

Determinants of Consumer Purchase Decisions for Retro Gaming Consoles: Evidence from PlayStation 2 Products on Indonesian E-Commerce

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Abstract:

The growth of e-commerce has significantly transformed consumer purchasing behavior, including in the gaming industry where retro gaming consoles such as the PlayStation 2 continue to attract consumer interest in online marketplaces. This study aims to examine the influence of product quality and promotion on consumer purchase decisions for PlayStation 2 products in the Tokopedia marketplace. A quantitative research approach was employed by collecting primary data through questionnaires distributed to 100 consumers who have purchased PlayStation 2 products on Tokopedia. The data were analyzed using multiple linear regression analysis with the assistance of IBM SPSS to evaluate the partial and simultaneous effects of product quality and promotion on purchase decisions. The findings indicate that product quality and promotion have a positive and significant effect on consumer purchase decisions, both individually and simultaneously. In conclusion, product quality plays a critical role in shaping consumer perceptions and trust toward the product, while promotional activities contribute to increasing consumer awareness and purchase intention in the digital marketplace environment. These results highlight the importance of maintaining product quality and implementing effective promotional strategies to enhance consumer purchasing decisions. This study contributes to the literature on consumer behavior in e-commerce, particularly within the context of retro gaming product markets.

Keywords: e-commerce, marketing communication, retro game, purchase decision

Introduction

The rapid advancement of information technology has significantly transformed

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business environments and consumer purchasing behavior. The widespread adoption of internet-based platforms has accelerated the growth of electronic commerce (e-commerce), enabling consumers to perform purchasing activities more efficiently and without geographical constraints (Surianto & Khang, 2024). Through e-commerce platforms, consumers are able to access product information, compare prices, and evaluate alternatives before making purchasing decisions. Consequently, online marketplaces have become an essential channel for commercial transactions in the digital economy (Chen et al., 2023; Zhang et al., 2022).

E-commerce refers to commercial transactions conducted through digital networks that integrate marketing, sales, distribution, and payment systems via internet technologies (Andriani, 2021). The development of e-commerce platforms has created new opportunities for businesses to expand their market reach while simultaneously intensifying competition among sellers (Surianto et al., 2025). In Indonesia, Tokopedia has emerged as one of the largest marketplace platforms that connects buyers and sellers through a digital ecosystem (Felix et al., 2025). The platform offers a wide variety of product categories, including electronic devices, household products, and gaming consoles. Recent consumer surveys indicate that Tokopedia maintains a high level of consumer trust and satisfaction compared with other marketplace platforms, particularly in transactions involving electronic products (Goodstats, 2024).

Along with the expansion of digital marketplaces, an emerging phenomenon is the sustained consumer interest in retro technology products. Retro products, particularly classic video game consoles, have regained popularity due to nostalgic value, emotional attachment, and collector interest among consumers (Lin et al., 2022; Su et al., 2023). One notable example is the PlayStation 2 (PS2), a video game console developed by Sony and first released in 2000. The PS2 represented a significant technological innovation during its time, as it introduced the use of Digital Versatile Disc (DVD) technology for game distribution, enabling larger storage capacity and more efficient production compared with earlier gaming formats (Khusnah, 2022).

Historically, the PS2 achieved remarkable commercial success and dominated the global gaming console market. The product successfully competed with other gaming consoles such as Microsoft's Xbox and Nintendo's GameCube, largely due to its extensive game library, technological capabilities, and relatively affordable price (Burak, 2021). Despite the subsequent release of newer gaming consoles such as PlayStation 4 and PlayStation 5, the PlayStation 2 continues to attract consumer interest, particularly among retro gaming enthusiasts and collectors.

Market data further demonstrate the enduring relevance of the PS2 in the global gaming industry. According to recent industry statistics, the PlayStation 2 has achieved approximately 158 million units in global sales, making it the best-selling gaming console in history (Statista, 2024). The persistent demand for PS2 products in secondary markets and online marketplaces indicates that consumer purchasing decisions regarding retro technology products are influenced not only by functional attributes but also by psychological factors such as nostalgia and emotional attachment (Niu, 2021; Su et al., 2023).

