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Enhancing digital commerce: Impact of reputation, security, gamification, and transparency on consumer purchase intention and decisions

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ABSTRACT

Digital commerce has evolved rapidly over the past five years. The COVID-19 pandemic accelerated this process, as restrictions forced people to shop online due to limited mobility. A similar situation arose for merchants, who increasingly transitioned to online formats, thereby reducing the role of traditional offline retail. In response, many online platforms have actively improved their services and mobile applications to make the shopping process more convenient and provide users with a safe and enjoyable online shopping experience. This study analyzes the influence of platform reputation, security, gamification, transparency, purchase intention, and purchase decision across popular e-commerce platforms, including Shopee, Tokopedia, and Blibli. The survey was administered online via Microsoft Forms to 205 Indonesian respondents as part of a cross-sectional study. The main results largely confirm the proposed research hypotheses, demonstrating that several factors play a significant role in shaping customer trust and influencing behavioral intentions. In particular, reputation, security, gamification, transparency, and enjoyment were found to be significant. Finally, this study provides practical implications for practitioners and policy implications for building efficient, effective, and user-friendly online platforms.

1. Introduction

Even with the rapid expansion of e-commerce and online marketplaces, consumer behavior in the digital environment is still a multifaceted process affected by functional and emotional factors. The exact factors driving a customer to make an online purchase remain unclear. Even so, it is still a challenge for marketplace sellers and marketing specialists to know the key factors that influence the final purchase decision. The lack of understanding of the mechanisms behind purchasing behavior impedes the realization of effective strategies for acquiring, retaining, and converting users. Therefore, the question of how functional and hedonic properties of online marketplaces may affect purchase intention and purchase decision remains insufficiently explored.

In previous research on the online environment context, influenced consumer behavior determinants, mostly limited predictors of this kind of behavior may be observed across a number of other factors, and a complex model with many different factors interacting with a broad range of those factors is rarely introduced. For instance, in the same framework of a single research model, platform reputation, perceived security, perceived gamification, perceived transparency, perceived enjoyment, purchase intention, and purchase decision are seldom treated within one investigation. Traditional constructs such as trust, perceived usefulness, perceived ease of use, and attitude toward use are typically researched in the literature (Kim et al., 2026). In the current study, the study of these dimensions in association with the product choice pattern was conducted to test each of these constructs, but these types of constructs were only considered in a narrow theoretical framework. These variables have been adequately studied, including the Indonesian online platform, as a number of papers in worldwide scientific databases show. However, several crucial elements of the consumer experience, specifically perceived pleasure

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and components of gamification, are under-researched, particularly in the context of a sophisticated model of the interaction of both functional and hedonistic factors. In this sense, the current research is incomplete regarding a complete model for Indonesian consumer behavior under the online marketplace due to a combination of rational and emotional-experiential factors.

This study aims to research the key factors influencing Indonesian consumers' purchase decisions on online marketplaces and to empirically test an integrated model of online consumer behavior. To achieve the stated objective, the following research tasks are addressed: 1) Analyze the impact of platform reputation on the perceived transparency of an online marketplace. 2) Examine the effect of perceived security on platform transparency and perceived enjoyment. 3) Investigate the role of gamification in enhancing users' perceived enjoyment. 4) Assess the impact of perceived transparency on consumers' purchase intentions. 5) Evaluate the effect of perceived enjoyment on purchase intention. 6) Determine the relationship between purchase intention and the actual purchase decision. 7)Validate the proposed conceptual model using empirical data from Indonesian online marketplace users.

2. Literature review

2.1. Platform reputation

Platform reputation is widely recognized as a central factor shaping consumer behavior on online marketplaces. At its core, this concept reflects how users evaluate a platform's reliability, honesty, and overall quality. In the literature, platform reputation is typically characterized as a shared perception shaped by trust, security, transparency, and the platform's ability to deliver on its promises. These perceptions evolve through user reviews and ratings, transaction outcomes, community discussions, and the marketplace's broader public image. When a platform is perceived as reputable, users feel more certain about their choices and more confident in their purchase decisions.

This emphasis on reputation is significant because online shopping inherently entails greater uncertainty than offline shopping. Users cannot touch the product, speak face-to-face with the seller, or verify quality directly. Consequently, they rely heavily on the platform's reputation. A strong reputation helps reduce perceived risks, strengthens trust, enhances the value users perceive in the platform, and increases their willingness to rely on information provided during their shopping experience.

