

## GAMIFICATION IN MARKETING: HOW ENGAGEMENT INFLUENCES CUSTOMER RETENTION?

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### Abstract

*This study aims to analyze the effect of gamification on customer retention and to examine the mediating role of customer engagement among users of the e-commerce platforms Tokopedia, TikTok Shop, and Shopee. The study employs a quantitative approach with a sample of 96 respondents, comprising students, civil servants (ASN), and entrepreneurs located in the regions of Banyumas, Banjarnegara, Purbalingga, and Cilacap. Data collection was conducted using a structured questionnaire, while data analysis employed the Partial Least Squares Structural Equation Modeling (PLS-SEM) method using the SmartPLS software. The results indicate that gamification has a positive and significant effect on customer retention. Additionally, gamification also has a positive and significant effect on customer engagement, while customer engagement was found to have a positive and significant effect on customer retention. The results of the indirect effect test show that customer engagement partially mediates the relationship between gamification and customer retention. These findings suggest that the implementation of gamification elements such as points, rewards, challenges, and interactive missions can increase consumer engagement, which ultimately strengthens customer retention. This study implies that effective gamification strategies can serve as a means for e-commerce platforms to boost user engagement and retain customers over the long term.*

**Keywords:** *Gamification; Customer\_retention; E-Commerce; customer\_engagement*

### INTRODUCTION

In an increasingly competitive digital age, companies are required to create innovative consumer experiences to maintain loyalty and improve retention. One innovative approach that is widely adopted is gamification—the use of game elements in non-game contexts to create enjoyable and engaging experiences (Hamari, et al., 2014 & Zichermann and Cunningham, 2011). Gamification has proven effective in boosting consumers' intrinsic motivation—whether through rewards, challenges, or interactivity—all of which contribute to consumer engagement (Huotari and Hamari, 2017). Nevertheless, there remains a gap in understanding how gamification influences consumer retention, particularly regarding the mediating role of consumer engagement as a key variable.

Consumer engagement, defined as the psychological state in which consumers feel emotionally and cognitively connected to a brand or product, has been identified as one of the primary predictors of consumer retention (Brodie, et al., 2011 & Viviek, et al., 2012). Previous research indicates that more engaged

consumers are more likely to exhibit loyal behavior and recommend products to others (Hollebeek, et al., 2014). Gamification, through elements such as points, levels, and rewards, can enhance consumer engagement by creating personalized interactive experiences (Werbach and Hunter, 2012). However, further research is needed to understand whether this effect is direct or influenced by specific mediating factors, such as consumer engagement, across various industries (Blohm and Leimeister, 2013).

Customer retention remains a strategic goal in marketing due to its close relationship with corporate profitability (Reichheld and Scheffer, 2000). Research shows that retaining existing customers is far more cost-effective than acquiring new ones (Gallo, 2014). Therefore, companies are seeking to leverage technologies, such as gamification, to extend their customers' lifecycle (Kim, et al., 2018). In this context, it is important to integrate gamification and customer engagement as key variables that can significantly improve customer retention. By filling a gap in the literature, this study contributes to a deeper understanding of how gamification can be used as a strategic tool to build sustainable customer relationships (Yee, 2017 & Deterding, et al., 2011).

In the increasingly competitive e-commerce industry, companies face significant challenges in retaining customers. One of the main issues is low customer retention rates due to high churn rates to competing platforms (Gall, 2014). Consumers in the digital age have many options, so companies need to create unique and engaging experiences to maintain their loyalty. Gamification, which integrates game elements into the consumer experience, has been used by many e-commerce companies to increase customer engagement. However, the effectiveness of gamification in improving customer retention is not yet fully understood, particularly when considering the role of customer engagement as a mediating variable (Hamari et al., 2014 & Werbach and Hunter, 2012). How e-commerce companies can strategically leverage gamification to increase engagement and ultimately retain their customers remains a critical question requiring further research.

In addition, there is a gap in the literature regarding how gamification influences consumer engagement in the context of e-commerce. Do gamification elements, such as points, levels, and rewards, truly foster deep engagement or merely produce temporary effects? If consumer engagement proves to be a key factor, how significant is its role in bridging the relationship between gamification and consumer retention? Existing research often focuses on the technical aspects of gamification without delving deeper into its long-term impact on consumer behavior (Blohm and Leimeister, 2013 & Nicholson, 2015). Therefore, it is important to thoroughly investigate the relationship between gamification, consumer engagement, and consumer retention, particularly within the dynamic e-commerce ecosystem. This will provide strategic insights for e-commerce companies in designing more effective and sustainable gamification programs.

