and pertinent boundary conditions (HU elements and EB) to examine the relationship between brand innovation activities and brand performance.

This study contributes to the literature in four ways. First, it indicates that innovative dimensions impact brand equity differently and are constructed by cognitive and affective aspects. Particularly, BL was not affected by PIP but by the innovation activities of the product, marketing, and retail store environment. Additionally, BK is related to three innovative dimensions: process, marketing, and store environment. These results extend the works of Nørskov *et al.* (2015) and Chuchu *et al.* (2018), and consolidate previous findings (Cavalli, 2007; Lee, Kim, 2013; Lee *et al.*, 2013) that customers' perceptions of brand

innovation may be influenced by technological advancements, such as cutting-edge products, as well as symbolic innovations, like novel marketing communications.

Second, this study adopts a comprehensive approach to brand equity, considering both cognitive (BK) and affective mindsets (BL) from the customer's perspective. By integrating these cognitive and affective processes, this study not only enriches the literature, but also formulates a model that elucidates how firm innovation activities are transformed into brand equity, which is the precursor to brand preference, purchase, and recommendation. This distinctive viewpoint provides insight into the mechanisms by which innovation affects firm performance.

Third, this study fills a gap in the literature by synthesising boundary conditions into the proposed research model and examining the moderating role of customers' purchase motivation and their perception of EB. Extending Manual (2005), Kahn (2018), and Zameer *et al*. (2019), the results revealed that customers perceived economic value significantly moderates the relationship between BL and BP. Specifically, a brand's EB accentuates the positive relationship between BL and BP. Brands that evoke greater passion and emotional attachment (BL) from customers, and indicate higher EB, gain more than those with BL alone. The identification of EB in the association between brand equity and brand performance is particularly significant during extraordinary periods because of uncertain events. However, previous studies have overlooked this aspect. As there are no significant moderating effects of HU value on the relationship between brand equity and customer purchase, the results validate the influence of external factors, such as unusual events, that can lead firms to redefine the boundary conditions of resource allocation.

Finally, significant research has been conducted in other developed markets, such as North America and Europe (Kahn, 2018; Manual, 2005; Zameer *et al*., 2019), but there is a lack of studies in frontier countries. Vietnam has earned recognition as a rising star in emerging markets, with a stable political situation and high economic growth, combined with a large market scale (Nguyen *et al*., 2019). Our study contributes to the limited number of studies on the effects of brand innovation activities on brand equity and its subsequent effects on Vietnam and similar emerging markets.

Practical contributions

This study has significant practical implications. Considering the empirical findings, managers should adopt multiple innovation activities to formulate and execute brand strategies, thereby enhancing brand equity and performance. Specifically, managers should endeavour to build and enhance firms' competitive advantages by incorporating diversified innovation activities, such as new marketing strategies, new product releases with new value or functions, allocating more resources to technology development, and improving customer experience through the retail store environment. Managers can also build eco-friendly strategies through green innovation activities, leading to significant brand performance and a reduction in the brand's future financial constraints (Rahman, 2023). Furthermore, managers should build strong brand equity, measured by customers' cognitive and affective aspects, to reap greater benefits from innovation activities, thus increasing brand performance (Keller, 2001).

Moreover, as the empirical results validate the synergistic interaction between EB and BL for customers' purchase intentions, managers should invest resources not only in innovation activities, but also in price mechanisms or campaigns that help customers realise the EB they can receive from purchasing a brand's products (Chen *et al*., 1998; Kenesei *et al*., 2003). Consequently, hidden price promotions may be a potential strategy for accelerating

customer purchases (Li *et al*., 2022). However, to prevent potential backfire from reducing consumer purchase intention when customers expect large discounts, we suggest that these strategies focus only on young customers with a strong emotional connection to the brand.

Limitations

Although our study offers remarkable contributions to its field, future research can address some limitations. First, the study's sample primarily consisted of young women, with a significant portion being students. While this demographic is known to be enthusiastic consumers of the brands studied, the exclusive concentration in this particular segment limits the results' applicability. Additionally, this study examined three well-known brands from each product category. Although this approach reduces diversity in terms of innovation activities between prominent and niche brands, it prevents a detailed comparison of brands occupying distinct market positions. Future studies should include brands with diverse market positions to contribute to a more comprehensive understanding of customer brand equity. By involving participants from various demographic backgrounds and considering a wider range of brands within an industry, researchers could gain a more expansive perspective on the relationships explored in this study. Third, brand equity can lean towards either rational or emotional attributes, contingent upon the brand's positioning and category. Consequently, future research could explore brand equity from an image- or performance-centric perspective.

