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FROM PLAY TO PURCHASE: HOW GAMIFICATION EXPERIENCE DRIVES PURCHASE INTENTION THROUGH TRUST, VALUE, AND ENGAGEMENT

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ABSTRACT

This study aims to examine the influence of gamification experience on purchase intention, with perceived trust, perceived value, and customer engagement as mediating variables, among Shopee e-commerce users in East Java Province. This study uses a quantitative approach, with numerical scale data collected via an online questionnaire in Google Forms. The research population comprises individuals in East Java who have used Shopee and made transactions on it. The sampling technique used was nonprobability judgmental sampling, with the criteria that respondents were at least 17 years old and had made transactions in the last three months. A total of 200 respondents met the criteria and were analyzed in this study. All measurement items were graded using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Data analysis was carried out using descriptive statistics and Structural Equation Modeling based on Partial Least Squares (PLS-SEM). The results show that gamification experience has a significant effect on perceived trust, perceived value, and customer engagement, with the strongest influence on customer engagement. However, the gamification experience does not have a significant direct effect on purchase intention. In addition, perceived value and customer engagement have a significant effect on purchase intention, whereas perceived trust does not. Mediation analysis showed that perceived value and customer engagement mediated the relationship between gamification experience and purchase intention, whereas perceived trust did not. These findings confirm that engagement-based mechanisms and value perceptions are more decisive in translating gamification experiences into purchase intent than trust alone, thereby expanding the theoretical understanding of gamification's effectiveness in the context of digital commerce.

Keywords: gamification, purchase intention, perceived trust, perceived value, customer engagement.

INTRODUCTION

The development of digital technology over the last decade has significantly changed Indonesians' consumption patterns. The increasing number of Internet users and smartphone ownership have driven a transformation in shopping behavior, especially through e-commerce. Bain & Company (2022) predicts that Indonesia's e-commerce market will continue to grow and become the largest contributor to Southeast Asia's digital economy. This shows that online shopping has transformed from a mere trend to an integral part of modern lifestyles. This rapid growth has triggered fierce competition among platforms such as Shopee, Tokopedia, and Lazada; as a result, companies are required to develop innovative digital marketing strategies to maintain consumer loyalty.

One increasingly popular strategy is gamification, the application of game elements to shopping activities, such as the Shopee Plant, Spin & Win, and Daily Check-in features, to create an interactive and fun experience. Several studies support the effectiveness of this approach. Zega et al. (2025) found that task-based gamification affordance increases perceived hedonic and utilitarian value, ultimately reinforcing satisfaction and loyalty. Budiman et al. (2025) show that the Shopee Cocoki feature influences purchase intentions and sustainable use through utilitarian, social, and hedonic values. Heksarini and Putri (2025) also proved that gamification significantly increases user engagement and loyalty, whereas Habib et al. (2023) found that gamification encourages intrinsic motivation, positive emotions, customer engagement, and repurchase intent. These findings confirm that gamification plays a strategic role in strengthening the consumer experience and sustainability of e-commerce businesses.

Conceptually, gamification provides a pleasant experience while providing real benefits to consumers (Hamari & Koivisto, 2015). From a utilitarian perspective, users receive direct benefits, such as vouchers and cashback. Liao et al. (2024) show that gamification positively affects purchase intention by fostering positive emotions and enhancing product perception. From a hedonic perspective, game interactions create fun and challenges that increase perceived value. According to Sweeney and Soutar (2001), perceived value is a consumer's evaluation of the benefits obtained compared with the sacrifices made. When gamification provides both functional and emotional benefits, the platform's perceived value increases and purchase intent strengthens.

In addition to value, trust is also a crucial factor in online transactions. Pavlou (2003) emphasized that trust is the main determinant of purchasing decisions in e-commerce. A transparent and fair gamification system can increase consumer trust, whereas hard-to-exchange rewards can undermine trust and lower purchase intent. On the other hand, gamification also shapes customer engagement, which refers to consumers' cognitive, emotional, and behavioral involvement with the platform. Brodie et al. (2011) explain that engagement is created through meaningful interaction with brands. In the context of e-commerce, daily login activities, challenges, and sharing features strengthen "brand stickiness, " which ultimately drives purchase intent. Thus, gamification serves as a strategic tool that influences trust, perceived value, and customer engagement, thereby shaping consumer purchase intentions.

Despite widespread adoption of gamification in digital marketing, empirical findings reveal inconsistent effects on engagement and purchase intent, particularly regarding the mediating mechanisms through which gamification translates into consumer behavior. While some studies confirm positive impacts, others highlight contextual dependencies and non-significant effects, leaving a gap in understanding the precise psychological pathways, especially when multiple mediators are considered simultaneously. A literature review by Hamari, Koivisto, and Sarsa (2014) confirms that the effectiveness of gamification is highly contextual and depends on the design and implementation situation. Mekler et al. (2017) showed that elements such as points, badges, and leaderboards do not significantly increase intrinsic motivation. However, they do affect performance, suggesting that gamification experiences do not automatically increase perceived value or psychological engagement. Leclercq, Hammedi, and Poncin (2018) even found that the experience of "losing" in the competition mechanism decreases customer engagement. Xi and Hamari (2020) also show that not all gamification features have a significant impact on all engagement dimensions. Further, Berger et al. (2018) found that leaderboards can decrease participation in individuals with low self-efficacy, whereas Stieglitz et al. (2017) asserted that not all gamification mechanisms significantly increase participation. Högberg, Hamari, and Wästlund (2019) also noted the potential for psychological distress associated with certain gameful experiences.

This body of evidence underscores that the influence of gamification experience on trust, perceived value, customer engagement, and purchase intention is neither uniform nor linear. Existing research often examines these mediators in isolation or within different cultural contexts. Therefore, a comprehensive investigation is urgently needed to understand the complex interrelationships within the rapidly evolving Indonesian e-commerce landscape, with a specific focus on how these mediators collectively shape purchase intention. Similar research includes "Researching Shopee users and finding that gamification experience has a positive effect on perceived enjoyment and repurchase intention" (Ratnasari & Dwujayanti, 2022) and "Reveals that gamification on Shopee does not always have a significant direct impact on purchase intent, so a mediation variable is needed" (Putri & Mayasari, 2022).

