

# Effect of E-Service Quality on Customer Satisfaction and Customer Loyalty on Tokopedia Customers in Denpasar

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## ABSTRACT

The purpose of this study is to examine and explain the effect of e-service quality on customer satisfaction and customer loyalty to Tokopedia customers and the role of gender on this influence. This research was conducted in Denpasar City with 110 respondents. Data were collected through questionnaires and then analyzed using Structural Equation Model (SEM) using PLS (Partial Least Square) and MGS (Multi-Group Analysis) analysis techniques. The results of this study indicate that the dimensions of privacy, responsiveness, convenience, reliability, efficiency have a positive and significant effect on customer satisfaction. Customer satisfaction has a positive and significant effect on customer loyalty. There are differences in the effect of customer satisfaction on customer loyalty based on gender. On the direct influence of the dimensions of Privacy, Responsiveness, Ease, Reliability, and efficiency on customer satisfaction, there is no difference based on gender.

**Keywords:** Customer Loyalty, Customer Satisfaction, Service Quality.

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## I. INTRODUCTION

Shopping is an activity that can help humans to meet their needs. The fulfillment of primary and secondary needs is carried out by humans by exchanging the amount of money they have with their needs so that shopping activities are one of the daily routine activities that will always be carried out by humans. The very fast growth of internet technology is causing more and more customers nowadays to engage in online shopping. Internet technology also causes companies to rely on online marketing to sell their products through websites to gain a competitive advantage (Venkatesh et al., 2012). Online marketing according is the use of networks to reach customers. Online shopping can also be done through e-commerce. E-commerce is electronic commerce where buying and selling activities are carried out through an electronic network. One of the e-commerce originating from Indonesia is Tokopedia. Tokopedia is e-commerce that was founded in 2009 until now, it is still active as one of the e-commerce sites with the most visitors, and as the second e-commerce with the most downloads in the first quarter of 2017 – the second quarter of 2019 on the Playstore. As one of the e-commerce sites that counts, it is important for Tokopedia to continuously improve the quality of the services offered to maintain and increase the number of customers.

Good service quality can attract customers to make purchases online. Low quality will cause customer dissatisfaction, for example, a customer who eats at a restaurant and is dissatisfied with the service will tell at least 15 other people about his disappointment. As a result, other potential customers will make their choice to competitors. Efforts to improve the service quality system will be much more effective for business continuity. These improvement

efforts will make consumers more loyal to the company. In short, it can be said that when service to consumers is good, it will lead to customer satisfaction and is expected to form consumer loyalty to products or services.

Customer satisfaction is a person's feelings of pleasure or disappointment that arise from comparing their perceived performance to their expectations, customer satisfaction is a key element in modern marketing thinking and practice. Customer satisfaction is a fulfillment response from customers to a product or service received that has met customer needs and expectations. Good service quality is a factor that affects customer satisfaction (Zeithaml et al., 2002).

customer loyalty is a long-term customer commitment. service quality, value, image, ease of getting products or services, customer perceived satisfaction and guarantees are factors that affect customer loyalty. customer satisfaction affects customer loyalty, especially its effect on repurchasing. service quality affects customer satisfaction and consequently results in customer loyalty. relationship between service quality, customer satisfaction, and loyalty have found that service quality determines customer satisfaction, and customer satisfaction has a significant influence on loyalty (Eweoya et al., 2016).

In recent years, service quality and e-service quality have become one of the most important research areas in marketing because of their significant impact on a company's financial performance. the quality of electronic services is formed by five dimensions, namely privacy, responsiveness, ease of use, reliability, and efficiency. These five dimensions simultaneously shape service quality so that it can be measured and used to assess its effect on customer satisfaction and customer loyalty. Gender is one of the most

critical factors influencing customer service perceptions. The study further states that gender has an effect on the service dimensions on customer satisfaction and also on customer loyalty. Therefore, this study tries to apply a research model that contains five dimensions of service quality and validates the theory using male and female online customer group data to find differences between the two groups (Wang, 2003).

