

The influence of gamification, customer experience, and customer engagement on brand equity in Thai e-marketplace

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Abstract: This study explores the impact of gamification, customer experience, and customer engagement on brand equity within Thai e-marketplaces, focusing on Shopee and Lazada, two of the largest online shopping platforms in Thailand. As gamification becomes increasingly integrated into digital commerce strategies, understanding its influence alongside experiential and behavioral variables is essential. Drawing from theories such as Self-Determination Theory, the Theory of Planned Behavior, and the Customer-Based Brand Equity model. The study employed a quantitative research design and surveyed 498 adult consumers in Bangkok who had recently used Shopee or Lazada. Multiple regression analysis revealed that customer experience and customer engagement significantly and positively influenced brand equity. However, gamification showed a non-significant negative relationship with brand equity, suggesting that gamified features alone may not enhance brand value in this context. The findings demonstrate the need for customer-centric strategies in digital retail environments. While gamification can increase interaction, its role may be more effective when aligned with broader experiential and engagement goals. The study offers practical implications for digital marketers and e-commerce platform managers, particularly in leveraging experience design and engagement tactics to strengthen brand equity.

Keywords: Brand equity, Customer engagement and e-commerce, Customer experience, Gamification.

1. Introduction

Gamification, the incorporation of game design features into non-game contexts, has emerged as an effective tactic across various industries, particularly in e-commerce, to improve customer engagement and satisfaction [1, 2]. With the global gamification market projected to exceed USD 58 billion by 2028 [3] and the e-commerce market set to surpass USD 6.3 trillion by 2024 [4], gamified experiences are increasingly central to digital consumer journeys. E-commerce platforms use elements such as points, badges, rewards, and interactive games to motivate behaviors and fulfil psychological needs like autonomy and achievement [5, 6]. These strategies not only enhance user experience but also influence purchase intention, platform trust, and brand loyalty [7, 8]. In Thailand, Shopee and Lazada have heavily adopted gamification as part of their growth strategies, incorporating features like “Spin & Win” and “Slash It” to retain users and build brand equity [9]. However, academic research on how gamification affects customer experience, engagement, and brand equity in the Thai e-marketplace remains limited.

1.1. Research Backgrounds

Thailand's e-commerce sector has seen rapid growth recently, especially during and after the COVID-19 pandemic, which accelerated consumers' shift to online shopping [10, 11]. Despite this boom, some potential users particularly from older age groups remain hesitant due to unfamiliarity with

digital platforms [12]. Leading players like Shopee and Lazada dominate the market, with a combined monthly web traffic exceeding 80 million visits [13]. Young adults aged 25–34 make up nearly half of their user base, showing strong adoption among younger consumers and growth potential among others [14]. To increase engagement, many e-marketplaces have turned to gamification the use of game design elements like points, badges, and leaderboards in non-game settings. Gamification has been shown to enhance user experience, satisfaction, and platform loyalty [15] yet its relationship with brand equity in the Thai e-commerce context remains underexplored. Brand equity comprising brand awareness, loyalty, associations, and perceived quality [16] is essential for competitive success. Research suggests that gamification can foster customer engagement, which in turn may enhance brand equity [17, 18]. However, more empirical evidence is needed, particularly on how customer experience and engagement relate to brand equity in the Thai market.

1.2. Objective of the Study

- To examine the impact of customer experience on the development of brand equity in the e-marketplace context.
- To investigate the role of gamification in shaping consumer perceptions and enhancing brand equity.
- To evaluate the impact of consumer engagement on enhancing brand equity in Thai e-marketplaces.

1.3. Benefits of the Study

This study offers several academic and practical contributions:

Theoretical Contribution: This study contributes to the existing literature by positioning gamification as a key driver in shaping brand equity. By integrating gamification with customer experience and customer engagement particularly within the context of Thai e-marketplaces.

Strategic Marketing Insight: The findings can help marketers and platform managers understand how experiential and interactive elements influence brand equity, enabling them to design more effective customer engagement strategies.

Practical Application for E-Marketplaces: The study provides actionable insights for e-marketplace platforms (e.g., Shopee, Lazada) to enhance brand value and consumer loyalty through tailored customer experiences and gamification techniques.

Consumer Behavior Understanding: By exploring how Thai consumers interact with e-marketplaces, the study contributes to a deeper understanding of the behavioral drivers behind brand preference and loyalty in a digital retail environment.

Policy and Development Guidance: The results may guide digital marketing professionals and e-commerce policy-makers in developing customer-centric platforms that foster stronger brand-consumer relationships.

2. Literature Review and Hypothesis Formulation

2.1. Gamification in E-Commerce

Gamification has emerged as a widely embraced strategy across sectors such as education, healthcare, marketing, and especially e-commerce. It involves the incorporation of game design elements such as points, badges, leaderboards, rewards, and narrative challenges into non-game contexts to enhance user engagement, motivation, and overall experience [1, 2]. At its core, gamification leverages intrinsic psychological motivators like achievement, autonomy, mastery, competition, and social relatedness to transform routine digital interactions into rewarding and immersive experiences [5]. In the context of e-commerce, where user attention spans are short and competition is fierce, gamification has become a crucial mechanism for differentiating brands and building lasting consumer relationships. E-commerce platforms that utilize gamified elements can

