

THE ROLE OF GAMIFICATION AND CUSTOMER LOYALTY PROGRAM ON CUSTOMER RETENTION WITH E-CUSTOMER SATISFACTION AS AN INTERVENING VARIABLE

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Abstract: The rapid growth of e-commerce in Indonesia has intensified competition among digital platforms, making customer retention a major challenge. This study aims to analyze the effects of gamification and customer loyalty programs on customer retention, with e-customer satisfaction as an intervening variable among Shopee e-commerce users. A quantitative approach was employed using a survey method with 240 respondents selected through purposive sampling. Data were collected via online questionnaires and analyzed using Partial Least Squares Structural Equation Modeling (SEM-PLS). The results indicate that gamification and customer loyalty programs have a positive and significant effect on e-customer satisfaction and customer retention. Furthermore, e-customer satisfaction mediates the influence of gamification and customer loyalty programs on customer retention. These findings highlight the crucial role of customer satisfaction in strengthening long-term relationships between consumers and e-commerce platforms. This study contributes to the digital marketing literature and provides practical implications for e-commerce managers in designing marketing strategies that focus on enhancing customer satisfaction and retention.

Keywords: Gamification, Customer Loyalty Program, E-Customer Satisfaction, Customer Retention.

I. INTRODUCTION

The increasing accessibility of the internet and the acceleration of service digitalization have significantly driven the growth of electronic commerce (e-commerce) in Indonesia. The value of e-commerce transactions increased from approximately IDR 205.5 trillion in 2019 to IDR 487.01 trillion in 2024, indicating more than a twofold increase within five years (Pusat Data Kontan, 2025). Furthermore, as of July 2025, the value of e-commerce transactions had reached IDR 44.4 trillion with a transaction volume of nearly 467 million and an average transaction value of around IDR 95,000 (Nasional Kontan, 2025). Moreover, the gross merchandise value (GMV) of e-commerce is projected to reach USD 80 billion in 2025, with approximately 71% of online shopping activities conducted through e-commerce platforms (Goodstats, 2025). These data indicate that e-commerce has become a primary channel for consumption activities in Indonesia. This development is supported by increasing smartphone penetration, improved logistics efficiency, and the intensity of digital promotions conducted by various platforms. Consequently, e-commerce no longer functions merely as an alternative shopping channel but has become the primary preference for modern consumers while simultaneously accelerating digital transformation within the national trade sector.

In the highly competitive e-commerce industry, customer retention has become one of the main indicators of a digital platform's success. Customer retention not only reflects a company's ability to maintain its customers but also represents the sustainability of long-term relationships between consumers and platforms. Unlike merely attracting new users, retaining existing customers is considered more efficient and strategic because it is directly related to increased customer lifetime value, revenue stability, and long-term loyalty. Therefore, e-commerce companies are no longer solely focused on user acquisition but are required to build experiences that encourage consumers to remain loyal and reluctant to switch to competing platforms.

In Indonesia, the wide range of e-commerce platforms such as Shopee, Tokopedia, Lazada, and Blibli allows consumers to switch between applications easily, particularly when there are differences in promotions or incentives. This condition makes customer retention a strategic challenge, as consumers are no longer exclusively tied to a single platform. Consequently, e-commerce companies must be able to create sustainable value to ensure that consumers remain loyal to the platform over the long term.

Data on Shopee user visits from March to September show significant fluctuations. In March, the number of visits reached 147.7 million but declined to 132 million in April. Although visits increased again in May to 138 million, they dropped to 126 million in June and fluctuated again in August and September. This fluctuating pattern indicates that a high number of users does not necessarily correspond with stable and sustained platform visits. According to Kotler and Keller (2021), customer retention is reflected in the consistency of customer behavior in making repeat purchases and maintaining continuous engagement. Therefore, fluctuations in platform visits may indicate weak customer retention in the long term.