**Based on the previous research, the following hypothesis can be formulated:**

*H1: There is a positive and significant effect of Security on customer satisfaction.*

Research on poor interface design, technology failure, lack of responsiveness of electronic services, lack of security, and financial privacy can reduce online consumer satisfaction further highlight privacy and security as important factors because these elements will influence customer decisions to buy online or not. The most important dimension in this buying stage is the dimension of privacy or security because this policy is very important in developing a long-term relationship between the company and the customer's personal information (Dehghanpouri *et al.*, 2020)

*H2: There is a positive and significant effect of responsiveness on customer satisfaction.*

The dimensions of service quality are antecedents of customer satisfaction and that responsiveness and assurance as well as direct evidence, reliability, and empathy significantly affect customer satisfaction (Slack *et al.*, 2020).

*H3: There is a difference in the effect of ease of use on customer satisfaction.*

Previous studies confirmed that ease of use is a tool for measuring end-user online satisfaction. From a user perspective, relevant information refers not only to the type of information offered by the website but also to its quality and accessibility. there is a positive and significant relationship between ease of use and satisfaction for Americans who are considered highly individualistic (Oghazi *et al.*, 2021).

*H4: There is a positive and significant effect of reliability on customer satisfaction.*

Increased efficiency when shopping online will give online customers a pleasant and satisfying shopping experience \ The reliability of electronic services is an important prerequisite for completing online transactions successfully, and reliability on service quality can affect customer satisfaction (Bressolles *et al.*, 2014)

*H5: There is a positive and significant effect of efficiency on customer satisfaction.*

The efficiency dimension in electronic services has a significant effect on male and female customer satisfaction,

and gender differences in the efficiency dimension are not significant (Wang, 2003)

*H6: There is a positive and significant effect of customer satisfaction on customer loyalty.*

Service satisfaction is an outcome that comes from a particular service experience. customer satisfaction and perceived value directly affect loyalty behavior. satisfied customers who feel good value from services are more likely to return and are also more likely to provide good recommendations and provide positive information about products or services to others (Wang, 2003). satisfied customers are more likely to increase service use and recommend services to others, making customer retention very profitable and effective in helping to get new customers (Biscaia *et al.*, 2017).

*H7: There is a difference in the effect of e-service quality on male consumers and female consumers.*

Gender differences in decision-making and online buying behavior in men and women display different perspectives, motives, reasons, and shopping patterns. Research reveals that men are more likely to buy products through online shopping and have more positive perceptions and attitudes towards online shopping than women. In addition, women have a higher level of risk perception related to online shopping than men. Men, therefore, feel more relaxed, effective, efficient, and less time-consuming when buying products online. Also, the attitude of men is much more focused on goals and targets because they feel the benefits of online shopping (Unanue *et al.*, 2017)

*H8: There is a difference in the effect of customer satisfaction on female consumers and male consumers.*

The relationship between customer satisfaction and loyalty behavior is stronger for women, youth, and customers with lower income and education levels. satisfied female consumers were more willing to repurchase compared to male consumers. These findings indicate that men and women show unique differences in how satisfaction can affect loyalty to a product or service. it is easier for female consumers to become loyal customers. In contrast, male consumers pay more attention to experiences other than emotions; their loyalty is more difficult to achieve (Wang, 2003)

## II. METHODOLOGY

The scope of research in the field of consumer behavior. there is an assessment of how customers can be loyal to the company or product as a result of the satisfaction felt after getting the service. The services offered by Tokopedia as e-commerce can create customer satisfaction and can form customer loyalty. A research location is a place or area where the research will be carried out. This research took place in Denpasar City.

The population in this study is the people of Denpasar City who have used Tokopedia in making online purchases whose numbers cannot be stated or calculated with certainty

(infinite). the minimum sample size for multivariate analysis is 5-10 of the number of variables studied. The number of indicators used is 22 so that the number of respondents involved is 22 x 5, which is 110 respondents.

The data collection in this research is by survey method with the technique of distributing questionnaires which are directly distributed by the researcher. Furthermore, the statement items are measured using a Likert Scale, this scale is used to regulate a person's attitudes, opinions, and perceptions about social phenomena.

