

## **The Influence of Gamification on Purchase Decisions on the Shopee Platform: A Case Study of Shopee Games Users in West Java**

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### **Keywords:**

Gamification; Purchase Decision; Shopee Games; E-commerce; Consumer Behavior.

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### **Abstract**

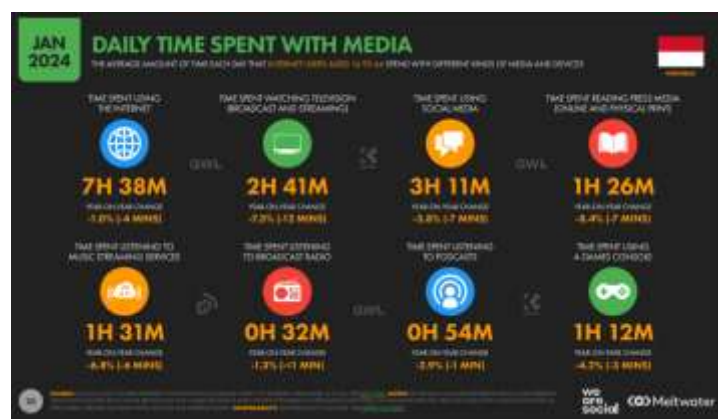
Gamification has become an important digital marketing strategy for creating a more engaging online shopping experience. Shopee implements this strategy through Shopee Games, which allows users to participate in various game activities and earn rewards that can be redeemed during shopping. The present study investigates how gamification applied through Shopee Games influences the purchase decisions of Shopee users in West Java. This research adopted a quantitative approach using descriptive and verificative methods. Data were collected through an online questionnaire completed by 100 respondents who met the predetermined research criteria and were subsequently analysed using descriptive statistics, validity and reliability tests, classical assumption tests, simple linear regression, the t-test, and the coefficient of determination with IBM SPSS Statistics. The results show that participants generally reported positive perceptions of the gamification features provided by Shopee Games. Statistical analysis revealed a statistically significant positive relationship between gamification and purchase decisions ( $\beta = 0.382$ ;  $t = 13.162$ ;  $p < 0.001$ ). Furthermore, gamification accounted for 63.9% of the variance in purchase decisions ( $R^2 = 0.639$ ). Overall, the findings suggest that gamification can serve not only as an entertainment feature but also as an effective digital marketing strategy for encouraging consumers' purchase decisions on the Shopee platform.

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## **INTRODUCTION**

The advancement of digital technology has transformed the way consumers access information, communicate, and conduct purchasing activities through online platforms. The increasing availability of internet access and the widespread use of smartphones have encouraged consumers to search for product information, communicate with sellers, and make purchases through online platforms rather than relying only on conventional shopping methods (Wiranata, Agung, & Prayoga, 2021). This development has accelerated the growth of e-commerce by enabling consumers to complete the entire purchasing process electronically, from searching for products to making payments (Harmayani, 2020). As competition among e-commerce platforms becomes more intense, companies are required to develop innovative digital marketing strategies that can improve user experience and strengthen customer engagement (Rowi, Wahyudi, & Oswari, 2024).

The development of e-commerce in Indonesia has been supported by the increasing adoption of the internet and digital media. Data reported by We Are Social (2024) show that Indonesians spend an average of 7 hours and 38 minutes per day using the internet and 3 hours and 11 minutes per day on social media, making them the most frequently used forms of digital media compared with television, radio, and podcasts. This condition creates opportunities for digital businesses to provide interactive services that attract users and encourage greater engagement (Lubis et al., 2025). Furthermore, the Digital 2025 report released by We Are Social and Meltwater reported that Indonesia had approximately 180 million social media users, equivalent to 62.9% of the country's total population. The steady increase in the number of digital users has contributed to the expansion of Indonesia's digital economy, especially in the e-commerce sector.