significantly improve user experiences by making the shopping process more interactive, personalized, and enjoyable [19]. These features not only lengthen customer visits and increase click-through rates, but also foster repeat purchases and organic brand advocacy, particularly through mechanisms such as social sharing, feedback loops, and achievement recognition [20]. Commonly employed gamification elements in digital commerce include points systems for purchases or actions, badges as symbolic achievements, leaderboards that encourage competition, rewards programs that incentivize continued behavior, and challenges or missions that guide users through structured tasks [21, 22]. These tools work by triggering behavioral responses related to goal-setting, status elevation, self-improvement, and community engagement. As such, they align closely with principles from behavioral economics and self-determination theory. To capture the multidimensional nature of gamification in this study, six variables are examined: social interaction, sense of control, goals, progress tracking, rewards, and prompts. These dimensions are derived from gamification frameworks proposed by Werbach and Dan [22] and are supported by empirical research validating their effectiveness in digital contexts [6, 23]. For instance, social interaction strengthens emotional attachment to platforms, while progress tracking and rewards enhance perceived competence and user satisfaction. Prompts serve as nudges that maintain engagement and encourage desired consumer behaviors. As gamification becomes increasingly embedded in digital retail strategies especially with the rise of mobile commerce, AI-driven personalization, and augmented reality, it is critical to understand its psychological and experiential underpinnings.

2.2. Customer Experience

Customer experience has become a central focus in marketing and service strategy, as it plays a vital role in building long-term customer relationships and competitive advantage. It encompasses the customer's overall perception and emotional response resulting from interactions with a brand across various touchpoints [24]. Research has shown that enhancing customer experience leads to greater satisfaction, loyalty, and positive brand associations. According to Huotari and Hamari [25] a positive customer journey fosters immersion and enjoyment, making interactions more memorable and meaningful. Hamari, et al. [26] also emphasize that strong customer experiences contribute to customer retention and favorable brand perception. Effective customer experience strategies are grounded in understanding human psychology and behavior. For instance, Koivisto and Hamari [8] highlight the importance of engagement, suggesting that interactive and rewarding experiences encourage deeper emotional connections with brands. Deterding, et al. [1] further explain that transforming routine customer interactions into meaningful experiences increases attention and participation. Additionally, emotional enjoyment is a key factor positive feelings during brand interactions improve overall perceptions and foster lasting connections [27, 28]. In conclusion, customer experience is not only about the functionality of products or services but also about creating meaningful, engaging, and emotionally resonant journeys. When well-executed, it leads to higher levels of customer satisfaction, trust, and long-term brand loyalty.

2.3. Customer Engagement

In today's competitive market landscape, customer engagement has emerged as a vital driver of brand success and customer loyalty. Hollebeek, et al. [29] defines customer engagement as dynamic, value-creating interactions between customers and brands. Engaged customers are not only more likely to participate in brand-related activities and offer feedback, but they also show stronger brand advocacy and loyalty factors that positively impact word-of-mouth, customer retention, and profitability. Customer engagement reflects both emotional and behavioral investment in the brand. It is shaped by customers' perceptions of the brand's relevance, authenticity, and ability to deliver meaningful experiences. Strong engagement leads to deeper relationships and sustained customer interest, making it an essential focus for marketers and brand strategists. Research has consistently supported the importance of fostering engagement. Hamari, et al. [30] conducted a meta-analysis and found that

strategies enhancing user motivation such as personalization, interactivity, and social involvement can significantly boost engagement. Moreover, gamified approaches that incorporate interactive elements have shown to be effective in stimulating emotional and participatory responses across multiple sectors [25, 31]. In summary, customer engagement is a multidimensional construct that plays a crucial role in building lasting brand relationships. By understanding the drivers of engagement and implementing strategic approaches that encourage active involvement, brands can create stronger connections and drive long-term success.

2.4. Brand Equity

Brand equity is a foundational concept in marketing, representing the added value a brand brings to a product or service. It plays a crucial role in influencing consumer perception, preference, and loyalty [32, 33]. In highly competitive environments such as e-marketplaces, where customer choices are abundant and switching costs are low, strong brand equity becomes essential for building long-term customer relationships and sustaining market performance [34, 35]. This study focuses on three widely recognized dimensions of brand equity: brand awareness, brand image, and brand loyalty. Brand awareness refers to consumers' ability to recognize and recall a brand [36, 37] while brand image reflects consumers' perceptions, associations, and beliefs about a brand [33, 38]. Brand loyalty denotes the degree of customer commitment and repeated purchase behavior [39, 40]. Together, these components form the foundation of customer-based brand equity (CBBE). As digital transformation accelerates, recent studies continue to highlight the relevance of these brand equity dimensions in online contexts, noting their importance in driving customer engagement and preference [41, 42]. Thus, a deeper understanding of brand equity remains critical for effective brand management in today's digital economy.

2.5. Hypotheses Formulation

Gamification, defined as the use of game design elements in non-game contexts [1] has become a widely adopted strategy in digital marketing to enhance user engagement and brand interaction. In the context of e-marketplaces, gamification mechanisms such as points, rewards, progress tracking, and social interaction can create more engaging, immersive, and rewarding customer experiences that influence how consumers perceive and connect with a brand. Brand equity, comprising brand awareness, brand image, and brand loyalty [32, 33] is significantly influenced by the way customers experience and interact with a brand. Gamification has been shown to support brand awareness by increasing interaction frequency and enhancing memorability through engaging content [43]. It also shapes brand image by creating fun, dynamic, and innovative brand experiences that are associated with enjoyment and motivation [2]. Moreover, gamification strengthens brand loyalty by fostering repeated engagement, emotional connection, and perceived value, which encourages repurchase behavior and brand advocacy [8]. Empirical studies support this connection. Xi and Juho [20] found that gamification in e-commerce positively impacts user engagement and brand-related outcomes, including trust and loyalty. Sailer, et al. [6] also demonstrate that well-implemented gamification elements satisfy psychological needs and increase users' attachment to the brand, thereby enhancing overall brand equity. In conclusion, gamification contributes to brand equity by enhancing consumer interaction, perception, and loyalty. Based on this theoretical and empirical foundation, the following hypothesis is proposed:

H₁: Gamification positively affects brand equity.

