

## Gamification's Influence on Tokopedia E-Commerce Repurchase Intentions

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### Abstract

*This study aims to examine the effect of gamification with the indicators studied consisting of rewards, points, levels and leaderboards on the use of e-commerce applications and repurchase intentions. This research method is quantitative with data collection techniques using survey techniques using questionnaires. The sampling technique uses a purposive sampling technique. The research sample was 97 Business Management Students at Bandung Islamic University. The results of the study show that gamification has a positive effect on the use of e-commerce applications, while it has no effect on repurchase intention. The results also show that the use of e-commerce applications has a positive effect on repurchase intentions in e-commerce.*

**Keywords:** Gamification, App Usage, Repurchase Intention, Rewards, Points, Classes, Leaderboards

## INTRODUCTION

The rapid development of the digital world greatly affects all sectors, one of which is the digital-based business sector, namely e-commerce. Research conducted by (Machine, 2019) shows that Indonesia is in first place in the list of countries with the fastest e-commerce growth in the world, namely 78%. The rapid development of e-commerce in Indonesia has an impact on the condition of business competition for companies engaged in the industry. This can be seen from the data (iPrice Group, 2021), Tokopedia is the number one e-commerce in Indonesia, seen from the average rating on the appstore and playstore. However, when viewed from the data of web visitors monthly, Tokopedia is the e-commerce with the largest number of monthly web visitors in Indonesia, with Tokopedia ranked second. This data shows that there is a high level of competition in the e-commerce business.

A survey of thousands of young people in Indonesia shows that 19.3% of teenagers and 14.4% of young adults are addicted to the internet.[1] Most of the time spent by Indonesian youth on the internet is to access online games and social media. The results of a survey also conducted by the Association of Indonesian Internet Service Providers (APJII) show that 16.5% of Indonesians

choose to play online games as a form of entertainment, especially during the Covid-19 pandemic.[2] The large number of people who like to play online games has made Tokopedia choose a gamification strategy for its marketing. The gamification strategy is considered very suitable for monitoring changes in the behavior patterns of millennial consumers who like to play online games.

This research adopts the idea of research (Aparicio, Costa, & Moises, 2021) about gamification and reputation as the main determinants of e-commerce usage and repurchase intention. This study uses the SEM/PLS method to test the causal effect relationship of the proposed model on a website-based e-commerce platform in Portugal. The results show that 57% of repurchase intentions are online, influenced by trust in vendors, purchase frequency, and use of e-commerce platforms. Gamification is said to have a positive impact on the use of e-commerce online platforms which will positively influence repurchase intentions on e-commerce.

The difference between this study and this study is that the authors will examine the effect of gamification on repurchase intention directly. The application-based platform that will be researched is Tokopedia. This research is a business management research, so the sample for this research is students majoring in business management at the Islamic University of Bandung. In addition, based on information from katadata, 52% of Tokopedia users are women.[3] This information is in line with the majority of Business Management Students who are women. In addition, the authors want to follow up on the differences in the results of research conducted by (Kim, Costello, & Lee, 2020) which shows that gamification has no effect on repurchasing intentions and (Djohan, Handhana, Castafiore, & Hendriana, 2022) who found that the effect of gamification on repurchase intention was significant and positive. This study has three objectives: to test whether gamification has a positive effect on the use of e-commerce applications, to test whether the use of e-commerce applications has a positive effect positive effect on repurchase intention and test whether gamification has a positive effect on repurchase intention in e-commerce applications.

## LITERATURE REVIEW

### A. Technology Acceptance Model (TAM)

*Technology Acceptance Model Theory*, aims to predict a person's behavioral intentions or tendencies to behave in a certain way regarding the adoption and use of information systems (Davis, 1979). The use of the system is driven by behavioral intention (behavioral intention). In TAM, an external variable is an important factor to determine attitudes and intentions towards the use of technology/systems. In this case gamification is an external variable that can determine attitudes and intentions towards the use of technology/systems. So that it will lead to

the effect of gamification on the use of e-commerce systems. The presence of gamification elements such as rewards, points, levels, and leaderboards has increased consumer interaction and time spent in the system.