A growing body of recent research supports this view. Fatmawati et al. (2023) showed that a solid platform reputation significantly lowers perceived risk. Study by Tran and Nguyen (2022) highlighted how reputation contributes to building trust and improving user satisfaction. Drozdov and Istomin (2023) demonstrated that reputation also supports smoother buyer–seller interactions and increases confidence in the marketplace as a whole. Further evidence from Wang et al. (2022) suggested that a strong platform reputation can meaningfully increase purchase intention and the likelihood that users will complete transactions.

2.2. Perceived security

Perceived security refers to how safe users perceive themselves to be when engaging in online transactions in a digital marketplace. At its core, this variable reflects consumers' beliefs about the protection of their personal information, financial details, and transaction records from unauthorized access, fraud, or misuse. In academic discussions, perceived security typically encompasses data protection, payment security, encryption practices, authentication procedures, and the reliability of the platform's overall security features. When users trust these protective measures, they tend to approach online purchases with more confidence.

The importance of perceived security becomes particularly clear when considering the uncertainties that surround digital transactions. Users cannot directly observe backend security systems and must instead rely on visible signals indicating safety. These signals often include security badges, trusted payment gateways, clear privacy policies, prior experience with the platform, and the platform's broader reputation. When perceived security is high, consumers feel less uncertainty, experience lower perceived risk, and develop greater trust toward both the platform and the individual sellers. This sense of safety increases their willingness to share sensitive information and to complete online purchases.

A substantial body of recent studies supports the influence of perceived security on online shopping behavior. Research by Dai and Guo (2022) showed that strong perceived security reduces perceived risk and strengthens trust. Findings from Anshori et al. (2022) indicated that secure payment mechanisms enhance user confidence in e-commerce environments. Studies by Marianus and Ali (2021) and Tran and Nguyen (2022) confirmed that perceived security positively affects purchase intention and the adoption of online services. Additional evidence from Mofokeng (2021) indicated that perceived security supports customer satisfaction and encourages long-term loyalty in digital marketplaces.

2.3. Gamification experience

Gamification experience refers to how users perceive and respond to game-like features integrated into an online marketplace. In general, this concept reflects how elements such as points, badges, levels, progress tracking, daily rewards, and interactive tasks influence the overall user experience. In academic literature, gamification experience is often described as a psychological response that develops when users feel motivated, engaged, or entertained by these features. When these elements are implemented effectively, they make the shopping process feel more dynamic and enjoyable, encouraging deeper involvement with the platform.

A growing body of recent research supports the role of gamification in shaping online consumer behavior. Studies by Nasirzadeh (2024) and Sheetal et al. (2023) showed that gamification improves attention and interaction in non-gaming contexts by increasing user engagement and emotional involvement. Research by Koivisto and Hamari (2019) showed that well-designed gamification components (points, badges, leaderboards) can improve behavioral intentions and increase willingness to participate. Findings from Faganel et al. (2024) indicated that gamification has the potential to transform the shopping experience by influencing user engagement and purchase decisions. Further evidence from Aparicio et al. (2021) suggested that repurchase intention is mediated by customer engagement, which is positively influenced by gamification in online marketplaces. According to Kelvin et al. (2025), rewards and competitions are examples of gamification elements that significantly increase platform visits, user satisfaction, and purchase likelihood. When combined, these findings demonstrate that gamification experiences substantially influence user behavior in online marketplaces. Gamified features increase perceived enjoyment, strengthen user engagement, and enhance the likelihood of completing purchases and returning to the platform.

2.4. Perceived transparency

Perceived transparency refers to the extent to which an online marketplace communicates information relevant to users during the shopping process. This concept captures the extent to which consumers perceive they are provided with honest, complete, and understandable information about prices, product quality, seller reliability, payment conditions, delivery processes, and the handling of personal data. In the academic literature, perceived transparency is often conceptualized as a psychological state that arises when users perceive that nothing important is being hidden from them. When platforms communicate clearly, users feel more informed and better able to make safe, confident choices.

Recent research consistently shows that perceived transparency influences online consumer behavior. Transparent product and pricing information boosts user trust and reduces uncertainty, according to a study by Veltri et al. (2023). Montecchi et al. (2024) found that platforms that provide comprehensive seller histories, aggregated feedback, and clear policies reduce information asymmetry and increase customer trust. Research by Yu and Li (2022) demonstrated that sincere and transparent communication regarding costs, delivery, and dispute resolution improves consumers' perceptions of platform fairness and, consequently, their willingness to complete purchases. According to Jiang et al. (2023), users put in less effort and write shorter reviews, particularly those with positive sentiment, when review moderation is made transparent. According to Ali et al. (2025), transparent and ethical marketing approaches help brands achieve deeper consumer confidence and long-term engagement.

