

Consequences of Online Shopping Attributes on E-Commerce Customers

Consequences of
Online Shopping

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ABSTRACT

This study aims to analyze the influence of online shopping attributes, namely Information Quality, Privacy, Perceived Security, Product Variety, and Product Delivery on Customer Satisfaction and Customer Loyalty in Indonesian e-commerce. With a quantitative approach, data were collected through a survey of e-commerce users to evaluate the relationship between these attributes and Customer Satisfaction and Customer Loyalty. Sampling was conducted by targeting the population of active e-commerce users in Indonesia, totaling 270 respondents. The results of the analysis show that three of all attributes (Privacy, Perceived Security, and Product Variety) have a significant positive influence on Customer Satisfaction, which in turn increases Customer Loyalty. Good privacy and a high level of security are key factors in creating Customer Satisfaction. In addition, complete and clear Product Variety information has also proven to be important in improving the shopping experience. This article discusses how each attribute can be optimized to increase Customer Satisfaction and Customer Loyalty in the context of intense competition in the e-commerce industry. These findings provide valuable insights for e-commerce managers in designing more effective marketing strategies to increase competitiveness in the market.

Keywords: Online Shopping, Satisfaction, Customers, Loyalty, Privacy, Security, Product Variety

ABSTRAK

Penelitian ini bertujuan untuk menganalisis pengaruh atribut belanja online, yaitu Information Quality, Privacy, Perceived Security, Product Variety, dan Product Delivery terhadap Customer Satisfaction dan Customer Loyalty di e-commerce Indonesia. Dengan pendekatan kuantitatif, data dikumpulkan melalui survei kepada pengguna e-commerce untuk mengevaluasi hubungan antara atribut tersebut dan Customer Satisfaction serta Customer Loyalty. Sampling dilakukan dengan menargetkan populasi pengguna e-commerce yang aktif di Indonesia, berjumlah 270 responden. Hasil analisis menunjukkan bahwa tiga dari seluruh atribut (Privacy, Perceived Security, dan Product Variety) memiliki pengaruh positif signifikan terhadap Customer Satisfaction, yang pada gilirannya meningkatkan Customer Loyalty. Privacy yang baik dan tingkat keamanan yang tinggi menjadi faktor kunci dalam menciptakan Customer Satisfaction. Selain itu, Product Variety yang lengkap dan jelas informasinya juga terbukti penting dalam meningkatkan pengalaman belanja. Artikel ini membahas bagaimana masing-masing atribut

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dapat dioptimalkan untuk meningkatkan Customer Satisfaction dan Customer Loyalty dalam konteks persaingan yang ketat di industri e-commerce. Temuan ini memberikan wawasan berharga bagi manajer e-commerce dalam merancang strategi pemasaran yang lebih efektif untuk meningkatkan daya saing di pasar.

Kata kunci: *Belanja Online, Kepuasan, Pelanggan, Loyalitas, Privasi, Keamanan, Variasi Produk*

INTRODUCTION

The development of digital technology and the internet has changed the landscape of the retail industry in Indonesia, making e-commerce an increasingly popular shopping channel. Indonesia is ranked 8th in global e-commerce revenue in 2023, with a total reaching USD 72.8 billion (Santika, 2024). This growth is driven by several main factors, including the expansion of internet access to various regions, the increasing use of smartphones among the public, and changes in consumer behavior who are increasingly fond of online shopping (Zhulal et al., 2023; Habibie et al., 2024). The combination of these factors has created a digital ecosystem that supports the significant growth of the e-commerce sector in Indonesia in recent years.

The COVID-19 pandemic has accelerated the shift in consumer spending to e-commerce platforms (Guthrie et al., 2021; Nanda et al., 2021). E-commerce platforms are the main choice in meeting daily needs. Although it offers convenience, online shopping raises several concerns for users, especially regarding the quality of information, privacy, perceived security, product variety, and product delivery. Research shows that these attributes have a significant influence on customer satisfaction and loyalty. Clear and accurate information quality, personal data security, and a comfortable shopping experience are important factors in influencing customer perceptions of a platform (Tzavlopoulos et al., 2019; Rahmawati & Ramli, 2024). In addition, a complete product variety and on-time delivery also increase satisfaction. Therefore, companies must focus on improving these aspects to create a satisfying and safe shopping experience. This digital transformation requires companies to adapt and innovate in order to maintain customer satisfaction and loyalty amidst the fierce competition in the ever-growing digital era (Yadav et al., 2024).