### **B. Theory of Reasoned Action (TRA)**

*Theory of Reasoned Action*(TRA) suggests that a person's behavior is determined by their intention to behave and that intention is ultimately a function of their attitude toward the behavior and subjective norms (Fishbein & Ajzen, 1975). TRA includes three dimensions, namely behavioral intention, attitude towards action and subjective norms. A person's intention is a function of two basic determinants, namely personal nature (attitude towards action) and the other reflecting social influences (subjective norms). In TRA, attitude is referred to as the evaluative effect of an individual's positive or negative feelings in carrying out certain behaviors. The two components of attitude are attitudes toward physical objects (buyback, products) and attitudes toward behavior or taking certain actions. When buying a product,

### **C. Means-End Chain Theory (MEC)**

Through the Means-End Chain (MEC) Theory, it can be seen that consumers have three levels of cognitive abstraction, namely attributes, consequences, and values that provide consumers with a guide to their shopping behavior (Gutman, 1972). This links consumer buying behavior with the value perceived by consumers which will ultimately increase the likelihood of repurchasing intention (Chiu, Wang, Fang, & Huang, 2012). Means-End Chain is a model that explains how product or service selection can facilitate the desired achievement. Gamification is a strategy that aims to keep consumers engaged through hedonic features such as fun and entertainment, so that the repurchase intention of consumers who have visited an application such as e-commerce repeatedly acts as a more realistic measure (Hamari, Koivisto, & Sarsa, 2014).

Research (Aparicio, Costa, & Moises, 2021) uses the SEM/PLS method to test the causal effect relationship of the proposed model on a website-based e-commerce platform in Portugal. The results show that 57% of online repurchase intentions are determined by trust in vendors, buying frequency, and use of e-commerce platforms. The results also show that gamification has a positive impact on the use of online e-commerce platforms which will positively affect repurchase intentions in e-commerce.

Research (Kim, Costello, & Lee, 2020), examined directly the effect of gamification on repurchasing intentions on the Omnichannel platform. This research was conducted using partial least squares (PLS) with SmartPLS 3.0. The results show that gamification negatively affects consumer repurchase intention and argue that gamification will be a powerful technique

to encourage consumers to repurchase when combined with hedonic value components such as adventure, gratification, role, best deal, social, and ideas in the Omnichannel platform.

Research conducted by (Djohan, Handhana, Castafiore, & Hendriana, 2022) found that the effect of gamification on repurchase intention was significant and positive. Gamification can increase the enjoyment of online shopping, so that consumers' decisions to shop online are triggered by their motivation to participate in games (Xu, Chen, Peng, & Anser, 2020). The data in this study were analyzed using SEM-PLS. Inner element gamification motivates consumers to continue playing games to get rewards. Giving these rewards can encourage consumers to make repurchases at a later date as a form of exchanging the rewards they have received.

Research conducted (Yang, Asaad, & Dwivedi, 2017) in China and Britain with random samples and hypotheses tested using the SEM and AMOS approaches, tested the concept of gamification in a marketing context and its effect on engagement intentions and attitudes. Users (users' engagement) to the brand. The results obtained provide empirical support for perceived usefulness and enjoyment as predictors of brand engagement and brand attitude. However, surprisingly perceived ease of use was found not to be significantly related to people's intention of engagement with the gamification process and their brand attitude. In addition, perceived social influence was found to be unrelated to people's involvement intentions (people's involvement).

Research on Tokopedia e-commerce was conducted by (Chrisnathaniel, Hartini, & Rahayu, 2021), aiming to explore the effect of gamification as a marketing medium on E-WOM, positive emotion, and repurchase intention. The results show that gamification has a positive effect on positive emotion, repurchase intentions and electronic word of mouth (EWOM). The research data were obtained using a questionnaire instrument and were processed and analyzed using the statistical technique of Structural Equation Modeling (SEM) with the smartPLS 3.0 program.

Research by (Eisingerich, Marchand, Fritze, & Dong, 2019) aims to explore how gamification drives consumer engagement, creates value for consumers and provides actionable insights for companies to foster hope through gamification as a strategy to engage consumers. Data were analyzed using the PLS method. The results show that the principles of gamification proposed by (Eisingerich, Marchand, Fritze, & Dong, 2019), namely social interaction, sense of control, goals, progress tracking, rewards, and prompts can increase consumer engagement and digital sales.

The research conducted (Xi & Hamari, 2020) investigates the relationship between

gamification, brand engagement, and brand equity among consumers of the two brands that apply gamification. Gamification is said to have become a popular strategy in marketing. With a sample of 824 respondents, data were analyzed using SEM-PLS. The result obtained is that gamification can positively influence brand engagement and further increase brand equity.

This research (Garcia-Jurado, Castro-Gonzalez, Torres-Jimene, & Leal-Rodriguez, 2018) has three main objectives, namely examining the effect of gamification on behavioral intention to use e-commerce platforms, analyzing the role of flow conditions. bearing in mind the importance in terms of behavior in the online environment, detect and analyze the differences between Millennials and Generations

X. This research is a quantitative research with data collection techniques, namely survey techniques. The research model and proposed hypotheses were tested using variance-based PLS-SEM. The results show that gamification in Millennials has a positive and significant indirect effect on behavioral intention through a state of flow. In Generation X, it has been detected that flow interferes with perceived ease of use. Behavioral intention to use web pages is directly correlated with purchase intention. For a gamification strategy to work, companies need to offer a look that's fun for Millennials and easier to use for Generation X.

