

# The Influence Of Information Quality, Online Customer Reviews And Postage Subsidy Promos On Purchasing Decisions On E-Commerce Shopee

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**Abstract.** This study intends to examine and analyze the role of information quality, customer online reviews, and postage subsidy promos on product purchasing decisions at Shopee E-commerce. The data used is quantitative data obtained through questionnaires distributed online. The total number of respondents in this study was 102, the sample was taken using the non-probability sampling technique. The data was collected in the form of primary and secondary data. The primary data obtained were then analyzed using multiple linear analysis. The results of data processing state that the quality of information, online customer reviews, and postage subsidies have a partial effect on Shopee's E-commerce purchasing decisions.

**Key Words :** Information Quality, Online Customer Review, and Postage Subsidy Promos

## 1 Introduction

Information and communication technology is developing very quickly in line with the growth of internet users in both developing and developed countries. It also has an impact on increasing digital business. In Indonesia, the growth of internet users always grows along with changes in people's lifestyles who are starting to like online activities, such as studying, working, and shopping online. The number of Indonesians shopping online has grown on several e-commerce sites, such as Lazada shop and others. The growth of internet users in Indonesia according to APJII.

**Table 1. Number of Population and Internet Users in Indonesia**

Year	Population (persons)	Number of Internet Users (persons)	Penetration (%)
2016	256.200.000	132.700.000	51,7
2017	262.000.000	143.260.000	54,7
2018	264.160.000	171.170.000	64,8
2019	266.910.000	196.710.000	73,7
2020	266.910.000	196.710.000	73,7

Based on the data in table 1. above, the total number of internet users in Indonesia is increasing every year. This can be seen from the penetration percentage which is increasing every year. The conclusion that can be drawn from the table is that internet users in Indonesia have increased dramatically from year to year and will continue to grow in the years to come because internet users are increasing and technology is also getting more sophisticated. Internet service users can be used in various fields, especially economics, namely in online buying and selling in e-commerce. Especially in e-commerce Shopee, which is a start-up company from Singapore that started entering Indonesia in December 2015. Several factors influence consumers in shopping online, namely, the purchase decision is the behavior of consumers in buying a product. [4] states that the purchase decision is a stage in making purchasing decisions where consumers carry out actual buying activities. Peter and James in [2] stated that the purchase decision is the stage of consumers in producing decisions to buy various products and brands that begins with the introduction of needs, information seeking, information assessment, making purchases, and then evaluating post-purchase decisions. Next is the quality of information.

According to [6] in online transactions, the quality of information is a strong foundation in determining the success and failure of online shopping sites in the future. Because when transacting online, buyers do not see and hold the product directly, sellers must build high trust in their buyers by providing useful and relevant information. Meanwhile, according to [7], the quality of information is the output of data processing that is meaningful and helps in decision making. Thus, potential consumers will be better selective in making purchases. Prospective consumers in addition to looking at the quality of information, also see consumer reviews in their e-commerce applications.

Online customer reviews are reviews that are expressed by consumers after using the product online. According to [5] Online customer review is a consumer expression written in the comments column about product evaluation from many aspects, this expression will be valuable information for other potential consumers who will make an online purchase. According to [1] , reviews conducted online are part of E WOM, which means online reviews are the original opinions of consumers, not advertisements. Review is one of the factors that influence purchasing decisions. Good or bad consumer reviews, popular or not a product can be seen from the reviews written in the comments column will affect purchasing decisions. In addition to online customer reviews, there is also a postage subsidy promo.

According to [3] stated that the free shipping promo means another form of sales promotion that uses various offers to stimulate product purchases as soon as possible and increase the number of products purchased by consumers. [3] also stated that the free shipping promo eased consumers who objected to the total price charged when purchasing products through discounted shipping costs. Consumers can get free shipping up to Rp. 50,000 automatically if the number of transactions exceeds the terms and conditions. in certain areas free shipping vouchers are usually up to a discount of Rp. 20,000 and not completely free shipping. The postage subsidy promo is one of Shopee's superior marketing strategies where its function is to convey information, persuade and influence consumer perceptions until the purchase process occurs. thus consumers get a cheaper price so they can save the total cost they must pay.