The Customer-Based Brand Equity (CBBE) model by Keller [33] emphasizes that brand equity is built through favorable brand awareness, brand image, and brand loyalty dimensions that are all influenced by customer experience. A well-executed customer experience strategy helps customers form strong emotional connections with the brand, fosters trust, and encourages repeat interactions, which in turn enhance brand recognition, positive associations, and customer commitment [44, 45]. Theoretical frameworks further support this relationship. According to the Theory of Planned Behavior [46]

positive attitudes shaped by meaningful experiences drive stronger behavioral intentions, such as brand preference and loyalty, which are key indicators of brand equity. Self-Determination Theory [5] also suggests that experiences that meet psychological needs (e.g., autonomy, competence, relatedness) generate intrinsic motivation and emotional attachment, reinforcing a brand's perceived value. Empirical studies affirm the role of customer experience in brand equity formation. Ismail, et al. [47] found that a seamless and enjoyable customer experience enhances brand awareness and engagement on digital platforms. Additionally, Alam, et al. [48] observed that personalized, emotionally resonant experiences significantly influence brand perception, trust, and customer loyalty core components of brand equity. In summary, customer experience plays a foundational role in shaping brand equity by influencing how consumers perceive, evaluate, and remain loyal to a brand. Based on these theoretical and empirical insights, this study proposes the following hypothesis:

H₂: Customer experience positively affects brand equity

Brand equity, as conceptualized by Aaker [32] and Keller [33] is built through brand awareness, brand image, and brand loyalty. Customer engagement enhances brand awareness by increasing exposure and reinforcing recall through frequent and meaningful interactions [49]. These repeated interactions also strengthen brand image by co-creating and reinforcing positive brand associations, consistent with Self-Congruity Theory, which suggests that brand alignment with a consumer's self-concept deepens favorable perceptions [50]. Moreover, engaged customers tend to exhibit higher levels of brand loyalty. The Theory of Relationship Marketing [51] posits that frequent, trust-building interactions foster emotional attachment and long-term commitment. Self-Determination Theory [52] further explains that when customer engagement satisfies psychological needs like autonomy and relatedness, it leads to intrinsic motivation and stronger loyalty behaviors. Empirical studies across sectors confirm that higher engagement correlates with increased brand equity by improving brand recall, enhancing brand image, and reinforcing customer commitment. In summary, customer engagement contributes to brand equity by fostering stronger emotional bonds, deeper brand knowledge, and greater behavioral investment. This study proposes the following hypothesis based on theoretical and practical insights:

H₃: Customer engagement positively affects brand equity.

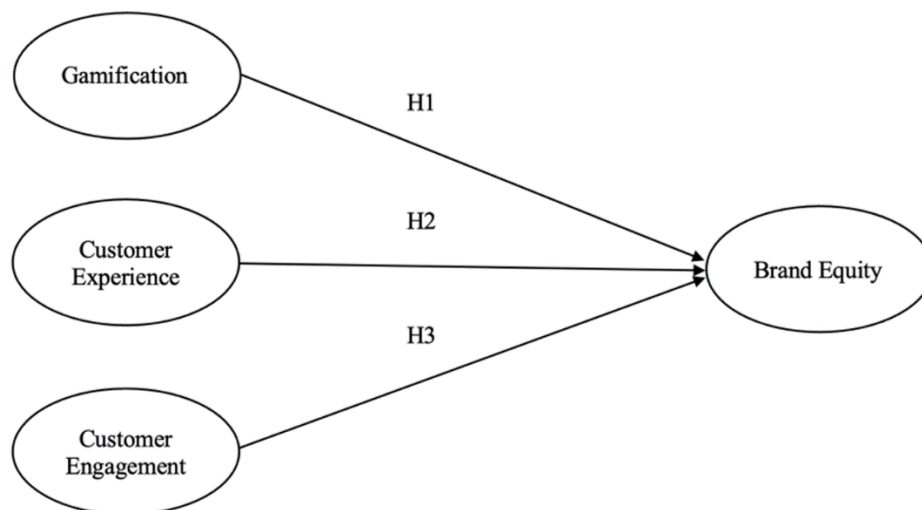


Figure 1.
A conceptual model.

3. Research Methodology

This study employed a quantitative to examine the relationships between gamification, customer experience, customer engagement, and brand equity in Thai e-marketplaces. Guided by the positivist paradigm, the study utilized a structured online questionnaire to collect data from a sample of 498 adult consumers in Bangkok, Thailand selected through convenience sampling. Shopee and Lazada users were specifically targeted due to the platforms' extensive gamification features and dominant market presence. To ensure content validity, measurement items were adapted from prior validated scales, and a pilot test with 30 respondents was conducted to assess clarity and reliability. The results indicate excellent reliability for the main constructs of Gamification ($\alpha = 0.97$), Customer Experience ($\alpha = 0.96$), Customer Engagement ($\alpha = 0.97$), and Brand Equity ($\alpha = 0.96$). The study adopted a five-point Likert scale, following established research in related domains. A screening section was included to confirm recent usage of Shopee or Lazada within the past six months, ensuring relevant and informed responses. The constructs gamification, customer experience, and customer engagement were treated as independent variables, while brand equity served as the dependent variable. The data were analyzed using multiple regression analysis to examine the predictive relationships among the variables and to test the proposed hypotheses. This approach enabled the identification of key drivers of brand equity and provided valuable insights into consumer perceptions and behavioral patterns within the evolving digital commerce landscape of Thailand.