Research by (Hwang & Choi, 2019) investigated whether and how gamification impacts consumer loyalty and behavioral intention, along with the role of the type of reward received. Data is collected from US consumers who respond to loyalty programs offered in the mobile environment and the data is analyzed using an AMOS (Analysis of Moment Structure) tool. The results confirm that gamification increases consumer loyalty which ultimately increases consumer participation intention and application download intention.

Research on consumers of online bookstores was conducted by (Hsu & Chen, 2018). This study aims to examine the relationship between GMA (Gamification Marketing Activities) experience, value, satisfaction, love of the brand, and desired consumer behavior. The survey was conducted using paper and web-based questionnaires to collect data. Data of 242 respondents were analyzed using SPSS 18.0 for descriptive analysis and SmartPLS 2.0 to analyze the measurement model and test the structural model. The results obtained that GMA experience has a significant effect and positive on hedonic values and utilitarian values. The findings also confirm that hedonic values and utilitarian values significantly influence brand satisfaction and love. The results also show that satisfaction has a significant and positive effect on brand liking, and ultimately, on desired consumer behavior i.e., brand loyalty, positive word of mouth, and rejection of negative information.

## HYPOTHESIS DEVELOPMENT

### A. Gamification has a positive effect on the use of E-commerce applications

Gamification is the use of game design game elements and game principles in non-game contexts. Elements in games have been widely used as a means of education, entertainment, etc. Rational behavior-oriented services such as e-commerce are examples of systems with high potential for implementing a gamification strategy (Hamari & Koivisto, 2013). In the world of e-commerce, gamification can help increase the time consumers spend in e-commerce applications. Gamification has been shown to have a positive impact on the use of information systems (Aparicio, Costa, & Moises, 2021). Based on the Technology Acceptance Model Theory, the external variable, which in this case is gamification, is an important factor in determining attitudes and intentions towards the use of technology/systems. Because of the elements in gamification that are sometimes invisible, or real, consumers behave as a consequence of how a system is designed and how consumers react to using it. This leads to the influence of gamification on the use of e-commerce systems. The presence of gamification elements such as rewards, points, levels, and leaderboards has increased consumer interaction and time spent in the system. Based on this description, the hypothesis formulated is: The presence of gamification elements such as rewards, points, levels, and leaderboards has increased consumer interaction and time spent in the system. Based on this description, the hypothesis formulated is: The presence of gamification elements such as rewards, points, levels, and leaderboards has increased consumer interaction and time spent in the system. Based on this description, the hypothesis formulated is:

#### **H1: Gamification has a positive effect on the use of E-commerce applications**

### B. The use of E-commerce Applications has a positive effect on Repurchase Intentions

Based on Theory of Reasoned Action (TRA) by (Fishbein & Ajzen, 1975) there are three dimensions, namely behavioral intention, attitude towards action and subjective norms. A person's intention is a function of two basic determinants, namely personal nature (attitude towards action) and the other reflecting social influences (subjective norms). The two components of attitude are attitude

towards physical objects and attitudes towards behavior. In product repurchasing, the more positive the attitude an individual has towards objects and behaviors, the more likely the behavioral intention is in repurchasing a product. The results of the study show that gamification has a positive impact on system use which will positively influence repurchase intentions in e-commerce (Aparicio, Costa, & Moises, 2021). The marketing literature states that one's intention to reuse a system/application is a profitable thing, especially for e-commerce

applications (Wang, 2008). This is caused by repeated use of the system which will encourage repurchasing intentions in e-commerce applications. Based on this description, the formulated research hypothesis is:

**H2: Use of E-commerce Applications has a positive effect on Repurchase Intentions**

**C. Gamification has a positive effect on Repurchase Intentions in E-commerce**

In running a business, companies need to establish positive relationships with consumers, one of which is by providing a positive experience when using e-commerce services. Gamification is a method that can be used to increase experience, loyalty, brand awareness, and motivation in buying and selling behavior in e-commerce (Kardianawati, Haryanto, & Rosyidah, 2016). Gamification is also believed to be able to effectively engage, motivate consumers, and trigger further consumption behavior (Xi & Hamari, 2020). In line with the Means-End Chain (MEC) Theory, where consumers have three levels of cognitive abstraction, namely attributes, consequences, and values that provide consumers with a guide for their shopping behavior (Gutman, 1972). Gamification is useful for platforms such as e-commerce because it can record the activities of players, this data will be processed by the system and used as a view for future business. Apart from creating fun for consumers, gamification in e-commerce also provides rewards when consumers successfully complete missions or reach certain targets in the form of coins that can be used for shopping or shopping vouchers. This of course can motivate and encourage consumers to continue buying products in the e-commerce. Based on this explanation, the formulated research hypothesis is: Gamification in e-commerce also provides rewards when consumers successfully complete missions or reach certain targets in the form of coins that can be used for shopping or shopping vouchers. This of course can motivate and encourage consumers to continue buying products in the e-commerce. Based on this explanation, the formulated research hypothesis is: Gamification in e-commerce also provides rewards when consumers successfully complete missions or reach certain targets in the form of coins that can be used for shopping or shopping vouchers. This of course can motivate and encourage consumers to continue buying products in the e-commerce. Based on this explanation, the formulated research hypothesis is:

**H3: Gamification has a positive effect on Repurchase Intentions in E-commerce**

Below is the model of this research:

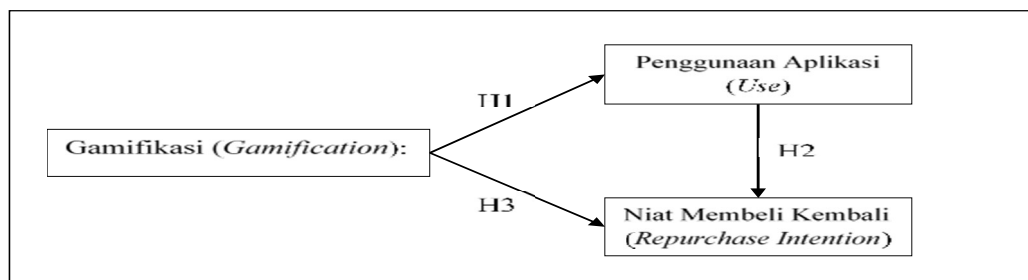


Figure 1 Research Model

## RESEARCH METHODS

This research is a type of quantitative research. This is because doing hypothesis testing. The population of this study are students of Bandung Islamic University majoring in business management. The data collection process was carried out using a structured research instrument, namely a questionnaire. The questionnaire was adopted from research (Aparicio, Costa, & Moises, 2021), (Davis, Bagozzi, & Warshaw, 1992), and (Kim, Costello, & Lee, 2020). Questionnaires were distributed via google form to Business Management Students at Bandung Islamic University.

### A. Population and Research Sample

The population in this study were Business Management students at Bandung Islamic University. Documentation results show that currently the number of students majoring in Business Management at Bandung Islamic University is 2,500 students (Kemdikbud).[4} Based on this information, determining the number of samples will be carried out using the slovin formula. The calculation results show that the number of samples in this study is at least 97 students.

The results of distributing questionnaires to Business Management Students at the Islamic University of Bandung obtained 108 student respondents. However, only 97 respondents could be tested in this study because as many as 10 respondents did not meet the criteria of having used the gamification feature on Tokopedia.

### B. Research Instruments and Data Analysis Techniques

The research instrument used was a questionnaire. The scaling method used is a Likert scale with 4 categories of answers, namely: Strongly Agree (score 4), Agree (score 3), Disagree (score 2), and Strongly Disagree (score 3). The questionnaire was adopted from research (Aparicio, Costa, & Moises, 2021), (Davis, Bagozzi, & Warshaw, 1992), and (Kim, Costello, & Lee, 2020). Data analysis techniques were carried out using the Partial Least Square Structural Equation Model (PLS-SEM) approach with the help of the SmartPLS 3.0 application. PLS-SEM.



TABLE 1  
 RESEARCH MODEL VARIABLES

| <b>Variable</b>   | <b>Cod</b> | <b>Indicator*</b>                               | <b>Ite</b> |
|---|------------|---|------------|
| <b>Latent</b>   | <b>e</b>   |   | <b>ms</b>  |
| Gamificati<br>on  | GM         | RW1, RW2,<br>PT1, PT2,<br>LV1, LV2,<br>LB1, LB3 | 8          |
| Applicatio<br>n Usage<br>(Use)  | use        | USE1, USE2                                      | 2          |
| Purchase<br>Intentions<br>Return<br>(Repurcha<br>se<br><i>Intention</i> ) | RI         | RI1, RI2, RI3                                   | 3          |

### C. Measurement Model Test Results

#### Convergent Validity Test

The results of the convergent validity test in PLS can be seen based on the loading factor indicator that measures the construct. Based on the rule of thumb, the test results must show an outer loading value of  $> 0.6$ , communality and Average Variance Extracted (AVE)  $> 0.5$  (Suhartanto, 2020).