Based on the above description, this study examines the influence of *gamification experience* on *purchase intention*, while accounting for mediating variables such as *perceived value*, *perceived trust*, and *customer engagement*. This research offers a novel integration of Self-Determination Theory (SDT) and Stimulus–Organism–Response (SOR) into a comprehensive model of digital consumer behavior. By conceptualizing gamification as a stimulus and the psychological mediators (perceived value, perceived trust, and customer engagement) as organismal states, this integration provides a robust framework for understanding the complex cognitive and affective processes leading to purchase intention. Gamification is positioned as a stimulus, whereas perceived value, perceived trust, and customer engagement are represented as organismal conditions that reflect cognitive evaluation, beliefs, and psychological engagement before purchase intention is formed.

In contrast to previous studies that often tested these mediators separately, this study integrates all three simultaneously, enabling a more comprehensive explanation of the direct and indirect pathways of influence. This integrated approach is critical for clarifying conflicting findings on the efficacy of gamification and advancing the literature by offering a multi-mechanism psychological perspective on digital consumer behavior. In addition, this research makes an empirical contribution in East Java, a region with significant digital economic growth but limited research on e-commerce gamification.

LITERATURE REVIEW

Self-Determination Theory (SDT)

Self-determination theory (SDT), developed by Deci and Ryan (1985), is a theory of human motivation that distinguishes between intrinsic (from within) and extrinsic (external) motivations. In the context of Shopee's gamification, SDT explains that users' continuous interaction with the application is driven by the fulfillment of three basic psychological needs: Autonomy: Users feel in control of their activities. Shopee offers various game types (Shopee Tanam, Shopee Candy, Shopee Video) that let users choose how they earn *rewards*. Competence: The need for users to feel capable and effective. The presence of levels, daily challenges, and *progress bars* provides instant feedback that users have successfully done something "expert." Relatedness: The need to connect with others. The "ask a friend for help" feature or the ability to share a link to speed up harvesting on Shopee fulfills this social aspect. Hence, interaction on Shopee is no longer just a one-sided transaction between a buyer and a machine.

Consumer Behavior

Consumer behavior, as described by Gohae (2021), refers to the actions consumers take when deciding which goods to purchase to meet their needs, namely how individuals make decisions about the goods they will consume by utilizing the available resources (time, money, and effort) in marketing the goods they receive. The researcher concludes from this definition of consumer behavior that it is an action taken by the consumer, with full consideration of the resources they have (time, money, and effort) for the goods they will consume, based on the marketing they receive.

Gamification Experience

Rachmadanty et al. (2025) explain gamification experience as a trend related to the growth of e-commerce. The number of games available on e-commerce platforms such as Shopee has increased rapidly in recent years. The integration of game elements into non-game contexts to encourage certain behaviors is called *gamification*. Metrics commonly used in *gamification* include user participation rates, interaction frequency, and increased customer loyalty. *Gamification* has been shown to positively impact the use of information systems (Aparicio et al., 2021). However, research by M. Putri and Mayasari (2022) shows that, although gamification is used in marketing strategies, its impact on users' transaction intent is not significant.

Perceived Trust

Perceived trust refers to a person's belief in the trustworthiness or reliability of an entity, such as an individual, brand, product, or service. This concept is the psychological aspect that underlies the relationship between individuals or consumers and the entities with whom they interact (Abadi & Kurniawan, 2024). *Perceived trust* refers to the level of consumer trust in an e-commerce platform. This includes the belief that the platform is reliable in executing transactions and protecting consumers' personal information. Perceived trust shapes users' behavior and confidence in the reliability, security, and privacy of data when using the application (Abadi & Kurniawan, 2024).

Perceived Value

Sweeney and Soutar (2001) define perceived value as a consumer's assessment of the benefits and sacrifices associated with a product or service. Perceived value is an important factor that influences purchasing decisions, which are then evaluated based on perceptions of quality and the level of consumer sacrifice. Explaining perceived value further, several figures describe it as the gap between how consumers perceive a product or service and how they behave towards it (Ernilawati, M., & Maulana, H. A., 2022). Consumer attitudes and perceptions are important factors that drive purchase intentions (Zeithaml, 1988).

Customer Engagement

Customer engagement refers to the extent to which purchasing decisions are influenced by it. Jaakkola and Alexander (2024) see it as a behavior that encourages customers to make voluntary contributions to the brand, such as providing suggestions and feedback. Examples of customer engagement can be found on the Vidio.com platform through their Instagram accounts. Within three months, eight posts about Vidio's student package service management garnered 10,560 views, 70 comments, 29 shares, and 593 likes. Customer engagement is a concept that has become popular since 2010 and has been defined in various ways by researchers. In general, customer engagement involves experiences and interactions that influence customers' purchasing decisions. Brodie et al. (2011) define it as the psychological state that underlies the consumer's interactive experience.

Purchase Intention

Moslehpour et al. (2021) stated that purchase intention is the level of consumer confidence in purchasing a product or service. Based on this definition, purchase intention is consumers' inclination or desire to make decisions to meet product or service needs. Several studies, including those by Hamari and Koivisto (2015), have found that although users enjoy gamification features, these features do not always translate into purchase intention. This means that *gamification* may increase interaction; however, it does not directly affect *purchase intention* if it is not accompanied by real perceived value.

