Indonesian E-commerce: The Influence and Factors on Tokopedia User Satisfaction and Loyalty

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Abstract
In particular, this study looks for a significant link between customer satisfaction and customer satisfaction, service quality, and user loyalty, product quality and customer loyalty, trust and customer satisfaction, trust and user loyalty, customer satisfaction on user loyalty, service quality, product quality, and trust in customer satisfaction on user loyalty. using a hypothetico-deductive research approach in conjunction with quantitative methods. The study’s findings indicate that Trust has a significant and positive impact on both customer satisfaction and customer loyalty, that customer satisfaction has a positive and significant impact on customer loyalty, and that service quality has a positive and significant impact on customer satisfaction and that product quality has a positive and significant influence on customer satisfaction and that the results indicate that service quality and customer loyalty are both important positive and insignificant intervening variables. Furthermore, there is a positive and insignificant relationship between product quality and customer loyalty and satisfaction, as well as trust in customer loyalty and satisfaction. In Tokopedia, customer satisfaction has a positive and significant impact on customer loyalty. the research found, and customer satisfaction is an intervening variable that is not significant in the relationship between service quality and product quality with customer loyalty, insignificant in the relationship between service quality and product quality with customer loyalty, and trust has a positive and significant influence on customer satisfaction and customer loyalty in Tokopedia.

**Keyword:** product quality; trust; service quality; user satisfaction; user loyalty.
1. Introduction
In an ever-evolving digital landscape, e-commerce platforms have become integral to daily life for consumers. Among them, Tokopedia stands as one of Indonesia's largest e-commerce companies, playing a pivotal role in facilitating online transactions between sellers and buyers. To maintain and enhance its market share, Tokopedia must comprehensively understand the impact of product quality, trust, and service quality on user loyalty and satisfaction. Service quality encompasses several factors that influence the user experience when shopping on an e-commerce platform. These factors include responsiveness, customer support, product information, and shopping convenience. In this context, service quality pertains to the extent to which Tokopedia provides a satisfying and user-friendly transaction experience.

Another critical factor in e-commerce is the quality of the products offered, which encompasses brand reputation, product authenticity, and physical quality. Evaluating the extent to which product quality influences customer satisfaction on Tokopedia is essential. A positive customer experience can enhance loyalty and generate positive feedback. It is critical to comprehend the relationship between Tokopedia customer satisfaction, customer loyalty, product quality, service quality, and trust. Customer satisfaction pertains to the level of contentment, happiness, or fulfillment experienced by customers during their interactions with the platform, including product searches, payment processes, and the receipt of ordered items. User loyalty indicates the degree of attachment and commitment users have towards Tokopedia. It includes factors such as recurrent shopping habits, recommendations to others, and the utilization of various benefits offered by the platform.

This research explores the interplay of service quality, product quality, and trust with user satisfaction and loyalty on Tokopedia. By gaining a deeper understanding of these factors, Tokopedia can identify areas for improving user experiences, elevating satisfaction levels, and, in turn, constructing a more loyal user base. In the fiercely competitive e-commerce industry, this research holds significant relevance in supporting growth strategies and Tokopedia's sustainability. The structure of this paper includes sections on the literature review, material and method, result, discussion, and conclusion. The purpose of this research is to elucidate the complexities of customer satisfaction and loyalty on Tokopedia, thereby shedding light on how e-commerce companies can better cater to the needs and expectations of their users.

2. Review of Literature
2.1 Service Quality
Service quality is an attempt to meet all of the desires and needs of the user so that the consistency expressed can balance user expectations (Septiani et al., 2020). Service quality is a way of assessing users regarding perceived services and expected services (Kotler., 2019). If what is received or felt is consistent with what is expected, the service quality is considered good and satisfactory. Also, the word quality contains many meanings, such as fulfilling customer demands, adhering to specifications or demands, being suitable for use, improving continuously, not causing damage or defects, and doing everything possible to make people happy (Irawan, 2020). Quality can also be interpreted as complete customer satisfaction, a
product is quality if it can provide full satisfaction to customers, and is in accordance with customer expectations for a product or service (Idayati et al., 2020). Quality is an uncertain condition that has a relationship with products, processes, people or labor, tasks, and the environment that meets or exceeds customer expectations Ahmad et al (2020).

