

THE INFLUENCE OF PRICE, PRODUCT QUALITY, AND TRANSACTION SECURITY ON CUSTOMER SATISFACTION IN THE TOKOPEDIA APPLICATION IN INDONESIA

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Abstract. *This study aims to analyze the influence of price, product quality, and transaction security on customer satisfaction on the Tokopedia e-commerce platform in Indonesia. Using a quantitative approach with 216 respondents selected through purposive sampling, the findings reveal that all three independent variables positively and significantly affect customer satisfaction. Transaction security is the most dominant factor, followed by product quality and price. The implications of this study highlight the importance of competitive pricing strategies, consistent product quality, and enhanced transaction security systems to improve customer satisfaction. These findings are expected to serve as a reference for developing e-commerce marketing strategies and contribute to the literature on marketing management in Indonesia.*

Keywords: Archives, Application, Cooperative, R&D Method, Waterfall Method.

1. INTRODUCTION

The rapid growth of e-commerce in Indonesia has created significant opportunities while intensifying competition among platforms. Tokopedia, as one of the largest e-commerce platforms in Indonesia, faces challenges in maintaining its position amidst Shopee's dominance, which accounted for more than 50% of the market share in 2023. Tokopedia ranked second with approximately 24% of the market share. In this competitive landscape, factors such as price, product quality, and transaction security are critical elements that influence customer satisfaction, ultimately affecting customer loyalty and the increase in user numbers.

Previous studies indicate that competitive pricing is a key driver of customer satisfaction, as consumers are more likely to feel satisfied when prices are perceived as commensurate with the value received (Kotler, 2016). Additionally, high product quality not only meets customer expectations but also enhances their loyalty to the platform (Zeithaml, 1988). Meanwhile, transaction security is a crucial factor that provides consumers with a sense of safety while shopping online, as highlighted by Pavlou (2003). However, existing research reveals inconsistent findings regarding the impact of each of these factors, as the platform's context and customer characteristics may influence the outcomes.

In Tokopedia's context, it is essential to understand how price, product quality, and transaction security interact to influence customer satisfaction. This understanding is crucial because Tokopedia's growth in a competitive e-commerce market relies heavily on its ability to enhance customer shopping experiences. Furthermore, this study aims

to address existing research gaps, as limited studies have specifically examined the integration of these three factors in shaping customer satisfaction on e-commerce platforms like Tokopedia.

Therefore, this research seeks to provide a deeper understanding of the relationship between price, product quality, and transaction security in influencing customer satisfaction. The findings are expected to contribute not only to the academic literature but also to provide practical recommendations for Tokopedia to enhance its competitiveness, expand its user base, and strengthen its position in the Indonesian e-commerce market.

2. LITERATURE REVIEW

2.1 Customer Satisfaction

Customer satisfaction refers to a state in which the expectations and needs of customers regarding the products or services they receive are met or even exceeded. This concept was first introduced by Oliver (1977), who posited that customer satisfaction arises as a result of a comparison between consumer expectations prior to purchase and the actual experience they have after purchasing and using the product or service. Customer satisfaction is not solely related to products or services that meet expectations but also encompasses the overall feeling of satisfaction from the entire experience, ranging from interaction with the platform, the purchasing process, to after-sales services.

In e-commerce, customer satisfaction is a key element as it is directly linked to customer loyalty and repeat purchases. As demonstrated by Zeithaml (1988), product quality that exceeds expectations can enhance satisfaction and foster trust in the e-commerce platform. High customer satisfaction also has the potential to generate positive word-of-mouth recommendations, which, in turn, can increase the user base and expand market share.

2.2 Price

Price is a key determinant in customer satisfaction, particularly in the context of e-commerce, where consumers can easily compare prices across multiple platforms. Kotler (2016) emphasizes that price serves not only as an indicator of cost but also reflects the value that customers perceive from a product or service. Monroe (1990) further elaborates that customers tend to evaluate price in relation to the perceived value of the product; a price that is considered fair enhances satisfaction and encourages repeat purchases.

In the e-commerce industry, competitive pricing is essential for attracting customers, particularly in a market where consumers are highly price-sensitive due to the availability of alternative options (Cheng et al., 2012). Promotions, discounts, and offers such as free shipping can increase customer satisfaction by making them feel they are receiving more value for their money, thereby fostering a sense of loyalty. Pricing strategies, such as bundling or loyalty programs, also contribute to the perceived value by providing long-term benefits to the customer.