Within online marketplaces such as Tokopedia, the purchasing decision process becomes increasingly complex due to the presence of numerous sellers offering similar products with varying product conditions, prices, and promotional strategies. Consumers are therefore required to evaluate multiple alternatives before selecting a product that best satisfies their expectations. According to consumer behavior theory,

purchasing decisions involve a cognitive evaluation process in which individuals assess available alternatives and select the product that provides the highest perceived value (Schiffman & Wisenblit, 2019).

Product quality is widely recognized as a key determinant influencing consumer purchasing decisions. Product quality reflects the ability of a product to meet consumer expectations and deliver satisfactory performance (Girsang, 2025). In the context of online transactions, perceived product quality becomes particularly important because consumers are unable to directly inspect products prior to purchase. Empirical studies have demonstrated that perceived product quality significantly influences consumer trust and purchase intention within e-commerce environments (Rahman et al., 2021; Chen et al., 2023).

In addition to product quality, promotional strategies also play a crucial role in influencing purchasing decisions. Promotion serves as a marketing communication mechanism aimed at informing, persuading, and reminding consumers about products offered by sellers. Effective promotional activities, such as digital advertising, price discounts, and online marketing campaigns, can enhance product visibility and stimulate consumer purchase intention (Kotler & Keller, 2019). Previous studies in digital marketing have confirmed that promotional exposure significantly influences consumer engagement and purchasing behavior within online marketplaces (Wang et al., 2022; Zhang et al., 2022).

Recent studies have also emphasized the growing importance of digital marketing communication in influencing consumer purchase behavior (Sander & Japutra, 2021). Social media marketing, for instance, has been shown to significantly affect consumers' purchase intentions when combined with product quality and brand communication strategies (Surianto et al., 2024). Furthermore, the increasing presence of digital influencers in online platforms has reshaped consumer engagement and emotional attachment toward marketed products. Research indicates that both human and virtual influencers can strengthen emotional engagement and parasocial interaction with audiences, which ultimately influences consumer attitudes and purchasing behavior in digital environments (Kembau et al., 2024). Similarly, studies on influencer-driven marketing strategies demonstrate that social media promotion and influencer credibility can significantly affect consumers' purchasing decisions in contemporary digital markets. These findings highlight the critical role of digital marketing communication, including promotion strategies and influencer-based marketing, in shaping consumer behavior within online marketplaces.

Although previous research has extensively examined determinants of online purchasing behavior, most studies have focused on contemporary consumer products such as fashion items, smartphones, and general electronic devices. Limited research has specifically explored consumer purchasing decisions related to retro gaming consoles in the context of e-commerce platforms. This gap highlights the need to further investigate the factors influencing consumer behavior toward retro technology products in digital marketplaces. Consumer purchase decisions are not only influenced by product attributes and promotional activities but also by social and environmental factors. Family influence, particularly from parents, can shape consumer perceptions, attitudes, and decision-making processes in consumption behavior (Yulita et al., 2024).

Therefore, this study aims to examine the antecedents of consumer purchasing decisions for retro gaming products, specifically the PlayStation 2, within the Tokopedia marketplace. The novelty of this research lies in its focus on retro gaming consoles as

consumer products that continue to sustain market demand despite rapid technological advancement in the gaming industry. By analyzing the influence of product quality and promotional strategies on purchasing decisions, this study contributes to the literature on consumer behavior in e-commerce environments and provides practical insights for online sellers in developing effective marketing strategies for retro technology products.

Methods

This study employed a quantitative research approach using a survey method to examine the influence of promotion and product quality on purchase decisions. Data were collected through a structured questionnaire distributed to consumers who had experience purchasing the product. Prior to the main data collection, a pre-test was conducted with a small group of respondents to ensure the clarity and appropriateness of the questionnaire items. The indicators used in the questionnaire were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The research variables consisted of promotion, product quality, and purchase decisions. Quantitative survey methods are commonly used to analyze relationships between variables using measurable data obtained from respondents (Creswell, 2018; Sekaran & Bougie, 2016).