Based on the description and background above, the following hypotheses can be proposed:

**H1.** *Customer Engagement has a positive and significant effect to Customer Retention*

**H2.** *Gamification has a positive and significant effect to Customer Engagement*

**H3.** *Gamification has a positive and significant effect to Customer Retention*

**H4.** *Customer Engagement mediates gamification on Customer Retention*

## **RESEARCH METHOD**

### **Research Type**

This study uses a quantitative approach, which allows researchers to obtain accurate and reliable information about the cause-and-effect relationship between reliable and valid variables. This approach is carried out through a survey method as the main data collection tool

### **Time and Location**

This research was conducted in Banyumas Former Residency from August 1 to August 15, 2025.

### **Subject**

Sampling was conducted using stratified random sampling, employing convenience sampling techniques. Hypothesis testing was performed using Partial Least Squares-Structural Equation Modeling (PLS-SEM). The target respondents were selected in accordance with the research framework, comprising 96 users of the e-commerce platforms Tokopedia, TikTok Shop, and Shopee.

### **Procedure**

The unit of analysis in this study consists of respondents who are active users of the e-commerce platforms Tokopedia, TikTok Shop, and Shopee. Data were collected via a questionnaire using a Likert scale as the measurement tool. Each question item was formulated with answer choices based on the level of agreement, ranging from very negative to very positive, using different phrasing but maintaining the Likert scale range of 1 to 7.

### **Data Analysis Techniques**

This study is a quantitative study, with secondary data sourced from scientific articles in national and international journals, while primary data was collected through a questionnaire administered using Microsoft Forms with a 5-point Likert scale: Strongly Agree (SS), Agree (S), Somewhat Agree (AS), Neutral (N), Somewhat Disagree (ATS), Disagree (D), and Strongly Disagree (SD) (Joshi et al., 2015). The study sample consisted of 100 respondents, selected in accordance with the data analysis methodology using Partial Least Squares-Structural Equation Modeling (PLS-SEM) (Hair, et al., 2017) via purposive random sampling. The selection criteria were: having shopped via e-commerce, having

used gamification features provided on e-commerce applications, and residing in the Banyumas Raya region. The respondents' answers were then processed using the SmartPLS program. The data processing stage was divided into two parts: evaluation of the measurement model (outer model) to test validity and reliability (Henseler, 2009) followed by evaluation of the structural model (inner model) to test the significance of relationships between variables (Hair et al., 2017).

Some of the criteria used in this study include a factor loading > 0.6 to be considered valid (Hair et al., 2017). R-Square value of 0.67 indicates a strong model, 0.33 indicates a moderate model, and 0.19 indicates a weak model (Chin, 1988). The Average Variance of Extracted (AVE) value > 0.5 and the Composite Reliability (CR) > 0.7 (Fornell and Larcker, 1981). A hypothesis is accepted as positive and significant if the t-statistic result is > 1.96 and the p-value is < 0.05 (Hair et al., 2017). Meanwhile, to test the mediating role, the results of the direct relationship test are compared with those of the indirect relationship. If both the direct and indirect relationships are significant, it is called partial mediation. If the direct relationship is not significant but the indirect relationship is significant, it is called full mediation. If the direct relationship is significant but the indirect relationship is not significant, then mediation does not occur (Baron and Kenny, 1986).

## RESULT AND DISCUSSION

Based on the data identification conducted using the respondent data that has been received, the following can be observed, as shown in the table below:

**Table 1. Respondent Characteristics**

Gender	Percentage
Male	43%
Female	57%
Total	100%
Profession	Percentage
Student	39%
Entrepreneur	27%
ASN	18%
Other	16%
Total	100%
Platform	Percentage
Tokopedia	23%
Tiktok Shop	25%
Shopee	52%
Total	100%

Source: Primary data (processed)