This study measured four key constructs gamification, customer experience, customer engagement, and brand equity using validated scales grounded in established theoretical frameworks. Gamification was assessed using the scale by Hamari, et al. [26] covering six dimensions: social interaction (GMSI), sense of control (GMSC), goals (GMGO), progress tracking (GMPT), rewards (GMRE), and prompts (GMPR).

Customer experience was measured using Klaus and Maklan [53] four-dimensional scale: peace of mind (CXPM), moments-of-truth (CXMT), outcome focus (CXOF), and product experience (CXPE). Customer engagement employed the four-item scale developed by Kumar and Pansari [54] while Brand equity was captured through measures of brand awareness (BEBA), brand image (BEBI), and brand loyalty (BEBL) based on Yoo and Donthu [40] and Sasmita and Suki [55]. All items were rated using a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). The adoption of these validated measures ensured reliability, theoretical alignment, and suitability for analyzing consumer behavior within the Thai e-marketplace context.

4. Data Analysis and Results

4.1. Data Analysis

This section presents the demographic characteristics of the 498 respondents who participated in the study. The demographic variables considered include gender, age, and education level. Understanding the demographic distribution is essential for interpreting the results in the context of the target population and for identifying potential trends or patterns in consumer behavior.

Table 1.
The demographics (n=498).

Demographic	Frequency	Percent
Gender		
Male	247	49.6
Female	251	50.4
Age		
18 - 30 Years old	181	36.3
31 – 40 Years old	194	39.0
41 – 50 Years old	92	18.5
51 - 60 Years old	31	6.2
61 Years old and above	0	0
Education level		
High school/lower	31	6.3
Bachelor	411	82.5
Master	46	9.2
Ph.D.	4	0.8
Others	6	1.2

The sample was almost evenly distributed by gender, with 247 males (49.6%) and 251 females (50.4%). This balanced representation ensures that the perspectives of both male and female respondents are adequately captured in the analysis. Respondents were categorized into five age groups. The largest proportion belonged to the 31–40 years old group, comprising 194 respondents (39.0%), followed closely by the 18–30 years old group with 181 respondents (36.3%). The 41–50 years old group accounted for 92 respondents (18.5%), and the 51–60 years old group represented 31 respondents (6.2%). Notably, there were no respondents aged 61 years and above, indicating that the study primarily captured opinions from a younger to middle-aged population. In terms of educational attainment, the vast majority of respondents held a Bachelor's degree (82.5%), followed by those with a Master's degree (9.2%). Respondents with a high school education or lower accounted for 6.3%, while 0.8% had a Ph.D., and 1.2% reported other educational backgrounds. This distribution highlights that the respondent pool is highly educated, which may influence their purchasing intentions and perceptions, particularly in matters relating to sustainability or specialized products.

This section presents insights into the online shopping behavior of respondents, particularly focusing on their engagement with popular e-commerce platforms such as Shopee and Lazada. The behavioral data include information on platform preferences, purchase frequency, order values, types of products purchased, and interaction with gamified features within the platforms. These findings help contextualize the shopping habits and digital engagement of consumers, which are essential for understanding motivations and decision-making patterns in online retail.

Table 2.
The Behaviors (n=498).

Behaviors	Frequency	Percent
Preferred Shopping Platform		
Shopee	344	69.1
Lazada	154	30.9
Frequency of Purchases from Shopee/Lazada		
Every week	128	25.7
Every month	276	55.4
Every 3 months	73	14.7
More than 3 months	21	4.2
Average Order Value (AOV)		
Under 100 Baht	5	1.0
100–500 Baht	133	26.7
501–3,000 Baht	278	55.8
3,000–5,000 Baht	70	14.1
More than 5,000 Baht	12	2.4
Most Frequently Purchased Product Type		
Sports & Travel	14	2.8
Games & Accessories	56	11.3
Computers & Laptops	21	4.2
Stationery, Books & Music	29	5.8
Babies & Toys	20	4.0
Accommodation & Hotels	0	0
TV & Home Appliances	14	2.8
Watches & Glasses	12	2.4
Home & Lifestyle	29	5.8
Fashion & Accessories	80	16.1
Mobile & Accessories	40	8.0
Motor vehicles & Equipment	9	1.8
Pets, feed & Equipment	38	7.6
Supermarket Products	36	7.3
Health & Beauty	48	9.6
Food & Drink	36	7.3
Electronic devices & Accessories	16	3.2
Others	0	0
Most Frequently Played Games		
Daily check-in	253	50.8
View products, stores, or clip VDO within the platform to receive or accumulate rewards	147	29.5
Play games in the platform to receive or accumulate rewards.	98	19.7
Never participate in any activities	0	0
Frequency of Playing Games on Shopee/Lazada		
Every day	90	18.1
Every week	174	34.9
Every month	133	26.7
Every 3 months	55	11
More than 3 months	46	9.2

Respondents were asked to indicate their preferred platform for online shopping. A significant majority (69.1%) preferred Shopee, while 30.9% favored Lazada. More than half of the respondents (55.4%) reported making purchases every month. A quarter (25.7%) shopped weekly, while 14.7% purchased every three months. In terms of order value per transaction, a majority of respondents (55.8%) typically spent between 501 to 3,000 Baht. Meanwhile, 26.7% spent 100–500 Baht, and 14.1% spent between 3,000–5,000 Baht. The most common product categories among respondents included Fashion & Accessories (16.1%), Games & Accessories (11.3%), and Health & Beauty (9.6%). Gamified features were also explored. Over half of the respondents (50.8%) engaged in daily check-in games.