The Relationship of Gamification Experience to Perceived Trust

Ratnasari and Dwujayanti (2022) found a positive relationship between *gamification experience* and *perceived trust, supported by* evidence *of repurchase and retention among FEB Unesa students*. Individuals who have had a positive experience using Shopee's application trust Shopee's e-commerce platform as a daily transaction app. A similar study was conducted by Putri and Mayasari (2022) regarding the effect of *gamification* on *repurchase intention for the Shopee Games application. The results of the study show a positive relationship between users and the e-commerce used, namely Shopee Games*. Syalfadirama et al. (2024) explain in more detail how gamification experiences, including principles such as immersion, social interaction, and achievement, can increase perceived trust among users of the Tokopedia e-commerce platform. This study found respondents who used the Tokopedia application in Semarang City. The researcher concluded that, across the three studies, the gamification experience can positively affect perceived trust through the basic principles of gamification that support it, leading to the *repurchase* or *customer loyalty stage.*
H_1: *Gamification experience* positively affects perceived trust in platform users.

The Relationship of Gamification Experience to Perceived Value

The use of *gamification* elements in services or applications that provide an interactive, fun, and sometimes competitive experience can significantly improve the user experience, thereby enhancing the perceived value of the service or brand. For example, research on DANA e-wallet users shows that *gamification* programs can create functional (utilitarian), hedonic, and social value, collectively increasing user satisfaction, which in turn affects customer loyalty (Andika et al., 2023). Thus, gamification experiences not only provide momentary pleasure or involvement but also contribute to perceived value in terms of function (convenience, utility), emotional/hedonic (pleasure, entertainment), and social, which collectively shape consumers' perceived value.
H_2: Gamification experience has a positive effect on perceived value in platform users.

The Relationship of Gamification Experience to Customer Engagement

Taruli et al. (2020) found that Shopee Indonesia's gamification, through the Shopee App Games feature Shopee Tanam, received a positive assessment, measured across six dimensions: *social interaction, sense of control, goals, progress tracking, rewards*, and *prompts*. Supporting this research, Rachmadanty et al. (2025) explain that applying *gamification* through challenges and rewards has been proven to increase customer engagement and retention. Additionally, improving the user experience through easy navigation and an intuitive interface can strengthen customer satisfaction and drive brand loyalty. These strategies are important in digital market competition because they support business growth, customer retention, and competitiveness. The results of this study provide valuable insights for e-commerce businesses, especially in designing *customer engagement strategies*.

Taruli et al.'s (2020) follow-up research on *Shopee e-commerce* suitable for planting in Bandung found that gamification had a positive and significant effect on customer engagement (brand engagement) and a direct effect on *brand loyalty*. Furthermore, *gamification* has been proven to positively and significantly influence customer engagement and directly impact *brand loyalty*. Thus, *gamification* can be an effective strategy for *e-commerce* to increase competitiveness, retain customers, and encourage business growth in the digital era.
H_3: A gamified experience positively affects customer engagement of platform users.

The Relationship of Gamification Experience to Purchase Intention

Binardi et al. (2022) found that gamification positively and significantly influences repurchase intention among Burger King customers in Indonesia who use the SHAKE N'WIN Burger King App feature. *Gamification* positively and significantly predicts repurchase intention. Kudadiri and Astuti (2024) explain that *gamification* positively and significantly affects the customer experience of Alfagift customers in Semarang City. Ratnasari and Dwujayanti (2022) also conducted research with similar results, using Shopee Games as the research medium, showing that *gamification has a significant influence on repurchase intention. It can be inferred that the presence of online games on the Shopee application continues to increase repurchase intentions, given Shopee's strong* image. This indicates that better gamification management leads to higher customer engagement and loyalty, which ultimately increases *purchase intent* and business growth.
H_4: *Gamification experience* positively affects users' purchase intention for the product.

The Relationship between Perceived Trust, Perceived Value, and Customer Engagement and Purchase Intention

Based on various research results, it can be concluded that *perceived trust, perceived value, and customer engagement* play important roles in driving *purchase intent* on *e-commerce platforms* and digital applications. Budiman et al.'s (2025) research shows that *gamification* elements positively affect perceived value, ultimately encouraging consumers to make repeat purchases. Similar results were also found by Binardi et al. (2022) for the Burger King application and by Ratnasari and Dwujayanti (2022) for the Shopee mobile application, in which perceived enjoyment, as part of perceived value, acts as a mediator strengthening the relationship between *gamification* and *repurchase intention.*

Taruli et al. (2020) demonstrate that gamification in Shopee-In App Games increases customer engagement, which directly affects brand loyalty, while Rachmadanty et al. (2025) emphasize that challenges and rewards in gamification can strengthen customer engagement and encourage brand loyalty. Another study by Kudadiri and Astuti (2024) on *Alfagift* customers found that improving the *customer experience* through *gamification* significantly impacts *purchase intent*.
H_5: Perceived trust positively affects users' purchase intention for the product.
H_6: Perceived value positively affects users' purchase intention for the product.
H_7: Customer engagement positively affects users' purchase intention for the product.

The Relationship of Gamification Experience to Purchase Intention through the Mediation of Perceived Trust, Perceived Value, and Customer Engagement

According to Andika and Ambarwati (2023), the application of gamification in digital systems can increase perceived value because users feel they receive both emotional and functional benefits from these activities. These findings align with Zega et al. (2025), who stated that the gamification experience reinforces the hedonistic and utilitarian values consumers hold, leading them to view these interactions as more meaningful and of higher value. Ratnasari and Dwujayanti (2022) found that gamification-based digital interactions can increase consumers' *perceived trust* by providing a consistent experience and building a positive brand image. Similarly, Abadi and Kurniawan (2024) emphasized that a positive gamification experience strengthens perceptions of reliability and company honesty in the provision of rewards and benefits to users. When consumers feel they receive significant benefits (both functional, emotional, and social) and believe the platform is reliable, they will be encouraged to interact more actively with brands. Jaakkola and Alexander (2024) state that perceived value significantly increases *customer engagement* because consumers feel that their experience provides real benefits. This is supported by Islam and Rahman's (2016) finding that high trust strengthens customer engagement because consumers feel safe to interact and participate in the company's digital programs.

H_8: *A gamification experience* positively affects *purchase intention* through *perceived trust* as a mediating variable.

