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**THE IMPACT OF CUSTOMER EXPERIENCE AND SECURITY ON  
CUSTOMER SATISFACTION IN SHOPEE MOBILE E-COMMERCE IN  
SURABAYA**

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**Abstract**

Along with the rise in mobile device usage, mobile applications have become crucial in enhancing the e-commerce ecosystem. Shopee is one of the most popular e-commerce platforms among Indonesian users. This study seeks to explore how the quality of customer experience and security affects customer satisfaction. Employing a quantitative survey approach, data were gathered from 88 respondents chosen through purposive sampling. Partial Least Square (PLS) analysis was applied to assess validity, reliability, and test the hypotheses. Findings reveal that both user experience and security significantly and positively impact customer satisfaction. A better user experience typically leads to greater satisfaction, and higher perceived security likewise elevates customer satisfaction when shopping on Shopee.

**Keywords:** Customer Experience, Customer Security, Customer Satisfaction



## INTRODUCTION

The use of the internet in the current era is undeniable. The internet has become part of daily life worldwide including Indonesia, with many people dependent on it. Along with the increasing use of gadgets, mobile applications have become important elements in strengthening the e-commerce ecosystem.

To improve customer satisfaction in online shopping, sellers or online stores need to maintain good shopping experiences, provide excellent service quality, and prioritize customer privacy security. This way, customers will feel satisfied with their purchases and are likely to become loyal customers.

According to Zarantonello in Syahyudi & Wasiman (2024), Customer Experience refers to situations or events caused by interactions with a company, directly or indirectly. Experience after service can influence customer satisfaction levels. Better experience corresponds to higher customer satisfaction. Customers' feelings after using products and persuasive communication shape the shopping experience. Customers are also defined as people consuming various products to feel sensations, emotions, images, and feelings produced by the products they choose (Ratna, 2021:104).

According to Park & Kim (2016) in Napitupulu, M., Supriyono. 2023, security in online shopping is a very important factor in e-commerce. Security is the ability of online stores to control and safeguard the security of transaction data. It can be concluded that security in e-commerce platforms is crucial for customers to feel safe and confident when accessing and making payments and transactions online. Additionally, customers who feel safe on the internet tend to have no hesitation to buy from e-commerce stores compared to those who feel unsafe due to inadequate protection on these sites.

One of the popular e-commerce platforms in Indonesia is Shopee. However, despite its popularity, there are complaints from customers. These include unsatisfactory shopping experiences and security issues in using the app. Customers reported significant delivery delays, packages staying stagnant for days causing disappointment, and receiving counterfeit products without resolution from the store. Suspicious incidents suggested possible data breaches or cooperation with irresponsible parties.

In the growing digital era, mobile e-commerce applications have become the main medium for customers to conduct online transactions. Increasing smartphone adoption and internet connectivity have encouraged companies to shift from traditional web platforms to mobile apps to expand market reach. This



study aims to understand how the quality of customer experience and security influences customer satisfaction.

## LITERATURE REVIEW

Meyer and Schwager, as cited in Aulia and Wayuningsih (2021), describe customer experience as a personal and internal reaction that customers have to both direct and indirect interactions with a company. Direct interactions typically happen during the stages of purchase, product use, and service. Hassenzahl (2010) states that customer experience can be measured through main indicators such as: 1) Usefulness, 2) Satisfaction, 3) Emotional Experience, 4) Engagement.

Park and Kim (2016) describe security as an online store's capability to manage and protect transaction data. They also emphasize that security assurances are crucial for fostering trust by alleviating customers' worries about the misuse of personal information and insecure transactions. Kotler and Keller (2016) revealed that customer security indicators in digital marketing include: 1) Privacy Protection, 2) Transaction Security, 3) Technology Trust.

Customer experience is key in determining satisfaction levels. It includes customer interaction with products or services covering ease of use, reliability, and emotional satisfaction. Positive experiences increase satisfaction while negative experiences lower it. Hidayatullah, S. (2020), analyzing user experience influence on Shopee customer satisfaction with a modified DeLone & McLean model found that information quality, system quality, and hedonic aspects significantly affect satisfaction, confirming that experience elements like information quality, system quality, and enjoyment contribute to customer satisfaction.