### III. RESULTS AND DISCUSSION

#### A. Evaluation of the Measurement Model or Outer Model

##### 1) Convergent Validity

The following are the results of testing the convergent validity of the indicators of e-service quality, customer satisfaction and customer loyalty.

TABLE I: CONVERGENT VALIDITY TEST RESULTS

Indicator	Original Sample	t statistics
X1.1-< Privacy	0.846	18.734
X1.2 <- Privacy	0.924	41.168
X1.3 <- Privacy	0.933	58.617
X2.1 <- Responsiveness	0.859	24.376
X2.2 <- Responsiveness	0.918	43.826
X2.3<- Response	0.907	42.034
X3.1 <- Ease of Use	0.906	31.656
X3.2 <- Ease of Use	0.947	63.230
X3.3 <- Ease of Use	0.916	42.626
X4.1 <- Reliability	0.891	38.374
X4.2 <- Reliability	0.909	29.700
X4.3 <- Reliability	0.914	30.699
X5.1 <- Efficiency	0.908	31.485
X5.2 <- Efficiency	0.902	36.536
X5.3 <- Efficiency	0.942	56.274
Y1.1 <- Customer Satisfaction	0.905	31.786
Y1.2<- Customer Satisfaction	0.902	36.376
Y1.3 <- Customer Satisfaction	0.927	48.456
Y2.1<- Customer Loyalty	0.911	31.606
Y2.2 <- Customer Loyalty	0.874	28.571
Y2.3 <- Customer Loyalty	0.908	39.606
Y2.4 <- Customer Loyalty	0.910	37.765

The results of the convergent validity test above show that the indicator on the variable is considered valid because it has a loading value above 0.70 and or a t-statistic value above 1.96. Thus, it can be concluded that all indicators in this study are considered valid.

##### 2) Discriminant Validity

Table II shows that all variables have an AVE value above 0.50 and the correlation value for each variable is higher than the correlation between variables. These results indicate that

TABLE II: DISCRIMINANT VALIDITY TEST RESULTS

Variable	AVE	Correlation						
		X1	X2	X3	X4	Y1	Y2	
Security (X1)	0.813	<b>1.000</b>	0.917	0.939	0.867	0.775	0.804	0.779
Responsiveness (X2)	0.801	0.917	<b>1.000</b>	0.826	0.854	0.758	0.827	0.801
Ease of Use (X3)	0.852	0.939	0.826	<b>1.000</b>	0.845	0.761	0.815	0.785
Reliability (X4)	0.819	0.867	0.854	0.845	<b>1.000</b>	0.859	0.898	0.867
Efficiency (X5)	0.842	0.775	0.758	0.761	0.761	<b>1.000</b>	0.865	0.919
Customer Satisfaction (Y1)	0.831	0.804	0.827	0.815	0.815	0.865	<b>1.000</b>	0.960
Customer Loyalty (Y2)	0.812	0.779	0.801	0.785	0.785	0.919	0.960	<b>1.000</b>

the latent variable indicator itself is better than the other latent variable indicators. Based on the results of this analysis, it can be said that the data has good discriminant validity.

#### 1) Composite Reliability

TABLE III: COMPOSITE RELIABILITY TEST RESULTS

Research variable	Cronbach's Alpha	Composite Reliability
Security	0.885	0.929
Responsiveness	0.876	0.924
Ease of Use	0.913	0.945
Reliability	0.890	0.931
Efficiency	0.906	0.941
Customer satisfaction	0.898	0.937
Customer loyalty	0.923	0.945

Based on Table III shows that the value of composite reliability and the value of Cronbach's Alpha for all constructs has a value of more than 0.6. Thus, in the research model, each construct has good reliability.

#### B. Evaluation of the Structural Model or Inner Model

Evaluation of the structural model or inner model is carried out to ensure that the structural model built is robust and accurate. Tests can be done by calculating the value of R square and predictive relevance (Q<sup>2</sup>).