**Figure 1.** Indonesian Digital User Data in 2024  
Source: We Are Social (2024)

Shopee is one of the leading e-commerce platforms in Indonesia that continues to introduce various features to improve users' shopping experience. Besides offering a wide range of products, Shopee also provides several interactive features designed to encourage users to engage more actively with the application (Rowi et al., 2024). One of these features is Shopee Games, which includes mini-games such as Shopee Tanam, Shopee Candy, and Shopee Pets. Through these games, users can earn rewards in the form of coins, vouchers, and shopping discounts that can be redeemed during purchases. Therefore, the shopping experience on Shopee is no longer limited to purchasing products but also incorporates entertainment through interactive game activities (Dicky I., Sagita Putri, Ayu Savitri, & Citra Amalia, 2021).



**Figure 2.** Game Features on Shopee Games  
Source: Documentation through the Shopee Application (2025)

The implementation of Shopee Games reflects the application of gamification in digital marketing. Gamification refers to the use of game elements, such as points, rewards, and challenges, in activities outside the context of games to increase user motivation and engagement (Fitri Marisa et al., 2022). In digital marketing, gamification has been widely adopted as a strategy to encourage users to interact more actively with digital platforms. Higher user engagement is expected to increase the likelihood of behaviours that benefit companies, including consumers' purchase decisions (Wahab & Wardhana, 2024).

However, not all users respond to gamification in the same way. Some users actively participate in Shopee Games because the rewards they obtain can be used when making purchases. As a result, they tend to access the application more frequently, explore available products, and complete transactions. On the other hand, some users view Shopee Games only as a form of entertainment and do not consider it an important factor influencing their purchasing decisions. These different responses indicate that the effectiveness of gamification in influencing purchase decisions still requires further investigation.

Previous studies have shown that gamification positively influences consumer behaviour on digital platforms. Taruli, Chan, & Tresna (2020) found that gamification had a positive and significant effect on customer engagement in mobile e-commerce applications in Indonesia. Likewise, S Sarhan (2025) reported that gamification positively affected customer engagement and customer loyalty on the Shopee platform. Collectively, these studies indicate that incorporating game elements into digital platforms can strengthen user engagement and increase users' attachment to the platform.

Although previous studies have discussed the implementation of gamification in digital platforms, most have focused on customer engagement, involvement, and loyalty. Research investigating how gamification influences purchase decisions, particularly through the Shopee Games feature, are still relatively limited. Therefore, further research is needed to provide a better understanding of the relationship between gamification and consumers' purchase decisions.

Purchase decision is one of the important indicators for evaluating the effectiveness of marketing strategies in encouraging consumers to complete transactions (Kotler, 2024). To address this gap, the present study investigates the implementation of gamification through Shopee Games and analyses its effect on the purchase decisions of Shopee users in West Java.

## **RESEARCH METHODS**

This study employed a quantitative approach to examine the relationship between gamification and purchase decisions among Shopee Games users in West Java (Waruwu, Natijatul, Utami, & Yanti, 2025). A descriptive method was used to describe the implementation of gamification and respondents' purchase decisions, while a verificative method was applied to analyse the influence of gamification on purchase decisions through statistical analysis.

The research included one independent variable, namely gamification (X), and one dependent variable, namely purchase decision (Y). The gamification variable was measured using six dimensions represented by 18 questionnaire items, whereas the purchase decision variable consisted of four dimensions with a total of 12 questionnaire items. The dimensions and indicators of both variables were adopted from previous studies because they were

considered suitable for measuring gamification and purchase decisions in the context of Shopee Games. These indicators were subsequently developed into questionnaire statements to measure respondents' perceptions. Table 1 summarises the operational variables used in this study.

**Table 1.** Operational Variables

| Variable              | Number of Dimensions | Number of Items | Measurement Scale  |
|-----------------------|----------------------|-----------------|--------------------|
| Gamification (X)      | 6                    | 18              | Likert Scale (1–5) |
| Purchase Decision (Y) | 4                    | 12              | Likert Scale (1–5) |

Source: Adapted from Eisingerich et al. (2019) and Wardhana (2024).