According to [3] stated that a free shipping promo is a form of sales promotion carried out by the company to stimulate consumers to make purchases to increase the sales volume of a product significantly. [3] also stated that the free shipping promo relieves consumers who object to the total price charged when purchasing products through discounted shipping costs. Consumers can get free shipping up to Rp. 50,000 automatically if the number of transactions exceeds the terms and conditions. in certain areas free shipping vouchers are usually up to a discount of Rp. 20,000 and not completely free shipping. The postage subsidy promo is one of shops superior marketing strategies where its function is to convey information, persuade and influence consumer perceptions until the purchase process occurs. thus consumers get a cheaper price so they can save the total cost they must pay.

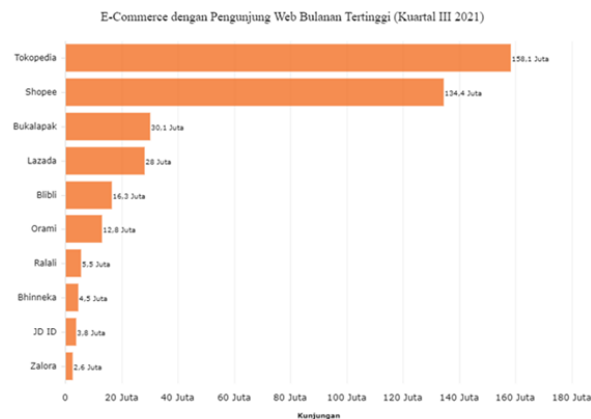


Fig. 1. Image of E-Commerce with Highest Monthly Web Visitors (Q3 2021)

Based on the data above, the highest monthly web visitor in the third quarter was Tokopedia with 158.1 million visitors. Shopee occupies the second position with 134.4 million visitors in the third quarter of 2021. The next positions are Bukalapak with 30.1 million visitors, Lazada with 28 million visitors, Blibli with 16.3 million visitors, Orami with 12 visitors, 8 million, Ralali with 5.5 million visitors, Bhinneka with 4.5 million visitors, JD ID with 3.8 million visitors, and the last position is Zalora with 2.6 million visitors. Even though Shopee is in second place, Shopee still maintains an increase in monthly visitors in the third quarter of 2021. The following are Shopee's average monthly web visitors for the first quarter of 2020 - the third quarter of 2021:

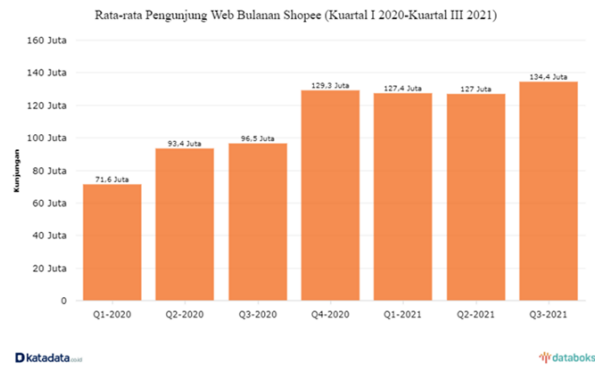


Fig. 2. Image of Shopee's Average Monthly Web Visitors (Q1 2020 – Q3 2021)

Based on the data above, Shopee's e-commerce visitors for each quarter are different, starting from Q1-2020 to Q4-2020 there is an increase, however, in Q1-2021 and Q2-2021 it decreased by around 1.9 million and Shopee carried out several strategies so that in Q3-2021 there will be a drastic increase. Factors that influence the increase in users on Shopee, namely Shopee as a means for buying and selling products online that offer products needed in daily activities which include clothes, beauty tools, cellphones, photography equipment, sports equipment, automotive, vitamins, equipment home, food, and drink. In addition to the completeness of the products sold by the shop, the shop has a product return feature, if it is not under the wishes of consumers. Shopee provides interaction services between consumers and sellers through the chat feature. Shopee as e-commerce has opened many business opportunities that can be run online. So that Shopee can become the largest e-commerce in Indonesia because of the various ways Shopee can promote e-commerce.