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INOVACINĖS VEIKLOS VAIDMUO PREKĖS ŽENKLO NUOSAVYBEI IR PREKĖS ŽENKLO VEIKLOS REZULTATAMS: MODERUOJANTIS EKONOMINĖS NAUDOS POVEIKIS

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SANTRAUKA

Nors dabartinėje literatūroje pabrėžiama, kad inovacinė veikla yra labai svarbi įmonės veiklos rezultatams, įvairių inovacinės veiklos aspektų poveikis prekės ženklo veiklos rezultatams tebėra nepakankamai ištirtas, o rezultatai nėra vienareikšmiški. Tai yra iššūkis besiformuojančiose rinkose veikiančioms įmonėms, kurios siekia veiksmingai paskirstyti savo ribotus išteklius. Šiuo tyrimu siekiama pašalinti šias spragas ir prisidėti prie literatūros tiriant prekės ženklo inovacijų veiklos (įskaitant procesus, produktus, rinkodarą ir mažmeninės prekybos parduotuves) įtaką prekės ženklo nuosavybei ir prekės ženklo veiklos rezultatams Vietname. Be to, šiame tyrime nagrinėjamas hedonistinių (utilitarinių) veiksnių ir ekonominės naudos moderuojantis poveikis stiprinant ryšį tarp prekės ženklo nuosavo kapitalo ir prekės ženklo pirkimo. Statistiniai rezultatai buvo kruopščiai išnagrinėti, o tai leidžia daryti prielaidą, kad prekių ženklams gali būti naudinga įtraukti įvairią inovacinę veiklą, pavyzdžiui, įgyvendinti naujas rinkodaros strategijas, išleisti naujus produktus, turinčius didesnę vertę ar funkcijas, skirti daugiau išteklių technologijų plėtrai ir gerinti klientų patirtį per mažmeninės parduotuvės aplinką. Rezultatai taip pat patvirtino teigiamą ekonominės naudos (EB) ir simpatijos prekės ženklui sąveiką darant įtaką klientų ketinimams pirkti. Tai rodo kainų mechanizmų ar kampanijų, padedančių klientams suvokti ekonominę naudą, kurią jie gali gauti pirkdami prekės ženklo produktus, vaidmenį.

REIKŠMINIAI ŽODŽIAI: prekės ženklo naujovės; prekės ženklo nuosavybė; prekės ženklo efektyvumas; hedonistinis ir utilitarinis; ekonominė nauda; besivystančios rinkos.

Appendix 1

Table A. Item loadings, constructs reliability, and validity.

Construct	Item	Loading	VIF	AVE	rho_A	CA	CR
Brand knowledge	BK1: Brand connection	0.898	1.434	0,774	0,720	0,710	0,873
	BK2: Brand knowledge	0.861	1.434				
Brand love	BL1: Wonderful	0.803	2.312	0,653	0,925	0,924	0,938
	BL2: Good	0.781	3.044				
	BL3: Pleasure	0.814	3.440				
	BL4: Awesome	0.841	2.712				
	BL5: Happy	0.836	2.884				
	BL6: Love	0.848	3.026				
	BL7: Passionate	0.762	2.704				
	BL8: Pure delight	0.773	2.336				
Economic benefits	EB1: Money saving	0.837	1.789	0,688	0,801	0,778	0,869
	EB2: Economic situation improvement	0.799	1.630				
	EB3: Lower price	0.852	1.497				
Hedonic/Utilitarian	HU1: Functional	0.766	2.280	0,632	0,921	0,917	0,932
	HU2: Practical	0.825	2.770				
	HU3: Useful	0.766	2.232				
	HU4: Necessary	0.761	2.202				
	HU5: Fun	0.798	2.465				
	HU6: Exiting	0.852	3.544				
	HU7: Thrilling	0.777	2.621				
	HU8: Enjoyable	0.811	2.659				
Perceived marketing innovation	MP1: Different marketing tools.	0.830	2.011	0,716	0,888	0,868	0,910
	MP2: Innovative marketing activities.	0.855	2.107				
	MP3: Innovative advertising (more than traditional methods).	0.879	2.308				

	MP4: New channels for marketing.	0.820	2.025				
Perceived product innovation	PIDP3: The pioneer to introduce new products.	0.860	1.837	0,736	0,822	0,820	0,893
	PIDP4: Always launches new products.	0.878	2.046				
	PIDP5: Always launches new, highly innovative products.	0.835	1.720				
Perceived process innovation	PIP1: Great focus on research and development.	0.717	1.288	0,640	0,811	0,820	0,893
	PIP2: Industry leader in terms of technology.	0.753	1.533				
	PIP3: Uses the latest technology in its products.	0.869	3.322				
	PIP4: Innovative technology on a frequent basis.	0.851	3.221				
Perceived store innovation	SEP1: This brand has friendly, helpful, and knowledgeable staff working at its store.	0.822	1.930	0,732	0,883	0,878	0,916
	SEP2: This brand offers selections of products available at the store.	0.859	2.197				
	SEP3: This brand designs its store in innovative and attractive ways.	0.864	2.438				
	SEP4: This brand arranges its in-store products in prominent ways.	0.877	2.363				
Brand purchase	BR1: I will buy the products of this brand.	0.902	2.610	0,815	0,889	0,887	0,930
	BR2: I will buy the products of this brand rather than other brands.	0.890	2.351				
	BR3: I will consider buying the products of this brand rather than other brands	0.917	2.764				
Brand recommendation	BRD1: This brand is valuable to recommend to others.	0.926	1.991	0,853	0,828	0,827	0,920
	BRD2: This brand is valued to recommend the others buying products of this brand.	0.920	1.991				

Source: created by the authors.