Hennig-Thurau and Hansen (2020) argue that customer retention is not only determined by the acquisition of new users but also by the company's ability to build long-term relationships that encourage customers to continuously return to the service. The decline in Shopee visits during certain periods indicates that some users may only be driven by situational factors such as promotions or short-term campaigns without developing strong attachment to the platform. This condition is consistent with the view of Tjiptono and Chandra (2019), who state that customers with low retention levels tend to switch to competitors when more attractive offers are available. Therefore, fluctuations in visit numbers can be considered an indication of customer retention problems that require attention. Shopee is not only required to attract users through promotions, gamification, and loyalty programs but also to ensure that these strategies create satisfaction and sustainable engagement.

These fluctuations encourage e-commerce companies to focus not only on user acquisition but also on strategies that build long-term consumer engagement. One approach widely used to address customer retention challenges is gamification. According to Huotari and Hamari (2017), gamification refers to the process of enhancing services by incorporating game elements to create meaningful and valuable experiences for users. In e-commerce, gamification is implemented through simple games, point systems, levels, challenges, and rewards that can be exchanged for various shopping incentives. Werbach and Hunter (2020) explain that the appropriate implementation of game elements can increase user engagement continuously and create habitual application usage. Thus, gamification functions not only as entertainment but also as a strategy to increase interaction, extend application usage duration, and encourage users to repeatedly return to the platform, ultimately contributing to improved customer retention.

Shopee is one of the pioneers in implementing gamification within Indonesia's e-commerce industry. Game features are designed to encourage users to open the application more frequently, interact for longer periods, and obtain rewards in the form of vouchers, coins, or discounts. Gamification therefore functions not only as entertainment but also as a mechanism for habit formation that can increase transaction frequency and the potential for customer retention. Various Shopee Games features represent the implementation of gamification within the Shopee platform, including Shopee Tanam, Shopee Candy, Shopee Lucky Prize, Shopee Bubble, Shopee Cocoki, Shopee Tebak Kata, Shopee Fruity, and Shopee Capit. These games are designed to be simple, easily accessible, and integrated with shopping activities, such as collecting coins, discount vouchers, free shipping, or other rewards. In addition, information regarding the large number of daily and monthly players indicates high user participation in these gamification features.

Shopee Games plays an important role in encouraging users to open the application more frequently and spend more time on the platform. Daily gameplay mechanisms, repeated missions, point systems, and rewards that can be converted into shopping benefits contribute to habit formation among users. When consumers perceive that playing games provides tangible benefits for shopping, such as discounts or Shopee coins, they tend to repeatedly use the application. With attractive reward systems, users gain additional incentives to continue using Shopee rather than switching to other e-commerce platforms (Eldhia & Iriyanty, 2022). This aligns with relationship marketing principles, where continuous and valuable interactions strengthen long-term relationships between consumers and platforms.

In addition to gamification, customer loyalty programs represent another important strategy for retaining consumers. Loyalty programs are designed to reward consumers for their shopping activities through systems such as points, cashback, vouchers, or tiered membership levels. The primary objective of these programs is to encourage repeat purchases and strengthen emotional bonds between consumers and the platform.

Shopee implements this strategy through the Shopee Loyalty Program, which uses a tiered system ranging from Classic to Platinum levels that offer exclusive benefits as user activity increases. This strategy encourages consumers to continue transacting in order to achieve higher membership levels and obtain greater benefits. However, although loyalty programs provide direct incentives, their effectiveness in building long-term retention still requires further examination. This is because loyalty programs often focus on short-term benefits and may not necessarily create sustainable commitment without satisfactory user experiences.

Within the digital context, e-customer satisfaction plays a crucial role as a bridge between marketing strategies and customer retention. Online customer satisfaction is influenced not only by prices or promotions but also by application usability, transaction speed, product information quality, data security, and customer service quality. Consumers who feel satisfied tend to develop positive attitudes toward the platform, become more tolerant of minor shortcomings, and exhibit a greater tendency to continue using the service.

In e-commerce platforms such as Shopee, customer satisfaction can determine whether consumers remain loyal or switch to other platforms. Although gamification and loyalty programs may attract attention and encourage transactions, satisfaction remains the primary foundation for creating sustainable retention. Therefore, e-customer satisfaction is considered an intervening variable that bridges the influence of gamification and customer loyalty programs on customer retention.