## 2 Research Methods

### 2.1 Variable Identification

A research variable is something in any form determined by research to be studied and conclusions are drawn. There are 2 variables used, namely:

1. Independent Variable Or Independent Variable (X)

The independent variable is a variable whose changes have an impact on the dependent variable [8], which consists of Information Quality (X1), Online Customer Review (X2), and Postage Subsidy Promo (X3).

2. Bound Variable Or Dependent Variable (Y)

The dependent variable is a variable that can change due to changes in the independent variable, [8]. In this study, the purchase decision at E-commerce Shopee is the dependent variable.

### 2.2 Data Type

In this study, researchers used quantitative data. Researchers used primary and secondary data for analysis. Primary data was collected by distributing online questionnaires. While the secondary data in this study were obtained through various literature and previous studies.

### 2.3 Population and Sample

The population used in this study is all consumers who shop at E-commerce Shopee which is unlimited in number. Determination of the number of samples in this study using the formula for multiplying the total number of indicators  $\times 5 - 10$ . The total indicator is 17, so the number of samples is  $17 \times 6 = 102$ .

### 3 Result

#### 3.1 Validity test

No.	Variable	Indicator	r table	r count	Sig.	Description
1.	Information Quality (X1)	X1.1	0,1946	0,880	0,000	Valid
		X1.2	0,1946	0,801	0,000	Valid
		X1.3	0,1946	0,705	0,000	Valid
		X1.4	0,1946	0,788	0,000	Valid
2.	Online Customer Reviews (X2)	X2.1	0,1946	0,909	0,000	Valid
		X2.2	0,1946	0,880	0,000	Valid
		X2.3	0,1946	0,887	0,000	Valid
3.	Postage Subsidy Promo (X3)	X3.1	0,1946	0,772	0,000	Valid
		X3.2	0,1946	0,810	0,000	Valid
		X3.3	0,1946	0,801	0,000	Valid
		X3.4	0,1946	0,744	0,000	Valid
4.	Buying decision (Y)	Y1	0,1946	0,638	0,000	Valid
		Y2	0,1946	0,675	0,000	Valid
		Y3	0,1946	0,646	0,000	Valid
		Y4	0,1946	0,675	0,000	Valid
		Y5	0,1946	0,705	0,000	Valid
		Y6	0,1946	0,723	0,000	Valid

Based on a sample of 102 respondents with a significance level of 0.005, the table above shows that the number of r of each variable of information quality (X1), online customer review (X2), postage subsidy promo (X3), and purchase decision (Y) is greater than r table 0.1946 with a significance level of 0.005, so it can be concluded that all the tools used in this study are valid and can be processed.

#### 3.2 Reliability Test

No.	Variable	Cronbach Alpha	Standart Alpha	Description
1.	Information Quality	0,808	0,70	Reliable
2.	Online Customer Reviews	0,871	0,70	Reliable
3.	Postage Subsidy Promo	0,786	0,70	Reliable
4.	Buying decision	0,713	0,70	Reliable

Based on the reliability test table above, it can be concluded that the value of the information quality variable, online customer review, postage subsidy promo, and purchasing decisions used in this study has a Cronbach Alpha value > 0.70, so it can be concluded that all tools in this study can be considered reliable. and reliable, suitable for further use in this study.