H_9: *A gamification experience* positively affects *purchase intention* through *perceived value* as a mediating variable.

H_{10}: *Gamification Experience* has a positive effect on *Purchase Intention* through *Customer Engagement* as a mediating variable.

The ten hypotheses (H1–H10) developed above are summarized in the research framework presented in Figure 1.

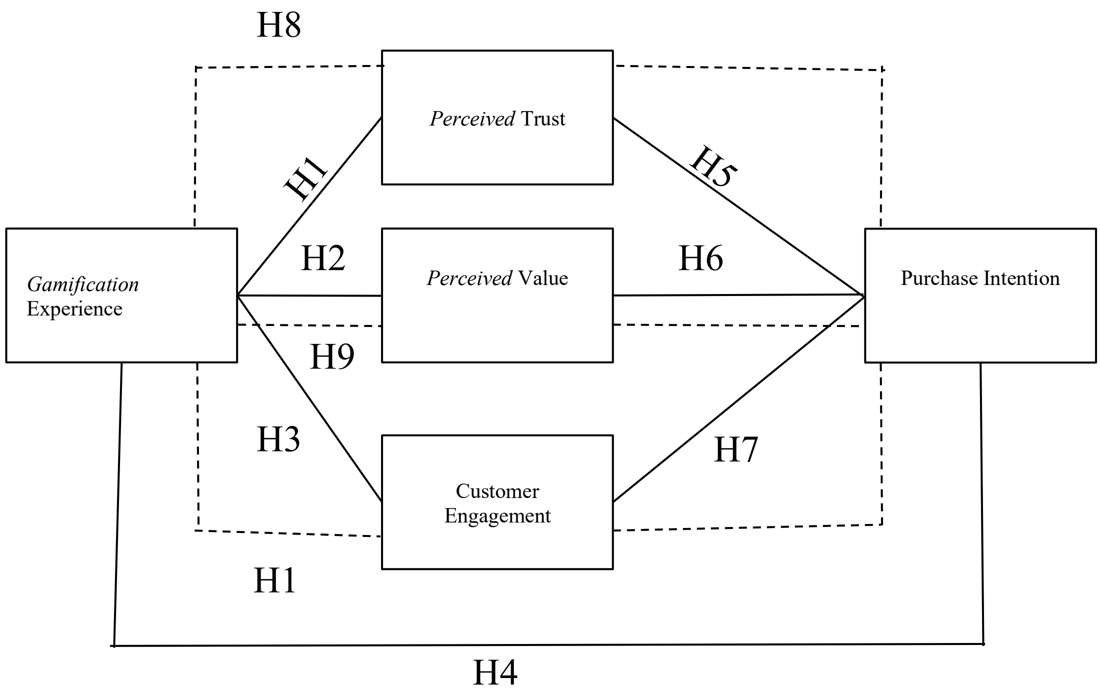

Figure 1. Research Framework

METHODOLOGY

This study was quantitative. Quantitative research uses numerical scales or numerical-scale data, which are processed using the selected analysis method. This study will examine the influence of gamification experience on purchase intention, focusing on *trust*, value, and customer engagement. In this study, the population refers to individuals in East Java province who have used and transacted on Shopee. This population consists of individuals with direct experience with Shopee's e-commerce platform. Given the exploratory nature of this study and the specific target population of Shopee users with recent transaction experience, a nonprobability judgmental sampling approach was employed. This method enabled the targeted selection of 200 respondents who met the inclusion criteria (consumers aged 17 or older who had used and transacted on Shopee e-commerce in the last 3 months), ensuring direct experience with the phenomena under investigation while acknowledging potential limitations to broad generalizability.

Gamification Experience (X) is an independent variable with an operational definition: the use of games in non-gaming contexts, such as Shopee e-commerce, to increase user engagement.

The gamification experience indicators in this study are based on Ratnasarii and Dwujayanti's (2022) research and include the following:

X1.1 Social interaction. A gamification system or feature that provides space for social interaction between users, such as working together, competing, and sharing achievements.

X1.2 Sense of control. The user's sense of control over the activity or game, for example, by choosing a move, determines the strategy.

X1.3 Goals. Goals provide users with direction and motivation to complete certain challenges or activities.

X1.4 Reward. Rewards users receive after completing an activity or achieving a target can take the form of points, badges, discounts, or other valuable rewards.

X1.5 Progress tracking. This mechanism displays a user's progress or achievements while using gamification features, such as levels, progress bars, statistics, or activity logs, so that users can monitor how close their efforts are to their goals.

Perceived trust (M1) is a mediating variable with an operational definition: the belief that the platform will act reliably and consistently (Abadi & Kurniawan, 2024). The indicators of perceived trust in this study are based on Kotler and Keller, as adopted by Abadi and Kurniawan (2024); they are as follows:

M1.1 Benevolence. Consumers believe that a company or service provider has good intentions, cares about customer interests, and is not solely profit-oriented.

M1.2 Ability. The consumer's perception that the company has sufficient competence, skills, and expertise to deliver products or services in accordance with customer expectations.

M1.3 Integrity. Consumer confidence upholds honesty, consistency, and adherence to the principles and promises made, thus creating a strong sense of trust.

M1.4 Transparency. Conditions in which a company can convey information openly, clearly, and easily understood by users, so that users feel that all information is honest and nothing is hidden.

Perceived value (M2) is a mediating variable with an operational definition: the consumer's evaluation of the benefits of the product or service relative to the sacrifices required (Zeithaml, 1988). Indicators of perceived value are as follows:

M2.1 Emotional value. The enjoyment and emotional satisfaction gained from using a product can increase customer loyalty and encourage repeat purchases.

M2.2 Social value. Opening up new opportunities for social interaction and building connections with others can expand users' social networks and improve their quality of life.

M2.3 Performance value. Increasing value and profitability can be the user's main goals.

M2.4 Value for money. Satisfaction and trust gained from the product's performance in accordance with expectations can improve a company's brand image and reputation.