Good Perceived Security plays an important role in providing a sense of security to consumers, thus encouraging them to make purchasing decisions with confidence (Prayuti, 2023). In addition, Complete Product Variety contributes significantly to improving the consumer shopping experience, providing a wide and diverse selection of products to meet consumer needs and preferences as a whole (Safrin & Simanjourang, 2023; Reynaldi & Nuvriasari, 2024). This study aims to analyze the effect of various online shopping attributes, such as perceived security and product diversity, on Customer Satisfaction and Customer Loyalty in the context of e-commerce in Indonesia. With increasing competition in the e-commerce industry, an in-depth understanding of the factors that influence customer satisfaction and loyalty is becoming increasingly important. The results of this study are expected to provide strategic insights for e-commerce industry players to design an optimal shopping experience. The recommendations generated will help improve customer experience, which can ultimately strengthen the competitiveness and sustainability of e-commerce businesses in Indonesia.

LITERATURE REVIEW

Information quality is defined as how well information meets the expectations of its users. Tzeng et al. (2020); Amarin & Wijaksana (2021), emphasize that the completeness of information is crucial for customers in their purchase decision-making, particularly in online shopping. High-quality information helps reduce uncertainty and the risks that consumers may encounter when making purchase decisions. By offering detailed, clear,

and accurate information, sellers can build trust with customers, which encourages them to complete purchases. This ultimately leads to a safer and more satisfying shopping experience. As online shopping continues to grow, ensuring that consumers have access to reliable and comprehensive information becomes increasingly important for retailers. Clear product descriptions, reviews, and transparent policies are vital in establishing a sense of security for buyers. Quality information not only enhances customer trust but also plays a key role in fostering positive customer experiences and increasing loyalty. In turn, this contributes to higher sales and improved long-term relationships between sellers and customers

Privacy is a crucial issue in e-commerce, where concerns about the use of personal data can influence consumer decisions to transact (Gogus & Saygin, 2019). Kassim & Abdullah (2008) stated that consumer data protection is very important to build customer trust and loyalty. Data security is a crucial factor in shaping positive consumer perceptions of online platforms. This creates a sense of security that can encourage consumers to be more active in shopping online. Mofokeng (2021) also showed that transaction security plays an important role in reducing the risk of fraud and increasing consumer trust. When consumers feel safe in making transactions, they are more likely to continue their relationship with the platform or service. Therefore, the security aspect not only protects personal data but also strengthens a better relationship between users and service providers.

Product variety refers to the variety of product choices available to customers. Broniarczyk (2018), states that the right product variety can increase customer satisfaction by providing options that suit their needs. With a wider variety, customers feel they have more control in choosing the most suitable product, thus creating a more satisfying and personal shopping experience. Product Delivery is the process of sending goods to customers that greatly affects their satisfaction. According to Rita et al. (2019), fast and accurate delivery is a key element in meeting customer expectations. Research by Dixon et al. (2019), revealed that delivery speed is one of the main factors influencing consumer purchasing decisions. Customers tend to choose services or products with guaranteed efficient delivery. Therefore, optimization of the delivery system, such as technology integration and good logistics management, is very important to improve customer experience and competitiveness in the market.

Customer Satisfaction is the customer's overall evaluation of their shopping experience. Sunarya & Jamaludin (2022); Sutriani et al. (2024), emphasize that customer satisfaction is the result of cumulative interactions that occur during the purchasing process, including positive experiences that affect their perception of the product or service. Meanwhile, Customer Loyalty is defined as consumer loyalty to a particular brand or product. Kotler & Keller (2016), explain that loyalty can be divided into several categories based on the level of consumer loyalty. This loyalty includes aspects such as repeat purchases, brand preferences, and influence on other consumer purchasing decisions, which indicate a long-term relationship between customers and the brands they choose. This study examines the relationship between product and service attributes on Customer Satisfaction and Customer Loyalty. These findings provide important insights for e-commerce players in Indonesia to develop more effective marketing strategies, increase customer satisfaction, and build loyalty. By understanding the impact of these attributes, companies can optimize services to achieve competitive advantage in an increasingly growing market (Buhalis & Sinarta, 2019).

H1: Information Quality has a positive effect on Customer Satisfaction

H2: Privacy has a positive effect on Customer Satisfaction.

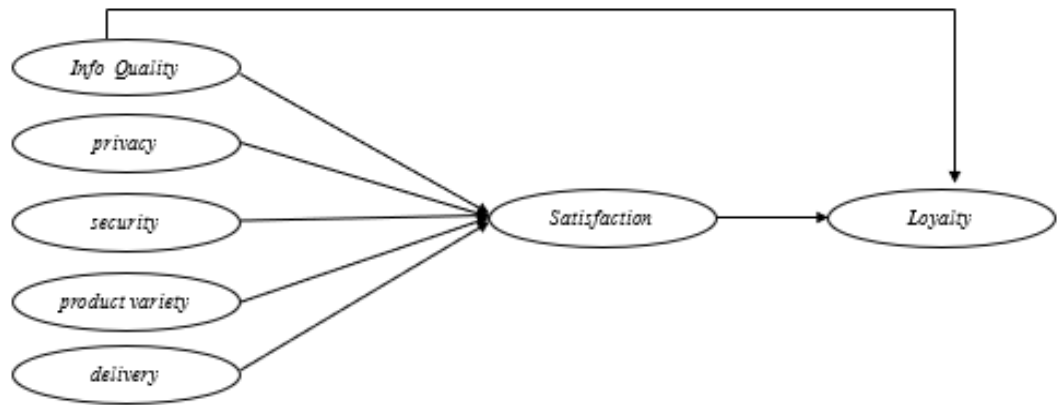
H3: Perceived Security has a positive effect on Customer Satisfaction.