#### 3.3 Multiple Linear Regression Analysis

Model	Coefficients <sup>a</sup>					Collinearity Statistics	
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Tolerance	VIF
	B	Std. Error	Beta				
1 (Constant)	7,201	2,024		3,557	,001		
Information Quality	,439	,098	,398	4,480	,000	,664	1,507
Online Customer Reviews	,203	,089	,167	2,271	,025	,976	1,025
Postage Subsidy Promo	,475	,116	,366	4,109	,000	,662	1,510

The "Coefficients" table provides information on the line of the regression equation. In general, the formula for multiple linear regression equations is as follows:

$$Y = 7201 + 0.439 X1 + 0.203 X2 + 0.475 X3. \quad (1)$$

the results of multiple linear regression calculations are as follows:

- a. In the regression model, the constant value is 7.201, which means that if the independent variable in the model is assumed to be 0, the purchase decision is 7.201.
- b. Information quality variable  
The value of this regression coefficient indicates that the quality of information (X1) displays a positive value. It can be concluded that if the quality of information increases by one unit then the purchase decision will increase and vice versa if the quality of information decreases by one unit then the purchasing decision will decrease.
- c. Variable online customer review  
The value of this regression coefficient indicates that the online customer review (X2) shows a positive value. It can be concluded that if the online customer review is increased by one unit, the purchasing decision will increase, and vice versa if the online customer review is reduced by one unit, the purchasing decision will decrease.
- d. Variable postage subsidy promo  
This regression value shows that the postage subsidy promo (X3) shows a positive value. It can be concluded that if the postage subsidy promo increases by one unit, the purchase decision will increase and vice versa. If the postage subsidy promo is reduced by one unit, the purchase decision will decrease.
- e. The sign (+) indicates the direction of the one-way relationship between the independent variable (X) and the dependent variable (Y).

### 3.4 Normality test

<b>One-Sample Kolmogorov-Smirnov Test</b>		
		Unstandardized Residual
N		102
Normal Parameters <sup>a,b</sup>	Mean	,0000000
	Std. Deviation	2,02379645
Most Extreme Differences	Absolute	,060
	Positive	,060
	Negative	-,043
Test Statistic		,060
Asymp. Sig. (2-tailed)		,200 <sup>c,d</sup>

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Based on the table above, it can be seen that the results of the normality test with the One Sample Kolmogorof-Smirnoff Test test are normally distributed with a significance greater than 0.05 or 0.200.

### 3.5 Multicollinearity Test

No.	Variable	Tolerance	VIF	Description
1.	Information Quality (X1)	0,664	1,507	There Is No Multicollinearity
2.	Online Customer Reviews (X2)	0,976	1,025	There Is No Multicollinearity
3.	Postage Subsidy Promo (X3)	0,662	1,510	There Is No Multicollinearity

Based on the table above, the results of the calculation of the tolerance value there are no independent variables with a tolerance value of less than 0.10, the tolerance value of each independent variable is X1 of 0.664, X2 of 0.976, and X3 of 0.662. While the results of the calculation of the VIF value also give almost the same results, namely there is no VIF value of the independent variable whose VIF value is greater than 10 with the VIF value of each independent variable X1 which is 1.507, X2 is 1.025 and X3 is 1.510. Referring to the calculation results of tolerance and VIF values, it can be concluded that there is no multicollinearity between independent variables in the regression model.

### 3.6 Heteroscedasticity Test

		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1,051	1,227		,856	,394
	Information Quality	,089	,059	,183	1,505	,136
	Online Customer Reviews	-,051	,054	-,094	-,932	,354
	Postage Subsidy Promo	-,021	,070	-,037	-,304	,762

Based on the table above, the significance value is greater than 0.05, namely the quality of information is 0.136, online customer reviews are 0.354 and the postage subsidy promo is 0.762, so it can be concluded that in this study there is no heteroscedasticity.