Customer engagement (M3) is a mediating variable with an operational definition: the level of consumer involvement with the brand through cognitive, emotional, and behavioral interactions (Brodie et al., 2011; Islam & Rahman, 2016). The indicators of customer engagement are as follows:

M3.1 Consumption. The level of customer engagement is shown through the activity of consuming content or services provided by the company.
M3.2 Curation. Customer engagement by sorting, selecting, and sharing relevant content from the company with others, such as liking, ratings, and reviews.
M3.3 Creation. The customer actively participates in creating brand-related content, for example, by producing in-depth reviews, creative content, testimonials, or innovative ideas.
M3.4 Collaboration. The highest form of engagement, where customers collaborate directly with the company to develop products, services, or strategies.

Purchase intention (Y) is a dependent variable with an operational definition: consumers' tendency or intention to make purchases on the platform in the near future or to choose the platform when intending to buy. Indicators of customer engagement are adopted from Ratnasari and Dwujayanti (2022), namely:
Y1.1 Transactional interest. The customer's interest in making a real transaction is indicated by their willingness to purchase a product or service in the near future.
Y1.2 Referential interest. This refers to a customer's willingness to recommend a product or service to others, such as family or friends, reflecting trust and satisfaction with the brand.
Y1.3 Preferential interest. A customer's interest in making a product or brand the top choice over competitors indicates brand preference and loyalty.
Y1.4 Exploratory interest. A customer's interest in seeking more information about a product or service, whether through advertising, reviews, or others' experiences, before deciding to buy.

Data analysis was carried out using descriptive statistics and Structural Equation Modeling based on Partial Least Squares (PLS-SEM). PLS-SEM was chosen for its ability to handle complex models with multiple mediators and its predictive power, aligning with the study's objective of explaining the pathways through which gamification influences purchase intention (Hair et al., 2022). This study used ordinal data, specifically a Likert scale from a questionnaire completed by the research respondents. Data were collected by distributing questionnaires to research respondents. The questionnaire was first created in Google Forms and distributed to the research respondents.

ANALYSIS AND DISCUSSION

Based on the data in Table 1, several main characteristics were identified as follows: the profile of 178 respondents in this study included both males and females, meeting the criteria. In terms of age, the criteria require respondents to be 17 or older, making them eligible.

Table 1. Respondent Profile

	Number of Respondents	Introduce yourself
Gender		
Male	136	76.4
Women	42	23.6
Age		
17-25 years old	157	87.1
26-30 years	7	3.9
>30 years old	14	7.9
Frequency of use of Shopee games		
Rarely (1x a week)	114	64
Sometimes (2x a week)	42	23.6
Frequent (More than 4x a week)	22	12.4

Regarding the frequency of Shopee Games use, there are no criteria so that all respondents can participate. Respondents who answer are in accordance with the criteria for respondents who have been determined, thereby meeting the requirements.

This research model uses SEM-PLS, which consists of *gamification experience (*X*)*, three mediator variables, namely *perceived trust (*M1*), perceived value (*M2*), customer engagement (M3),* and *purchase intention* (Y)*.* Based on the outer model shown in Figure 2, all indicators in each construct have outer loadings ranging from 0.704 to 0.919. This value exceeds the cut-off threshold of 0.50, so all indicators are declared valid convergently. Thus, the indicators for the variables Gamification Experience, Perceived Trust, Perceived Value, Customer Engagement, and Purchase Intention meet the validity criteria and are suitable for further analysis in the structural model.

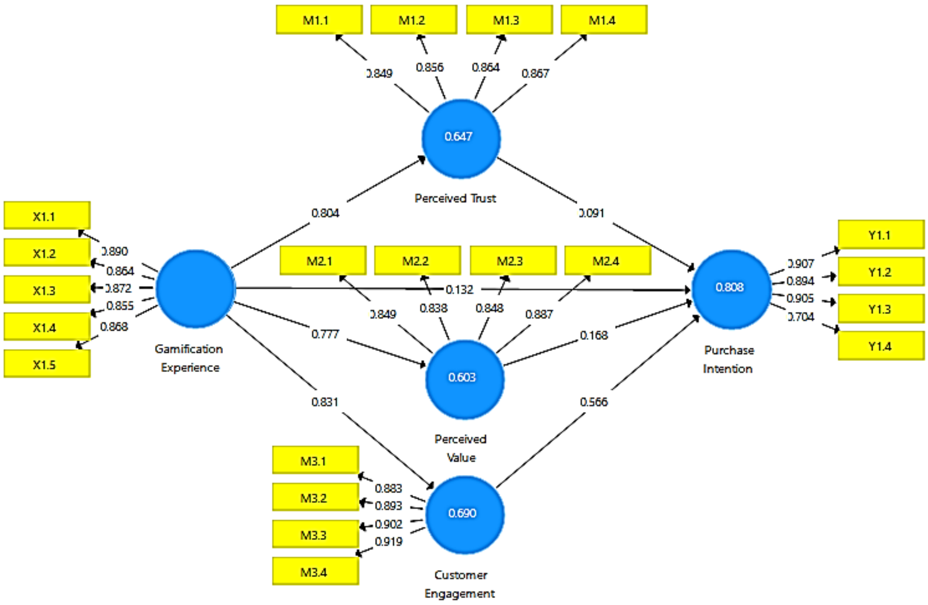

Figure 2. *Outer Model*

Table 2. Fornell-Larcker

Variable	Customer Engagement	Gamification Experience	Perceived Trust	Perceived Value	Purchase Intention
Customer Engagement	**0.899**				
Gamification Experience	0.831	**0.870**			
Perceived Trust	0.816	0.804	**0.859**		
Perceived Value	0.771	0.777	0.843	**0.856**	
Purchase Intention	0.879	0.806	0.800	0.783	**0.857**

Based on the results of the **discriminant validity** test using the Fornell-Larcker criteria, all constructs have met the requirements for discriminant validity. The square root values of AVE show this on the main diagonal, which range from 0.857 to 0.899, higher than the correlation values between constructs, which range from **0.771 to 0.879**. Thus, each construct explains its own variables better than other constructs do. These results indicate that the research model has good discriminant validity and that each latent variable can be empirically distinguished from the others.