H4: Product Variety has a positive effect on Customer Satisfaction.

H5: Product Delivery has a positive effect on Customer Satisfaction

H6: Information Quality has a positive effect on Customer Loyalty.

H7: Customer Satisfaction has a positive effect on Customer Loyalty.



Source: Mofokeng, 2021

Figure 1. Research Framework

METHODS

This study uses a quantitative approach to analyze the influence of online shopping attributes on Customer Satisfaction and Customer Loyalty in Indonesian e-commerce (Sugiyono, 2017). Sampling was conducted by targeting the population of active e-commerce users in Indonesia totaling 270 respondents. The unit of analysis was individuals, and respondents were selected randomly with varying demographic backgrounds to ensure representativeness. Data were collected through an online survey using a specially designed questionnaire. This questionnaire consists of closed-ended questions to measure respondents' perceptions of five online shopping attributes, namely Information Quality, Privacy, Perceived Security, Product Variety, and Product Delivery. In addition, the questionnaire also measures the level of Customer Satisfaction and Customer Loyalty using a Likert scale of 1-5. Before being distributed to a wider group of respondents, the questionnaire was tested on a small group of respondents to ensure clarity and consistency of the questions. Measurement of variables in this study was carried out using instruments that have been proven valid and reliable in previous studies. The collected data were then analyzed using Structural Equation Model (SEM) which includes descriptive statistical techniques and hypothesis testing to test the relationship between variables. With this method, this study aims to provide in-depth insights into the relationship between online shopping attributes and customer satisfaction and loyalty in the Indonesian e-commerce sector, while contributing to the development of marketing strategies and improvements to e-commerce platforms in the future.

RESULTS

This section presents the statistical findings of the study, including descriptive analysis and hypothesis testing. The collected data were analyzed to evaluate the relationship between online shopping attributes (Information Quality, Privacy, Perceived Security, Product Variety, and Product Delivery) and their impact on Customer Satisfaction and Customer Loyalty. Descriptive statistics were first used to summarize the demographic characteristics of the respondents. A total of 270 respondents participated in the survey, with a gender distribution of 55.6% female and 44.4% male. The age range of the respondents varied, where 22.2% were between 18-22 years old, 37% between 23-29 years old, 30.4% between 30-34 years old, and 7.8% for 35-49 years old. In addition, 29.3% of respondents set a monthly spending budget of IDR 2,000,001 - IDR 3,000,000 per month.

Table 1. Descriptive Statistics

Variable	Mean	Desviación estándar
Information Quality	3.75	1.19
Privacy	3.68	1.24
Perceived Security	3.43	1.28
Product Variety	3.49	1.25
Product Delivery	3.56	1.27
Customer Satisfaction	3.57	1.23
Customer Loyalty	3.55	1.25

Source: Data processed using AMOS 22

Hypothesis testing is conducted to determine whether there is a positive and significant relationship between the variables used in this study. Decision making in hypothesis testing is based on two main criteria. First, the comparison of the p-value with the alpha value (significance level): if the p-value ≤ 0.05 , then H_0 is rejected, which indicates a significant relationship and it is concluded that the hypothesis is supported; conversely, if the p-value > 0.05 , then H_0 is accepted, which means there is no significant relationship, so the hypothesis is not supported. Second, the analysis of the estimate value to determine the direction of influence: if the estimate value is positive (+), then the variable has a positive influence, so the hypothesis is supported, while if the estimate value is negative (-), then the variable has a negative influence, so the hypothesis is not supported.