2.2 Product Quality

Product quality has many interrelated dimensions, as defined by various experts and researchers. Almira and Sutanto (2018) call it a combination of characteristics of services and goods that fulfill customer expectations, while Mowen (2020) views it as an overall evaluation process of the product. Tjiptono (2008) identified eight factors that shape product quality, including durability, performance, conformity to specifications, reliability, features, aesthetics, serviceability, and perceived quality. David Garvin divides it into eight, such as Features, Performance, Reliability, Conformance, Serviceability, Durability, Asthetics, and Perceived Quality. Nurfauzi et al (2023) highlight the role of product quality in market competition. Kotler and Armstrong (2008) even consider product quality as a strategic weapon that has the potential to outperform competitors. With these diverse perspectives, product quality aspects are important in a company's efforts to meet customer expectations, compete, and build a positive image in the market.

2.3 Trust

Buyer trust plays a very important key role in online business, where buyers and sellers do not interact directly. This concept of trust can be defined as a belief or positive response from customers regarding a product, which is based on experience and fulfilled product performance expectations, and includes consumer knowledge and conclusions about the object, attributes and benefits. According to several researchers, indicators of trust variables include integrity, kindness, and seller ability (Langton, et. al., 2016). In the context of online business, this trust is the main basis for forming consumers' positive perceptions of a product and influencing purchasing decisions (Sudaryono in Ilmiyah and Krishernawan, 2020; Costabile in Tirtayasa et al., 2021; Mower in Kholis and Maharama, 2018).

2.4 Customer satisfaction

The feeling that arises after comparing views on the performance of a product or service with expectations is called customer satisfaction (Tjiptono & Chandra, 2020). This can also be explained as the result of an evaluation of the product or service used to meet needs, where the performance meets or even exceeds expectations (Sasongko, 2021). Factors that influence consumer satisfaction include service quality, product quality, emotional aspects, costs and prices (Tjiptono & Chandra, 2012). In addition, many previous studies have examined consumer satisfaction variables, including studies such as those conducted by Ibrahim & Thawil (2019).

2.5 Customer loyalty

Talking about customer loyalty, service quality which is related to the ability to meet consumer needs can influence the level of customer satisfaction. With higher interactions with
customer satisfaction and service quality, customer loyalty can increase (Sari & Jatra, 2019). Customer loyalty is considered important for business success (Elizar et al., 2020), and can be defined as behavior and attitudes that show customer loyalty to certain things (Boonlertvanich, 2019). A positive customer attitude towards a product, which encourages them to continue buying the item despite changing times, is one indication of customer loyalty (Cici, 2022). The ever-growing product diversity also plays a role in achieving business profitability without dependence on one product, and has a significant effect on customer loyalty along with the price factor (Ekawati, 2013; Rohmawati, 2018).

3. Material and Method
The research was designed using a survey with a quantitative approach and was conducted from October 2023 to November 2023 among Tokopedia users in Indonesia. Firmansyah and Dede (2022) state that researchers use sampling to select a smaller number of objects or people from a predefined population to serve as subjects or data sources for a specific experiment or observation. The purpose of sampling is to find out the relationship between the distribution of variables in the target population and the distribution of the same variables in the research sample. To accomplish this goal, inclusion criteria (clinical, demographic, temporal, and geographic characteristics of subjects included in the research population) and exclusion criteria (characteristics of subjects excluded from the research population) must be established (Firmansyah and Dede, 2022). This research involves Tokopedia users who have made purchases on Tokopedia at least once in the last two years. A sample of 78 people who responded was chosen using a non-probability purposive sampling method.

