THE EFFECT OF PRODUCT QUALITY, PRICE, AND SERVICE ON CONSUMER SATISFACTION OF SHOPEE APPLICATION USERS IN MEDAN CITY

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ABSTRACT

The purpose of this study was to determine the effect of price on consumer satisfaction of Shopee application users in Medan City. Today, the development of e-commerce has influenced people's lifestyles, allowing online shopping with convenience. Shopee as an e-commerce platform continues to grow, but it is important to understand customer expectations and fulfill their needs. This research explores the factors that influence e-commerce service quality and how to improve the shopping experience. This study combines the theories of customer satisfaction and service quality using Shopee Visitor Population Data 2022 in Medan City with a sample of 99. The results showed that product quality, price, and service together contribute positively and significantly to the consumer satisfaction of Shopee application users. This shows that Shopee can increase the level of customer satisfaction by focusing on product quality development, effective price management, and continuous application update efforts.

Keywords: Price, Satisfaction, Service, Product Quality, Shopee.

INTRODUCTION

The development of people's instantaneous lifestyle and search for convenience has encouraged businesses to offer services *Online*, one of which is through the sales system known as *e-commerce* (Hidayatullah et al., 2022). With the increase in the number of middle-class individuals who have access to the Internet and are familiar with the world of online commerce, opportunities in the realm of e-commerce business are getting stronger. As one of the online trading platforms, Shopee offers various features that ease customers in finding products and interacting with sellers. However, to maintain a positive image and continue to attract customers, companies need to have a deep understanding of customer expectations and provide services that meet their needs.

Rapid advancements in technology, communication, and information have made it possible to carry out online shopping transactions through e-commerce platforms (Ramli et al., 2020) (Waziana et al., 2022) (Rosmayati, 2023). Intense competition in online commerce has stimulated progress in the e-commerce industry, impacting the transformation of consumer behavior (Febriani &; Dewi, 2019). Consumer surveys indicate that individuals who shop online may experience dissatisfaction due to a lack of

satisfaction with the pleasant experience and a lack of social interaction with sellers (Setiyawati, 2020). Therefore, this study will explore the factors that have an impact on service quality in e-commerce and look for ways to improve the online shopping experience for consumers.

In this study, the theory of consumer satisfaction and service quality will be used. Consumer satisfaction theory focuses on the view that consumer satisfaction is formed through consumer perceptions of the quality of products, prices, and services they receive. Meanwhile, service quality

theory examines how product quality, price, and service affect overall consumer satisfaction. On the other hand, consumer dissatisfaction can generate negative attitudes towards the product, company, or service provided, which can ultimately reduce the chances of repurchase, rebranding, and other complaint behaviors (Berthama, 2014) (Husodho, 2015) (Senjaya, 2013).

Based on information collected by *iPrice*, Shopee recorded around 131.3 million website visitors every month during the second quarter of 2022.

Table 1. Shopee Visitor Growth

No	Year Quarter	Shopee Site Visitors Per Month / Visitors
1	q3 2019	55.964.700
2	q4 2019	72.973.300
3	q1 2020	71.533.300
4	q2 2020	93.440.300
5	q3 2020	96.532.300
6	q4 2020	129.320.800
7	q1 2021	127.400.000
8	q2 2021	126.996.700
9	q3 2021	134.383.300
10	q4 2021	138.776.700
11	q1 2022	132.776.700
12	q2 2022	131.296.667

In the data on the increase in the number of users above, there are *significant fluctuations* from time to time. However, overall, it saw an increasing trend in the number of users from 55,964,700 to reach a peak at 138,776,700, before finally dropping to 131,296,667. This research will focus on customer satisfaction as seen in Product Quality, Price, and Service. Based on the background above, the author is interested in raising this issue as the title "The Effect of Product Quality, Price, and Service on

Consumer Satisfaction of Shopee Application Users in Medan City".

Previous research relevant to this research topic. (Putri et al., 2015) examined the influence of product quality and promotion on the purchase decision of Freiss Indofood syrup in Semarang City, and the results of the study showed that product quality and promotion had a positive and significant influence on purchasing decisions. (Wariki et al., 2015) focused his research on Sosro Bottle tea in Semarang, and found that price and

promotion had a positive and significant effect on purchasing decisions, but product quality did not have a significant effect on consumer satisfaction. (Agesta et al., 2018) examined the influence of products, prices, promotions, and service quality on consumer satisfaction at Sanggar Bunga Mayang Bandar Lampung, and the results showed that all of these factors had a positive and significant effect on consumer satisfaction. (Lenzun et al., 2014) examine the effect of product quality, price, and promotion on Telkomsel prepaid card customer satisfaction in the Winangun sub-district. The study found that simultaneously, product quality, price, and promotion had a significant effect on customer satisfaction, although promotion had a negative and insignificant influence. This summary provides a foundation for the context of current research, showing variations in findings depending on the industry and variables considered.