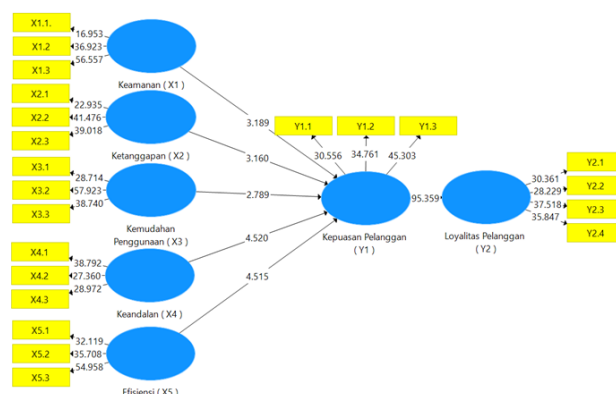


Fig. 1. Structural Model.

#### C. Evaluation of the Structure Model / Inner Model

Testing of the inner model or structural model is carried out to see the relationship between the construct, the significance value and the R-square of the research model. In this structural model, there are two dependent variables, namely customer satisfaction (Y1) and customer loyalty (Y2).

TABLE IV. R-SQUARE

Variable	R square
Customer satisfaction (Y1)	0.871
Customer loyalty (Y2)	0.922

In Table IV it can be seen that if the R-square value of the customer satisfaction variable is 0.871. It can be interpreted that 87.1% of the variability of the customer satisfaction construct is explained by the e-service quality variable with dimensions of privacy, responsiveness, ease of use, reliability, and efficiency dimensions, while the remaining 12.9% of customer satisfaction variables is explained by variables outside the model. Likewise, the customer loyalty variable has an R-square of 0.922, meaning that 92.2% of the variability is explained by the e-service quality variable with the dimensions of privacy, responsiveness, ease of use, reliability, and efficiency dimensions, while the remaining 7.8% is variable. customer loyalty is explained by variables outside the model.

TABLE V: RESULTS OF DIRECT INFLUENCE TEST BETWEEN VARIABLES

Variable	Path Coefficients	t Statistics	P values	
Security -> Customer Satisfaction	-0.589	3.120	0.002	H1 Accepted
Responsiveness -> Customer Satisfaction	0.410	3.214	0.001	H2 Accepted
Ease of Use -> Customer Satisfaction	0.431	2.763	0.006	H3 Accepted
Reliability -> Customer Satisfaction	0.410	4.632	0.000	H4 Accepted
Efficiency -> Customer Satisfaction	0.327	4.342	0.000	H5 Accepted
Customer Satisfaction -> Customer Loyalty	0.960	97.124	0.000	H6 Accepted

Hypothesis testing was carried out using t-statistics and looking at the p-value. If the t-statistic value t-table value (1.96) or p-value <0.05, then H0 is rejected, and the hypothesis is accepted. In the table above, it can be seen that all independent variables have a t-statistic value (> 1.96) and a p-value (<0.05), meaning that the hypothesis is accepted. This means that there is a direct influence between security, responsiveness, ease of use, reliability, and efficiency on customer satisfaction and there is a direct influence between customer satisfaction and customer loyalty.

#### D. Multi-group Analysis (MGA) Testing

TABLE VI: TEST RESULTS OF DIFFERENCES IN THE EFFECT OF MEN AND WOMEN BETWEEN VARIABLES

Variable	Path Coefficients-Diff	t Statistics	P values	
Security -> Customer Satisfaction	-0.401	0.370	0.348	H7 Rejected
Responsiveness -> Customer Satisfaction	-0.243	0.858	0.395	
Ease of Use -> Customer Satisfaction	-0.124	0.370	0.713	
Reliability -> Customer Satisfaction	0.143	0.609	0.545	
Efficiency -> Customer Satisfaction	-0.162	0.857	0.395	
Customer Satisfaction -> Customer Loyalty	-0.044	2.307	0.025	H8 Accepted

Hypothesis testing is done by taking into account the p-value. If the p-value is lower than 0.05 or higher than 0.95, it shows at the 5% level that there is a significant difference between the path coefficients. In the table above, it can be seen that the five dimensions that create e-service quality, namely security, responsiveness, ease of use, reliability, and efficiency, have a p-value greater than 0.05, which means that the five dimensions do not have a different effect on gender, so it can be concluded that the hypothesis is rejected. While the customer satisfaction variable has a p-value of 0.025 or lower than 0.05 so it can be said that customer satisfaction has a different effect on gender.