The pre-test data were analyzed to evaluate the quality of the research instrument through validity and reliability testing using SPSS software. The validity test was conducted using the Pearson Product Moment correlation method, where an indicator was considered valid if the correlation coefficient (r -count) exceeded the r -table value (0,196) at a significance level of 5%. Meanwhile, reliability testing was performed using Cronbach's Alpha to measure the internal consistency of the instrument. A variable was considered reliable if the Cronbach's Alpha value was greater than 0.60, indicating that the indicators consistently measure the same construct (Hair et al., 2019; Earl Babbie, 2020). After the questionnaire was confirmed to be valid and reliable, the main data collection was conducted involving 100 respondents (rounding up from 98 respondents) selected using purposive sampling.

The data obtained from the respondents were then analyzed using SPSS. Descriptive statistical analysis was first conducted to describe respondent characteristics (by gender and monthly income) and summarize responses to each variable (through each indicators). Prior to hypothesis testing, classical assumption tests were performed, including normality, multicollinearity, and heteroscedasticity tests, to ensure that the regression model met the required statistical assumptions. Finally, multiple linear regression analysis was applied to examine the effect of promotion and product quality on purchase decisions. Hypothesis testing was conducted using the t -test to analyze the partial influence of each independent variable and the F -test to examine the simultaneous effect of the independent variables on purchase decisions, while the coefficient of determination (R^2) was used to measure the explanatory power of the regression model (Field, 2018). Based on the research objectives, the hypotheses proposed in this study are as follows:

- H1: Promotion has a positive and significant effect on purchase decisions.
- H2: Product quality has a positive and significant effect on purchase decisions.
- H3: Promotion and product quality simultaneously have a positive and significant effect on purchase decisions.

Results

Sub 1 Respondent's Profile

The characteristics of respondents in this study are described based on gender and monthly income. Out of the 100 respondents, the majority were men, totalling 77 individuals, while women accounted for 23 individuals. Based on monthly income, most respondents had an income of less than Rp 3,500,000 per month, totalling 59 individuals. Meanwhile, 20 respondents had an income between IDR 3,500,001 and IDR 4,999,999, and 21 respondents had an income of IDR 5,000,000 and above. These results indicate that the respondents in this study come from various income levels, although the largest proportion is in the lower income category. The distribution of respondents based on gender and income is presented in Table X as projected in the following table:

Table 1. Respondent's Characteristic

Gender	Income/month			
	Less than IDR 3.500.000	IDR 3.500.001 - IDR 4.999.999	IDR 5.000.000 and above	
Man	48	14	15	77
Woman	11	6	6	23
	59	20	21	100

Sub 2 Validity and Reliability Test

The variables in this study were operationalized based on several dimensions and indicators adapted from previous marketing and consumer behavior studies. Promotion and product quality variables were measured based on the framework proposed by Kurniawan et al. (2022), while the purchasing decision variable was adapted from the consumer decision-making process described by Hastuti & Anasrulloh (2020).

The promotion variable was measured using two main dimensions. The first dimension is discount promotion, which reflects promotional activities that attract consumer attention, increase interest, and stimulate consumers' desire to purchase products. Discounts are commonly used as a promotional strategy to encourage consumers to make immediate purchase decisions. The second dimension is mass selling, which refers to promotional communication activities that reach a wide audience, such as advertising through social media platforms and other digital channels. These promotional activities are intended to build public awareness and strengthen the relationship between consumers and the seller, thereby supporting higher sales volume.

The product quality variable was measured using several dimensions that represent consumers' perceptions of the overall quality of the product offered. These dimensions include performance, features, reliability, conformance, durability, aesthetics, and perceived quality. These indicators describe the extent to which a product is able to perform its intended function, provide useful features, maintain reliability during use, meet product specifications, demonstrate durability over time, offer appealing visual characteristics, and generate a positive perception of quality among consumers.

Meanwhile, the purchasing decision variable was measured based on the stages of

the consumer decision-making process. This variable consists of five dimensions, namely problem recognition, information search, evaluation of alternatives, purchase decision, and post-purchase behavior. These dimensions describe the process through which consumers identify their needs, search for product-related information, evaluate available alternatives, make the final purchasing decision, and assess their satisfaction after purchasing the product.