The population consisted of Shopee users residing in West Java who had experience using Shopee Games and had made purchases through the Shopee platform. Since the exact population size was unknown, the required number of respondents was determined using Cochran's formula. Participants were selected through purposive sampling based on predetermined criteria. The minimum required sample size was calculated as follows:

$$n = \frac{Z^2 \times p \times q}{e^2}$$

Where:

n = required sample size

Z = confidence level (1.96 at a 95% confidence level)

p = probability of occurrence (0.5)

q = 1 – p (0.5)

e = margin of error (0.1)

$$n = \frac{(1,96)^2 \times 0,5 \times 0,5}{(0,1)^2}$$

$$n = \frac{3,8416 \times 0,25}{0,01}$$

$$n = \frac{0,9604}{0,01}$$

$$n = 96,04$$

The calculation indicates that the minimum number of respondents required in this study was 96 respondents. To minimize the possibility of incomplete responses, the required sample was rounded up to 100 respondents. All 100 completed questionnaires met the predetermined sampling criteria and were included in the data analysis.

The primary data for this study were obtained collected using an online questionnaire administered through Google Forms. The questionnaire was distributed through social media platforms, including Instagram and WhatsApp, to reach Shopee users in West Java who had experience using Shopee Games and had made purchases through the Shopee platform. Each questionnaire item was developed based on the indicators of the gamification and purchase decision variables. Responses were measured using a five-point Likert scale (Santika, Saragih, Kartini, & Ramadhani, 2023), as presented in Table 2. In addition, secondary data were collected from a review of books, scientific journals, research articles, and other relevant references related to gamification, purchase decisions, and e-commerce.

**Table 2.** Likert Scale

| Response          | Score |
|-------------------|-------|
| Strongly Agree    | 5     |
| Agree             | 4     |
| Neutral           | 3     |
| Disagree          | 2     |
| Strongly Disagree | 1     |

Source: Adapted from Sugiyono (2019).

All statistical analyses were performed with IBM SPSS Statistics. Descriptive statistical analysis was first conducted to describe an overview of respondents' perceptions of the research variables (Angreani & Kusumastuti, 2023). The questionnaire was then evaluated by conducting validity and reliability tests to confirm that the questionnaire was suitable for data collection. Normality and heteroscedasticity tests, which are classical assumption tests, were used to verify that the regression model met the necessary assumptions before testing the research hypothesis (Hernandez, 2023). Since the study examined the relationship between a single independent variable and a single dependent variable, simple linear regression analysis was used to examine the effect of gamification on purchase decisions. Finally, hypothesis testing was carried out using the t-test, while the coefficient of determination ( $R^2$ ) was used to measure the extent to which gamification explained the variation in purchase decisions (Yusuf, Trisnawati, Abraham, & Rukmana, 2024).

## RESULTS AND DISCUSSION

The findings of this study are presented based on data collected from 100 respondents. This section begins by describing the respondents' profile, followed by the results of the descriptive analysis, instrument testing, and statistical analysis used to examine the relationship between gamification and purchase decisions.

### Respondent Characteristics

To understand the profile of the research sample, respondents were classified according to gender, age, and the frequency of using Shopee Games. The distribution of respondents for each category is presented in Table 3.

**Table 3.** Respondent Characteristics

| Characteristic  | Category     | Frequency (n) | Percentage(%) |
|-----------------|--------------|---------------|---------------|
| Gender          | Male         | 31            | 31.6%         |
|                 | Female       | 69            | 68.4%         |
| Age             | <17 years    | 7             | 7.1%          |
|                 | 17-25 years  | 43            | 42.6%         |
|                 | 26-35 years  | 31            | 31%           |
|                 | 36-45 years  | 10            | 10.3%         |
|                 | >45 years    | 9             | 9%            |
|                 |              |               |               |
| Usage Frequency | Very Rare    | 12            | 12.3%         |
|                 | Rare         | 25            | 25.2%         |
|                 | Fairly Often | 17            | 16.8%         |
|                 | Often        | 28            | 28.4%         |
|                 | Very Often   | 17            | 17.4%         |

Source: Primary data processed by the authors (2026).

As shown in Table 3, the survey involved 100 respondents who fulfilled all predetermined research criteria, namely Shopee users living in West Java who had experience using Shopee Games and had completed purchases through the platform. Female respondents represented the majority of the sample (68.4%), while male respondents accounted for 31.6%. Most respondents were between 17 and 25 years old (42.6%), followed by those aged 26–35 years (31.0%). In terms of Shopee Games usage, the largest proportion of respondents reported using the feature often (28.4%). These characteristics suggest that the respondents had sufficient experience with Shopee Games, making them appropriate participants for evaluating the relationship between gamification and purchase decisions.

