

Research Result Articles

## Effect of Product Quality, Service Quality, Application Quality, and Familiarity on Trust in E-commerce and Purchase Intention

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### ABSTRACT

This study investigates the effects of product quality, service quality, application quality, and familiarity on consumer trust in e-commerce, and their subsequent impact on purchase intention. Using a quantitative survey of 305 Shopee users in Indonesia, the data were analyzed with Structural Equation Modeling (SEM-AMOS). Hypothesis testing revealed mixed results: product quality (H1) showed a positive but insignificant effect on trust, indicating that inconsistent product reliability reduces its role in fostering trust. In contrast, service quality (H2), familiarity (H3), and application quality (H4) were found to have significant positive effects on trust, emphasizing the importance of responsiveness, brand experience, and application usability in shaping consumer confidence. Furthermore, trust (H5) significantly and positively influenced purchase intention, confirming its role as a key mediating factor in online buying decisions. These findings highlight that while product quality remains essential, it is the combination of reliable service, user-friendly applications, and platform familiarity that most strongly strengthens e-commerce trust and increases purchase intention.

**Keywords:** trust, e-commerce, purchase intention, service quality, application quality, familiarity

### INTRODUCTION

The growth of digital technology, particularly the Internet and smartphones, has transformed shopping behavior in Indonesia. E-commerce is now widely adopted for its convenience and accessibility (Molla and Licker, 2001; Suharto *et al.*, 2022). However, online shopping also brings challenges such as inconsistent product quality, fraud, and data security risks, making consumer trust essential for successful transactions (Wang *et al.*, 2022).

Previous research has examined factors influencing trust and purchase intention, but results remain inconsistent. Some studies argue that product quality is the key determinant of trust (Diputra and Yasa, 2021), while others emphasize service quality, application quality,

and familiarity (Mittendorf, 2018). These differences highlight a research gap, especially in the Indonesian e-commerce context (Mayayise, 2024).

Shopee was chosen as the research object because it is one of the most popular platforms in Indonesia. Since its launch in 2015, Shopee has grown rapidly through aggressive marketing and user-friendly features (Olsina and Lew, 2018). Despite this success, Shopee still faces challenges in maintaining consumer trust amid strong competition. The motivation of this study is the increasing reliance of young Indonesian consumers on e-commerce. Identifying which factors most strongly build trust is important for enhancing consumer engagement, encouraging loyalty, and ensuring sustainable platform growth (Mahmud *et al.*, 2024).

This study focuses on four independent variables: product quality, service quality, application quality, and familiarity and their effect on trust in e-commerce. It also examines the role of trust as a mediating factor influencing purchase intention. Together, these relationships provide a clearer picture of consumer behavior in online shopping (Mahliza, 2020). The purpose of this research is to analyze the influence of product quality, service quality, application quality, and familiarity on trust, and to examine the effect of trust on purchase intention. The findings are expected to contribute to academic literature while also offering practical insights for e-commerce managers in strengthening consumer trust and purchase intention (Dabbous, Barakat and Sayegh, 2020).

## LITERATURE REVIEW AND HYPOTHESIS

### Theoretical Foundation

#### Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) is a framework that explains how individuals accept and use new technologies. The model emphasizes two main constructs—perceived usefulness and perceived ease of use that influence users' attitudes, trust, and behavioral intention. In the context of e-commerce, TAM has been widely applied to explain how service quality, application usability, and familiarity shape consumer trust and purchase intention (Davis Jr, 1986; Davis, 1989; Olsina and Lew, 2018).

### Hypothesis Development

#### Product Quality and Trust in E-commerce

Product quality will greatly affect customer satisfaction and trust in making repeat purchases of the offered products as the main purpose of buying a product is to get one that meets consumer expectations. Trust pertains to the intention to continue using and relying on e-commerce platforms (Diputra and Yasa, 2021; Wang *et al.*, 2022). Customer trust is the confidence, belief, and knowledge consumers have about an object or product related to its various attributes and benefits. Product Quality refers to how consumers perceive reliability and performance of purchased items. Its effect on trust may vary since product quality depends on sellers. Service Quality relates to responsiveness, assurance, and reliability, which directly impact consumer satisfaction and trust (Tjiptono and Chandra, 2016).

***H<sub>1</sub>: Product quality has a positive impact on trust in e-commerce.***

### Service Quality and Trust in E-commerce

In the online shopping environment, where customers cannot physically see or touch the products and interact with sellers directly, trust becomes increasingly crucial. Indeed, trust is a prerequisite for consumers to engage in online shopping. With trust, consumers are willing to proceed with transactions despite uncertainties (Dabbous, Barakat and Sayegh, 2020; Wang *et al.*, 2022; Mayayise, 2024). However, the impact of service quality on trust is particularly significant within the scope of online business. Application Quality highlights the usability, stability, and efficiency of the e-commerce platform.

*H<sub>2</sub>: Service quality has a positive impact on trust in e-commerce.*

### Familiarity and Trust in E-commerce

Studies on product familiarity defined familiarity as a number of product-related experiences that lead to the development of attitudes toward a product and subsequent purchase and purchase intentions (Mittendorf, 2018). As experience with a product increases, both consumers' product knowledge and product familiarity also grow. Consumers assess the perceived risks of the product before making a purchase decision. When they consumers are well-informed about a product, they can better understand its quality and consider alternative options, thereby reducing the possible perceived risks associated with purchasing the product (de Kerviler, Demoulin and Zidda, 2016; M.K and Ramayah, 2017). Familiarity reflects consumer experience with the platform, reducing uncertainty and increasing trust.