Others participated by watching videos or viewing products for rewards (29.5%), or playing games for points and prizes (19.7%). In terms of how often users engage with games on these platforms, 34.9% reported playing weekly, while 26.7% played every month and 18.1% played daily. Only a small fraction played every three months (11.0%) or less frequently than that (9.2%).

4.2. Quantitative Analysis

4.2.1. Regression Analysis

A multiple regression analysis was conducted to assess the impact of gamification, customer experience, and customer engagement on brand equity. This analysis aimed to determine the extent to which these factors predict brand equity in the context of Thai e-marketplaces and to validate the proposed hypotheses.

Table 3.
Model Summary.

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.838	0.702	0.700	0.31113

Table 3 presents the model summary of the regression analysis examining the influence of gamification, customer experience, and customer engagement on brand equity. The results indicate a strong correlation between the predictors and the dependent variable, with an R value of 0.838, suggesting a high level of association. The R Square value of 0.702 reveals that approximately 70.2% of the variance in brand equity can be explained by the combined effect of the independent variables included in the model. The Adjusted R Square of 0.700 accounts for the number of predictors in the model, confirming that the explained variance remains robust even when adjusted for potential model complexity. The Standard Error of the Estimate is 0.31113, indicating a relatively low average deviation of observed values from the predicted values, which supports the model's overall predictive accuracy.

These results demonstrate a substantial explanatory power of the model, underscoring the importance of gamification, customer experience, and customer engagement in shaping brand equity within the Thai e-marketplace context.

Table 4.
ANOVA.

	Sum of Squares	df	Mean Square	F	Sig.
Regression	112.661	3	37.554	387.938	<0.001
Residual	47.821	494	0.097		
Total	160.482	497			

Table 4 presents the ANOVA results for the regression model examining the effects of gamification, customer experience, and customer engagement on brand equity. The model is statistically significant, as indicated by the F-value of 387.938 and a p-value less than 0.001, confirming that the regression model explains a significant proportion of the variance in brand equity.

The regression sum of squares (112.661) compared to the residual sum of squares (47.821) further suggests that the model provides a good fit to the data. These results support the overall validity of the model and justify further interpretation of the regression coefficients.

4.3. Hypothesis Testing

Table 5.
Coefficients.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.695	0.107		6.496	<.001
Gamification	−0.042	0.025	−0.054	−1.679	0.094
Customer experience	0.688	0.035	0.669	19.816	<.001
Customer engagement	0.208	0.03	0.26	6.876	<.001

Constant: The unstandardized coefficient (B) for the constant is 0.695, and it is statistically significant ($p < 0.001$). This suggests that when all independent variables are held at zero, the predicted brand equity score is 0.695, providing a meaningful baseline for the model.

H₁: Gamification positively affects brand equity.

For hypothesis 1 (H₁), gamification shows a negative but non-significant relationship with brand equity. The unstandardized coefficient (B) is −0.042, and the standardized Beta is −0.054, with a t-value of −1.679 and a p-value of 0.094. Since this p-value exceeds the conventional significance threshold of 0.05, there is no statistical support for H₁ in this model.

H₂: Customer experience positively affects brand equity.

Hypothesis 2 (H₂) is strongly supported. The unstandardized coefficient (B) for customer experience is 0.688, with a standardized Beta of 0.669, indicating that for every one-unit increase in customer experience, brand equity increases by 0.688 units. The result is highly significant ($p < 0.001$, $t = 19.816$), confirming that customer experience has a substantial and positive impact on brand equity.

H₃: Customer engagement positively affects brand equity.

Hypothesis 3 (H₃) is also supported. The unstandardized coefficient (B) is 0.208, with a standardized Beta of 0.260, suggesting that a one-unit increase in customer engagement leads to a 0.208-unit increase in brand equity. This relationship is statistically significant ($p < 0.001$, $t = 6.876$), indicating that customer engagement is a meaningful contributor to brand equity in the Thai e-marketplace context.

4.4. Research Results

This study investigated the influence of gamification, customer experience, and customer engagement on brand equity among Thai e-marketplace users. A multiple regression analysis was conducted using data from 498 valid responses. The results offer valuable insights into the predictive relationships between the proposed variables.

The model summary indicated a strong overall fit. The R value was 0.838, and the R Square value was 0.702, showing that approximately 70.2% of the variance in brand equity can be explained by the three independent variables gamification, customer experience, and customer engagement. The adjusted R Square of 0.700 confirmed the robustness of the model, while the standard error of the estimate was relatively low (0.31113), suggesting accurate prediction levels.

The ANOVA test supported the model's statistical significance, with an F-value of 387.938 and a p-value less than 0.001. This confirms that the combination of the independent variables significantly contributes to explaining brand equity and justifies further interpretation of the individual regression coefficients.

The coefficient analysis revealed notable differences in the strength and significance of each predictor. Customer experience had the most substantial impact on brand equity, with an unstandardized coefficient (B) of 0.688 and a highly significant p-value ($p < 0.001$). This finding

suggests that positive customer experiences such as personalization, reliability, and satisfaction strongly enhance brand equity in e-marketplace platforms.

Customer engagement also demonstrated a significant positive relationship with brand equity ($B = 0.208$, $p < 0.001$). This result indicates that emotionally and behaviorally invested customers are more likely to develop favorable perceptions of the brand, leading to increased brand equity.

In contrast, gamification was found to have a negative but statistically non-significant effect on brand equity ($B = -0.042$, $p = 0.094$). This suggests that, in this context, gamified features such as points, rewards, or mini-games did not significantly shape consumer perceptions of brand value.