The preliminary survey results indicate that gamification and customer loyalty programs have contributed positively but have not yet fully created strong and sustainable customer satisfaction and retention. These findings highlight the importance of further examining the role of gamification and loyalty programs in customer retention, with e-customer satisfaction as an intervening variable, to better understand the mechanisms underlying these relationships.

Kotler and Keller (2016) emphasize that retaining existing customers is far more efficient than acquiring new ones in terms of cost, time, and marketing resources. They state that the cost of acquiring new customers can be up to five times higher than retaining existing ones, making retention strategies essential for long-term business sustainability. In the e-commerce environment, customer retention ideally reflects long-term platform usage, generally exceeding one year, as this period indicates the formation of habits, engagement, and sustained satisfaction with digital services (Homburg, Jozić, & Kuehn, 2017). However, intense competition and low switching costs within e-commerce platforms make customers more likely to switch providers, creating a strategic challenge that requires companies to design satisfying digital experiences as the foundation for long-term retention.

Several previous studies have demonstrated that gamification and loyalty programs play important roles in shaping customer engagement, satisfaction, and retention in digital platforms. Kim and Lee (2025), in the context of mobile commerce, found that gamification increases customer engagement and reduces switching behavior, thereby enhancing customer retention. Similarly, Kaushik and Vijay (2024) reported that gamification in retail applications significantly influences user engagement and customer loyalty. From the perspective of loyalty programs, Kaur (2024) confirmed that loyalty programs positively influence customer retention in the retail industry. Nigam and Chanda (2025) also found that gamification enhances brand recognition and significantly affects customer satisfaction, which is an important factor in driving user retention. Furthermore, Zega and Hariyanti (2025) demonstrated that gamification influences customer loyalty indirectly through customer satisfaction as an intervening variable. Similar findings were reported by Hosseini and Rezvani (2021), who found that gamification significantly affects e-customer loyalty on trust-based e-commerce platforms. Additionally, Panneerselvam (2025) emphasized that e-customer satisfaction strongly influences consumer loyalty, particularly when supported by trust-based relationships.

Although previous studies have examined relationships between gamification, loyalty programs, satisfaction, and customer loyalty or retention, most studies have analyzed these relationships separately and have not comprehensively tested the role of satisfaction as an intervening variable in the context of major e-commerce platforms in Indonesia. This gap provides an opportunity for the present study to contribute to the existing literature.

The increasing use of gamification and customer loyalty programs as strategies to strengthen customer retention is also occurring globally. Various e-commerce companies and digital platforms across North America, Europe, and the Asia-Pacific region are increasingly integrating game elements, point systems, levels, and rewards into user experiences to enhance engagement and retain customers (Kaushik & Vijay, 2024).

Based on this phenomenon, this study becomes important to examine the role of gamification and customer loyalty programs in increasing customer retention with e-customer satisfaction as an intervening variable in Shopee e-commerce. Academically, this research is significant because studies examining the comprehensive relationship

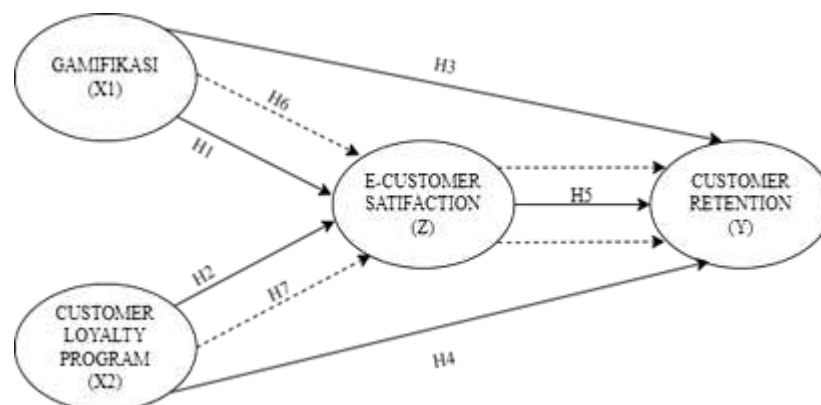
among gamification, loyalty programs, customer satisfaction, and retention within a single research model remain limited, particularly in the context of Indonesia's rapidly growing and highly competitive e-commerce industry.