However, it is important to note that the influence of price on customer satisfaction is not always straightforward. While pricing is an important factor, its effect can vary based on the customer's perception of product quality and service delivery. Research by Ritonga and Junaidi (2022) suggests that in some cases, other factors such as product quality or customer service may outweigh the importance of price in determining overall satisfaction.

In conclusion, while price remains a crucial element of customer satisfaction, it must be viewed in conjunction with other factors such as product quality, customer service, and the overall shopping experience. A balanced approach that considers all these elements will lead to enhanced customer satisfaction and long-term loyalty in the competitive e-commerce marketplace.

H1: Price has a significant positive effect on Customer Satisfaction on the Tokopedia Application in Indonesia.

2.3 Quality Product

Product quality is a crucial factor in determining customer satisfaction, especially in the e-commerce industry. As Zeithaml (1988) explains, customers are more likely to be satisfied when the quality of the product meets or exceeds their expectations. Oliver (1977) also emphasizes that customer satisfaction arises from the comparison between the expected and actual quality of a product, with higher product quality leading to greater satisfaction.

In e-commerce platforms like Tokopedia, product quality is a critical factor for building trust and encouraging repeat purchases. Zehir et al. (2020) suggest that when customers perceive high-quality products, their trust in the platform increases, which strengthens customer loyalty and satisfaction. This is particularly important in Tokopedia's marketplace, where product reviews and ratings play a significant role in shaping consumer perceptions.

In the competitive e-commerce landscape of Indonesia, Tokopedia must maintain consistent product quality to stay ahead. As Zhou and Jiang (2021) state, when consumers are presented with multiple alternatives, the perceived quality of a product becomes a key differentiator. Tokopedia's emphasis on authentic products through its Tokopedia Official Store feature reflects the platform's commitment to ensuring product quality and satisfying customer expectations (Nugroho, 2019).

In summary, maintaining high product quality not only enhances customer satisfaction but also fosters long-term loyalty and trust, both of which are essential for the continued success of Tokopedia in the competitive e-commerce market.

H2: Product Quality has a significant positive effect on Customer Satisfaction on the Tokopedia Application in Indonesia.

2.4 Transaction Security

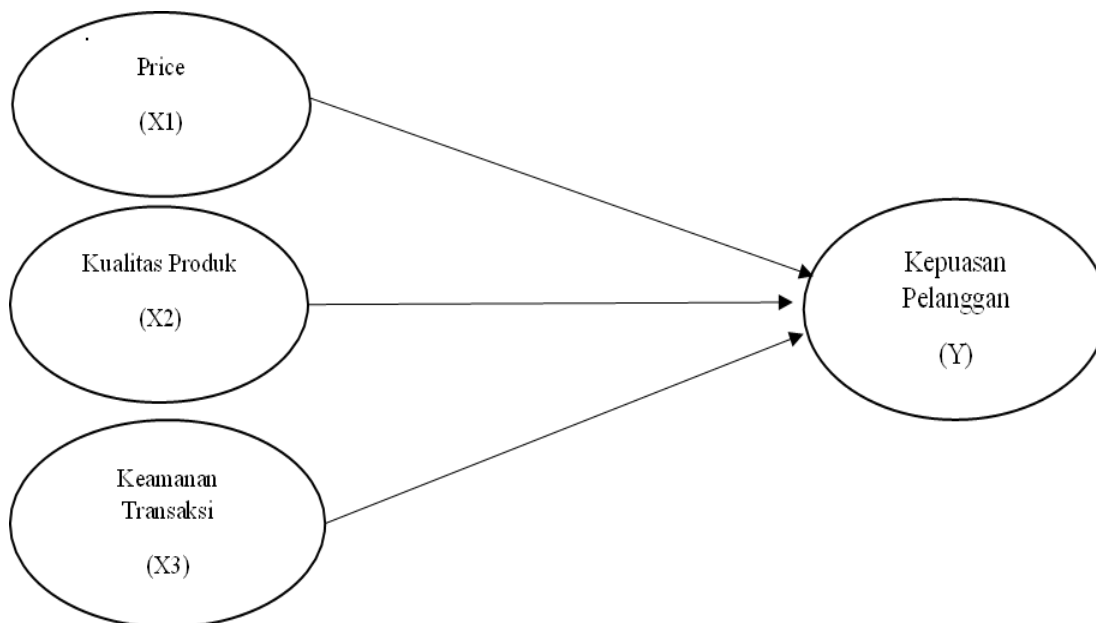
Transaction security is a critical factor that influences customer satisfaction in e-commerce, particularly due to the increasing concerns over online fraud and data breaches. Pavlou (2003) emphasizes that consumer trust in e-commerce platforms is heavily influenced by the perceived security of transactions, including the protection of personal and financial information. When customers feel secure during transactions, they are more likely to engage in repeat purchases and recommend the platform to others.