3.1 Design Study
The theoretical framework and research objectives are based on the development of a questionnaire as a research instrument. Reflective indicators can be seen through cross-loading between indicators and their structure when discriminant validity is being tested. The indicator is deemed valid if the highest holding factor for the targeted construct is greater than the other holding factors. Consequently, constructlatents are more accurate at predicting indicators on their blocks than on other blocks. (Parashakti & Putriawati, 2020; Ghozali). Reflective indicators can be seen through cross-loading between indicators and their structure when discriminant validity is being tested. If the highest holding factor for the targeted construct exceeds the other holding factors, the indicator is declared valid. Therefore, constructlatents predict indicators on their blocks better than on other blocks. (Ghozali in Parashakti & Putriawati, 2020). The development of theory and concept-based models is known as model structure testing. It involves analyzing the relationships between exogenous and endogenous variables that have been described in a conceptual structure. The model goodness-fit test is carried out by looking at the R square value, which is used to test the structural model (Parashakti & Putriawati, 2020). Verify each construct indicator's convergent validity. In Parashakti & Putriawati, 2020, Ghozali states that an indicator is deemed to have good reliability if its value is greater than 0.70. In the interim, a holding factor of 0.50 to 0.60 is thought to be adequate. This criterion states that a loading factor will be eliminated from the model if it is less than 0.50 (Ghozali in Parashakti & Putriawati, 2020). When the independent
variable involves the mediator variable, it can have a direct or indirect impact on the dependent variable. This is known as partial mediation. According to Subagyo (2018), full mediation is the state in which the mediator variable is necessary for the independent variable to have any effect on the dependent variable.

### 3.2 Data Analysis

Direct distribution of questionnaires to respondents based on preset criteria was used to gather research data. After the respondent fills out the questionnaire, the questionnaire is returned to the researcher for processing. The goal of the statistical program SmartPLS, or Smart Partial Least Square, is to investigate correlations between latent and indicator variables as well as between them. The SmartPLS application is used to process data (Asbari et al., 2019). The researcher determined the research variables in this study. To measure variables, Likert scales create variable indicators. Data is collected & analyzed using statistical analysis techniques, such as regression analysis and hypothesis testing. Regression analysis is used to test the relationship between independent variables (service quality, product quality and trust) with the dependent variable (customer satisfaction and customer loyalty). Regression analysis is a statistical method used to model and examine relationships between variables, consisting of two connected components, namely a response variable and one or several predictor variables (Efendi et al., 2020). Hypothesis testing is carried out to test the significance of the relationship between these variables. One area of inferential statistics is hypothesis testing, which is used to statistically test the truth of a statement and draw conclusions about whether the statement is accepted or rejected. By conducting hypothesis testing, a researcher can of course answer questions by indicating whether the hypothesis is accepted or rejected (Anuraga et al., 2021). The research model can be seen as follows:

![Research Model](image)

**Figure 1. Research Model**

### 4. Result

This research distributed questionnaires to all Tokopedia users, totaling 78 customers. The desired criteria for purposive sampling are customers who have used Tokopedia, so those who first answered said they had used Tokopedia. The number of female respondents was
59.5% (47 people) compared to male respondents of 34.4% (31 people) with the largest age group in the sample was 17–25 years, with the majority of people in this age range (67.2%). The largest age groups were those between 26 and 30 years old (20.7%) and those between 31 and 40 years old (9.5%). There are also people under 17, but there are fewer of them than other age groups (2.6%). She majority of Tokopedia users have used this platform for 1 year to 2 years (31 percent), followed by those who have used it for more than 3 years (27.6%). Additionally, most users have been using the platform for 6 to 12 months (19.8%), followed by those who have only been using the platform for 0 to 3 months (11.2%), and the least is 3 to 6 months (10.3%). Sea large share of people have a monthly income between 2,000,000 and 5,000,000 (37.1%). The second most common income range was between 0 and 500,000 (24.1%), followed by the income range between 500,000 and 2,000,000 (21.6%). A small proportion of people have a monthly income above 5,000,000, with 14.7% in the range between 5,000,000 and 10,000,000, and 2.6% in the range above 10,000,000. The majority of people in 4.5 work as students or students (53.4%). They also work in the private sector (28.4%) and as Civil Servants (PNS) with 11.2%. A small percentage of people work as entrepreneurs (6%) or influencers (0.9%).