## IV. DISCUSSION AND CONCLUSION

### A. The Effect of Security on Customer Satisfaction

The t-statistic value is 3.120 or greater than the t-table value of 1.96 and has a p-value of 0.002 or less than 0.05 which means the hypothesis is accepted. The value of the correlation coefficient on the security dimension is -0.589. This means that security has a negative and significant effect on customer satisfaction. These results indicate that the relationship between the dimensions of security and customer satisfaction is inversely proportional. The results of this study are in line with research conducted by Arcand *et al.* (2017) which state that practicality and security or privacy do not directly impact satisfaction or commitment.

### B. The Effect of Responsiveness on Customer Satisfaction

The t-statistic value is 3.124 or greater than the t-table 1.96 and has a p-value of 0.001 or less than 0.05, which means that the researcher's H2 is accepted. These results indicate that responsiveness has a positive and significant effect on customer satisfaction. The results of this study are also in line with Pakurár *et al.* (2019) which state that responsiveness has a positive effect on customer satisfaction.

### C. The Effect of Ease of Use on Customer Satisfaction

The t-statistic value is 2.763 or greater than the t table 1.96 and has a p-value of 0.0006 smaller than 0.05 which means the hypothesis is accepted. This means that ease of use has a positive and significant effect on customer satisfaction. The results of this study are in line with the results of research conducted by Tzavlopoulos *et al.* (2019) which suggested that ease of use on websites and e-commerce can create customer satisfaction.

### D. The Effect of Reliability on Customer Satisfaction

Reliability has a statistical t value of 4.632 or greater than the t table value of 1.96 and has a p-value of 0.000 less than 0.05 which means the hypothesis is accepted. The results of this study explain that reliability has a positive and significant effect on customer satisfaction. The results of this study are in line with research conducted by Dehghanpouri *et al.* (2020) which states that customer satisfaction is more likely to be influenced by trust in online services

### E. The Effect of Efficiency on Customer Satisfaction

The t statistic value is 4.342 or greater than the t table value of 1.96 and has a p-value of 0.000 or less than 0.05 which means that the hypothesis is accepted. The results of

this study indicate that there is a positive and significant effect of efficiency on customer satisfaction. The results of this study are in line with research conducted by Amin (2016) which state that website efficiency is a service quality dimension that can complete transactions faster and increase customer satisfaction.

#### F. The Effect of Customer Satisfaction on Customer Loyalty

The t statistic value is 97,124 or greater than the t table value of 1.96 and has a p-value of 0.000 less than 0.05 which means the hypothesis is accepted. This means that customer satisfaction has a positive and significant effect on customer loyalty. The results of this study are in line with research conducted by Biscaia *et al.* (2017) Kusumawati & Rahayu (2020) which stated that customer satisfaction has a significant influence on customer loyalty.

#### G. Differences in the Effect of E-Service Quality on Customer Satisfaction by gender

E-Service Quality in this study is formed by five dimensions, namely security, responsiveness, ease of use, reliability, and efficiency. These five dimensions' form E-Service Quality and are jointly investigated for their effect on customer satisfaction for male and female consumers. The five dimensions have a p-value greater than 0.05. The security dimension has a p-value of 0.348. The responsiveness dimension has a p-value of 0.395. The ease of use dimension has a p-value of 0.713. The reliability dimension has a p-value of 0.545. The efficiency dimension has a p-value of 0.395. The p-value shows that there is no difference in influence between female consumers and male consumers. The results of this study are not in line with research conducted by Audrain-Pontevia *et al.* (2013) which state that there are differences in the effect of e-service quality on men and women customer satisfaction. men customer satisfaction is more dependent on the responsiveness dimension than women.

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