In the context of Tokopedia, ensuring a secure transaction environment is essential for building customer confidence. Huang (2013) highlights that effective security measures can reassure customers, making them more likely to complete their purchases and become loyal users. Tokopedia has implemented various security protocols, such as encrypted payment systems and fraud detection mechanisms, to protect users and maintain trust.

Furthermore, Cheng et al. (2012) suggest that in e-commerce platforms offering a wide range of products, customers are especially sensitive to transaction security. They expect a seamless and safe shopping experience, and any compromise on security can significantly impact satisfaction levels. By investing in robust security infrastructure and transparent transaction processes, Tokopedia can further enhance customer satisfaction and foster long-term loyalty.

H3: Transaction Security Quality has a significant positive effect on Customer Satisfaction on the Tokopedia Application in Indonesia.

3. FRAMEWORK



4. RESEARCH METHODS

This research was conducted in Indonesia with the aim of analyzing the influence of Price, Product Quality, and Transaction Security on Customer Satisfaction on the Tokopedia application by its users. The research was carried out from October to December, with fieldwork conducted from November 18 to December 10. The timing was chosen due to the increase in the use of e-commerce.

Respondents

The respondents involved in the study were Tokopedia users in Indonesia who had made at least one transaction on the platform. The inclusion criteria for participants were: (1) age 18 and above, (2) regular users of Tokopedia, and (3) individuals who have experienced purchasing products through the application. This criterion was chosen to ensure the data collected would reflect the experiences of active Tokopedia users, thus providing relevant and accurate insights for the research.

Data collection Method

The data collection was performed using a quantitative approach through surveys administered to Tokopedia users. The primary instrument for data collection was a structured questionnaire, which was chosen because it allows for the collection of consistent, measurable data across a large number of respondents. Questionnaires are effective in gathering information on attitudes, behaviors, and opinions from a sizable sample, which is essential in addressing the research objectives.

The Likert scale ranging from 1 to 4 was used in the questionnaire to measure respondents' attitudes towards price, product quality, and transaction security. The scale provided a clear and easy-to-understand method for respondents to evaluate their experiences. Compared to other methods, the questionnaire was chosen because it enables efficient data collection and is less time-consuming, while still providing reliable results that can be easily analyzed statistically.

Data Analysis

Data analysis was conducted using SPSS software version 26.0. The analysis covered several tests, including reliability and validity tests, multicollinearity, normality,

simple linear regression, heteroscedasticity, coefficient of determination (R²), and t-tests. The following steps were followed in the data analysis process:

1. Reliability Test: The Cronbach's Alpha test was used to assess the internal consistency of the questionnaire, with a value above 0.6 indicating reliable data.
2. Validity Test: The Kaiser-Meyer-Olkin (KMO) test and Bartlett's Test of Sphericity were used to ensure the validity of the instrument. A KMO value greater than 0.50 was considered acceptable for further analysis.
3. Multicollinearity Test: Variance Inflation Factor (VIF) and Tolerance (TOL) values were examined to detect any correlations between independent variables. A VIF value lower than 10 and TOL higher than 0.1 indicated no multicollinearity issues.
4. Normality Test: Kolmogorov-Smirnov was used to assess the normality of the data, where a significance value greater than 0.05 indicated normal distribution.
5. Simple Linear Regression: A regression model was used to examine the relationship between price, product quality, transaction security, and customer satisfaction.
6. Heteroscedasticity Test: The Glejser test was used to detect any unequal variance of residuals, ensuring the model's reliability.
7. Coefficient of Determination (R²): This test was used to assess how well the independent variables explained the variation in the dependent variable. A value closer to 1 indicates a stronger relationship between the independent and dependent variables.
8. t-test: A t-test was used to determine the significance of each independent variable on customer satisfaction, with a significance level of 0.05.