Table 2. Hypothesis testing results

Hypothesis	Estimate	P-value	Decision
Information Quality has a positive effect on Customer Satisfaction.	0.106	0.712	H1 Rejected
Privacy has a positive effect on Customer Satisfaction.	0.379	0,088	H2 Accepted
Perceived Security has a positive effect on Customer Satisfaction.	0,144	0,064	H3 Accepted
Product Variety has a positive effect on Customer Satisfaction.	0.413	0.000	H4 Accepted
Product Delivery has a positive effect on Customer Satisfaction.	0.19	0.801	H5 Rejected
Information Quality has a positive effect on Customer Loyalty.	0.501	0.001	H6 Accepted
Customer Satisfaction has a positive effect on Customer Loyalty.	0.482	0.000	H7 Accepted

The results show that three of the five attributes have a positive and significant effect on Customer Satisfaction. Then the results of this hypothesis test also show that Information Quality has a positive and significant effect on Customer Loyalty and Customer Satisfaction has a positive and significant effect on Customer Loyalty. For hypothesis 1 Information Quality does not have a positive and significant effect on Customer Satisfaction because it is suspected that there is a moderating role of Overall Perceived Service Quality where to determine the level of consumer satisfaction it is not enough to rely on information quality alone. This shows that although the quality of information provided by e-commerce websites is quite good, other factors such as Overall Perceived Service Quality can affect Customer Satisfaction (Phuong & Trang, 2018; Nguyen & Nagase, 2019). Meanwhile, for hypothesis 5, Product Delivery does not have a positive and significant effect on Customer Satisfaction, this is suspected because the current phenomenon shows that good Product Delivery, although important, is often considered a basic expectation by e-commerce consumers.

With more and more e-commerce platforms offering fast, on-time delivery, and good packaging as standard services, consumers tend not to see these aspects as sufficient factors to significantly influence their satisfaction. In conclusion, these findings emphasize the importance of improving Privacy, Perceived Security, and Product Variety to increase Customer Satisfaction and ultimately drive Customer Loyalty in the context of e-commerce. The results of this study also highlight important things for further investigation regarding Information Quality and Product Delivery in relation to customer satisfaction.

In this study, the findings regarding the influence of online shopping attributes on Customer Satisfaction and Customer Loyalty show significant results and are consistent with previous studies. The results of the analysis show that three of all the attributes studied (Privacy, Perceived Security, and Product Variety) have a positive influence on Customer Satisfaction. This finding is in line with research by Tran (2020) and Mofokeng (2021), which states that these three attributes are very influential in shaping consumer shopping experiences. In particular, Perceived Security is proven to have the strongest influence on Customer Satisfaction. This shows the importance of comprehensive data security and protection in increasing customer satisfaction. Research by Wai et al. (2019); Mahliza (2020); Mofokeng (2021), emphasizes that security in online transactions is one of the main factors influencing purchasing decisions. Thus, e-commerce companies need to focus on improving security, especially customer data, to meet customer expectations (Susanti et al., 2022).

In addition, it was found that Information Quality did not have a positive and significant effect on Customer Satisfaction because it was suspected that there was a moderating role of Overall Perceived Service Quality where to determine the level of consumer satisfaction it was not enough to rely on information quality alone. Respondents argued that although the information provided by the e-commerce website was relevant to needs, easy to understand, consistent, enjoyable, and provided the latest information, it did not directly increase their level of satisfaction with e-commerce services. This shows that although the quality of information provided by the e-commerce website is quite good, other factors such as Overall Perceived Service Quality (Phuong & Trang, 2018). The results of this study indicate that Product Delivery does not have a positive and significant influence on Customer Satisfaction. Respondents argued that although the product was delivered on time, received according to order, packaged well, and the shipping method was adequate, it did not directly increase their level of satisfaction with e-commerce services. This is suspected because the current phenomenon shows that good Product Delivery, although important, is often considered a "basic expectation" by e-commerce consumers. With more and more e-commerce platforms offering fast, on-time delivery and good packaging as standard service, consumers are less likely to see these aspects as factors enough to significantly impact their satisfaction.

CONCLUSION

The results of this study identify and analyze the influence of online shopping attributes, namely Information Quality, Privacy, Perceived Security, Product Variety, and Product Delivery on Customer Satisfaction and Customer Loyalty in the context of e-commerce in Indonesia. The results of the analysis show that three of the five attributes studied (Privacy, Perceived Security, and Product Variety) have a positive and significant effect on Customer Satisfaction which then has an impact on increasing Customer Loyalty. This finding is in line with previous studies that emphasize the importance of Perceived Security and even Product Variety in improving consumer shopping experience. However, this study also found 2 negative correlations, including: Information Quality does not have a positive and significant effect on Customer Satisfaction, where respondents assume that although the information provided by the e-commerce website is relevant to their needs, easy to understand, consistent, enjoyable, and provides the latest information, it does not directly increase their level of satisfaction with e-commerce services. And Product Delivery does not have a positive and significant influence on Customer Satisfaction, where Respondents assume that even though the product is delivered on time, received according to order, well packaged, and the shipping method is adequate, it does not directly increase their level of satisfaction with e-commerce services. The limitations of this study include the use of samples that are too generalized to e-commerce users in Indonesia, so the results may not be generalized to a more specific context or to a particular e-commerce.

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