**Table 1. Fornell-Larcker Criterion**

<table>
<thead>
<tr>
<th></th>
<th>Trust</th>
<th>Customer satisfaction</th>
<th>Service Quality</th>
<th>Product quality</th>
<th>Customer loyalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust</td>
<td>0.755</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer satisfaction</td>
<td>0.579</td>
<td>0.707</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Quality</td>
<td>0.607</td>
<td>0.629</td>
<td>0.749</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product quality</td>
<td>0.51</td>
<td>0.562</td>
<td>0.561</td>
<td>0.746</td>
<td></td>
</tr>
<tr>
<td>Customer loyalty</td>
<td>0.516</td>
<td>0.404</td>
<td>0.531</td>
<td>0.242</td>
<td>0.721</td>
</tr>
</tbody>
</table>

The table above shows that each indicator has the highest FLC value for its own latent construct. This is different from the FLC value in other constructs. This demonstrates that when it comes to forming the variables, each of the indicators used in this study has strong discriminant validity. The Average Variant Extracted (AVE) value can be used to determine the results of the discriminant validity test in addition to the cross loadings value. A good measurement model is indicated by an AVE of more than 0.5 for each latent construct. The AVE values for the variables in this study are shown in the table below:

**Table 2. Average Axtracted Variance Value (AVE)**

<table>
<thead>
<tr>
<th></th>
<th>Cronbach's alpha</th>
<th>Average variance extracted (AVE)</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust</td>
<td>0.81</td>
<td>0.57</td>
<td>Good</td>
</tr>
<tr>
<td>Customer satisfaction</td>
<td>0.744</td>
<td>0.499</td>
<td>Not good</td>
</tr>
</tbody>
</table>
Service Quality | 0.806 | 0.561 | Good
Product quality | 0.798 | 0.556 | Good
Customer loyalty | 0.768 | 0.519 | Good

The table above shows that four indicators, other than Customer Satisfaction from the latent construct, can be responsible for half of the variance (Wong, 2013; Sarstedt, et al., 2011).

Table 3. Composite Reliability

<table>
<thead>
<tr>
<th></th>
<th>Cronbach's alpha</th>
<th>Composite reliability (rho_a)</th>
<th>Composite reliability (rho_c)</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust</td>
<td>0.81</td>
<td>0.82</td>
<td>0.868</td>
<td>Reliable</td>
</tr>
<tr>
<td>Customer satisfaction</td>
<td>0.744</td>
<td>0.746</td>
<td>0.831</td>
<td>Reliable</td>
</tr>
<tr>
<td>Service Quality</td>
<td>0.806</td>
<td>0.812</td>
<td>0.865</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

All constructs have a composite reliability value between 0.6 and 0.7, and a Cronbach's alpha value of more than 0.7. Therefore, it is considered reliable (Sarstedt et al., 2011).

Table 4. R Square

<table>
<thead>
<tr>
<th></th>
<th>R-square</th>
<th>R-square adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer satisfaction</td>
<td>0.496</td>
<td>0.475</td>
</tr>
<tr>
<td>Customer loyalty</td>
<td>0.362</td>
<td>0.327</td>
</tr>
</tbody>
</table>

Based on Table 4.5, we find an R-square value of 0.496 for the customer satisfaction variable, which shows that the influence of the trust variable on customer satisfaction is 49.6 percent, and the remaining part, 51.4 percent, is caused by other variables not included in this research.