Table 2  
 Loading Factor and Cross Loading For Measurement Models

| <b>Items</b> | <b>GM</b>    | <b>RI</b>    | <b>use</b> |
|--------------|--------------|--------------|------------|
| <b>LB1</b>   | <b>0.793</b> | 0.230        | 0.490      |
| <b>LB2</b>   | <b>0.822</b> | 0.321        | 0.484      |
| <b>LV1</b>   | <b>0.680</b> | 0.216        | 0.334      |
| <b>LV2</b>   | <b>0.802</b> | 0.330        | 0.334      |
| <b>PT1</b>   | <b>0.696</b> | 0.342        | 0.399      |
| <b>PT2</b>   | <b>0.695</b> | 0.313        | 0.480      |
| <b>RW1</b>   | <b>0.663</b> | 0.254        | 0.419      |
| <b>RW2</b>   | <b>0.576</b> | 0.161        | 0.347      |
| <b>RI1</b>   | 0.376        | <b>0.429</b> | 0.251      |
| <b>RI2</b>   | 0.327        | <b>0.876</b> | 0.541      |
| <b>RI3</b>   | 0.245        | <b>0.890</b> | 0.545      |

| <b>Items</b>  | <b>GM</b> | <b>RI</b> | <b>use</b>   |
|---------------|-----------|-----------|--------------|
| <b>USES 1</b> | 0.631     | 0.447     | <b>0.860</b> |
| <b>USES 2</b> | 0.217     | 0.537     | <b>0.696</b> |

GM: Gamcation, RI: Repurchase Intention, USE: App Usage, LB: Leaderboards, LV: Levels, PT: Points, RW: Rewards

Based on the test results, the indicators RW2 and RI1 are not valid because the outer

loading value does not meet the requirements, namely > 0.6. Thus, these indicators must be deleted and re-tested against other indicators. The results can be seen in table 3 and in table 4, the AVE value > 0.5, so that all variables are declared valid.

Table 3

Loading Factor and Cross Loading For Measurement Models After Elimination

| Items  | GM           | RI          | use          |
|--------|--------------|-------------|--------------|
| LB1    | <b>0.813</b> | 0.19        | 0.494        |
|        |              | 4           |              |
| LB2    | <b>0.829</b> | 0.25        | 0.487        |
|        |              | 8           |              |
| LV1    | <b>0.699</b> | 0.20        | 0.336        |
|        |              | 9           |              |
| LV2    | <b>0.814</b> | 0.26        | 0.336        |
|        |              | 4           |              |
| PT1    | <b>0.693</b> | 0.27        | 0.400        |
|        |              | 1           |              |
| PT2    | <b>0.689</b> | 0.26        | 0.481        |
|        |              | 7           |              |
| RW1    | <b>0.652</b> | 0.21        | 0.422        |
|        |              | 3           |              |
| RI2    | 0.340        | <b>0.90</b> | 0.539        |
|        |              | <b>9</b>    |              |
| RI3    | 0.249        | <b>0.91</b> | 0.543        |
|        |              | <b>2</b>    |              |
| USES 1 | 0.642        | 0.42        | <b>0.866</b> |
|        |              | 6           |              |
| USES 2 | 0.192        | 0.53        | <b>0.688</b> |
|        |              | 8           |              |

GM: Gamcation, RI: Repurchase Intention, USE: App Usage, LB: Leaderboards, LV: Levels, PT: Points, RW: Rewards

TABLE 4 AVE. VALUE

| Construct                 | AVE   |
|---------------------------|-------|
| Gamification (GM)         | 0.554 |
| Repurchase Intention (RI) | 0.829 |
| Application Usage (Use)   | 0.611 |

Source: Data Processing with SmartPLS

Discriminant Validity Test Results can be seen by comparing AVE root value of each construct with correlation between constructs. AVE root value > inter-correlation construct. Based on table 5, the root value of AVE each construct is greater than the correlation among other constructs. Can be concluded that indicators used in this study meet the criteria of discriminant validity.

TABLE 5

FORNELL-LARCKER CRITERION

| Construct                        | GM           | RI           | use          |
|----------------------------------|--------------|--------------|--------------|
| <b>Gamification (GM)</b>         | <b>0.745</b> |              |              |
| <b>Repurchase Intention (RI)</b> | 0.323        | <b>0.910</b> |              |
| <b>Application Usage (use)</b>   | 0.578        | 0.594        | <b>0.782</b> |

Source: Data Processing with SmartPLS

Reliability Test

The results can be seen from the value of composite reliability and cronbach's alpha. In this study, reliability is seen from the value of composite reliability because it can predict the internal consistency of a construct better. Table 6 shows the results of the composite reliability of each construct > 0.7, so it can be concluded that the indicators used are reliable.