### 3.7 t-test

No.	Variable	Count Significance	Significance Level	T <sub>count</sub>	T <sub>table</sub>	Description
1.	Information Quality	0,000	0,05	4,480	1,65993	Significant
2.	Online Customer Reviews	0,025	0,05	2,271	1,65993	Significant
3.	Postage Subsidy Promo	0,000	0,05	4,109	1,65993	Significant

The results of the t-test in the table, it is known that the comparison between the calculated significance level and the table significance is:

- The results of the t-test of the information quality variable (X1) have a statistical significance value of 0.000 and less than 0.05 and t count (4.4,80) > t table (1.65993) so that H1 is accepted, namely the quality of information (X1) has an effect significant to the purchase decision (Y). This also shows that the quality of information affects consumer purchasing decisions, which means that the increasing response of respondents to the quality of information will have an impact on increasing consumer purchasing decisions towards Shopee.
- The results of the t-test of the online customer review variable (X2) have a statistical significance value of 0.025 and smaller than 0.05 and t count (2.271) > t table (1.65993) so that H2 is accepted which means online customer review (X2) has a significant effect on purchasing decisions (Y). This also shows that online customer reviews have an effect on consumer purchasing decisions, which means that an increase in respondents to online customer reviews will have an impact on consumer satisfaction, increasing purchasing decisions from Shopee.
- The results of the t-test of the postage subsidy promo variable (X3) have a calculated significance value of 0.000 and less than 0.05 and t count (4.109) > t table (1.65993) so that H3 is accepted, meaning that the postage subsidy promo (X3) which has a significant effect on purchasing decisions (Y). It also shows that the postage subsidy promo has an effect on consumer purchasing decisions, which means that an increase in respondents' responses to the postage subsidy promo will have an impact on increasing consumer purchasing decisions from Shopee.

### 3.8 R<sup>2</sup> Test (Coefficient of Determination)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,697 <sup>a</sup>	,485	,470	2,055

From the table above, the number R2 (R square) is 0.485 or 48.5%. The value of R square ranges from 0 to 1. For multiple linear regression, it is better to use Adjusted R square, because it is adjusted to the number of independent variables used. The Adjusted R-square number is 0.470, which means that 47% of the dependent variable purchasing decisions at e-commerce Shopee are explained by independent variables including information quality, online customer reviews, etc. online, and postage subsidies. While the remaining 53% is influenced by variables other than those used. Other variables such as price, brand image, brand ambassador, etc.

## 4 Discussion

### 4.1 The Influence of Information Quality on Purchase Decisions at Shopee E-Commerce

The results of this study indicate that the quality of information has a significant influence on purchasing decisions on e-commerce Shopee. Based on the results of Hypothesis 1 testing above related to the information quality variable on purchasing decisions, from the information that the information quality variable has a significant effect on purchasing decisions 0.000 is smaller than 0.05, where the t-test results are known to have t count (4.480) > t table (1.65993). This means that H<sub>0</sub> is rejected and H<sub>a</sub> is accepted. The quality of information on Shopee helps consumers to prefer shopping online compared to shopping offline. The quality of quality information can influence consumers in establishing purchasing decisions on Shopee E-commerce. The quality of the information provided by Shopee varies, namely making it easy to compare brands and prices as well as order goods quickly from any store. Consumers shopping online at Shopee can view albums available at marketers in the form of images accompanied by information on product descriptions and product prices. If consumers want to buy products in a store, they can chat with the seller to ask about the availability of goods, negotiate prices, and so on. After that, if the consumer wants to buy the product, the consumer can make a payment with a transfer system through the Bank, Cash On Delivery (COD) if the store provides a COD system, and also through Indomaret or Alfamart. In addition, the quality of information on Shopee is flash sale promos. Flash sale promos on Shopee are the best promos that provide exclusive offers for a limited time, usually only at certain hours. With the flash sale on Shopee, consumers can shop at low prices, but consumers must move quickly because flash sale promos usually provide limited goods or products. So it can be concluded that the higher the quality of information owned by consumers, the higher the consumer purchasing decisions at Shopee E-commerce.