Customer security is an important factor influencing satisfaction. Customers' perception of digital platform security determines their comfort and trust in transactions. Security includes the protection of personal data, financial transactions, and platform trustworthiness. If customers feel their data and finances are well protected, they tend to be more satisfied with the service. Research by Kinasih, B., & Albari (2012) shows a positive effect of security and privacy perception on online customer satisfaction, which together positively influence customer trust.

## RESEARCH METHOD

This research employs a quantitative method involving 88 customers of Shopee selected through purposive sampling. Data were gathered using questionnaires with Likert scales. The analysis process included validity and reliability tests, followed by hypothesis testing using Partial Least Squares (PLS) analysis conducted with SMARTPLS 4.0 software. The study examines independent variables, Customer Experience (X1) and Customer Security (X2), alongside the dependent variable, Customer Satisfaction (Y).

## RESULTS AND DISCUSSION

### Outer Model

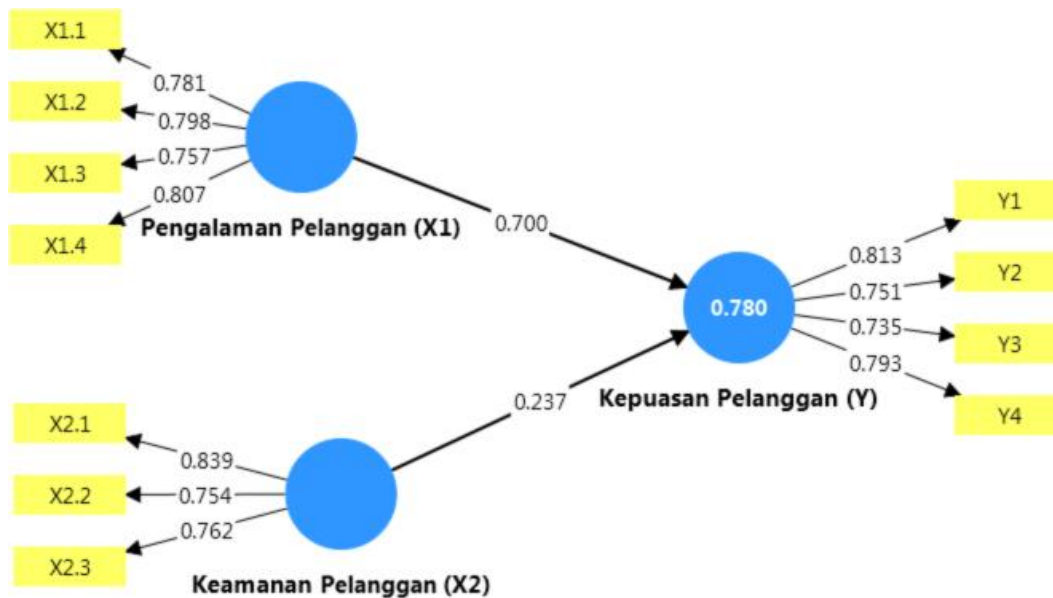


Figure 1.

### Outer Model

Source: Data Processed

The visual output produced by Partial Least Squares (PLS) provides key information about both the structural and measurement models. Factor loadings are displayed on the arrows linking indicators to latent variables, reflecting how much each indicator contributes to the respective construct. Loadings above 0.7 indicate valid indicators. The indicators used in this study are appropriate for assessing the constructs. Moreover, the arrows connecting exogenous and endogenous variables display path coefficients, indicating both the direction and magnitude of the relationships between latent variables. The circle symbolizing the endogenous variable contains the R-Square value, which



indicates the percentage of variance in that variable explained by the exogenous variables in the model.

**Table 1.**  
**Outer Loading**

	<b>Original Sample (O)</b>	<b>Sample Mean (M)</b>	<b>Standard Deviation (STDEV)</b>	<b>T statistics ( O/STDEV )</b>	<b>P values</b>
X1.1 <- Customer Experience (X1)	0,781	0,775	0,059	13,279	0,000
X1.2 <- Customer Experience (X1)	0,798	0,797	0,044	17,969	0,000
X1.3 <- Customer Experience (X1)	0,757	0,753	0,054	14,069	0,000
X1.4 <- Customer Experience (X1)	0,807	0,804	0,050	16,226	0,000
X2.1 <- Customer Security (X2)	0,839	0,836	0,037	22,431	0,000
X2.2 <- Customer Security (X2)	0,754	0,747	0,066	11,423	0,000
X2.3 <- Customer Security (X2)	0,762	0,757	0,063	12,110	0,000
Y1 <- Customer Satisfaction(Y)	0,813	0,811	0,043	19,008	0,000
Y2 <- Customer Satisfaction (Y)	0,751	0,743	0,067	11,173	0,000
Y3 <- Customer Satisfaction (Y)	0,735	0,731	0,058	12,625	0,000
Y4 <- Customer Satisfaction (Y)	0,793	0,791	0,045	17,642	0,000