5. Discussion

The findings of this study provide meaningful insights into the factors influencing brand equity in the context of Thai e-marketplaces, particularly Shopee and Lazada. By examining the effects of gamification, customer experience, and customer engagement, the results contribute to both theoretical understanding and practical applications in digital marketing and brand management.

The most significant finding was the strong positive relationship between customer experience and brand equity. This aligns with previous research (e.g., [45, 53]) and underscores the importance of delivering seamless, personalized, and emotionally resonant experiences. In highly competitive digital environments, consumers form brand perceptions not only from product quality or price but also from how they feel throughout the purchase journey. These experiences contribute to stronger brand associations, higher recognition, and long-term loyalty core dimensions of brand equity.

Similarly, customer engagement showed a significant positive effect on brand equity, supporting earlier studies Kumar and Pansari [54]. Engaged customers are not passive consumers; they actively interact with content, share experiences, and even co-create brand value through participation. These interactions enhance emotional attachment, trust, and advocacy crucial elements in strengthening brand image and loyalty. This finding suggests that digital platforms should foster interactive communities, personalized communication, and meaningful engagement to build strong brand-consumer relationships.

In contrast, gamification did not have a significant effect on brand equity in this study. While gamification has been widely regarded as an effective engagement tool [8, 30] its lack of influence here may point to contextual limitations. Thai consumers may view gamified features as secondary to core shopping functions, or they may not perceive these features as directly linked to brand value. It is also possible that gamification's effectiveness depends on the type and quality of its implementation, or that it may function better as a moderator or mediator rather than a direct predictor.

This finding raises important questions for marketers: while gamification can attract attention and boost short-term interaction, it may not automatically translate to enhanced brand perceptions or loyalty unless strategically aligned with broader customer experience and engagement goals.

Taken together, the results suggest that customer-centric strategies especially those that prioritize experience quality and sustained engagement are more impactful in shaping brand equity than standalone gamified features. For e-marketplaces operating in Thailand or similar markets, investing in responsive service, intuitive design, personalized experiences, and relationship-driven engagement may yield stronger brand loyalty and customer retention than simply adding gamified elements.

5.1. Implications for Practice

The findings of this study offer several practical implications for e-marketplace platforms, brand managers, and digital marketers operating in Thailand and similar digital commerce environments.

Firstly, the significant influence of customer experience on brand equity highlights the importance of delivering consistent, personalized, and emotionally satisfying user journeys. E-marketplaces should prioritize user-friendly interfaces, efficient customer service, and intuitive shopping flows to foster positive brand perceptions and long-term loyalty. Features that reduce friction and increase convenience

such as seamless checkout processes, real-time support, and tailored recommendations can significantly strengthen customer relationships.

Secondly, the positive impact of customer engagement on brand equity suggests that platforms must go beyond transactional interactions and invest in two-way communication and community-building initiatives. Encouraging user-generated content, facilitating reviews, offering loyalty programmes, and enabling personalized interactions can help create a sense of belonging and emotional investment, which contributes to stronger brand attachment.

Thirdly, while gamification did not show a significant direct effect on brand equity, this does not diminish its value entirely. Instead, gamification should be strategically aligned with broader experiential and engagement goals. Rather than using gamified features solely for entertainment, platforms should integrate them with loyalty systems, educational content, or exclusive rewards that reinforce brand values and build trust.

Finally, marketing practitioners should regularly assess the perceived value of platform features through customer feedback and behavioral analytics. Understanding which elements contribute most to user satisfaction and brand loyalty can help businesses allocate resources more effectively and tailor experiences to meet evolving consumer expectations.

5.2. Limitations

While this study provides valuable insights, several limitations should be acknowledged. First, the use of a cross-sectional design limits the ability to infer causality between variables. Second, the sample was restricted to adult consumers in Bangkok, which may not fully represent the broader Thai population or other cultural contexts. Third, data were collected through self-reported questionnaires, which may be subject to response bias or social desirability effects. Lastly, although gamification was included as a predictor, the study did not differentiate between types or quality of gamified features, which could influence their effectiveness. Future research should address these limitations by employing longitudinal designs, broader sampling, and deeper exploration of gamification types and user motivations.

5.3. Future Research Implications

Future studies could extend this research by employing longitudinal designs to examine changes in customer behavior and brand equity over time. Additionally, researchers may explore moderating or mediating variables, such as trust, satisfaction, or digital literacy, to better understand the mechanisms linking gamification and brand outcomes. Further investigation into the types, quality, and user perceptions of gamified features could also reveal more nuanced insights into their role in digital brand-building. Expanding the study to diverse geographical regions and demographic groups would enhance the generalizability of the findings across broader e-commerce contexts.

6. Conclusion

This study examined the impact of gamification, customer experience, and customer engagement on brand equity in the context of Thai e-marketplaces. The findings highlight that customer experience and customer engagement significantly enhance brand equity, while gamification alone does not directly influence it. These results emphasize the importance of delivering meaningful, personalized experiences and fostering active engagement to build strong digital brands. By aligning strategic efforts with customer-centric values, e-marketplace platforms can strengthen brand perception, loyalty, and long-term success in an increasingly competitive environment.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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References