Table 3. Reliability Test

Variable	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Customer Engagement	0.921	0.944	0.809
Gamification Experience	0.920	0.940	0.757
Perceived Trust	0.882	0.918	0.738
Perceived Value	0.878	0.916	0.733
Purchase Intention	0.876	0.916	0.734

The reliability test results for the outer model showed that Cronbach's Alpha for all constructs was >0.6, and the Composite Reliability was >0.7. In terms of convergent validity, *the Average Variance Extracted (AVE) for* all variables is >0.50. Overall, all constructs (*gamification experience, perceived trust, perceived value, customer engagement, and purchase intention*) are deemed reliable, valid, and suitable for use in the next structural model analysis.

Table 4. R Square

Variable	R Square	Q2
Customer Engagement	0.690	0.554
Perceived Trust	0.647	0.469
Perceived Value	0.603	0.439
Purchase Intention	0.808	0.582

Based on the results of the determination coefficient (R^2) test in Table 4, the value of R Square is in the range **of 0.603 to 0.808**. The Customer Engagement variable has an R^2 of 0.690, Perceived Trust of 0.647, and Perceived Value of 0.603, indicating that these variables are moderately to strongly explained by exogenous constructs in the model. Meanwhile, Purchase Intention has an R^2 of 0.808, indicating the model's very strong explanatory power. Overall, an R^2 value above 0.50 indicates that the model has good explanatory power in predicting endogenous variables in this study. Based on the results of **the predictive relevance (Q^2)** test, all endogenous variables showed a Q^2 value in the range **of 0.439 to 0.582**, all of which were above 0. The Customer Engagement value of 0.554, Perceived Trust of 0.469, Perceived Value of 0.439, and Purchase Intention of 0.582 indicate that the model has strong predictive capabilities. In general, a Q^2 value above 0 indicates the presence of predictive relevance, while a value above 0.35 can be categorized as strong. Thus, this research model has strong predictive relevance in explaining and predicting endogenous variables.

To test the research hypothesis using PLS-SEM, it was observed from the results of inner model processing. The inner model results also support the research hypothesis, as described in the path coefficient table.

Table 5. *Path Coefficients and Indirect Effects*

Hypothesis	Original Sample	P Values	Remarks
Gamification Experience -> Perceived Trust (H1)	0.804	0.000	Accepted
Gamification Experience -> Perceived Value (H2)	0.777	0.000	Accepted
Gamification Experience -> Customer Engagement (H3)	0.831	0.000	Accepted
Gamification Experience -> Purchase Intention (H4)	0.132	0.101	Rejected
Perceived Trust -> Purchase Intention (H5)	0.091	0.303	Rejected
Perceived value -> Purchase Intention (H6)	0.168	0.033	Accepted
Customer Engagement -> Purchase Intention (H7)	0.566	0.000	Accepted
Gamification Experience -> Perceived Trust -> Purchase Intention (H8)	0.073	0.308	Rejected
Gamification Experience ->Perceived value -> Purchase Intention (H9)	0.131	0.035	Accepted
Gamification Experience -> Customer Engagement -> Purchase Intention (H10)	0.470	0.000	Accepted

Based on the results of the hypothesis test, it was found that Gamification Experience had a positive and significant effect on Perceived Trust ($\beta = 0.804$; $p < 0.001$), Perceived Value ($\beta = 0.777$; $p < 0.001$), and Customer Engagement ($\beta = 0.831$; $p < 0.001$), so H1, H2, and H3 were accepted. However, the direct effect of Gamification Experience on Purchase Intention was not significant ($\beta = 0.132$; $p = 0.101$), so H4 was rejected. Perceived Trust also had no significant effect on Purchase Intention ($\beta = 0.091$; $p = 0.303$), so H5 was rejected. On the other hand, Perceived Value ($\beta = 0.168$; $p = 0.033$) and Customer Engagement ($\beta = 0.566$; $p < 0.001$) had positive, significant effects on Purchase Intention, so H6 and H7 were accepted. For indirect influence, mediation through Perceived Trust was insignificant (H8 was rejected), while mediation through Perceived Value ($\beta = 0.131$; $p = 0.035$) and Customer Engagement ($\beta = 0.470$; $p < 0.001$) was significant, so H9 and H10 were accepted. These results show that the influence of Gamification Experience on Purchase Intention is more dominant through Customer Engagement and Perceived Value than through Trust.

The Relationship of Gamification Experience to Perceived Trust

These findings support research on Shopee, which shows that a fun, challenging, and clearly rewarding gamification experience can increase user trust. When users experience a positive *gamification* experience, they tend to feel more satisfied and trust the platform. Ultimately, this increased trust will lead to an intention to transact, consistent with indicators of the *gamification* experience. Thus, the first hypothesis is accepted, confirming that the gamification experience positively affects perceived trust. However, this study found that perceived trust itself does not directly lead to purchase intention. These findings align with Hamari & Koivisto's (2015) research, which found that gamification can increase user trust through interactive experiences and clear reward mechanisms. In addition, Xi & Hamari (2020) emphasized that gamification can strengthen trust by fostering more open interactions.

The Relationship of Gamification Experience to Perceived Value

The gamification experience was also found to have a positive and significant effect on perceived value. This means that the better the gaming experience, the higher the user's perception of the value of the benefits and savings that Shopee Games offers. Thus, the second hypothesis is accepted. These results are consistent with those of Hsu & Chen (2018), who found that gamification increases perceived value by providing additional incentives that address users' needs. Research by Kim and Castelli (2021) also shows that rewards in e-commerce games increase perceived value in the shopping process. Thus supporting previous research.