Each step in the analysis process was designed to ensure the accuracy and reliability of the results, enabling the researcher to draw valid conclusions regarding the impact of price, product quality, and transaction security on customer satisfaction in the Tokopedia application.

This method was selected because of its ability to handle large datasets, ensuring robust results that are representative of the wider population of Tokopedia users.

4. RESULTS AND DISCUSSION

The t-test is used to determine whether the independent variables have a statistically significant influence on the dependent variable. The significance value in the Coefficients table will indicate whether the independent variables—Price, Product Quality, and Transaction Security—have a partial influence on the dependent variable, Customer Satisfaction. This study employs a 95% confidence level or a significance level of 5% ($\alpha = 0.05$).

Table 1. Coefficients

Model	<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	0,862	0,030		1,441	0.151
Harga	0,217	0,050	0,246	4,316	0,000
Kualitas Produk	0,299	0.053	0,286	5,641	0,000
Keamanan Transaksi	0,429	0,054	0,436	7,941	0,000

(Source: SPSS Processed Data, 2024)

It is known that the positive significance value for the Price variable is t calculated

4.316 > t table 1.652, followed by the positive significance value for the Product Quality variable with t calculated 5.641 > t table 1.652. For the Transaction Security variable, the positive significance value is t calculated 7.941 > t table 1.652. This indicates that the Price, Product Quality, and Transaction Security variables have a positive significant effect on Customer Satisfaction.

The coefficient of determination (R^2) test shows the model's ability to explain variations in the independent variable. The coefficient of determination ranges between zero and one. The smaller the value of R^2 , the smaller the ability of the independent variable to explain the dependent variable. In multiple linear regression analysis, the Adjusted R^2 value is used to determine the fit of the model.

Table 2. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.878 ^a	0.770	0.767	1.750

(Source: SPSS Processed Data, 2024)

Based on the results of the table test 3.12 above, it is known that the Adjusted R Squared value is 0.767, which concludes that the contribution of the independent variables to the dependent variable simultaneously is 76.7%. This means that in this study, it is known that the variables of Price, Product Quality, and Transaction Security have an impact on Customer Satisfaction, with the remaining influence being attributed to other variables not included in this study.

CONCLUSION

The hypothesis testing results show that price, product quality, and transaction security have a significant effect on customer satisfaction. Price that aligns with customer expectations positively impacts satisfaction, with a coefficient of 0.217 and a t-value of 4.316 ($p < 0.05$). This supports the value perception theory, which suggests that competitive pricing enhances customer satisfaction, as demonstrated by Qomariah (2020) and Cheng et al. (2012).

Additionally, product quality significantly influences customer satisfaction, with a coefficient of 0.299 and a t-value of 5.641 ($p < 0.05$). This finding supports the idea that consistent product quality that meets customer expectations increases satisfaction, which is consistent with research by Zehir et al. (2020) and Afrina and Hastuti (2022). Guaranteed product quality on platforms like Tokopedia builds trust and enhances customer loyalty.

Transaction security is the most influential variable on customer satisfaction, with a coefficient of 0.429 and a t-value of 7.941 ($p < 0.05$). Security features like data encryption and two-factor authentication offered by e-commerce platforms such as Tokopedia provide comfort and enhance customer trust. Research by Yamawati (2023) and Hardas et al. (2022) supports this, showing that strong transaction security significantly improves customer satisfaction and loyalty.

REFERENCES

- Afrina, A., & Hastuti, Y. (2022). Pengaruh kualitas produk, citra merek, dan persepsi harga terhadap kepuasan pelanggan. *Seiko: Journal of Management & Business*, 5(1), 247–256.
- Al-Dmour, H., Al-Madadha, A., & Masadeh, R. (2020). The impact of product quality on customer satisfaction and loyalty: An empirical study of Jordanian mobile phone market. *International Journal of Business and Management*, 15(7), 62–76.
- Alvianna, S., Husnita, I., Hidayatullah, S., Lasarudin, A., & Estikowati, E. (2021). Pengaruh harga dan kualitas pelayanan terhadap kepuasan pelanggan Panderman Coffee Shop di masa pandemi COVID-19. *Journal of Management and Business Review*, 18(2), 380–392.
- Cheng, T. C. E., Yip, F. K., & Yeung, A. C. L. (2012). Supply risk management via Guanxi in the