Source: Data Processed (2025)

The validity test of the indicators was carried out based on two key criteria: factor loading values and T-statistic values, as shown in the findings above. An indicator is considered valid if its factor loading exceeds 0.50 and/or its T-statistic is greater than 1.96, the minimum threshold at a significance level of  $\alpha = 0.05$ . The factor loading indicates the strength of the correlation between an indicator and its latent construct, with higher values indicating stronger



validity. The outer loading table results show that all reflective indicators for the exogenous variables Customer Experience (X1) and Customer Security (X2), as well as the endogenous variable Customer Satisfaction (Y), have factor loadings above 0.50 and T-statistics above 1.96. Therefore, all these indicators satisfy the criteria for convergent validity and exhibit acceptable construct validity.

**Average Variance Extracted**

**Table 2.**  
**Average Variance Extracted**

	<b>Average Variance Extracted (AVE)</b>
Customer Experience (X1)	0,618
Customer Security (X2)	0,617
Customer Satisfaction (Y)	0,599

Source: Data Processed (2025)

The results above demonstrate that each variable in this study has achieved a satisfactory level of validity. The AVE values are 0.618 for Customer Experience (X1), 0.617 for Customer Security (X2), and 0.599 for Customer Satisfaction (Y). Since all these values are above the commonly accepted cutoff of 0.5 for construct validity, it can be concluded that all variables in the study satisfy the requirements for strong convergent validity.

**Composite Reliability**

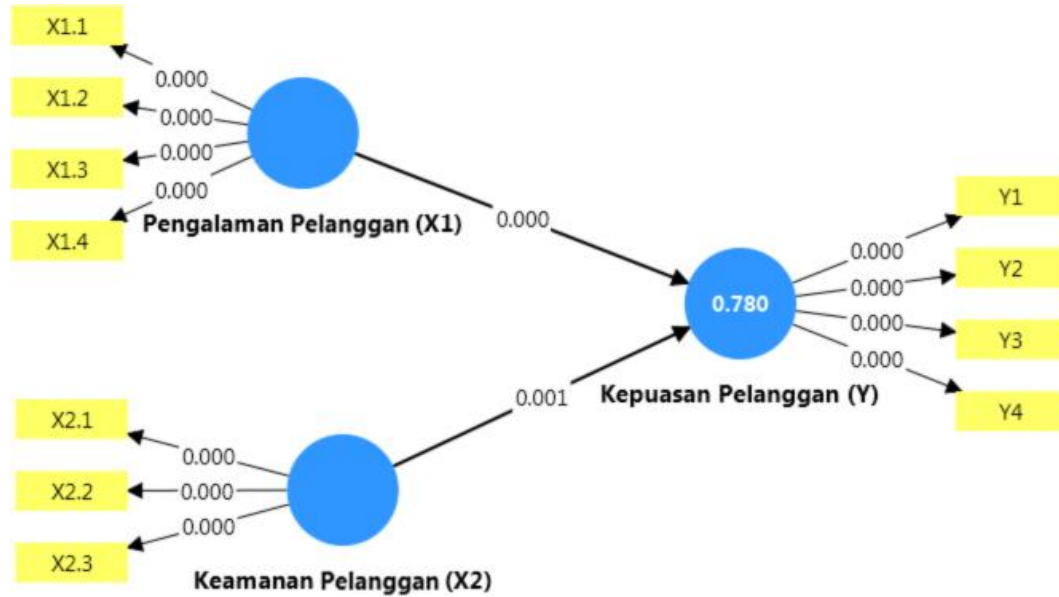
**Table 3.**  
**Composite Reliability**

	<b>Composite Reliability</b>
Customer Experience (X1)	0,866
Customer Security (X2)	0,828
Customer Satisfaction (Y)	0,856

Source: Data Processed (2025)

The findings indicate that the reliability scores were 0.866 for the Customer Experience variable (X1), 0.828 for the Customer Security variable (X2), and 0.856 for the Customer Satisfaction variable (Y). Because all Composite Reliability (CR) values are above 0.70, it can be concluded that each of the three variables meets the reliability standards set for this research.