### Descriptive Analysis

Descriptive statistics were used to examine respondents' perceptions of the two research variables before conducting further statistical analysis. The results are summarised in Table 4.

**Table 4.** Descriptive Statistics of Research Variables

|                       | Descriptive Statistics |         |         |       |                |
|-----------------------|------------------------|---------|---------|-------|----------------|
|                       | N                      | Minimum | Maximum | Mean  | Std. Deviation |
| Gamification (X)      | 100                    | 54      | 87      | 71.25 | 7.228          |
| Purchase Decision (Y) | 100                    | 43      | 60      | 49.94 | 3.458          |
| Valid N (listwise)    | 100                    |         |         |       |                |

Source: Processed by the authors using IBM SPSS Statistics 27 (2026).

As shown in Table 4, the descriptive analysis shows that the gamification variable obtained a mean score of 71.25, which falls within the good category. This result reflects respondents' positive perceptions of the gamification features provided through Shopee Games. Likewise, the purchase decision variable recorded a mean score of 49.94, which is also classified as good, indicating that respondents generally demonstrated favourable purchase decision tendencies when using the Shopee platform.

Overall, the descriptive findings demonstrate that respondents gave favourable evaluations of both research variables. These results provide an initial understanding of respondents' perceptions and serve as the basis for further statistical analyses, including regression analysis and hypothesis testing, to examine the effect of gamification on purchase decisions.

### Instrument Testing

Before examining the research hypothesis, the questionnaire was evaluated through validity and reliability testing to ensure that every measurement item appropriately represented the research variables. The summary of the testing results is presented in Table 5.

**Table 5.** Instrument Testing Results

| Test        | Variable                     | Result                   | Conclusion |
|-------------|------------------------------|--------------------------|------------|
| Validity    | Gamification (18 items)      | All items valid          | Valid      |
| Validity    | Purchase Decision (12 items) | All items valid          | Valid      |
| Reliability | Gamification (X)             | Cronbach's Alpha = 0.677 | Reliable   |
| Reliability | Purchase Decision (Y)        | Cronbach's Alpha = 0.634 | Reliable   |

Source: Processed by the authors using IBM SPSS Statistics 27 (2026).

As show in Table 5, the validity test showed that every questionnaire item met the required validity criteria, indicating that all items were suitable fo measuring the research variables. The reliability test resulted in Cronbach's Alpha values of 0.677 for the gamification variable and 0.634 for the purchase decision variable. Since both values exceeded the minimum acceptable threshold of 0.60, the questionnaire was considered sufficiently reliable for subsequent data analysis.

### Classical Assumption Test

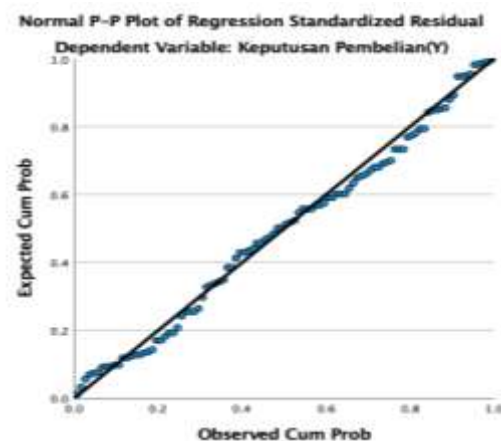
Prior to hypothesis testing, compliance with the classical regression assumptions was assessed to determine whether the regression model satisfied the required statistical criteria. The assumptions assessed in this study included normality and heteroscedasticity.