5. Discussion
According to Ghizali in Magdalena & Krisanti (2019), the t statistical test reveals the degree to which an independent variable affects the dependent variable. The proposed hypothesis needs to be tested using SmartPLS 4.0's Bootstrapping function to determine whether it is accepted. If the t value is greater than the critical value or the significance level is less than 0.05, the hypothesis is accepted (Hair et al., 2014). The t statistic value is 1.96 at a significance
level of 5%. The statistical values of the sample base value, p value, and t value are used to determine whether the hypothesis is accepted or rejected. If the p value is less than 0.05 or the statistical t value is larger than the t table, the hypothesis decision is accepted. Table 4.6 illustrates the first hypothesis, which states that trust affects Tokopedia customer satisfaction. The statistical values of t (2.289) and p (0.00) show that the relationship between trust and customer satisfaction is positively oriented, with t being greater than 1.96 and p less than 0.05, respectively. As a result, the first hypothesis is agreed upon. According to the second hypothesis, trust affects Tokopedia customers' loyalty. The p value, which is 0.00 less than 0.05, indicates that the t statistical value of customer satisfaction on customer loyalty is 2.633 greater than 1.96. The initial sample value of 0.07 is positive, indicating that customer satisfaction and customer loyalty have a positive relationship. As a result, the second hypothesis is agreed upon.

The third hypothesis states that customer satisfaction at Tokopedia affects customer loyalty. Customer satisfaction does not significantly affect customer loyalty, as evidenced by the p value of 0.657, which is greater than 0.05, and the t statistical value of trust in customer loyalty of 0.445, less than 1.96. The initial sample value of 0.335 indicates that there is a positive correlation between customer loyalty and trust. The third premise is therefore disproved. Rather, there will be no discernible impact on customer loyalty from the customer satisfaction variable. There will be no discernible difference in customer loyalty between raising and lowering the customer satisfaction variable score. According to the fourth hypothesis, customer satisfaction at Tokopedia is influenced by service quality. The p-value of 0.00, less than 0.05, indicates that the t-statistic value for service quality on customer satisfaction is 3.762, greater than 1.96. Customer satisfaction and service quality have a positive relationship, as indicated by the original sample value of 0.343. As a result, the fourth hypothesis is agreed upon. The fifth hypothesis demonstrates how Tokopedia's customer loyalty is influenced by service quality. The p-value of 0.00, less than 0.05, indicates that the t-statistic value for service quality on customer loyalty is 2.574, greater than 1.96. The initial sample value of 0.388 suggests that there is a positive correlation between customer loyalty and service quality. As a result, the fifth hypothesis is agreed upon.

The sixth hypothesis states that customer satisfaction at Tokopedia is influenced by product quality. The p value, which is 0.00 less than 0.05, indicates that the statistical value of product quality on customer satisfaction is 2.589, which is greater than 1.96. The initial sample value of 0.07 suggests that there is a negative correlation between customer loyalty and customer satisfaction. The sixth hypothesis is thus accepted. According to the seventh hypothesis, product quality at Tokopedia affects customer loyalty P value is not 0.00, less than 0.05, indicating that the t statistical value of product quality on customer loyalty is 1.324, less than 1.96. The initial sample value of -0.186 was negative, indicating a negative relationship in the direction of product quality and customer loyalty. The seventh hypothesis is thus disproved.

6. Conclusion, Implication, and Recommendation
The study's findings demonstrate that, at Tokopedia, trust has a favorable and substantial impact on both customer loyalty and satisfaction. Thus, in order to boost customer satisfaction
and loyalty, businesses must concentrate on establishing and preserving customer trust in their brand. Studies indicate that there is a slight but positive correlation between customer satisfaction and customer loyalty. This implies that while raising customer satisfaction is a good thing, higher levels of loyalty are not always the outcome. Thus, in order to boost customer loyalty, businesses must concentrate more on other factors like trust, service quality, and product quality. Customer satisfaction is positively and significantly impacted by the quality of the products and services offered. This suggests that in order to guarantee greater customer satisfaction, businesses must constantly enhance the caliber of their services and goods. This can involve innovation in products, quality control, and staff training. Customer satisfaction has been found to be an intervening variable in the relationship between service quality, product quality, and customer loyalty that is not significant. This shows that businesses may need to take into account additional factors that affect customer loyalty in addition to having a deeper understanding of the role that customer satisfaction plays in this relationship. Although there is a positive relationship between the independent and dependent variables according to the research findings, it is crucial to keep in mind that the results are not statistically significant enough if the t-value is greater than 0.05. Therefore, more investigation and a more thorough statistical analysis might be required to validate these results.

8. References

Crystallography, X. D. (2016). No Title No Title No Title. 1–23.