**Inner Model**



**Figure 2.**  
**Inner Model**  
Source: Data Processed

**R-Square**

**Table 4.**  
**R-Square**

	<b>R Square</b>
Customer Experience (Y)	0,780
Customer Security (X1)	
Customer Satisfaction (X2)	

Source: Data Processed (2025)

The coefficient of determination ( $R^2$ ) of 0.780 shows that 78% of the variation in Customer Satisfaction can be explained by the independent variables in this study, which are Customer Experience (X1) and Customer Security (X2). The remaining 22% is due to other factors outside the scope of this research that were not examined.



### Hypothesis Testing

**Table 4.**  
**Path Coefficients**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Customer Experience (X1) -> Customer Satisfaction (Y)	0,700	0,699	0,069	10,151	0,000
Customer Security (X2) -> Customer Satisfaction (Y)	0,237	0,239	0,075	3,160	0,001

Source: Data Processed (2025)

Based on the analysis performed, the following hypotheses can be concluded:

**H1:** Customer Experience has a positive impact on Customer Satisfaction, as evidenced by a path coefficient of 0.700 and a T-statistic of 10.151, exceeding the critical threshold of 1.96 (at  $Z_{\alpha} = 0.05$ ). Moreover, the P-value of 0.000, being below 0.05, further confirms the significance and positivity of this effect.

**H2:** Customer Security has a positive impact on Customer Satisfaction, demonstrated by a path coefficient of 0.237 and a T-statistic of 3.160, which is greater than the critical value of 1.96 (at  $Z_{\alpha} = 0.05$ ). Additionally, the P-value of 0.001 is less than 0.05, confirming that the results are statistically significant and positive.

#### **The Impact of Customer Experience on Customer Satisfaction**

The research findings revealed that Customer Experience significantly affects Customer Satisfaction in the Shopee Mobile E-Commerce Application. This means that improved customer experience while using Shopee leads to greater customer satisfaction. Factors such as easy navigation, appealing app design, interactive features, and seamless transactions are crucial in shaping a positive customer impression. The strong results confirm that customer experience truly influences customer satisfaction, with a positive correlation showing that higher quality customer experience corresponds to higher customer satisfaction.



Within the Customer Experience variable, there is an indicator that has a strong influence on Customer Satisfaction, namely Engagement, through the statement "I am interested when using the Shopee Application for shopping." This shows that respondents feel interested and engaged in using the Shopee application due to its attractive display, interactive features, promotions, and ease of shopping. High engagement makes customers more satisfied and tends to be loyal because the application is not only safe to use but also provides an enjoyable shopping experience.

### **The Impact of Customer Security on Customer Satisfaction**

Based on the results of the research conducted, it was found that Customer Security has an effect on Customer Satisfaction in the Shopee Mobile E-Commerce Application. This indicates that the better the level of security perceived by customers, the higher the satisfaction they obtain when shopping on Shopee. These results are consistent with field conditions, as security is a primary factor influencing customer comfort and trust in online transactions, including protection of personal data, payment system security, and guarantees against fraud or incorrect products. When security aspects are assured, customers feel more at ease and confident to continue transacting, thereby increasing customer satisfaction.

Within the Customer Security variable, the indicator that has the greatest influence on Customer Satisfaction is Privacy Protection, reflected through the statement "I feel confident that my personal information is well protected when using the Shopee application." This shows that customers tend to associate privacy protection as a primary responsibility of the Shopee platform. The stronger the belief that customers' personal data is safe, the higher the satisfaction and loyalty formed.

### **CONCLUSION**

Based on the data processed by using SmartPLS software on the variables Customer Experience, Customer Security, and Customer Satisfaction, the following conclusions can be drawn:

1. Customer Experience is able to contribute to Customer Satisfaction. This finding shows that Customer Experience contributes to the formation of Customer Satisfaction. An increase in Customer Experience tends to drive an improvement in better Customer Satisfaction.
2. Customer Security is able to contribute to Customer Satisfaction. This finding shows that Customer Security plays a role in shaping Customer



Satisfaction. An increase in security tends to drive an improvement in better Customer Satisfaction when shopping on Shopee.

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