2.5. Perceived enjoyment

Perceived enjoyment describes the extent to which users genuinely find the online shopping process pleasant, entertaining, or satisfying in itself, beyond simply completing a purchase. This concept reflects a user’s internal sense of fun, curiosity, or positive emotional engagement when interacting with a digital marketplace. In the academic literature, perceived enjoyment is often framed as intrinsic motivation, meaning that users participate not only because they need a product but also because the experience is intrinsically rewarding. When a platform makes browsing or interacting enjoyable, users tend to spend more time exploring and feel more comfortable making decisions.

A growing body of research indicates that perceived enjoyment plays a significant role in shaping users’ attitudes and behavioral intentions in digital commerce. Studies by Nguyen et al. (2023) found that perceived enjoyment significantly increases users' intention to continue using mobile shopping apps. Research by Nasirzadeh (2024) indicated that perceived enjoyment mediates the effect of gamified elements on purchase intention in e-commerce contexts. Evidence indicates that perceived enjoyment, in conjunction with scarcity cues, significantly influences impulsive purchasing behavior in online shopping environments (Siregar and Firdausy, 2024). According to Hasan et al. (2021), perceived enjoyment is a significant positive predictor of online shopping intention, indicating that enjoyment while shopping can lead to stronger behavioral intention. A study by Mustika and Wahyudi (2022) demonstrated that online purchase intention is strongly influenced by perceived enjoyment, perceived trust, and website quality. According to Iskandar et al. (2024), perceived enjoyment and ease of use are two of the main factors that determine online shopping intentions.

2.6. Platform reputation and perceived security

Previous studies show that platform reputation serves as an important credibility signal that reflects how trustworthy and reliable a platform appears to users. It reflects consumers' overall assessment of the platform’s reliability, credibility, and trustworthiness based on previous experiences, public reviews, and market recognition. When a platform has a strong reputation, users are more likely to believe it can effectively protect their personal data, payment information, and online transactions (Tran and Nguyen, 2022). A positive reputation reduces uncertainty and increases consumer confidence when making online purchases. Furthermore, reputable platforms are typically associated with secure payment systems, transparent policies, and robust customer protection mechanisms. Consumers often interpret a platform's strong reputation as an indication that the platform invests in cybersecurity, privacy protection, and fraud prevention (Lu, 2024).

Positive reviews, high ratings, and consistent service quality enhance users' perceptions of the platform's security and trustworthiness (Tran and Nguyen, 2022). Furthermore, reputable platforms strive to maintain long-term relationships with customers by providing a safe and trustworthy online transaction experience. Therefore, platform reputation may positively influence users' perceived security in digital commerce environments.

Based on these arguments, the following hypothesis is proposed:

H1: Platform reputation positively affects perceived security.

2.7. Perceived security and gamification experience

Perceived security refers to the extent to which users believe a platform can protect their personal data, payment information, and online transactions from potential risks and fraud. When users feel safe using a digital platform, they are more likely to actively engage with interactive and game-like elements of the platform, such as points, rewards, achievements, and leveling systems (Lu, 2024). A high level of security reduces user anxiety and increases their confidence in using various platform features (Morić et al., 2024).

Furthermore, a secure digital environment facilitates a more comfortable and enjoyable user experience with the platform. Users are more likely to have a positive experience with gamified mechanisms when they are confident in the reliability of payment systems and the privacy of their data (Varshney et al., 2024). In e-commerce, a sense of security can enhance user engagement and increase their interest in participating in the platform's interactive features. Perceived security also fosters trust in the platform, which positively influences the emotional perception of gamified experiences (Anshori et al., 2022). Therefore, perceived security may positively influence users' gamification experience in digital commerce environments.

Based on these arguments, the following hypothesis is proposed:

H2: Perceived security positively affects gamification experience.