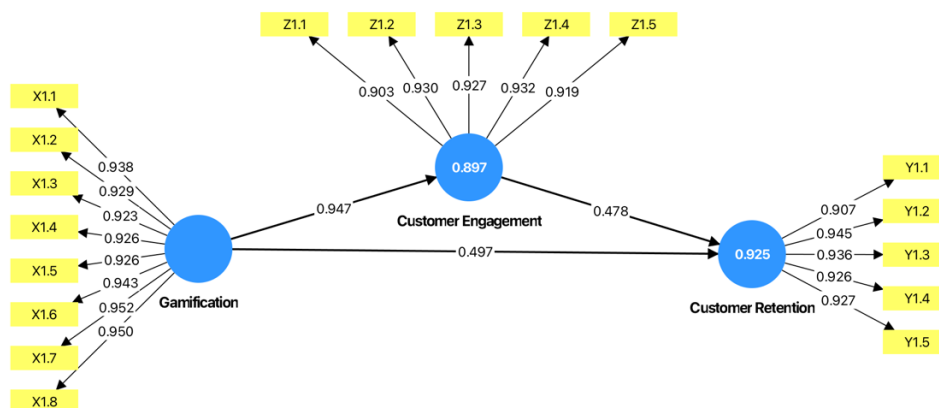
Based on the data in Table 1, it can be explained that most respondents in this study were female students who used Shopee as a digital platform.

**Table 2. Respondent's Place of Residence**

City / Regency	Total
Banyumas	34%
Banjarnegara	18%
Purbalingga	20%
Cilacap	28%
Total	100%

Source: Primary data (processed)

Based on the data in Table 2, it can be explained that most respondents in this study were digital online shopping platform in Banyumas Regency.



**Figure 1. Outer Loading and R-Square**

Source: Primary data (processed)

Based on the figure, it can be seen that all outer loading values are valid and meet the requirements for testing. In addition, the R-Square values for Customer Engagement and Customer Retention are 0.897 and 0.925, respectively.

**Table 3. CA, CR, and AVE**

	CA	CR (rho_a)	AVE
Customer Engagement	0.956	0.956	0.851
Customer Retention	0.960	0.960	0.862
Gamification	0.980	0.980	0.876

Source: Primary data (processed)

The criteria used in this study are that each variable is said to meet the validity requirements if it has a Cronbach's Alpha (CA) value  $> 0.7$  Composite Reliability (CR)  $> 0.7$  and AVE  $> 0.5$ . Based on the data in table 2, it can be seen that all variables have met the validity requirements.

**Table 3.** Significance Test Result

	Original Sample (O)	Sample Mean (M)	Standar Deviation (STDEV)	T-Statistic (IO/STDEVI)	P-Value
Customer Engagement -> Customer Retention	0.478	0.480	0.105	4.565	0.000
Gamification -> Customer Engagement	0.947	0.947	0.009	102.942	0.000
Gamification -> Customer Retention	0.497	0.495	0.105	4.743	0.000
Gamification -> Customer Engagement -> Customer Retention	0.453	0.455	0.100	4.536	0.000

Source: Primary data (processed)

Based on the data analysis in Table 3, it can be seen that all relationships between variables have positive and significant results, so that all variable relationships have an influence and affect each other, and it can be seen that there is an indirect effect, which indicates that customer engagement mediates the relationship between gamification on customer retention as a partial mediation. *Customer Engagement to Customer Retention*

Based on the results of the hypothesis testing, the customer engagement variable was found to have a positive and significant effect on customer retention among users of the Tokopedia, TikTok Shop, and Shopee e-commerce platforms in the Banyumas, Purbalingga, Banjarnegara, and Cilacap regions, comprising respondents who were students, civil servants, and entrepreneurs. These findings indicate that the higher the level of consumer engagement with an e-commerce platform, the greater their tendency to continue using that platform in the long term. Engagement, as reflected through active interaction, participation in promotional programs, utilization of app features, and ongoing communication with the platform, fosters a stronger relationship between consumers and service providers. Students tend to demonstrate engagement through activities such as searching for product information, providing reviews, and participating in various available interactive features. Meanwhile, civil

servants are more engaged through consistent use of the platform to meet daily needs, prioritizing convenience and trust. On the other hand, entrepreneurs demonstrate high levels of engagement because they utilize e-commerce platforms not only as a shopping tool but also as a source of market information and business opportunities. These conditions foster positive experiences that strengthen consumers' commitment to continue using the same platform. H1 has been accepted.