Practically, the findings of this research are expected to provide strategic recommendations for Shopee management in designing and optimizing digital marketing strategies that focus not only on increasing short-term transactions but also on creating customer satisfaction and long-term customer retention. Through the appropriate implementation of gamification and customer loyalty programs, Shopee is expected to strengthen consumer engagement and maintain its competitive position within the increasingly dynamic e-commerce industry.

III. METHOD

This study employs a quantitative approach with a descriptive design to analyze the causal relationships between gamification, customer loyalty programs, e-customer satisfaction, and customer retention. The scientific method serves as a guideline for the processes of data collection, analysis, and interpretation to ensure that the research produces objective and accountable findings (Sekaran & Bougie, 2021). Data were collected through questionnaires and subsequently analyzed using statistical techniques to test the proposed research hypotheses. The population of this study consists of all Shopee e-commerce users in Indonesia, which is categorized as an infinite population (Neuman, 2023). The sample was determined using a non-probability sampling technique with a purposive sampling method, where respondents were Shopee users residing in DKI Jakarta who utilize gamification features and have previously participated in Shopee's loyalty program. The sample size was determined based on the guideline proposed by Hair et al. (2011) which recommends a minimum of 5–10 times the number of research indicators. With a total of 30 indicators and a multiplier of eight, the final sample size in this study consisted of 240 respondents.

Data analysis was conducted using Structural Equation Modeling based on Partial Least Squares (SEM-PLS), which includes the evaluation of the measurement model (outer model) and the structural model (inner model). The outer model was used to assess the validity and reliability of constructs through convergent validity, discriminant validity, and composite reliability tests. Meanwhile, the inner model was used to examine the relationships among latent variables through the coefficient of determination (R^2) and predictive relevance (Q^2). In addition, model adequacy was evaluated using the Goodness of Fit (GoF) index. The direct and indirect effects among variables were tested using path analysis with a bootstrapping procedure to determine the strength of relationships between constructs within the research model.



Source: Processed by researchers, 2025

Figure 1. Research Framework

III. RESULT AND DISCUSSION

Outer Model Testing

Table 1. Outer Model Testing

Variable	Indicator	Outer Loading	AVE
Gamification (X1)	X1.1	0,865	0,634
	X1.2	0,818	
	X1.3	0,842	
	X1.4	0,741	
	X1.5	0,794	
	X1.6	0,732	
	X1.7	0,794	
	X1.8	0,756	
	X1.9	0,778	
	X1.10	0,830	
Customer Loyalty Program (X2)	X2.1	0,757	0,577
	X2.2	0,760	
	X2.3	0,753	
	X2.4	0,741	
	X2.5	0,734	
	X2.6	0,779	
	X2.7	0,748	
	X2.8	0,773	
	X2.9	0,763	
	X2.10	0,763	
	X2.11	0,749	
	X2.12	0,758	
	X2.13	0,752	
	X2.14	0,802	
Customer Retention (Y)	Y1.1	0,780	0,596
	Y1.2	0,774	
	Y1.3	0,737	
	Y1.4	0,716	
	Y1.5	0,779	
	Y1.6	0,784	
	Y1.7	0,799	
	Y1.8	0,820	
	Y1.9	0,763	
	Y1.10	0,807	
	Y1.11	0,767	

Variable	Indicator	Outer Loading	AVE
E-Customer Satisfaction (Z)	Y1.12	0,732	0,532
	Z1.1	0,722	
	Z1.2	0,719	
	Z1.3	0,717	
	Z1.4	0,714	
	Z1.5	0,742	
	Z1.6	0,740	
	Z1.7	0,729	
	Z1.8	0,750	
	Z1.9	0,712	
	Z1.10	0,756	
	Z1.11	0,716	
	Z1.12	0,732	