Through these dimensions and indicators, each variable in this study can be measured systematically to examine the influence of promotion and product quality on consumer purchasing decisions in the Tokopedia marketplace.

Table 2. Validity Test

Dimension	Indicator	Loadings
Product Quality		
Performance	The product is comfortable to use.	0,506
	The product ensures safety.	0,505
Features	The product follows current trends.	0,442
	The product matches the expected texture.	0,420
Reliability	The product is reliable in various situations.	0,517
	The product is manufactured according to its specifications.	0,417
Conformance	The production process of the product is well guaranteed.	0,565
	The product is made from high-quality materials.	0,517
Durability	The product is durable and long-lasting.	0,470
	The product has various models and designs.	0,570
Aesthetics	The product design is attractive.	0,479
	The product quality is perceived as very good.	0,551
Perceived Quality		
Promotion		
Discount	Discounts attract attention.	0,571
	Discounts have appeal.	0,572
	Discounts stimulate the desire to shop.	0,478
	Discounts encourage consumers to make purchases.	0,663
Mass Selling	Product advertisements attract attention.	0,425
	Producers/management use media or social media for promotion.	0,481
	Producers/management maintain public relations for marketing purposes.	0,445
	The product is available in mass retail stores.	0,366
Purchase Decision		
Need Recognition	Consumers buy the product because they need it.	0,645

	Consumers recognize the product as a necessity.	0,608
Information Search	Consumers search for information about high-quality products.	0,465
Alternative Evaluation	The product becomes one of the options when searching for products that meet consumer needs.	0,566
	The product is considered a quality option among various alternatives.	0,476
Purchase Decision	Consumers decide to buy the product because of its quality.	0,665
	Consumers decide to buy the product because it fits their needs.	0,455
Post-Purchase Behaviour	Consumers intend to repurchase the product in the future.	0,391
	Consumers will recommend the product to others.	0,502

The reliability test was conducted using Cronbach's Alpha to measure the internal consistency of the questionnaire items. A variable is considered reliable if the Cronbach's Alpha value is greater than 0.60. The results show that all research variables have Cronbach's Alpha values above 0.60. Therefore, the questionnaire used in this study has good internal consistency and is considered reliable, as portrayed as table below:

Table 3. Reliability Test

Variable	Cronbach's Alpha	Standard	Result
Product Quality	0,720	> 0.60	Reliable
Promotion	0,683	> 0.60	Reliable
Purchase Decision	0,713	> 0.60	Reliable

Sub 3. Classic Assumption Test

The heteroscedasticity test in this study was conducted using a scatterplot between the standardized predicted values (ZPRED) and the standardized residuals (ZRESID). The purpose of this test is to determine whether the regression model experiences heteroscedasticity or not.

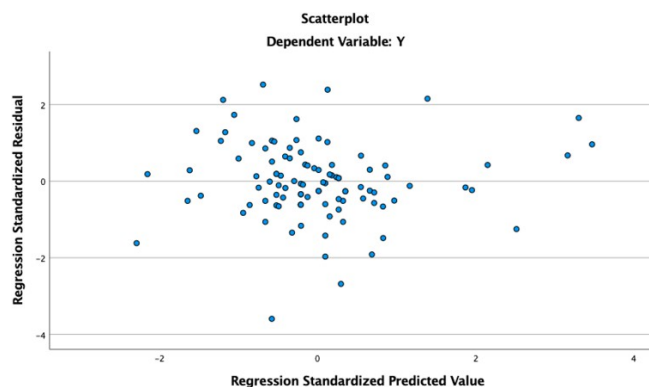


Figure 1. Heterocedasticity Test

Based on the scatterplot shown in Figure 1, the distribution of points appears to spread randomly both above and below the zero line on the Y-axis and does not form a specific pattern such as a funnel, wave, or other systematic shape. The points are also distributed relatively evenly around the center of the graph. Therefore, it can be concluded that the regression model in this study does not indicate the presence of heteroscedasticity. This means that the variance of the residuals is constant, and the regression model meets the assumption of homoscedasticity required for multiple linear regression analysis.