**Table 6.** Results of the Kolmogorov-Smirnov Test

| One-Sample Kolmogorov-Smirnov Test  |                |                         |
|-------------------------------------|----------------|-------------------------|
|                                     |                | Unstandardized Residual |
| N                                   |                | 100                     |
| Normal Parameters <sup>a,b</sup>    | Mean           | .0000000                |
|                                     | Std. Deviation | 2.07840734              |
| Most Extreme Differences            | Absolute       | .059                    |
|                                     | Positive       | .059                    |
|                                     | Negative       | -.039                   |
| Test Statistic                      |                | .059                    |
| Asymp. Sig. (2-tailed) <sup>c</sup> |                | .200                    |
| a. Test distribution is Normal.     |                |                         |

Source: Processed by the authors using IBM SPSS Statistics 27 (2026).

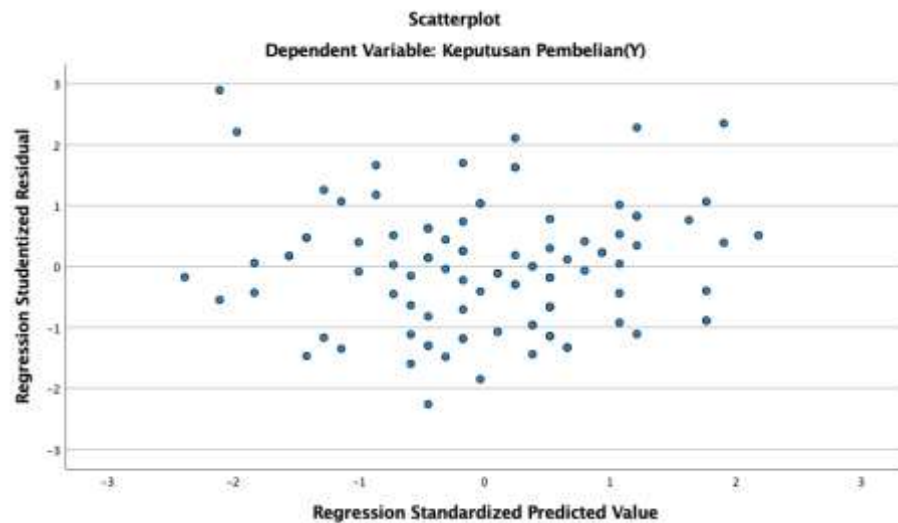
The normality assumption was evaluated using the Kolmogorov–Smirnov test. The test yielded an Asymp. Sig. (2-tailed) value of 0.200, which is greater than the 0.05 significance threshold. The obtained significance value confirms that the residuals are normally distributed, confirming that the regression model satisfies the normality assumption.



**Figure 3.** Normal P-P Plot

Source: Processed by the authors using IBM SPSS Statistics 27 (2026).

The Normal P–P Plot provides additional evidence supporting the normality test. As presented in Figure 3, the plotted residuals are positioned close to the diagonal line and closely follow the same pattern. This observation further confirms that the residuals are normally distributed, indicating that the regression model is appropriate for further regression analysis.



**Figure 4.** Scatterplot for the Heteroscedasticity Test  
Source: Processed by the authors using IBM SPSS Statistics 27 (2026).

The heteroscedasticity test was evaluated using a scatterplot of the residuals. As illustrated in Figure 4, the residual are randomly scattered around the zero line without exhibiting any systematic pattern. This scatter pattern suggests that the regression model does not exhibit heteroscedasticity, because the variance of the residuals is relatively constant. Consequently, the model fulfills the required classical assumptions and is appropriate for further regression analysis.

## Hypothesis Testing

To examine the effect of gamification on purchase decisions, simple linear regression analysis was performed, followed by hypothesis testing using the t-test and an evaluation of the coefficient of determination ( $R^2$ ). The results of these analyses are presented in Tables 7 and 8.

**Table 7.** Results of Simple Linear Regression Analysis

|       |                  | <b>Coefficients<sup>a</sup></b> |                           |      |        |
|-------|------------------|---------------------------------|---------------------------|------|--------|
|       |                  | Unstandardized Coefficients     | Standardized Coefficients |      |        |
| Model |                  | B                               | Std. Error                | Beta | t      |
| 1     | (Constant)       | 22.702                          | 2.080                     |      | 10.914 |
|       | Gamification (X) | .382                            | .029                      | .799 | 13.162 |
|       |                  |                                 |                           |      | Sig.   |

Source: Processed by the authors using IBM SPSS Statistics 27 (2026).