2.8. Gamification experience and perceived transparency

Gamification experience reflects the extent to which users perceive the platform as interactive, understandable, and transparent during online interactions. Previous studies show that gamification elements can significantly improve user engagement with digital platforms and foster more positive perceptions of the platform environment. Mechanisms such as points, rewards, achievement badges, levels, and interactive features make the platform experience more understandable, engaging, and structured (Varshney et al., 2024). When users actively engage with game elements, they gain more information about the platform's operation, system rules, and online transaction processes (Xu et al., 2020). This reduces uncertainty and helps users better understand how the platform functions. Furthermore, gamification promotes trust in the platform by more transparently displaying user activity, ratings, reviews, and progress (Portes et al., 2020). Interactive mechanisms allow users to navigate the digital environment more easily and perceive the platform as more transparent and trustworthy. In e-commerce, platform transparency plays a key role in reducing information asymmetries and building user confidence in purchasing decisions. Thus, positive experiences with gamification elements can enhance users' perceptions of platform transparency.

Based on these arguments, the following hypothesis is proposed:

H3: Gamification experience positively affects perceived transparency.

2.9. Perceived transparency and perceived enjoyment

Perceived transparency refers to the extent to which users view the platform as open and understandable, which positively influences perceived enjoyment during online shopping activities. Previous studies show that perceived transparency plays a significant role in fostering a positive consumer experience in e-commerce environments. Transparency allows users to better understand platform policies, pricing mechanisms, online transaction procedures, and seller information, reducing uncertainty when shopping online (Portes et al., 2020). When users perceive that a platform openly provides necessary information, they feel more confident and comfortable when searching for and purchasing products (Veltri et al., 2023). Transparent information about payment systems, shipping, returns, and customer reviews contributes to greater trust in the platform. Furthermore, transparency positively influences users' emotions and overall online shopping experience by reducing confusion and perceived risk. Consumers enjoy the shopping process more when they can easily obtain accurate and understandable information about products and transactions (Handoyo, 2024). A transparent digital environment also facilitates easier navigation and increases satisfaction with the platform interaction, enhancing perceived enjoyment (Xu et al., 2020). The availability of clear information enhances users' perceptions of platform integrity and trustworthiness, making the online shopping experience more enjoyable and engaging.

Based on these arguments, the following hypothesis is proposed:

H4: Perceived transparency positively affects perceived enjoyment.

2.10. Perceived enjoyment and purchase intention

Perceived enjoyment reflects the pleasantness and satisfaction of the user experience while interacting with a platform. Prior research consistently indicates that enjoyable online experiences increase user satisfaction and, consequently, enhance purchase intentions (Jennah and Hartono, 2025). In particular, perceived ease of use and enjoyment have a significant and positive impact on the intention to shop online, while perceived enjoyment remains a significant predictor alongside perceived utility, attitude, and social value (Hasan et al., 2021). By increasing the experiential value of online shopping, perceived enjoyment is crucial in influencing purchase intention in the context of luxury e-commerce (Majeed et al., 2024).

Taken together, these insights suggest that perceived enjoyment holds a clear and meaningful influence on purchase intention. Considering how previous studies align on this matter, the following hypothesis is proposed:

H5: Perceived enjoyment positively affects purchase intention.

2.11. Purchase intention and purchase decision

Purchase intention reflects the user's readiness and plan to complete a purchase. When purchase intention is formed, it reflects a state of decision readiness that precedes behavioral execution. Earlier studies show that purchase intention serves as a psychological link between assessment and action, mediating the effects of attitudes and perceived value on actual purchase decisions (Chang et al., 2023). E-commerce customers' purchase decisions are positively impacted by purchase intention. In online shopping contexts, consumers' purchase decisions are highly correlated with their purchase intention, which is influenced by the valence of online reviews and visual attention (Chen et al., 2022).

Consumer purchase intention is a significant predictor of purchase decision when consumers interact with digital marketing stimuli, according to studies conducted in Indian digital markets. The findings of Allan et al. (2022) show that, for women's online clothing purchases, different interactive marketing strategies effectively facilitate the transition from purchase intention to actual purchase decision.

Taken together, previous studies consistently demonstrate that purchase intention serves as a direct predictor of purchase decision in digital commerce environments. All of the above brings us to the final hypothesis in this study:

H6: Purchase intention positively affects purchase decision.

2.12. Conceptual framework

According to the literature, user intentions and decisions in online marketplaces are significantly influenced by reputation, security, gamification, transparency, and enjoyment. In the Indonesian context, there has been little empirical research on the combined influence of these variables within a single behavioral framework, even though their individual effects have been thoroughly documented. The proposed research model (Fig. 1), which integrates these constructs to explain how Indonesian users form purchase intentions and ultimately make purchase decisions, is justified by this gap. The study's conceptual framework summarizes these connections and provides a methodological foundation for formulating hypotheses and conducting empirical research.