- Chinese business context: The buyer's perspective. *International Journal of Production Economics*, 139(1), 3–13.
- Gita, N., & Khaira, Y. (2023). Pengaruh kualitas produk terhadap kepuasan pelanggan: Studi kasus pada merek X. *Jurnal Ekonomi dan Bisnis*, 10(2), 112–123.
- Hardas, M., Mathur, S., & Bhaskar, A. (2022). Detecting diabetic retinopathy in fundus images using combined enhanced green and value planes (CEGVP) with k-NN. *International Journal of Advanced Computer Science and Applications*, 13(1).*
- Huang, Z., & Benyoucef, M. (2013). User behavior in social e-commerce: A literature review. *Computers in Human Behavior*, 30, 82–90.
- I Made Laut Mertha Jaya. (2020). *Metode penelitian kuantitatif dan kualitatif; teori, penerapan, dan riset nyata*.
- Kotler, P., & Keller, K. L. (2016). *Marketing management* (15th ed.). Pearson.
- Laudon, K. C., & Traver, C. G. (2021). *E-commerce: Business, technology, society*. Pearson.
- Monroe, K. B. (1990). *Pricing: Making profitable decisions*. McGraw-Hill.
- Mutrofin, K., Mutrofin, M., Muhammad, A. N., Muhammad, M., & Mahmud, M. M. (2021). Peran UMKM dalam mempertahankan ekonomi Jawa Timur selama pandemi COVID-19. *Jurnal Manajemen*, 1. Cetak. <https://jurnal.stiedarulfalahmojokerto.ac.id/index.php/jurnal-el-idhara>.
- Nasution, M. (2019). Analisis pengaruh kualitas produk terhadap kepuasan pelanggan dan loyalitas pelanggan. *Jurnal Administrasi Bisnis*, 37(1), 175–185.
- Ni Kd Sioaji Yamawati, I. Gde Agung Wira Pertama, & I. P. (2023). Analysis of factors affecting customer satisfaction in online marketplace: Service quality, platform usability, and transaction security. *International Journal of Multidisciplinary Research and Publications*, 5(12), 190–192.
- Nugroho, A., & Alamsyah, M. (2019). The impact of e-commerce technology on small and medium enterprises in Indonesia. *International Journal of Economics and Financial Issues*, 9(1), 23–30.
- Oliver, R. L. (1977). *Satisfaction: A behavioral perspective on the consumer*. McGraw-Hill.
- Pavlou, P. A. (2003). Mediation of seller attributes in electronic marketplaces. *Journal of Business Research*, 56(12), 989–998.
- Qomariah, N. (2020). Pengaruh harga, kualitas pelayanan, dan citra merek terhadap kepuasan pelanggan. *Jurnal Manajemen*, 8(2), 115–123.
- Ritonga, H., & Junaidi, J. (2022). Analisis pengaruh harga dan kualitas produk terhadap kepuasan pelanggan di toko retail. *Jurnal Ekonomi dan Bisnis*, 12(1), 45–53.
- Rizan, M., & Nauli, M. O. (2017). The influence of brand image, price, product quality, and perceived risk on purchase decision of transformer product PT. Schneider Indonesia. *Jurnal Riset Manajemen Sains Indonesia (JRMSI)*, 8(1), 2301–8313.
- Sahir, M. (2021). *Metodologi penelitian kuantitatif: Konsep dan aplikasi*. Yogyakarta: Deepublish.
- Salisu, Y., & Abdulkadir, I. (2020). The impact of perceived security on user trust and loyalty in online shopping platforms: Evidence from developing countries. *Journal of Internet Commerce*, 19(3), 240–257.
- Winarno, M. E. (2013). *Metode penelitian dalam pendidikan jasmani*. Malang: Media Cakrawala Utama Press.
- Zakariya, A., & Hariyanto, U. E. (2015). Pengaruh latihan kelincahan dan kelentukan terhadap keterampilan dribbling sepakbola SSB PAS-ITN Kabupaten Malang.