Source: Research Data

Based on the results of the outer model testing, all indicators of the variables Gamification (X1), Customer Loyalty Program (X2), Customer Retention (Y), and E-Customer Satisfaction (Z) show outer loading values greater than 0.70, indicating that all indicators have strong correlations in reflecting their respective latent constructs. The outer loading values for the Gamification variable range from 0.732 to 0.865, while those for the Customer Loyalty Program variable range from 0.734 to 0.802. For the Customer Retention variable, the outer loading values range from 0.716 to 0.820, and for the E-Customer Satisfaction variable they range from 0.712 to 0.756. In addition, the results of the Average Variance Extracted (AVE) test also indicate values above the minimum threshold of 0.50, namely 0.634 for Gamification, 0.577 for Customer Loyalty Program, 0.596 for Customer Retention, and 0.532 for E-Customer Satisfaction. These values indicate that each construct is capable of explaining more than 50% of the variance of its indicators. Therefore, all indicators in this study meet the criteria for convergent validity, indicating that the measurement model (outer model) is valid and appropriate for further evaluation in the structural model (inner model).

Table 2. Composite Reliability Testing

	Cronbach's Alpha	Composite Reliability
Gamification (X1)	0,937	0,945
Customer Program Loyalty (X2)	0,944	0,950
Customer Retention (Y)	0,938	0,946
E-Customer Satisfaction (Z)	0,944	0,950

Source: Research Data

Based on the reliability test results, all constructs in this study show Cronbach's Alpha and Composite Reliability values above the minimum threshold of 0.70, indicating that all constructs are reliable. The Gamification (X1) variable has a Cronbach's Alpha value of 0.937 and a Composite Reliability value of 0.945. The Customer Loyalty Program (X2) variable shows a Cronbach's Alpha value of 0.944 and a Composite Reliability value of 0.950. Furthermore, the Customer Retention (Y) variable has a Cronbach's Alpha value of 0.938 and a Composite Reliability value of 0.946, while the E-Customer Satisfaction (Z) variable has a Cronbach's Alpha value of 0.944 and a Composite Reliability

value of 0.950. These values indicate that all constructs demonstrate a high level of internal consistency in measuring the research variables. Therefore, it can be concluded that all variables meet the reliability criteria, indicating that the research instrument is reliable and suitable for further analysis.