- [1] S. Deterding, D. Dixon, R. Khaled, and L. Nacke, "From game design elements to gamefulness: Defining" gamification", in *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments*, 2011, pp. 9-15.
- [2] K. Huotari and J. Hamari, "A definition for gamification: Anchoring gamification in the service marketing literature," *Electronic Markets*, vol. 27, no. 1, pp. 21-31, 2017.
- [3] Fortune Business Insights, *Gamification market size, share & COVID-19 impact analysis*. Pittsburgh, PA: Fortune Business Insights, 2022.
- [4] Statista, *Retail e-commerce sales worldwide from 2014 to 2027*. Hamburg, Germany: Statista, 2023.
- [5] R. M. Ryan and E. L. Deci, "Intrinsic and extrinsic motivations: Classic definitions and new directions," *Contemporary Educational Psychology*, vol. 25, no. 1, pp. 54-67, 2000. <https://doi.org/10.1006/ceps.1999.1020>
- [6] M. Sailer, J. U. Hense, S. K. Mayr, and H. Mandl, "How gamification motivates: An experimental study of the effects of specific game design elements on psychological need satisfaction," *Computers in Human Behavior*, vol. 69, pp. 371-380, 2017.
- [7] J. Hamari, "Transforming homo economicus into homo ludens: A field experiment on gamification in a utilitarian peer-to-peer trading service," *Electronic Commerce Research and Applications*, vol. 12, no. 4, pp. 236-245, 2013.
- [8] J. Koivisto and J. Hamari, "The rise of motivational information systems: A review of gamification research," *International Journal of Information Management*, vol. 45, pp. 191-210, 2019. <https://doi.org/10.1016/j.ijinfomgt.2018.10.013>
- [9] Google, Temasek, and Bain, *e-conomy SEA 2022*. Mountain View, CA: Google; Singapore: Temasek; Boston, MA: Bain & Company, 2022.
- [10] Euromonitor International, *E-commerce in Thailand: Market trends and insights*. London, UK: Euromonitor International, 2021.
- [11] KKP Research, *Thailand e-commerce landscape and growth outlook*. Bangkok, Thailand: Kiatnakin Phatra Financial Group, 2022.
- [12] P. Charoensukmongkol and P. Sasatanun, "Social media use for CRM and business performance satisfaction: The moderating roles of social skills and social media sales intensity," *Asia Pacific Management Review*, vol. 22, no. 1, pp. 25-34, 2017. <https://doi.org/10.1016/j.apmr.2016.10.005>
- [13] iPrice Group, "Map of E-commerce: Southeast Asia," Retrieved: <https://iprice.co.id/insights/mapofecommerce/>. [Accessed 2021].
- [14] Similarweb, *Shopee and Lazada web traffic and user demographics*. Tel Aviv, Israel: Similarweb, 2020.
- [15] R. Wiradinata, I. W. Budiastara, and S. Widodo, "Model development of non-destructive coffee beans moisture content determination using modified near infrared spectroscopy instrument," *Pelita Perkebunan (a Coffee and Cocoa Research Journal)*, vol. 37, pp. 229-238, 2021.
- [16] K. L. Keller, *Building strong brands in a modern marketing communications environment*. In J. R. Hall & A. J. Deighton (Eds.), *The evolution of integrated marketing communications*. New York: Routledge, 2013.
- [17] M. Abou-Shouk and M. Soliman, "The impact of gamification adoption intention on brand awareness and loyalty in tourism: The mediating effect of customer engagement," *Journal of Destination Marketing & Management*, vol. 20, p. 100559, 2021. <https://doi.org/10.1016/j.jdmm.2021.100559>
- [18] M. A. Merhabi, P. Petridis, and R. Khusainova, "Gamification for brand value co-creation: A systematic literature review," *Information*, vol. 12, no. 9, p. 345, 2021. <https://doi.org/10.3390/info12090345>
- [19] C. F. Hofacker, K. De Ruyter, N. H. Lurie, P. Manchanda, and J. Donaldson, "Gamification and mobile marketing effectiveness," *Journal of Interactive Marketing*, vol. 34, no. 1, pp. 25-36, 2016. <https://doi.org/10.1016/j.intmar.2016.03.001>
- [20] N. Xi and H. Juho, "The relationship between gamification, brand engagement and brand equity," in *Proceedings of the 52nd Hawaii International Conference on System Sciences*, 2019.
- [21] G. Zichermann and C. Cunningham, *Gamification by design: Implementing game mechanics in web and mobile apps*. Sebastopol, CA, United States: O'Reilly Media, 2011.
- [22] K. Werbach and H. Dan, *For the win: How game thinking can revolutionize your business*. Philadelphia, PA, United States: Wharton Digital Press, 2012.
- [23] E. D. Mekler, F. Brühlmann, A. N. Tuch, and K. Opwis, "Towards understanding the effects of individual gamification elements on intrinsic motivation and performance," *Computers in Human Behavior*, vol. 71, pp. 525-534, 2017.