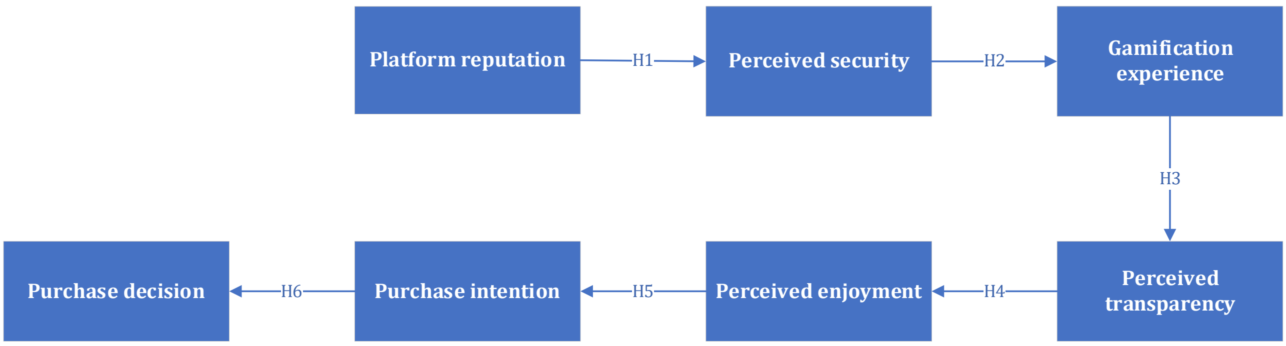

Fig. 1: Proposed conceptual framework

3. Methodology

This study employs a quantitative research approach, which ensures organized and accurate data collection and helps persuade the audience of the validity and impartiality of the results. Examining relationships among variables using quantitative indicators is a typical application of quantitative research methods (Creswell, 2014). This method is particularly well-suited to studying user behavior on online platforms. It enables researchers to work with quantifiable constructs such as platform reputation, perceived security, gamification experience, perceived transparency, perceived enjoyment, purchase intention, and purchase decision.

A Likert scale will be used to measure respondents' agreement with a set of statements to collect empirical data. Statistical analysis is facilitated by the quantitative assessment of users' subjective attitudes and perceptions using a Likert scale. Using a standardized measurement scale improves the validity and reliability of the data and enables insightful cross-variable comparisons.

Active users of Indonesian online marketplaces who purchase products on sites such as Shopee and Tokopedia constitute the study's population. These platforms reach a large audience and are among the largest online marketplaces in Indonesia. Users who make at least one purchase every few months and have an account on at least one marketplace are included in the sample. The following inclusion criteria were established to improve the sample composition: respondents must be Indonesian citizens, at least 17 years old, and have recently engaged in online purchasing. Incomplete questionnaires and answers from users who did not verify their online marketplace shopping experiences are examples of exclusion criteria. Purposive sampling is employed in this study to collect responses from active users of online marketplaces.

The "ten-times rule," which recommends collecting at least 10 times as many responses as the most significant number of indicators or structural paths pointing to any single construct in the model, can be used to estimate the minimum sample size in PLS-SEM (Hair et al., 2021). Seven items comprise the construct with the most indicators in this study, suggesting that at least 70 respondents would be sufficient. However, the target sample size was increased to approximately 200–250 participants to enhance the model's statistical power, reduce potential bias, and improve the reliability of the results.

The questionnaire will be distributed via messaging applications, such as WhatsApp, and other social media platforms, and survey responses will be collected via Microsoft Forms, an online data-collection tool. This survey approach was chosen because it is accessible to a large number of respondents and compatible with modern digital technologies. The survey will be conducted anonymously, which encourages respondents to share their experiences freely and enhances the honesty of responses. No pilot test was conducted, as the measurement scales were directly adapted from reputable, peer-reviewed studies. Based on previous validation and widespread use in the literature, the questionnaire was deemed sufficiently clear and reliable for immediate data collection.

A structured online questionnaire in Indonesian with multiple sections served as the study's instrument. Specific indicators are used to measure each variable in the model. A 6-point Likert scale is used to rate each statement, with 1 denoting "strongly disagree" and 6 denoting "strongly agree." This widely used scale was selected for the study because it is frequently employed in user behavior research and is easy for respondents to understand. Platform reputation, perceived security, gamification experience, perceived transparency, perceived enjoyment, purchase intention, and purchase decision are all measured by the questionnaire.