Inner Model Testing Adjusted R²

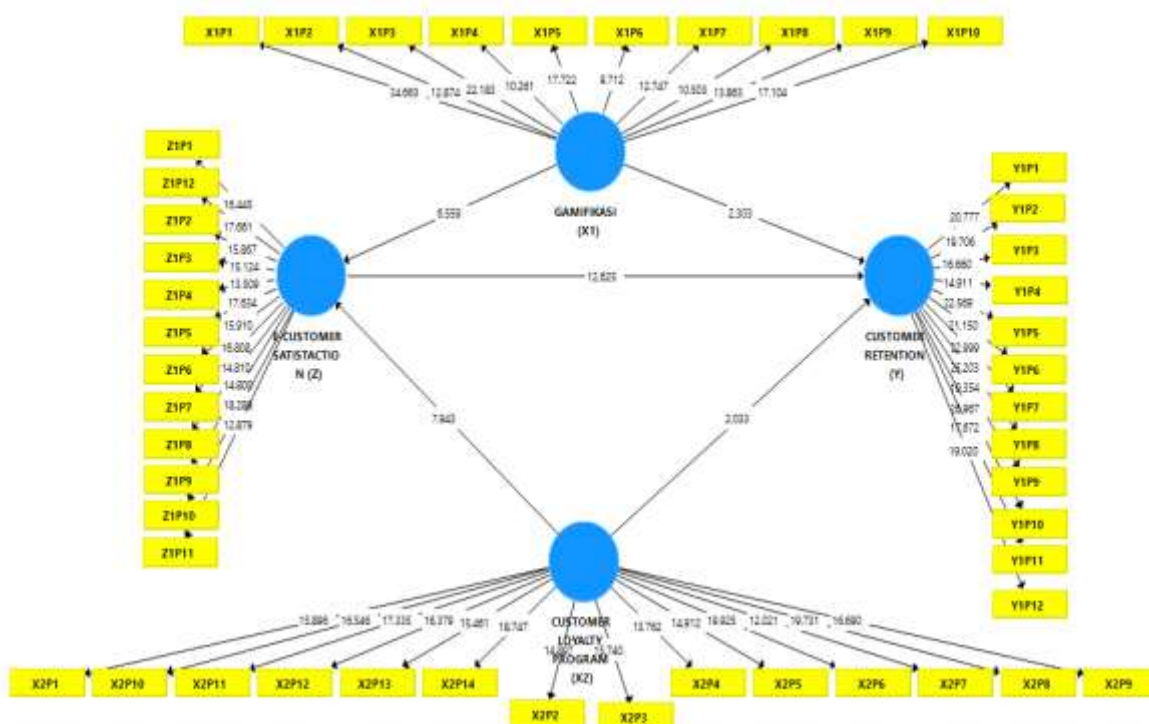
Table 3. Adjusted R² Testing

	R Square	R Square Adjusted
Customer Retention (Y)	0,839	0,836
E-Customer Satisfaction (Z)	0,543	0,538

Source: Research Data

Based on the coefficient of determination (R²) results, the Customer Retention (Y) variable has an R Square value of 0.839 and an Adjusted R Square value of 0.836, indicating that 83.9% of the variation in Customer Retention can be explained by the independent variables in the research model, while the remaining 16.1% is influenced by other factors outside the model. Meanwhile, the E-Customer Satisfaction (Z) variable shows an R Square value of 0.543 and an Adjusted R Square value of 0.538, meaning that 54.3% of the variation in E-Customer Satisfaction can be explained by the independent variables in the model, while 45.7% is influenced by other variables not included in this study. These results indicate that the research model has strong explanatory power for Customer Retention and moderate explanatory power for E-Customer Satisfaction.

Hypothesis Testing



Source: Processed by researchers, 2025
Figure 2. Hypothesis Testing Framework

Table 4. Hypothesis Testing

Hypothesis	Path	Original Sample (O)	t-Statistics	p-Values
H1	Gamification (X1) -> E-Customer Satisfaction (Z)	0,188	6,559	0,00
H2	Customer Loyalty Program (X2) -> E-Customer Satisfaction (Z)	0,721	7,943	0,00
H3	Gamification (X1) -> Customer Retention (Y)	0,068	2,303	0,023
H4	Customer Loyalty Program (X2) -> Customer Retention (Y)	0,118	2,033	0,044
H5	E-Customer Satisfaction (Z) -> Customer Retention (Y)	0,816	12,625	0,00
H6	Gamification (X1) -> E-Customer Satisfaction (Z) -> Customer Retention (Y)	0,153	6,062	0,00
H7	Customer Loyalty Program (X2) -> E-Customer Satisfaction (Z) -> Customer Retention (Y)	0,589	6,349	0,00

Source: Research Data

The results of this study indicate that gamification has a positive and significant effect on e-customer satisfaction, suggesting that game features such as points, daily challenges, and rewards can create a more enjoyable and engaging user experience on e-commerce platforms. These elements enhance user interaction and provide additional value beyond the core shopping process, thereby increasing customer satisfaction. This finding is consistent with previous studies by Nugraha et al. (2024) and Andika et al. (2025), which demonstrate that gamification can improve customer satisfaction by creating a more interactive and enjoyable digital experience.

Furthermore, customer loyalty programs also have a positive and significant effect on e-customer satisfaction. Incentive mechanisms such as points, cashback, vouchers, and membership levels provide tangible benefits that make customers feel appreciated for their loyalty and transactions. As a result, customers perceive greater value from the platform, which enhances their overall satisfaction. This finding aligns with the study by Asmarasari et al. (2020), which found that digital loyalty programs significantly improve customer satisfaction.