The Relationship of Gamification Experience to Customer Engagement

The Influence of Gamification Experience on Customer Engagement. This proves that *gamification* encourages active user engagement, increases app usage, and makes users feel more connected to the platform. Thus, the third hypothesis is accepted. These findings align with the research of Hofacker et al. (2016), which found that gamification rarely directly affects purchase intent but does so through psychological factors such as engagement and perceived value. Leclercq et al. (2018) also emphasized that other variables usually mediate the effect of gamification on purchase intention.

The Relationship of Gamification Experience to Purchase Intention

The test results showed that Gamification Experience did not have a significant direct effect on Purchase Intention. This means that the gamification experience does not directly increase purchase intent without going through a mediator. Thus, the fourth hypothesis is directly rejected, indicating that gamification experience does not directly increase purchase intention. However, it does exert an indirect influence through perceived value and customer engagement, as supported by H9 and H10. One possible explanation for the insignificant direct relationship is that indicators of Gamification experience, reflecting hedonic and experiential engagement, may not translate directly into product-oriented decision-making without the mediation of value or engagement. Gamification experience was measured by enjoyment, challenge, rewards, interactivity, and curiosity during mission completion. These indicators reflect hedonic and experiential engagement with the platform rather than concrete buying commitment.

In contrast, Purchase Intention was measured using indicators such as intention to buy in the near future, preference for certain products, likelihood of repurchase, and willingness to recommend, which reflect behavioral and evaluative commitment. The difference in orientation between experiential enjoyment and product-oriented decision-making explains the insignificant direct relationship. Users may actively participate in games for entertainment or rewards without immediate purchasing needs. Therefore, gamification primarily stimulates intrinsic motivation and platform engagement, whereas purchasing requires cognitive evaluation of product value. This explains why the effect becomes significant only when mediated by perceived value and customer engagement.

The Relationship of Perceived Trust to Purchase Intention

The impact of Perceived Trust on Purchase Intention was rejected. This finding indicates that although users may perceive Shopee as secure, reliable, and trustworthy, these perceptions alone are not strong enough to drive transactional intention directly. At the indicator level, perceived trust was reflected through beliefs in platform security, data protection, transaction reliability, and seller credibility. However, these indicators represent baseline expectations on established e-commerce platforms rather than a differentiating factor that drives immediate purchasing behavior. In a mature platform context, trust may function as a hygiene factor rather than a motivational driver. When users already assume that the platform is secure and reliable, variations in trust perception no longer significantly influence purchase intention. Instead, users focus more on perceived value and interactive engagement created by gamification features. Pavlou (2003) states that trust has varying influences in e-commerce and may lose predictive power when other variables are more dominant. Similarly, Hollebeek (2011) emphasizes that engagement is a stronger determinant of purchase intention in digital environments. Therefore, this result does not support previous research that positioned trust as a direct predictor of purchase intention. These results, combined with the significant effects of perceived value and customer engagement, suggest that, in this context, value and engagement are more prominent drivers of purchase intention than trust alone.

Perceived Value* to *Purchase Intention

Based on the results of data processing on the structural model, the Perceived Value variable shows a positive and significant influence on Purchase Intention. Conceptually, perceived value reflects the extent to which users feel that an application's features, convenience, and benefits provide value commensurate with, or even exceeding, the effort, time, or cost they expend. When users judge that an app provides a rewarding and relevant experience, such as engaging gamification features, a satisfying user experience, and easy-to-understand rewards, they are more motivated to make a transaction. These results align with Hamari & Koivisto's (2015) research, which shows that gamification features increase user-perceived value by enhancing fun, motivation, and interactive experiences, ultimately driving purchase intent.

Customer Engagement* to *Purchase Intention

Based on the analysis of the research model, the Customer Engagement variable showed a positive and significant influence on Purchase Intent, indicating that greater user engagement in the application is associated with a stronger purchase intent. In this study, customer engagement encompasses emotional, cognitive, and behavioral engagement through interactions with app features, such as gamification, rewards, regular activities, and active participation on the platform. When users interact more often, feel engaged, and enjoy the in-app experience, they build a stronger relationship with the platform. This relationship ultimately drives the emergence of purchase intentions. This finding aligns with previous studies.

The Relationship of Gamification Experience to Purchase Intention through Perceived Trust Mediation

In this research model, the relationship between Gamification Experience and Purchase Intention was analyzed through Perceived Trust as a mediating variable. The results show that the indirect effect through trust was not significant, indicating that trust does not function as an effective psychological bridge between gamified interaction and transactional intention. Although gamification features may increase perceptions of platform reliability, reward fairness, and system transparency, these improvements in trust are not strong enough to translate into actual purchase intention. At the indicator level, gamification emphasizes enjoyment, challenges, and rewards, while perceived trust reflects security, credibility, and transaction safety. The linkage between these experiential and assurance-based indicators appears insufficient to stimulate purchasing decisions.

According to McKnight et al. (2002), trust is not always the primary mediating factor in digital purchasing behavior, particularly when other motivational variables are more salient. In gamification-based contexts, users tend to respond more strongly to interactive engagement and perceived benefits rather than to institutional trust alone. This supports the view that digital user engagement plays a more central role in converting experience into purchase intention. Therefore, the insignificant mediation effect indicates that trust is not the dominant mechanism in gamified e-commerce settings, and this finding does not support prior studies that positioned trust as a key mediator in online purchase behavior.

The Relationship of Gamification Experience to Purchase Intention through Perceived Value Mediation

In this research model, *Gamification Experience* affects *Purchase Intention* through *Perceived Value*. Thus, Perceived Value has been shown to mediate the relationship. These findings show that *a fun, challenging, and rewarding gamification experience can increase users' perceptions of the app's value*. When users feel the application provides benefits and value commensurate with entertainment, convenience, and profits, they are encouraged to make a purchase. This statement aligns with Hamari and Koivisto's (2015) research, which further emphasizes that gamification elements can increase perceived value through pleasant user experiences, thereby encouraging *purchase intent*, especially in digital services and e-commerce. Thus, it can be concluded that Perceived Value is one of the important mechanisms that bridges the influence of *gamification* experiences on purchase intent, supporting previous research.