### 4.2 The Effect of Online Customer Reviews on Purchase Decisions at Shopee E-Commerce

The results of this study indicate that online customer reviews have a significant effect on purchasing decisions on Shopee e-commerce. Based on the results of testing Hypothesis 2 above on the online customer review variable on purchasing decisions, it was found that the online customer review variable has a significant influence on purchasing decisions, which is 0.025 smaller than 0.05, where the results of the t-test are known to have t count (2.271) > t table (1.65993). This means that H<sub>0</sub> is rejected and H<sub>a</sub> is accepted. Online customer reviews are one of the basic considerations for consumer purchasing decisions when shopping online at Shopee. When a product review is accompanied by a positive review, the majority of consumers do not hesitate to buy the product. It's different when there are negative reviews about a product. Most consumers will be reluctant to buy products with negative reviews and look for alternatives to similar products with positive reviews. Based on Shopee E-Commerce reviews, consumers trust the information provided by other consumers because they have made purchases at Shopee E-commerce before. Reviews from other consumers have provided an overview that is relevant to current conditions but may be true and complete for consumers, so this review is useful in making decisions to buy products from Shopee E-Commerce. Reviews from other consumers can also be seen in star recommendations. The Shopee e-commerce recommendation code has a value from 1 to 5, the higher the value, the better the product. Similarly, the greater the number of reviews, the more interaction in the reviews, and the more incentive consumers have to buy from Shopee e-commerce. Thus, online customer reviews are necessary and useful for consumers to determine their purchasing decisions at Shopee e-commerce. Therefore, it can be concluded that the higher the online customer review rating, the higher the consumer purchasing decisions on Shopee e-commerce.

### 4.3 Effect of Postage Subsidy Promo on Purchase Decisions at Shopee E-Commerce

The results of this study indicate that the postage subsidy promo has a significant influence on purchasing decisions on Shopee e-commerce. Based on the results of Hypothesis 2 testing above, related to the postage subsidy promo variable on purchasing decisions, information is obtained that the shipping cost subsidy promo variable has a significant effect on purchasing decisions, which is 0.025 smaller than 0.05, where the results of the t-test are known to have t count (4.109) > t table (1.65993). This means that H<sub>0</sub> is rejected and H<sub>a</sub> is accepted. The postage subsidy promo at E-commerce Shopee provides benefits for consumers so that it makes consumers feel happy when shopping online because there are discounts on shipping costs and consumers only need to pay part of the shipping costs. The postage subsidy promo usually starts from Rp. 0 and usually, the voucher is only valid for one day or 24 hours. So that consumers will move quickly to make purchasing decisions. Shopee postage subsidy promo is also available every day with a minimum spend of Rp. 30,000 but on certain payment methods such as Cash On Delivery (COD) or ShopeePay or SpayLater. For a minimum spend of Rp. 30,000 is usually a discount on shipping costs of Rp. 10,000 - Rp. 20,000 depending on the distance from the store to the consumer's house. Shopee shipping subsidy promo vouchers are also supported by cashback vouchers. Cashback vouchers are vouchers that allow us to get cashback in the form of Shopee coins. The owner of this cashback voucher can use the voucher for future purchases. For example, if a consumer uses a 10% cashback voucher on an order worth Rp. 100,000, consumers will get a cashback of 10,000 Shopee coins. Later, the collected Shopee coins can be used as a discount when shopping at Shopee. Consumers can only transact using Shopee coins for up to 25% of the total transaction in the Shopee application on their next purchase. So it can be concluded that the higher the

postage subsidy promo owned by the consumer, the higher the consumer's purchase decision on Shopee's E-commerce.

## 5 Conclusion

The results of the analysis and discussion in this study can be concluded that:

1. Information quality variable (X1) has a significant effect on purchasing decisions (Y) at Shopee E-commerce. These results prove that the higher the quality of the information that consumers have, the higher the consumer's purchasing decisions on Shopee's E-commerce.
2. The online customer review variable (X2) has a significant effect on purchasing decisions (Y) at Shopee E-commerce. This result proves that the higher the online customer review owned by the consumer, the higher the consumer's purchase decision on Shopee's E-commerce.
3. The postage subsidy promo variable (X3) has a significant effect on purchasing decisions (Y) at Shopee E-commerce. This result proves that the higher the postage subsidy promo owned by the consumer, the higher the consumer's purchasing decisions on Shopee's E-commerce.

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