Each construct comprises five items designed to reflect respondents' experiences and perceptions accurately. The instrument was carefully examined prior to distribution to ensure that participants readily understood each statement and that it aligned with the study's goals. This questionnaire design enables the collection of comparable, consistent, and trustworthy data for subsequent PLS-SEM analysis.

To guarantee the validity and dependability of the empirical findings in this study, a structured data analysis plan was created. Since partial least squares structural equation modeling (PLS-SEM) yields accurate results under such model specifications, it was chosen as the primary data analysis method for studies involving complex research models and models that include higher-order or formative constructs (Becker et al., 2012; Hair et al., 2021). Three screening questions were added to the questionnaire as part of the quality control procedure to find out if respondents had previously made purchases on online platforms. The survey was automatically stopped at that point if a respondent said they had never made a purchase on an online platform.

The analysis was carried out in two major phases after the data were screened. Initially, the measurement model was assessed by evaluating the latent variables' discriminant validity, convergent validity, and internal consistency reliability. Second, the relationships between the latent variables were examined, and a bootstrapping procedure was used to test the statistical significance of the suggested hypotheses in order to evaluate the structural model. SmartPLS 4 was used for all data analysis.

4. Results

4.1. Data screening and sample description

A total of 226 questionnaires were collected during the data collection stage. To ensure that only relevant respondents were included in the analysis, three screening questions were used to identify participants with prior experience of online shopping on Indonesian online platforms. Based on these criteria, 21 responses were excluded, as the respondents reported that they had never purchased products from Indonesian online marketplaces.

After removing the invalid responses, 205 questionnaires remained and were retained for further analysis. All retained responses met the predefined screening requirements and were therefore considered suitable for statistical analysis. The final dataset contained no missing values, allowing the data to be analyzed directly using SmartPLS 4 without the need for additional data treatment.

Table 1 shows the demographic characteristics of the respondents. The sample included participants with diverse demographic backgrounds across age, education, employment status, and marital status. Respondents were collected from various cities across Indonesia, indicating geographic diversity within the sample.

Table 1: Demographic profile of respondents

Variable	Category	Frequency	Percentage (%)
Gender	Male	98	47.8
	Female	107	52.2
Education	< Senior high school	2	1.0
	Senior high school	30	14.6
	Diploma	19	9.3
	Bachelor's degree	73	35.6
	M.Sc. or Ph.D.	81	39.5
Age (years)	17-20	53	25.9
	21-25	55	26.8
	26-30	19	9.3
	31-40	37	18.0
	> 40	41	20.0
Employment status	Unemployed	87	42.4
	Employed	103	50.2
	Self-employed	14	6.8
	Retired	1	0.5
Marital status	Single	122	59.5
	Married	79	38.5
	Divorced	2	1.0
	Widowed	2	1.0

Respondents came from various cities across Indonesia, reflecting the sample's geographic diversity

4.2. Measurement model assessment

The measurement model was evaluated to examine the reliability and validity of all latent constructs included in the research framework. The assessment followed established guidelines for partial least squares structural equation modeling (PLS-SEM). Internal consistency reliability was assessed using Cronbach's alpha and composite reliability (CR). The results showed that all constructs exceeded the recommended threshold values, indicating satisfactory reliability and a high level of internal consistency among the measurement items.

Convergent validity was examined through outer loadings and average variance extracted (AVE). All indicators demonstrated acceptable loading values, and the AVE values for each construct were above the recommended minimum level, confirming that the constructs adequately captured the variance of their respective indicators. Discriminant validity was assessed using the Heterotrait–Monotrait ratio (HTMT) criterion. The HTMT values for all construct pairs were below the critical thresholds, indicating that the constructs were empirically distinct and that no issues of conceptual overlap were present.

Overall, the results of the measurement model assessment confirm that the measurement instruments used in this study are both reliable and valid, providing a solid foundation for the evaluation of the structural model.

4.3. Structural model results

After confirming the adequacy of the measurement model, the structural model was evaluated to test the hypothesized relationships between the constructs. The analysis focused on the magnitude and significance of the path coefficients, which were assessed using a bootstrapping procedure in SmartPLS 4. In addition, the coefficient of determination (R^2) was examined to evaluate the explanatory power of the model.

The bootstrapping results show that all hypothesized relationships are statistically significant (Table 2). Gamification experience exerts a significant positive effect on perceived transparency ($\beta = 0.545$, $t = 5.774$, $p < 0.001$). In turn, perceived transparency has a strong and significant influence on perceived enjoyment ($\beta = 0.711$, $t = 10.835$, $p < 0.001$).