TABLE 6  
 RELIABILITY TEST

| Construct                        | Cronbach Alpha | Composite Reliability |
|----------------------------------|----------------|-----------------------|
| <b>Gamification (GM)</b>         | 0.864          | 0.896                 |
| <b>Repurchase Intention (RI)</b> | 0.794          | 0.906                 |
| <b>UseApplication (Uses)</b>     | 0.376          | 0.756                 |

Source: Data Processing with SmartPLS

**D. Structural Models**

Referring to table 7, it can be seen that the R-Square variable of repurchase intention is 0.340. It can be concluded that gamification and application use affect repurchase intention by 34% and 66% are influenced by other variables outside of this study. The results also show that gamification affects application use by 32.7% and 67.3% of it is influenced by other variables outside of this study.

TABLE 7  
 ADJUSTED R SQUARE VALUES

| Construct                        | R Square |
|----------------------------------|----------|
| <b>Repurchase Intention (RI)</b> | 0.340    |
| <b>Application Usage (Use)</b>   | 0.327    |

Source: Data Processing with SmartPLS

**E. Hypothesis testing**

TABLE 8  
RESULTS OF HYPOTHESIS TESTING

| hypothesis         | T-statistics | P values |
|--------------------|--------------|----------|
| <b>GM &gt; USE</b> | 10.287       | 0.000    |
| <b>USE &gt; RI</b> | 6,597        | 0.000    |
| <b>GM &gt; RI</b>  | 0.258        | 0.397    |

Hypothesis 1 (H1) states that gamification has a positive effect on the use of e-commerce applications. The test results show that gamification has a positive effect on the use of e-commerce applications with a t-statistic value of 10.287 and a p-value of 0.000. It can be concluded that H1 is supported.

Hypothesis 2 (H2) states that the use of e-commerce applications has a positive effect on repurchasing intentions. The test results show that the use of e-commerce applications has a positive effect on repurchase intentions with a t-statistic value of 6.597 and a p-value of 0.000. It can be concluded that H2 is supported.

Hypothesis 3 (H3) states that gamification has a positive effect on repurchase intention. The test results show that gamification has no positive effect on repurchase intentions with a t-statistic of 0.258 and a p-value of 0.397. It can be concluded that H3 is not supported.

## DISCUSSION

Gamification has a positive effect on the use of the Tokopedia E-commerce Application. Based on the test results, H1 is declared supported, meaning that gamification has a positive effect on the use of the Tokopedia e-commerce application. The presence of gamification elements such as rewards, points, levels, and leaderboards has increased consumer interaction and time spent in the Tokopedia application. The results of this test are in line with previous research conducted by (Aparicio, Costa, & Moises, 2021) who obtained similar results, where gamification proved to have a positive impact on the use of a system or application.

TABLE 9 SUMMARY OF  
 HYPOTHESIS TEST  
 RESULTS

| <b>hypothesis</b> | <b>Connection</b>   | <b>Results</b> |
|-------------------|---|----------------|
| H1                | Gamification has a positive effect on the use of E-commerce applications          | supported      |
| H2                | The use of E-commerce Applications has a positive effect on Repurchase Intentions | supported      |
| H3                | Gamification has a positive effect on Repurchase Intentions in E-commerce         | Not Supported  |

Source: Data Processing with SmartPLS

The use of E-Commerce Applications has a positive effect on Repurchase Intentions

The results of the hypothesis test stated that H2 was supported. Thus, the use of e-commerce applications has a positive effect on repurchase intentions. A marketing literature states that one's intention to reuse a system/application is a profitable thing, especially for e-commerce applications (Wang, 2008). This is caused by repeated use of the system which will encourage repurchasing intentions in e-commerce applications. Previous research conducted by (Aparicio, Costa, & Moises, 2021) states that gamification has a positive impact on system use which will positively influence repurchase intentions in e-commerce.

Gamification has a positive effect on Repurchase Intentions in E-Commerce

Based on the results of hypothesis testing, the results show that H3 is not supported. That is, gamification has no effect on repurchase intention. These results are in line with research conducted by (Kim, Costello, & Lee, 2020) on the Omnichannel platform, where gamification has no effect on repurchase intentions. This is because the majority of users use the gamification feature only as a means of entertainment. However, the results of this study also indicate that gamification will have an influence on repurchase intention if the application usage variable is in accordance with the explanation in hypothesis two. Gamification has an influence on the use of applications, indirectly has an influence on the intention to repurchase in e-commerce. The marketing literature states that one's intention to reuse a system/application is a profitable thing, especially for e-commerce applications (Wang, 2008). This is caused by repeated use of the system encourage repurchase intention in e-commerce applications.