The relationship between gamification and purchase decisions can be expressed by the following regression equation:

$$Y = 22.702 + 0.382X$$



A regression coefficient of 0.382 reflects a positive association between gamification and purchase decisions. This means that higher levels of gamification are associated with a greater tendency for Shopee users in West Java to make purchase decisions. Statistical significance was examined through the t-test. The test produced a t-value of 13.162, which was higher than the critical t-table value of 1.984, and a significance value of 0.000, below the significance level of 0.05. The statistical analysis provides evidence of a significant positive relationship between gamification and purchase decisions. Therefore, the proposed hypothesis is accepted.

**Table 8.** Coefficient of Determination

| <b>Model Summary<sup>b</sup></b> |                   |                 |                          |                                   |
|----------------------------------|-------------------|-----------------|--------------------------|-----------------------------------|
| <b>Model</b>                     | <b>R</b>          | <b>R Square</b> | <b>Adjusted R Square</b> | <b>Std. Error of the Estimate</b> |
| 1                                | .799 <sup>a</sup> | .639            | .635                     | 2.089                             |

Source: Processed by the authors using IBM SPSS Statistics 27 (2026).

The coefficient of determination yielded an  $R^2$  value of 0.639, showing that gamification accounts for 63.9% of the variation in purchase decisions. The other 36.1% may be attributed to variables beyond the scope of this study. These findings indicate that gamification makes a substantial contribution to consumers' purchase decisions, although purchasing behaviour may also be affected by other relevant variables.

## Discussion

The descriptive results showed that respondents generally perceived the gamification features available in Shopee Games positively. This result reflects that the implementation of game elements, including goals, progress tracking, rewards, prompts, sense of control, and social interaction, was well accepted by users. These elements contribute to a more engaging shopping experience by encouraging users to interact more actively with the platform while carrying out shopping activities. Such an experience is consistent with the gamification theory proposed by Eisingerich et al. (2019), which explains that the integration of game elements into non-game contexts can enhance user engagement and influence consumer behaviour.

The regression analysis confirmed that gamification has a statistically significant positive relationship with the purchase decisions of Shopee users in West Java. This implies that a better implementation of gamification is associated with a stronger tendency for consumers to make purchase decisions. One possible explanation is that the interactive features provided through Shopee Games encourage users to engage more actively with the shopping process, making the overall shopping experience more enjoyable. As users become more engaged with the platform, they may also become more willing to complete purchase decisions. This interpretation is consistent with Taruli et al., (2020), who found that gamification positively influences customer engagement in mobile e-commerce applications. A similar conclusion was reported by S Sarhan (2025), who found that gamification contributes to customer engagement and customer loyalty on the Shopee platform. Taken together, the findings of this study and previous research suggest that integrating game elements into e-commerce platforms can support consumers' purchase decisions by delivering a more interactive shopping experience.

The  $R^2$  analysis shows that gamification accounts for 63.9% of the variation in purchase decisions. This finding suggests that gamification plays an important role in consumers' purchasing decisions on the Shopee platform. Nevertheless, purchase decisions are influenced

by various factors, and gamification alone cannot fully explain consumers' purchasing behaviour. The remaining 36.1% of the variation may therefore be influenced by variables outside the scope of this research. Future studies could explore additional variables to obtain a broader understanding of the factors influencing purchase decisions in e-commerce platforms.

## **CONCLUSION**

This study investigated how gamification implemented through Shopee Games influences the purchase decisions of Shopee users in West Java. The results show that respondents generally perceived the gamification features positively, indicating that the implementation of game elements created a more engaging shopping experience. The statistical analysis also provides evidence of a significant positive relationship between gamification and purchase decisions. These results imply that more effective implementation of gamification is associated with a higher tendency to make purchases through the Shopee platform. Furthermore, gamification explained 63.9% of the variation in purchase decisions, highlighting its important role in influencing consumers' purchasing behaviour. Overall, the findings suggest that gamification can be utilised not only as an entertainment feature but also as an effective digital marketing strategy for supporting consumer purchase decisions in e-commerce platforms.

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