Furthermore, perceived enjoyment significantly increases purchase intention ($\beta = 0.726$, $t = 13.668$, $p < 0.001$), suggesting that consumers who experience higher levels of enjoyment are more inclined to intend to purchase. Purchase intention, in turn, shows a very strong and significant effect on purchase decision ($\beta = 0.826$, $t = 23.390$, $p < 0.001$), highlighting its central role in translating intentions into actual purchasing behavior.

In addition, platform reputation has a significant positive impact on perceived security ($\beta = 0.558$, $t = 7.303$, $p < 0.001$). Perceived security also positively influences gamification experience (β = 0.425, t = 3.819, $p < 0.001$), emphasizing the importance of trust-related factors in shaping users' interactive experiences on online platforms.

The explanatory power of the model was assessed using the coefficient of determination (R^2). The results indicate that purchase decision is explained to a substantial extent by the model (R^2 = 0.682), while purchase intention also shows a high level of explained variance (R^2 = 0.528). Perceived enjoyment demonstrates moderate explanatory power (R^2 = 0.505), followed by perceived transparency (R^2 = 0.297) and perceived security (R^2 = 0.312). In contrast, gamification experience exhibits a relatively low R^2 value (R^2 = 0.181), suggesting that additional factors such as platform design, user motivation, or social influence may also contribute to this construct (Table 3). Taken together, the results indicate that the structural model provides satisfactory explanatory power, and all proposed hypotheses are empirically supported.

Table 2: Path coefficients and bootstrapping

Hypothesis	Path	β	t-value	p-value	Result
H1	PR → PS	0.558	7.303	< 0.001	Supported
H2	PS → GE	0.425	3.819	< 0.001	Supported
H3	GE → PT	0.545	5.774	< 0.001	Supported
H4	PT → PE	0.711	10.835	< 0.001	Supported
H5	PE → PI	0.726	13.668	< 0.001	Supported
H6	PI → PD	0.826	23.390	< 0.001	Supported

The structural model estimated using SmartPLS summarizes the relationships among the key constructs of the study. The model focuses on how platform reputation influences perceived security, which subsequently affects gamification experience, perceived transparency, perceived enjoyment, purchase intention, and final purchase decision. The numerical values displayed on the arrows indicate standardized path coefficients, reflecting the strength and direction of the relationships, while the values inside the endogenous constructs represent the proportion of explained variance (R^2).

Table 3: Coefficient of determination (R^2)

Endogenous construct	R^2
Purchase decision	0.682
Purchase intention	0.528
Perceived enjoyment	0.505
Perceived transparency	0.297
Perceived security	0.312
Gamification experience	0.181

The model demonstrates a satisfactory explanatory capacity, as the endogenous variables show moderate to substantial levels of explained variance. In particular, perceived security, gamification experience, perceived enjoyment, and purchase decision are meaningfully explained by their antecedents. The observed relationships suggest that users' perceptions of reputation, security, transparency, and enjoyment play important roles in shaping experiential and emotional responses to the platform, which subsequently translate into behavioral outcomes related to purchasing. The results of the bootstrapping procedure applied to the structural model indicate that all hypothesized relationships are statistically significant. The obtained p-values demonstrate that the estimated relationships between the constructs are statistically reliable, indicating that the proposed model is supported by the empirical data.

Overall, the results confirm that the proposed measurement and structural models are well supported by the data. All constructs demonstrate adequate reliability and validity, while the structural relationships are statistically significant and meaningful. The model explains a substantial proportion of variance in key endogenous variables, particularly purchase intention and purchase decision, indicating strong explanatory power.

5. Discussion

The results confirm that all hypothesized relationships are supported, indicating that the proposed model adequately captures the relationships between platform-related perceptions, user experience, and purchasing outcomes. Instead of functioning independently, the constructs are interconnected and form a process that guides users from initial perceptions to the final purchase decision. The results show that platform reputation is positively related to perceived security (H1). This indicates that users are more likely to perceive a platform as safe and trustworthy when they believe the platform has a strong reputation. A positive reputation enhances users' confidence in the platform's ability to protect personal information, payment systems, and transaction activities. In addition, reputable platforms are generally associated with reliable services, secure systems, and lower perceived risk, which strengthens users' perceptions of security during online shopping activities. Perceived security has a significant positive influence on gamification experience (H2). Users who feel secure while using an online platform are more likely to actively engage with gamified features such as rewards, points, badges, and interactive activities. A secure platform environment reduces users' concerns regarding privacy risks, payment safety, and data protection, allowing them to interact with platform features with greater confidence and comfort.