## CONCLUSION

This study provides a theoretical explanation of the effect of implementing a gamification strategy on application usage frequency and repurchase intention on Tokopedia e-commerce. In addition, this research also provides practical implications of new perspectives for companies regarding the effect of implementing a gamification strategy, especially for companies engaged in the e-commerce industry. The results of the study show that gamification has a positive effect on the use of e-commerce applications, while it has no effect on repurchase intention. The results also show that the use of e-commerce applications has a positive effect on repurchase intentions in e-commerce. This study still has limitations, including the sample coverage which only includes Business Management students at Bandung Islamic University with a predetermined age limit. In addition, only one e-commerce platform was studied which is also a limitation in this study. Therefore, future research is expected to be able to determine a sample with a wider coverage and not only use one platform, so that it can be used as a comparison.

## REFERENCES

- Aparicio, M., Costa, C. J., & Moises, R. (2021). Gamification and reputation: key determinants of e-commerce usage and repurchase intention. *Heliyon*.
- Chiu, C.-M., Wang, E. T., Fang, Y.-H., & Huang, H.-Y. (2012). Understanding customers' repeat purchase intentions in B2C e-commerce: the roles of utilitarian value, hedonic value and perceived risk. *Information Systems Journal*.
- Chrisnathaniel, H. C., Hartini, S., & Rahayu, S.P. (2021). Analisis Gamification Tokopedia.com Sebagai Media Pemasaran Terhadap EWOM, Positive Emotion, & Repurchase Intention (Pada Aplikasi Tokopedia.com). *Jurnal Nusantara Aplikasi Manajemen Bisnis*, 15-35.
- Davis, F. D. (1979). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 319-340.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and Intrinsic Motivation to Use Computers in the Workplace. *Journal of Applied Social Psychology*, 1111-1132.
- Dacholfany, M. I., Khataybeh, A. M., Lewaherilla, N. C., Yusuf, M., Sihombing, H. B. M., & Chang, M. L. (2022). APPLICATION OF THE BALANCED SCORE CARD CONCEPT AS A HUMAN RESOURCE PERFORMANCE MEASUREMENT TOOL AT THE MINISTRY OF HIGHER EDUCATION IN INDONESIA. *MULTICULTURAL EDUCATION*, 8(04), 1-13.
- Djohan, S. A., Handhana, D., Castafiore, V. B., & Hendriana, E. (2022). Can Gamification Stimulate Customers to Repurchase in the E-Marketplace? The Mediation Effect of Customer Experience and Engagemen. *Budapest International Research and Critics Institute-Journal*

(*BIRCI-Journal*) , 4781-4796.

- Eisingerich, A. B., Marchand, A., Fritze, M. P., & Dong, L. (2019). Hook vs. hope: How to enhance customer engagement through. *International Journal of Research in Marketing*, 200-215.
- Fishbein, M. A., & Ajzen, I. (1975). *Belief, Attitude, Intention and Behaviour: An introduction to Theory of Research*. Reading, MA: Addison-Wesley.
- Garcia-Jurado, A., Castro-Gonzalez, P., Torres-Jimene, M., & Leal-Rodriguez, A. L. (2018). Evaluating the role of gamification and flow in e-consumers: millennials versus generation X. *Kybernetes*. doi:doi.org/10.1108/K-07-2018-0350
- Gutman, J. (1972). A Means-End Chain Model Based on Consumer Categorization Processes. *Journal of Marketing*, 60- 72.
- Hamari, J., & Koivisto, J. (2013). Social motivations to use gamification: An empirical study of gamifying exercise. *Conference: Proceedings of the 21st European Conference on Information Systems*.
- Hamari, J., Koivisto, J., & Sarsa, H. (2014). Does Gamification Work? — A Literature Review of Empirical Studies on Gamification. *In proceedings of the 47th Hawaii International Conference on System Sciences*. Hawaii.
- Hsu, C.-L., & Chen, M.-C. (2018). How gamification marketing activities motivate desirable consumer behaviors: Focusing on the role of brand love. *Computers in Human Behavior*, 121-133. doi:10.1016/j.chb.2018.06.037
- Hwang, J., & Choi, L. (2019). Having fun while receiving rewards?: Exploration of gamification in loyalty programs for consumer loyalty. *Journal of Business Research*. doi:10.1016/j.jbusres.2019.01.031
- iPrice Group. (2021). *Map of E-Commerce*. Diambil kembali dari iprice.co.id: <https://iprice.co.id/insights/mapofecommerce/>
- Kardianawati, A., Haryanto, H., & Rosyidah, U. (2016). IMPLEMENTASI KONSEP APPRECIATIVE INQUIRY DALAM. *Seminar Riset Teknologi Informasi (SRITI)*, 122-126.
- Kemdikbud. (t.thn.). *PDDikti*. Diambil kembali dari Profil Perguruan Tinggi: [https://pddikti.kemdikbud.go.id/data\\_pt/OENBNTJGRjYtQTI5Qi00RTM1LUI5N0QtNTY5RDU1RDExNEU2](https://pddikti.kemdikbud.go.id/data_pt/OENBNTJGRjYtQTI5Qi00RTM1LUI5N0QtNTY5RDU1RDExNEU2)
- Kim, C., Costello, F. J., & Lee, K. C. (2020). The Unobserved Heterogeneous Influence of Gamification and Novelty-Seeking Traits on Consumers' Repurchase Intention in The Omnichannel Retailing. *Frontiers in Psychology*, 1664.
- Machine, M. (2019, March 25). *Saturated Sectors: Finding Gaps In The Ecommerce Market In 2021*. Diambil kembali dari Merchant Machine: <https://merchantmachine.co.uk/saturated-sectors/>