The Relationship of Gamification Experience to Purchase Intention through Customer Engagement Mediation

Customer Engagement plays an important role as a mediator between Gamification Experience and Purchase Intent. A good gamification experience has been shown to significantly increase Customer Engagement, which in turn strongly influences Purchase Intent. This indicates that the higher the user's emotional, cognitive, and behavioral involvement, the more likely they are to make a purchase. These findings align with Hollebeek's (2011) research, which shows that engagement arising from active interaction and digital experiences, including *gamification* features, directly increases users' readiness to transact. The research by Islam and Rahman (2016) strengthens this finding by showing that engagement is the main predictor of purchase intention in digital applications, as high engagement encourages users to interact more often, feel more connected, and ultimately make a purchase.

Based on all hypothesis tests, the results show that although Gamification Experience significantly influences perceived trust, perceived trust does not significantly affect purchase intention when examined together with the other mediators. This finding helps explain why previous studies that tested trust independently often reported significant effects. When competing explanatory variables are analyzed within a single comprehensive structural model, the relative contribution of trust becomes weaker, suggesting that cognitive assurance alone is insufficient to drive purchase decisions in gamified e-commerce contexts. Moreover, the integrated mediation model enables direct comparison of the relative strength of each pathway. The findings reveal that Customer Engagement has the strongest mediating effect, followed by Perceived Value, whereas Perceived Trust does not mediate significantly. This simultaneous testing offers a fuller explanation of the psychological mechanisms linking gamification to purchase intention, showing that experiential involvement and perceived benefits are the dominant drivers, rather than trust. Thus, the integrated framework not only reconciles mixed findings in prior research but also provides a more precise understanding of how gamification translates into consumer behavioral intention.

PRACTICAL AND THEORETICAL IMPLICATIONS

The results of this study provide strategic implications for e-commerce platform managers in designing gamification features. The findings show that the gamification experience does not directly increase purchase intent, but rather works through perceived value and, especially, customer engagement. This emphasizes that gamification implementation is not enough on its own; it must be designed to foster active engagement, enjoyable experiences, and a genuine sense of benefit for users. Strategies such as interactive challenges, progression or level systems, reward personalization, and in-app social features can strengthen user engagement, which ultimately increases purchase intent. As such, companies need to focus gamification design on continuous value creation and engagement, rather than just on building trust.

Theoretically, the findings of this study strengthen the relevance of Self-Determination Theory (SDT) in explaining the psychological mechanisms behind the effectiveness of gamification. SDT emphasizes the fulfillment of three basic needs, namely autonomy, competence, and relatedness, as intrinsic motivational drivers. The results show that gamification experiences are more effective at increasing purchase intent when they increase engagement and perceived value, which conceptually reflect the fulfillment of competence and relatedness needs. Meanwhile, the insignificance of perceived trust on purchase intention indicates that trust is not the main motivational mechanism in this context. Thus, this study expands the application of SDT in the context of e-commerce by showing that intrinsic motivation reflected through engagement and value perception determines purchasing behavior more than trust factors alone.

CONCLUSIONS

This study aims to test the influence of Gamification Experience on Purchase Intention, with Perceived Trust, Perceived Value, and Customer Engagement as mediators. The analysis shows that Gamification Experience has a significant effect on Perceived Trust, Perceived Value, and Customer Engagement, with the strongest influence on Customer Engagement. In addition, Perceived Value and Customer Engagement have been proven to have a significant effect on Purchase Intention. In mediation testing, Perceived Value and Customer Engagement were also proven to mediate the influence of Gamification Experience on Purchase Intention. These findings suggest that the effectiveness of gamification in driving purchase intent is primarily determined by its ability to build a perception of value and customer engagement. In contrast, Gamification Experience does not have a significant direct effect on Purchase Intent. Perceived Trust has also not been shown to have a significant effect on Purchase Intention, so it does not mediate the relationship between Gamification Experience and Purchase Intention. These results indicate that while gamification can increase trust, it is not yet strong enough to directly drive purchase intent in the absence of a deeper perception of value and engagement.

Consistent with research in digitally advanced markets, this study confirms that customer engagement and perceived value are significant drivers of purchase intention in gamified e-commerce contexts. However, unlike in regions where trust remains a critical determinant of online purchasing, perceived trust did not significantly influence purchase intention in this study. This suggests that in East Java, where e-commerce platforms such as Shopee are already widely adopted and familiar, trust may function as a baseline expectation rather than a differentiating factor. As a rapidly growing digital economy with high platform penetration, East Java demonstrates that experiential engagement and perceived benefits play a more dominant role than cognitive trust considerations. Thus, the regional context refines existing theory by showing that the relative importance of mediators varies depending on digital market maturity.

This study has several limitations that should be considered when interpreting the results. First, the study used a cross-sectional design, which, while providing a snapshot of relationships, could not fully capture the dynamic changes in user behavior or motivation over time. This limits the ability to draw definitive causal inferences about the sequential nature of the identified mediation pathways, suggesting that longitudinal studies are needed to confirm these causal effects. Second, the study respondents were limited to Shopee e-commerce users in East Java. While providing focused insights, this specificity means that generalizing the results to wider populations (e.g., different age groups, users of other e-commerce platforms, or other cultural contexts) should be done with caution. For instance, the finding that perceived trust does not directly influence purchase intention might be influenced by Shopee's maturity and established reputation in this specific region.

Third, the model's variables still focus on the main psychological mechanisms and do not consider other factors, such as price promotions, product quality, or situational factors, that may affect purchase intention. In addition, data were collected via self-reported questionnaires, which may introduce subjective bias. Therefore, further research is recommended to use a longitudinal design, expand the range of respondents, and integrate additional contextual variables to gain a more comprehensive understanding of the effectiveness of gamification in driving purchasing behavior.

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