The findings also show that gamification has a positive and significant influence on customer retention. Gamification encourages users to open the application more frequently, participate in game-related activities, and collect rewards, which gradually forms habitual usage of the platform. This enjoyable interaction strengthens emotional engagement and reduces the likelihood of customers switching to competing platforms. These results are consistent with the findings of Dhanurendra and Zain (2021) and Rosilawati et al. (2025), who reported that gamification strategies contribute to higher user retention through sustained engagement.

In addition, customer loyalty programs significantly influence customer retention. Incentives such as reward points, cashback, and tiered memberships encourage repeat purchases and strengthen customers' commitment to a particular platform. Loyalty programs also create psychological attachment because customers tend to avoid losing accumulated benefits when switching to another platform. This finding is supported by Hermawan (2025), who reported that loyalty programs play a significant role in maintaining long-term customer relationships.

The results further indicate that e-customer satisfaction has a positive and significant effect on customer retention. Customers who are satisfied with their online shopping experience, including ease of use, product information clarity, transaction security, and service quality, are more likely to continue using the same platform.

Satisfaction fosters positive perceptions and trust, which ultimately strengthen long-term relationships between customers and e-commerce platforms. This finding is consistent with studies by Ilham et al. (2024) and Rizan et al. (2024), which highlight customer satisfaction as a key determinant of customer retention.

Finally, the study reveals that e-customer satisfaction mediates the relationship between gamification and customer retention, as well as between customer loyalty programs and customer retention. Gamification and loyalty programs can enhance customer retention indirectly by increasing customer satisfaction. These findings suggest that the effectiveness of gamification and loyalty strategies largely depends on their ability to generate positive user experiences and satisfaction. Therefore, e-commerce platforms should focus not only on engagement strategies but also on delivering meaningful value that enhances customer satisfaction and strengthens long-term customer retention.

IV. CONCLUSION

The findings of this study indicate that gamification and customer loyalty programs have a strong influence on enhancing e-customer satisfaction. The presence of gamification features, such as point systems, challenges, and rewards, can create a more engaging, enjoyable, and valuable online shopping experience for consumers. These features encourage customer involvement and make users feel appreciated, which ultimately contributes to higher levels of digital customer satisfaction toward the e-commerce platform. However, the direct effect of gamification and customer loyalty programs on customer retention tends to be weaker compared to their influence on e-customer satisfaction. This suggests that the presence of gamification features and loyalty programs alone is not sufficient to maintain long-term customer retention without being supported by adequate levels of customer satisfaction.

Furthermore, the results show that e-customer satisfaction is the most influential variable affecting customer retention. Customers who are satisfied with their online shopping experience are more likely to make repeat purchases, maintain commitment to the same platform, and demonstrate stronger resistance to offers from competing platforms. In this context, e-customer satisfaction acts as a key mechanism in strengthening customer retention. The findings emphasize that to improve customer retention, e-commerce companies cannot rely solely on gamification and loyalty programs as engagement tools but must also focus on consistently creating and maintaining customer satisfaction. In other words, customer retention is ultimately determined by how satisfied consumers are with their overall digital experience.

In addition, empirical findings reveal that the duration of customer retention remains moderate, with only around 55% of customers using the Shopee platform for more than one year. This indicates that although the platform has implemented various gamification and loyalty program strategies, challenges in maintaining long-term customer retention still persist and require serious attention. The results also demonstrate that e-customer satisfaction mediates the relationship between gamification and customer retention, meaning that well-designed gamification features first enhance customer satisfaction, which subsequently encourages customers to remain loyal to the platform. Similarly, e-customer satisfaction also mediates the influence of customer loyalty programs on customer retention, indicating that loyalty programs that provide meaningful value and tangible benefits can enhance customer satisfaction and ultimately strengthen the long-term relationship between consumers and e-commerce platforms.