- Suhartanto, P. D. (2020). *Analisa Data untuk Riset Bisnis: SPSS, AMOS, PLS*. Bandung: Politeknik Negeri Bandung.
- Saepudin, A., & Yusuf, M. (2022). THE EFFECTIVENESS OF VILLAGE FUND POLICY ON INFRASTRUCTURE DEVELOPMENT. *LITERACY: International Scientific Journals of Social, Education, Humanities*, 1(3), 172-180
- Salim, N. A., Sutrisno, S., Maango, H., Yusuf, M., & Haryono, A. (2022). Employee Performance And The Effects Of Training And The Workplace. *Jurnal Darma Agung*, 30(2), 549-558.
- Sutaguna, I. N. T., Sampe, F., Dima, A. F., Pakiding, D. L., & Yusuf, M. (2022). Compensation and Work Discipline's Effects on Employee Achievement at Perumda Pasar Juara. *YUME: Journal of Management*, 5(3), 408-428.
- Soukotta, A., Sampe, F., Putri, P. A. N., Cakranegara, P. A., & Yusuf, M. (2022). FINANCIAL LITERACY AND SAVINGS BEHAVIOR FEMALE ENTREPRENEURS IN KIARACONDONG MARKET, BANDUNG CITY. *Jurnal Darma Agung*, 30(2), 652-662.
- Pudjowati, J., Cakranegara, P. A., Pesik, I. M., Yusuf, M., & Sutaguna, I. N. T. (2021). THE INFLUENCE OF EMPLOYEE COMPETENCE AND LEADERSHIP ON THE ORGANIZATIONAL COMMITMENT OF PERUMDA PASAR JUARA EMPLOYEES. *Jurnal Darma Agung*, 30(2), 606-613.
- Xi, N., & Hamari, J. (2020). Does gamification affect brand engagement and equity? A study in online brand communities. *Journal of Business Research*, 449- 460.
- Xu, Y., Chen, Z., Peng, M. Y.-P., & Anser, M. K. (2020). Enhancing Consumer Online Purchase Intention Through Gamification in China: Perspective of Cognitive Evaluation Theory. *Frontiers in Psychology*, 581200.
- Yang, Y., Asaad, Y., & Dwivedi, Y. (2017). Examining the impact of gamification on intention of engagement and Brand Attitude in The Marketing Context. *Computers in Human Behaviour*, 459-469.
- Yusuf, M., Haryono, A., Hafid, H., Salim, N. A., & Efendi, M. (2022). Analysis Of Competence, Leadership Style, And Compensation In The Bandung City Pasar Bermartabat. *Jurnal Darma Agung*, 30(1), 524-2.
- Yusuf, M., Sutrisno, S., Putri, P. A. N., Asir, M., & Cakranegara, P. A. (2022). Prospek Penggunaan E-Commerce Terhadap Profitabilitas Dan Kemudahan Pelayanan Konsumen: Literature Review. *Jurnal Darma Agung*, 30(1), 786-801.
- Yusuf, M., Fitria, H., & Mulyadi, M. (2020). The Influence of Teacher's Supervision and Professionalism on Teacher's Performance. *Journal of Social Work and Science Education*, 1(3), 234-240.