This research aims to achieve four main objectives. First, to evaluate the effect of product quality on consumer satisfaction of Shopee application users in Medan City. Second, to identify the impact of price on consumer satisfaction levels using the Shopee application in the same region. Third, to assess the effect of service on consumer satisfaction of Shopee application users in Medan City. Finally, to explore how product quality, price, and service together affect consumer satisfaction of Shopee application users in the region. In addition, this study provides several benefits. First, for universities, this research can be a source of inspiration for students and academic staff to continue research in line with this theme. Second, for companies, this research contributes ideas related to the quality of online

services and their impact on consumer satisfaction, which can be used as a basis for the improvement and development of business strategies. Third, for the author, this study provides a better understanding of the importance of product quality, price, and service in creating consumer satisfaction. Finally, for academics, the results of this study can be a reference and consideration for other researchers who are interested in further exploring this or similar topics.

RESEARCH METHODS

This study uses a quantitative approach to collect numerical data and analyze it statistically to understand the effect of product quality, price, and service on consumer satisfaction among Shopee application users. The research method used is descriptive research with a focus on the description and analysis of the phenomenon being studied in detail and systematically. The nature of this study is causal, to determine causation between the variables studied, namely product quality, price, and service to consumer satisfaction. The study population involved all Shopee application users in Medan City, North Sumatra, with a sample of 99 respondents of productive age (15-59 years). Data collection techniques involve online surveys using questionnaires and analysis of secondary data from other sources. Research variables are identified and defined operationally and measured with relevant measurement scales. Validity tests are performed to ensure that measurement instruments can measure variables accurately, while reliability tests use Cronbach's alpha method to assess the consistency and reliability of measurement instruments.

RESULTS AND DISCUSSION
Identify Service Attributes

In this study, one of the first steps taken is the identification of question attributes that will be used as instruments in data collection. Question attributes are important to determine the extent of respondents' perceptions of the variables studied. Thus, the questions designed in this study are expected to represent each variable clearly and specifically.

Table 2. Question Attributes According to Research Variables

| Variable	Question
Product Quality (X1)	1. When I use the Shopee application, I feel that the performance or performance is effective.
	2. The features available on the Shopee application meet my needs and provide clear benefits.
	3. I am confident that the Shopee application will function consistently and without interruption.
	4. The product specifications presented in the Shopee application are under what I receive after purchase.
	5. I feel that the Shopee application remains responsive even though I have been using it for a long period.
	6. Shopee always updates to maintain application quality.
	7. The user interface of the Shopee app is aesthetically pleasing and easy to understand.
	8. Overall, I feel the quality of the Shopee application is very satisfying.
Price (X2)	1. The price I pay at Shopee is under the value of the product I receive.
	2. I feel that the price of products on Shopee is more competitive compared to other competitors.
	3. I feel I get good value from the product based on the price I pay on Shopee.
	4. Shopee offers price variations that allow me to choose according to my budget.
Services (X3)	1. Shopee is responsive in handling my requests and queries.
	2. Shopee employees are always friendly and professional when interacting with me.
	3. Shopee is quick in handling problems or complaints that I file.
Customer Satisfaction (Y)	1. I feel satisfied using the Shopee application based on my shopping experience, interaction with sellers, and the service I receive.

Then, Table 2 shows the demographic questions posed to respondents. These questions are designed to obtain a basic picture of the characteristics of the respondent as well as ensure that the respondent fits the research criteria. First of all, respondents were asked to confirm whether they were Shopee users and domiciled in Medan City, this is important to ensure the validity and relevance of their responses to the research context. Furthermore, age information is needed to identify the age distribution of respondents, which can provide insight into the demographic groups that are most active or responsive in the context of using Shopee. Lastly, gender was collected to understand gender distribution among respondents and perhaps highlight differences in perceptions or shopping habits by gender.