V. REFERENCES

- Andika, C. D., Mahrinasari, & Ambarwati, D. A. S. (2023). The effect of perceived value using the gamification program on customer loyalty through customer satisfaction as an intervening variable (Study on Dana e-wallet application users). *JEMSI (Jurnal Ekonomi, Manajemen, dan Akuntansi)*, 9(4), 1679–1690. <https://doi.org/10.35870/jemsi.v9i4.1472>
- Asmarasari, D. T., Muftian, R. D., Diyanto, T., & Dewobroto, W. S. (2020). Pengaruh digital loyalty program terhadap kepuasan dan loyalitas pelanggan: Studi kasus Tokopedia. *Jurnal Pemasaran Kompetitif*, 4(1), 13–32.
- Dhanurendra, A. G., & Zain, A. (2021). Pengaruh gamification dan brand image terhadap retensi pelanggan di platform Steam. *Jurnal Aplikasi Bisnis*, 7(1), 1–12.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2011). *Multivariate Data Analysis* (7th ed.). Pearson Education.

- Hamari, J., Koivisto, J., & Sarsa, H. (2014). Does gamification work? A literature review of empirical studies on gamification. *Proceedings of the 47th Hawaii International Conference on System Sciences*, 3025–3034. <https://doi.org/10.1109/HICSS.2014.377>
- Hennig-Thurau, T., & Hansen, U. (2020). *Relationship marketing: Gaining competitive advantage through customer satisfaction and customer retention* (3rd ed.). Springer.
- Hermawan, M. E. (2025). Dampak program loyalitas terhadap retensi pelanggan dalam industri ritel modern di Jakarta. *Jurnal Inovasi Bisnis dan Manajemen Nusa Science*, 1(1).
- Hosseini, E., & Rezvani, M. J. (2021). E-customer loyalty in gamified trusted store platforms: A case study analysis in Iran. *Bulletin of Electrical Engineering and Informatics*. <https://doi.org/10.11591/eei.v10i5.3165>
- Kaur, H. (2024). The impact of loyalty programs on customer retention in the retail industry. *Darpan International Research Analysis*, 12(3), 69–82. <https://doi.org/10.36676/dira.v12.i3.57>
- Kaushik, H., & Vijay, A. (2023). Gamification in mobile apps: Assessing the effects on customer engagement and loyalty in the retail industry. *Journal of Information Technology and Digital World*, 5(4), 404–416. <https://doi.org/10.36548/jitdw.2023.4.006>
- Kim, J., & Lee, S. (2025). How gamification affects switching behaviors in the mobile-commerce context. *Frontiers in Communication*, 10(2), 1–14.
- Kotler, P., & Keller, K. L. (2021). *Marketing management* (16th ed.). Pearson Education.
- Neuman, W. L. (2023). *Social research methods: Qualitative and quantitative approaches* (9th ed.). Pearson Education.
- Nugraha, W. A., Gunawan, T., & Istiharini. (2024). Pengaruh gamifikasi loyalitas program Redclub terhadap loyalitas melalui kepuasan pelanggan di aplikasi RedDoorz. *Jurnal Manajemen dan Bisnis Performa*, 21(2).
- Panneerselvam, A., & Unika, D. (2025). Impact of consumer e-satisfaction on consumer loyalty with the mediation effect of consumer trust towards e-tailing grocery shopping applications. *International Journal on Research and Development – A Management Review*, 14(1), 373–379. <https://doi.org/10.65521/ijrdmr.v14i1.870>
- Sekaran, U., & Bougie, R. (2021). *Research methods for business: A skill-building approach* (8th ed.). Wiley.
- Tjiptono, F., & Chandra, G. (2019). *Service, quality & satisfaction* (4th ed.). Andi Offset.
- Zega, L. R. L., Perdanakusuma, A. R., & Hariyanti, U. (2025). The influence of gamification affordance on customer loyalty among e-commerce in Indonesia. *Journal of Information Systems Engineering and Business Intelligence*, 11(2), 115–125. <https://doi.org/10.20473/jisebi.11.2.115-125>