*H<sub>3</sub>: Familiarity has a positive impact on trust in e-commerce.*

### Application Quality and Trust in E-commerce

Researchers found that application quality is characterized by features that are beneficial to consumers (Olsina and Lew, 2018). Therefore, to achieve good quality, it is essential to provide well-designed features that increase consumer confidence. Literature studies show that the quality of e-commerce applications, including user interface, performance, reliability, security, and other features, has a significant impact on the level of consumer trust in the platform. Consumers tend to have more trust in platforms that offer easy-to-use, efficient, and reliable applications (Venkatesh and Davis, 1996; Manda and Salim, 2021). Purchase Intention indicates consumers' willingness to buy or repurchase products through an e-commerce platform.

*H<sub>4</sub>: Application quality has a positive impact on trust in e-commerce.*

### Trust in E-commerce and Purchase Intention

Trust is the basis for consumer decision-making regarding whether to make a purchase, making it the first aspect that companies must successfully establish with their consumers (Mahliza, 2020). Wang *et al.* (2022) also emphasized that trust in a platform also plays an important role in increasing consumer purchases. However, research by Manzil and Vania (2023) found different findings that trust has no effect on purchasing decisions. Nevertheless, this study address this gap and emphasizes the effect of trust on purchase intention.

*H<sub>5</sub>: Trust in e-commerce has a positive impact on purchase intention.*

## METHOD

This study employed a quantitative survey method using purposive sampling, targeting Shopee users in Indonesia aged 16–35 years. A total of 305 valid responses were collected through an online questionnaire. The questionnaire items were adapted and modified from several prior studies to ensure validity and reliability, including measures of product quality, service quality, application quality, familiarity, trust, and purchase intention (Mittendorf, 2018; Diputra and Yasa, 2021; Wang *et al.*, 2022). All items were measured using a 5-point Likert scale, and data were analyzed with Structural Equation Modeling (SEM-AMOS 24).

## RESULTS AND DISCUSSION

Hypothesis testing was conducted using structural equation modeling (SEM-AMOS 24). The results are summarized in the following table:

**Table 1.** Hypothesis Testing

	Estimate		S.E.	C.R.	P	Result	Conclusion
TE	<---	PQ	0,040	0,084	0,481	0,630	Not Supported
TE	<---	SQ	0,239	0,067	3,596	0,000	Supported
TE	<---	FAM	0,263	0,069	3,807	0,000	Supported
TE	<---	AQ	0,382	0,071	5,367	0,000	Supported
PI	<---	TE	0,837	0,078	10,744	0,000	Supported

Note: Hypothesis supported if  $CR > 1,96$  and  $P < 0,05$ .

The results indicate that product quality (H1) has a positive but insignificant effect on trust, which is consistent with prior findings that product quality in online marketplaces often depends on third-party sellers and thus does not always translate into consumer trust (Diputra and Yasa, 2021). On the other hand, service quality (H2) was found to significantly strengthen consumer trust. Responsive customer service, reliable delivery, and clear communication reduce consumer uncertainty, confirming the findings of (Cuong and Khoi, 2019).

Familiarity (H3) also showed a significant positive effect on trust. This highlights that repeated experiences and platform usage enhance consumer confidence by reducing perceived risk, supporting the view of (Mittendorf, 2018). Furthermore, application quality (H4) strongly influences trust. A stable, secure, and user-friendly application increases confidence in the platform (Molla and Licker, 2001; Olsina and Lew, 2018; Mayayise, 2024). This shows that technical aspects of the platform are crucial in maintaining consumer trust. Finally, trust (H5) significantly affects purchase intention, consistent with (Wang *et al.*, 2022). Trust acts as a mediator that drives consumers to proceed with transactions despite uncertainties. This underlines the central role of trust in shaping online consumer behavior.

## RESEARCH LIMITATIONS

This study is limited to Shopee users in Indonesia, particularly within the age range of 16–35 years. The results may not be generalizable to other e-commerce platforms or older age groups. Future research could compare multiple platforms, involve broader demographics, or investigate mediating factors such as satisfaction and perceived risk.

## MANAGERIAL IMPLICATIONS

E-commerce managers should focus on strengthening customer service responsiveness in order to build greater reliability and ensure that consumers feel supported throughout their shopping experience. In addition, continuous investment in application usability and technical performance is essential to provide seamless transactions and minimize potential barriers to use. Managers also need to enhance brand familiarity by maintaining consistent user engagement and implementing effective promotional strategies that foster long-term relationships with consumers. Collectively, these managerial actions are crucial for improving consumer trust, which in turn contributes to higher purchase intention and customer loyalty.

## CONCLUSION

This study demonstrates that service quality, application quality, and familiarity positively affect trust, which in turn enhances purchase intention. Product quality, however, does not significantly impact trust. The findings highlight trust as a mediating factor in consumer decision-making and underscore the need for e-commerce platforms to focus on services, application design, and familiarity. The data in this study are primary data collected through questionnaires completed by 305 respondents who are Shopee consumers. The collected data were then analyzed using the structural equation model method with AMOS 24 to test the hypotheses.

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