Sub 4. Multiple Linear Regression Analysis.

Table 4. Multicollinearity & T-Test

Coefficients ^a					
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	6.590	3.936		1.674
	X1	.258	.091	.260	2.827
	X2	.685	.135	.466	5.060

a. Dependent Variable: Y

Based on the regression results presented in the Table 4, the regression equation of this study can be formulated as $Y = 6.590 + 0.258X_1 + 0.685X_2$. The constant value of 6.590 indicates that if the promotion (X_1) and product quality (X_2) variables are assumed to be constant or equal to zero, the purchase decision (Y) will have a value of 6.590. The regression coefficient for the promotion variable is 0.258, which means that an increase of one unit in promotion will increase the purchase decision by 0.258 units, assuming other variables remain constant. The significance value for promotion is 0.006, which is less than 0.05, indicating that promotion has a positive and significant effect on purchase decisions.

Meanwhile, the regression coefficient for the product quality variable is 0.685, indicating that an increase of one unit in product quality will increase the purchase decision by 0.685 units, assuming other variables remain constant. The significance value for product quality is 0.000, which is also less than 0.05, meaning that product quality has a positive and significant effect on purchase decisions. In addition, the standardized beta coefficient shows that product quality ($\beta = 0.466$) has a stronger influence on purchase decisions compared to promotion ($\beta = 0.260$), indicating that product quality is the most dominant variable affecting purchase decisions in this study.

Based on the results presented in Table 4, the promotion variable (X_1) has a t-value of 2.827 with a significance value of 0.006, which is less than 0.05. This indicates that promotion has a positive and significant effect on purchase decisions. Therefore, the first hypothesis (H_1), which states that promotion significantly influences purchase decisions, is accepted.

Furthermore, the product quality variable (X_2) shows a t-value of 5.060 with a significance value of 0.000, which is also less than 0.05. This result indicates that

product quality has a positive and significant effect on purchase decisions. Thus, the second hypothesis (H2), which states that product quality significantly affects purchase decisions, is accepted. In addition, the higher t-value of product quality compared to promotion indicates that product quality has a stronger influence on purchase decisions in this study.

Table 5. F-Simoultaneous Test

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	922.129	2	461.064	34.571	.000 ^b
	Residual	1293.661	97	13.337		
	Total	2215.790	99			

a. Dependent Variable: Y

b. Predictors: (Constant), X2, X1

The F-test was conducted to determine whether the independent variables simultaneously influence the dependent variable. Based on Table 5 , the regression model obtained an F value of 34.571 with a significance value of 0.000. The significance value is smaller than the significance level of 0.05, indicating that the regression model is statistically significant.

This result means that the independent variables, namely promotion (X₁) and product quality (X₂), simultaneously have a significant effect on purchase decisions (Y). Therefore, the hypothesis stating that promotion and product quality jointly influence purchase decisions is accepted. This finding indicates that the regression model used in this study is appropriate for explaining the relationship between the independent variables and the dependent variable.

Conclusion

Based on the results of the data analysis, it can be concluded that the findings support Sander & Japutra's study (2021), that promotion and product quality have a significant influence on purchase decisions. The partial test (t-test) shows that promotion has a positive and significant effect on purchase decisions (H₁). This indicates that better promotional activities can increase consumers' interest in making purchase decisions. Furthermore, product quality also has a positive and significant effect on purchase decisions and shows a stronger influence compared to promotion (H₂), which supports the study conducted by Surianto et al., (2024). In addition, the simultaneous test (F-test) shows that promotion and product quality together significantly influence purchase decisions (H₃). Therefore, improving promotional strategies and maintaining product quality are important factors for companies in increasing consumer purchase decisions, especially in digital platform as mentioned by Kembau et al., (2024).

Suggestion

Based on the results of this study, companies are suggested to improve their promotional strategies in order to attract more consumer interest and increase purchase

decisions. Effective and consistent promotional activities can help consumers become more aware of the products offered. In addition, companies should continue to maintain and improve product quality because it has a strong influence on consumer purchase decisions. Future researchers are also suggested to include other variables that may influence purchase decisions in order to obtain more comprehensive research results.

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