#### *Gamification to Customer Engagement*

The research findings indicate that gamification has a positive and significant impact on customer engagement among users of Tokopedia, TikTok Shop, and Shopee in the regions of Banyumas, Purbalingga, Banjarnegara, and Cilacap, comprising college students, civil servants, and entrepreneurs. These findings indicate that the more engaging the gamification features provided by e-commerce platforms—such as points, vouchers, daily missions, challenges, and virtual rewards—the higher the level of consumer engagement in interacting with the platform. Respondents tend to open the apps more frequently, participate in various promotional activities, and engage in the interactive programs offered due to the presence of entertainment and reward elements that create an enjoyable shopping experience. This aligns with previous research finding that gamification can boost user participation by fostering both intrinsic and extrinsic motivation, which drives sustained engagement. In addition, gamification features have proven effective in building an emotional connection between users and the platform, so that consumers not only shop to meet functional needs but also enjoy a more engaging and competitive experience. These results also indicate that the characteristics of the respondents—who are predominantly a group familiar with digital technology—make them more responsive to various game elements implemented in digital marketing activities. Thus, it can be concluded that the effective implementation of gamification can significantly increase customer engagement among e-commerce users in the former Banyumas residency region and serves as a relevant marketing strategy for sustaining consumer interaction in the long term. H2 has been accepted.

#### *Gamification to Customer Retention*

Based on the results of the hypothesis testing, the gamification variable was found to have a positive and significant effect on customer retention among users of the Tokopedia, TikTok Shop, and Shopee marketplaces in the Banyumas, Purbalingga, Banjarnegara, and Cilacap regions, comprising respondents who were students, civil servants, and entrepreneurs. These findings indicate that the more engaging the implementation of gamification elements—such as points, rewards, daily missions, badges, and interactive challenges—offered by the platform, the higher the likelihood that consumers will continue using and transacting on that marketplace. Gamification features create a more enjoyable shopping experience, thereby encouraging users to repeatedly access the app. Additionally, the presence of reward systems and specific achievements fosters

a sense of emotional attachment that strengthens the relationship between consumers and the e-commerce platform. This leads consumers to have a greater motivation to continue using the app rather than switching to a competitor's platform. These research results align with previous studies indicating that gamification can enhance engagement, loyalty, and customer retention through more interactive and entertaining digital experiences. H3 has been accepted.

#### *The role mediation of Customer Engagement*

The results of the study indicate that gamification has a positive and significant effect on customer retention through customer engagement as a partial mediating variable among users of Tokopedia, TikTok Shop, and Shopee in the regions of Banyumas, Purbalingga, Banjarnegara, and Cilacap, comprising college students, civil servants, and entrepreneurs. These findings indicate that the implementation of gamification elements such as points, rewards, challenges, daily missions, and reward systems can increase consumer engagement in interacting with e-commerce platforms. The higher the level of customer engagement formed, the greater the tendency for consumers to continue using the same platform and make repeat purchases. The results demonstrate that customer engagement successfully serves as a psychological mechanism bridging the influence of gamification on customer retention; however, its mediating role is partial, as gamification also exerts a direct influence on customer retention. This suggests that consumers remain loyal not only because they feel actively engaged but also due to the more enjoyable and interactive shopping experience created through gamification features. These findings align with previous studies indicating that gamification can enhance user engagement and ultimately strengthen customer loyalty and retention on e-commerce platforms. Therefore, marketplace operators need to continue developing gamification features that are relevant, engaging, and tailored to user characteristics in order to maintain consumer engagement and continuously improve customer retention. H4 has been accepted.

## **CONCLUSION AND RECOMMENDATION**

### **Conclusion**

Based on the research findings, gamification has been shown to have a positive and significant effect on customer retention among users of Tokopedia, TikTok Shop, and Shopee in the regions of Banyumas, Purbalingga, Banjarnegara, and Cilacap. Customer engagement has also been shown to act as a partial mediating variable that strengthens the relationship between gamification and customer retention; thus, the higher the level of customer engagement, the greater the likelihood that customers will continue to use their chosen e-commerce platform. These findings indicate that implementing gamification features capable of increasing user engagement is an effective strategy for retaining customers in the long term.

### Recommendation

Future research is recommended to include additional variables such as customer satisfaction, perceived enjoyment, brand trust, or customer loyalty as mediating or moderating variables in order to gain a more comprehensive understanding of the mechanisms through which gamification influences customer retention. Additionally, the study could be expanded to include other digital platforms, a more diverse group of respondents, and different regions to enhance the generalizability of the findings. The operators of Tokopedia, TikTok Shop, and Shopee are advised to continue developing innovative, personalized gamification features tailored to user characteristics in order to boost customer engagement and maintain customer loyalty. Practitioners also need to periodically evaluate the effectiveness of gamification elements—such as rewards, challenges, and point systems—to ensure they deliver an engaging user experience and drive sustainable customer retention.

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