The findings also provide evidence that gamification experience has a significant influence on perceived transparency (H3). Features such as interactive and game-like options engage users and make interactions on the platform more transparent. As users participate more actively in gamified activities, they become more familiar with platform processes and system functions, which helps reduce uncertainty and improve transparency perceptions.

Furthermore, perceived transparency has a significant positive effect on perceived enjoyment (H4). Users who have a better understanding of how the platform operates and how information is presented are more likely to enjoy using it because they feel more confident and comfortable during online shopping activities. Platform transparency reduces uncertainty and perceived risk, which enhances users' overall enjoyment and satisfaction while interacting with the platform.

Similarly, perceived enjoyment positively affects purchase intention (H5). Users who experience enjoyment while interacting with the platform are more likely to develop stronger intentions to purchase products online. Positive emotional experiences increase users' engagement and satisfaction with the platform, encouraging them to move from browsing behavior toward actual purchase intention.

Lastly, purchase intention has a significant effect on purchase decision (H6). These results show a significant relationship between intention and behavior, proving that when users intend to buy something, they are more likely to act on it.

Overall, the results indicate that online shopping behaviors emerge from a systematic approach. Users' perceptions of platform reputation and perceived security influence gamification experience and transparency perceptions, which then affect perceived enjoyment and purchase intention. Purchase intention serves as a direct antecedent of purchase decision within the proposed behavioral framework.

6. Conclusion

This study aims to examine the determinants of purchase behavior in online marketplaces, specifically the platform reputation, perceived security, gamification experience, perceived transparency, perceived enjoyment, purchase intention, and purchase decision, among others. Based on the data obtained from the use of Indonesian e-commerce platforms and the PLS-SEM analytical approach, the research studies how all these factors can be considered in the digital shopping environment. According to the study, consumer purchasing behavior on online platforms is shaped by a structured sequence of perceptions, experiences, and intentions. Platform reputation and perceived security serve as important antecedents that influence users' perceptions of gamification experience, transparency, and enjoyment. These perceptions subsequently influence purchase intention, which ultimately leads to a purchase decision. The results support the importance of both the trust-based aspects and experiential aspects as the key to the explanation for the way users transition from interaction with the platform to online purchasing of a product.

On a theoretical level, this study provides a theoretical perspective that offers a holistic framework that connects constructs of trust based on platforms with lived experiences. It extends previous research by explaining how platform reputation and perceived security indirectly influence purchasing behavior through gamification experience, perceived transparency, perceived enjoyment, and purchase intention, which add insights into consumer purchase behavior in the online marketplaces.

On the practical side, the results provide insights useful for the platform management team and policymakers. Building user trust and confidence can be achieved by building a reputation for the platform, high-perceived security scores (high trustworthiness, transparency, and openness), and with that, trust and confidence in perceived security will increase. Furthermore, a successful implementation of gamification can enhance user satisfaction, enhance user enjoyment and engagement, which in turn strengthens purchase intention and improves conversion rates. By building trust and experience, online marketplace platforms are able to enhance user satisfaction and long-run competitive advantages.

Despite its contributions, this study has certain limitations. The cross-sectional nature of the study design limits causal inferences, and self-reported measures were used, so response bias is likely. Future research could potentially be longitudinal in nature or in some other cultural or site context or platform-specific, or introduce additional variables to refine the proposed model better. This study suggests that trust-building mechanisms, integrated with interesting user experiences, play a vital role in influencing online purchase behavior. The balance of security, transparency, and user experience in these platforms is expected to contribute positively to increased purchase intentions and customer engagement on digital marketplaces for enterprises.

List of abbreviations

AVE	Average variance extracted
CR	Composite reliability
GE	Gamification experience
HTMT	Heterotrait–Monotrait ratio
PD	Purchase decision
PE	Perceived enjoyment
PI	Purchase intention
PLS-SEM	Partial least squares structural equation modeling
PR	Platform reputation
PS	Perceived security
PT	Perceived transparency
R^2	Coefficient of determination

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Compliance with ethical standards

Ethical considerations

The study was approved by the Institutional Review Board of Universitas Negeri Jakarta (No. 1262/UN39.14/PT.01.05/VIII/2026). Informed consent was obtained from all participants, and participation was voluntary. Participants were informed of their right to withdraw from the study at any time. All collected data were kept confidential and anonymous and were used solely for research purposes. The study was conducted in accordance with the ethical requirements of the approving institution.

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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