- [24] M. D. Hanus and J. Fox, "Assessing the effects of gamification in the classroom: A longitudinal study on intrinsic motivation, social comparison, satisfaction, effort, and academic performance," *Computers & Education*, vol. 80, pp. 152-161, 2015. <https://doi.org/10.1016/j.compedu.2014.08.019>
- [25] K. Huotari and J. Hamari, "Defining gamification: A service marketing perspective," in *Proceeding of the 16th International Academic MindTrek Conference*, 2012, pp. 17-22.
- [26] J. Hamari, J. Koivisto, and T. Pakkanen, "Do persuasive technologies persuade?-a review of empirical studies," presented at the International Conference on Persuasive Technology, 2014.
- [27] K. M. Kapp, *The gamification of learning and instruction: Game-based methods and strategies for training and education*. Hoboken, NJ: Wiley, 2012.
- [28] K. Seaborn and D. I. Fels, "Gamification in theory and action: A survey," *International Journal of Human-Computer Studies*, vol. 74, pp. 14-31, 2015.
- [29] L. D. Hollebeek, J. B. Roderick, J. Biljana, and I. Alexander, "Customer engagement: Conceptual domain, fundamental propositions, and implications for research," *Journal of Service Research*, vol. 14, no. 3, pp. 252-271, 2011.
- [30] J. Hamari, J. Koivisto, and H. Sarsa, "Does gamification work?—a literature review of empirical studies on gamification," presented at the 2014 47th Hawaii International Conference on System Sciences, 2014.
- [31] B. Morschheuser, J. Hamari, J. Koivisto, and A. Maedche, "Gamified crowdsourcing: Conceptualization, literature review, and future agenda," *International Journal of Human-Computer Studies*, vol. 106, pp. 26-43, 2017.
- [32] D. A. Aaker, *Brand equity. Brand value management*. Milan, Italy: FrancoAngeli, 1997.
- [33] K. L. Keller, "Conceptualizing, measuring, and managing customer-based brand equity," *Journal of Marketing*, vol. 57, no. 1, pp. 1-22, 1993.
- [34] G. Christodoulides and L. De Chernatony, "Consumer-based brand equity conceptualisation and measurement: A literature review," *International Journal of Market Research*, vol. 52, no. 1, pp. 43-66, 2010.
- [35] B. Godey *et al.*, "Social media marketing efforts of luxury brands: Influence on brand equity and consumer behavior," *Journal of Business Research*, vol. 69, no. 12, pp. 5833-5841, 2016.
- [36] D. A. Aaker, "Measuring brand equity across products and markets," *California Management Review*, vol. 38, no. 3, 1996.
- [37] R. Huang and E. Sarigöllü, "Assessment of brand equity measures," *International Journal of Market Research*, vol. 56, no. 6, pp. 783-806, 2014.
- [38] Y. Zhang, "The impact of brand image on consumer behavior: A literature review," *Open Journal of Business and Management*, vol. 3, no. 1, pp. 58-62, 2015.
- [39] R. L. Oliver, "Whence consumer loyalty?," *Journal of Marketing*, vol. 63, pp. 33-44, 1999.
- [40] B. Yoo and N. Donthu, "Developing and validating a multidimensional consumer-based brand equity scale," *Journal of Business Research*, vol. 52, no. 1, pp. 1-14, 2001.
- [41] H. Nobre and A. Ferreira, "Gamification as a platform for brand co-creation experiences," *Journal of Brand Management*, vol. 24, pp. 349-361, 2017.
- [42] J.-H. Kwon, S.-H. Jung, H.-J. Choi, and J. Kim, "Antecedent factors that affect restaurant brand trust and brand loyalty: focusing on US and Korean consumers," *Journal of Product & Brand Management*, vol. 30, no. 7, pp. 990-1015, 2021.
- [43] J. Hamari and V. Eranti, "Framework for designing and evaluating game achievements," in *Proceedings of DiGRA 2011 Conference: Think Design Play*, 2011.
- [44] J. J. Brakus, B. H. Schmitt, and L. Zarantonello, "Brand experience: What is it? How is it measured? Does it affect loyalty?," *Journal of Marketing*, vol. 73, no. 3, pp. 52-68, 2009. <https://doi.org/10.1509/jmkg.73.3.52>
- [45] C. Homburg, D. Jozić, and C. Kuehn, "Customer experience management: Toward implementing an evolving marketing concept," *Journal of the Academy of Marketing Science*, vol. 45, pp. 377-401, 2017.
- [46] L. Beck and I. Ajzen, "Predicting dishonest actions using the theory of planned behavior," *Journal of Research in Personality*, vol. 25, no. 3, pp. 285-301, 1991.
- [47] S. F. Ismail, A. R. Zahari, E. Esa, N. H. N. Asshidin, K. N. Surbaini, and A. E. Abdullah, "A bibliometric analysis of omnichannel and customer satisfaction," *Environment-Behaviour Proceedings Journal*, vol. 8, no. SI15, pp. 73-79, 2023.
- [48] K. Alam *et al.*, "Impact of brand reputation on initial perceptions of consumers," *Pathfinder of Research*, vol. 1, no. 1, pp. 1-10, 2023.
- [49] L. D. Hollebeek, K. Das, and Y. Shukla, "Game on! How gamified loyalty programs boost customer engagement value," *International Journal of Information Management*, vol. 61, p. 102308, 2021.
- [50] R. Algharabat, N. P. Rana, A. A. Alalwan, A. Baabdullah, and A. Gupta, "Investigating the antecedents of customer brand engagement and consumer-based brand equity in social media," *Journal of Retailing and Consumer Services*, vol. 53, p. 101767, 2020.
- [51] R. M. Morgan and S. D. Hunt, "The commitment-trust theory of relationship marketing," *Journal of Marketing*, vol. 58, no. 3, pp. 20-38, 1994.
- [52] E. L. Deci and R. M. Ryan, "The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior," *Psychological inquiry*, vol. 11, no. 4, pp. 227-268, 2000.

- [53] P. P. Klaus and S. Maklan, "Towards a better measure of customer experience," *International Journal of Market Research*, vol. 55, no. 2, pp. 227-246, 2013.
- [54] V. Kumar and A. Pansari, "Competitive advantage through engagement," *Journal of Marketing Research*, vol. 53, no. 4, pp. 497-514, 2016.
- [55] J. Sasmita and N. M. Suki, "Young consumers' insights on brand equity: Effects of brand association, brand loyalty, brand awareness, and brand image," *International Journal of retail & Distribution Management*, vol. 43, no. 3, pp. 276-292, 2015.