Table 3. Demographic Question Attributes

Question	Answer Options
Are You a Shopee User and Domiciled in Medan City?	a. Yes b. Not
How old are you?	Numbers 1-100
What is your gender?	a. Man b. Woman

Model regression
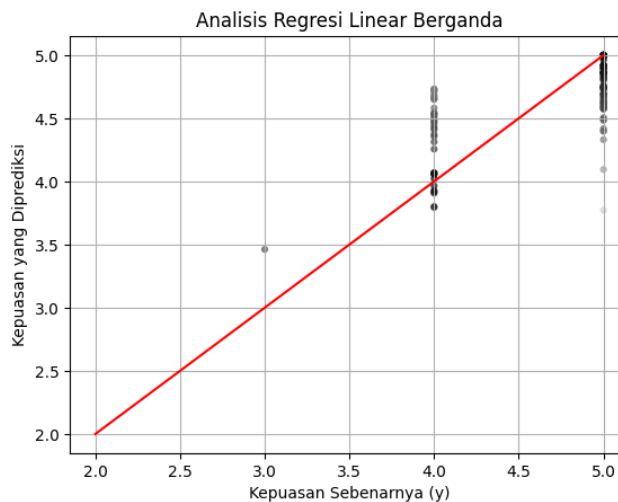
Picture 1 Double Linear Regression Analysis

Similarities Between Predicted Satisfaction and True Satisfaction: The values X and y have perfect similarities. That is, as the value of X increases, the value of y also increases by the same amount. when X is 3, y is also 3; when X is 4.5, y is also 4.5, and so on. This indicates that the predicted value closely matches the actual value (Marisa, 2020) (Elfita et al., 2019). This graph illustrates the perfect linear relationship between the two variables. This means that there is a simple linear equation that can be used to predict the value of y based on the value of X. In this case, the simple regression equation is y = X, which means that every increase of one unit in X will result in an increase of one unit in y. Because the match between the predicted value and the actual value is very good. The results of this graph show a very strong linear relationship between "predicted satisfaction" (X) and "actual satisfaction" (y). The predictions made by the model or method used to generate the value of X are very accurate, so the predicted results closely match the actual values. This is an ideal situation in simple linear regression analysis. In other words, the better the quality of the product, the fairer the price, and the better the service provided, the higher the consumer satisfaction of Shopee application users.

Coefficient of Hypothesis Determination

The coefficient of determination is:

Table 4. Coefficient of Determination

R-Squared	Rest
0.443443	0.556557

The effect of product quality, price, and service on consumer satisfaction of Shopee application users is reflected in the following data: An R-squared value of 44.3% (0.443443x 100) indicates that variations in product quality, price quality, and service quality on consumer satisfaction are moderate which has such a large contribution in explaining the relationship between these variables. The remaining 55.6% (100% - 43.4%) can be attributed to other factors not investigated in this study, such as risk perception, ease of use, and price. These results also show that the degree of correlation between these variables has a significant strength, as indicated by an R-squared value of 44.3% (0.443 x 100).

Simultaneous hypothesis testing (F test)

The F test is used to determine the effect between the independent variables on the dependent variable together. The F tester is a statistic that measures the significance of the difference between a model containing an independent variable and a model containing no independent variable. This F test helps in determining whether at least one independent variable significantly affects the dependent variable in the regression model.

Table 5. Test F

Calculate F value	F value of the table	p-value
5.2055	4.0000	0.0000

From the table above, it can be explained that the calculated F value (5.2055) is greater than the table F (4.0), and the significance probability (0.000) is smaller than 0.05. This shows that H4 is accepted, which means that product quality, price, and service quality of Shopee application users have a positive and significant influence on consumer satisfaction. This finding is in line with the results of research on the people of Medan involving shop application users.

Partial Hypothesis Testing (t-Test)

The t-test is used to determine whether there is a significant relationship or influence between the partially independent variable and the dependent variable. This t-test allows us to evaluate whether each independent variable has a meaningful influence on the dependent variable in the regression model, separately.

Table 6. Test t for Variable X1

Variable	t count	p-value
const	**1.1412**	**0.2564**
When I use the Shopee application, I feel that the performance or performance is effective.	-0.0628	0.9500

The features available on the Shopee application meet my needs and provide clear benefits.	-0.5396	0.5906
I am confident that the Shopee application will function consistently and without interruption.	1.9876	0.0494
The product specifications presented in the Shopee application match what I received after purchase.	1.4956	0.1377
I feel that the Shopee application remains responsive even though I have been using it for a long time.	1.6983	0.0924
Shopee always makes updates to maintain the quality of the application.	3.5915	0.0005
The user interface of the Shopee app is aesthetically pleasing and easy to understand.	-0.4693	0.6398
Overall, I feel the quality of the Shopee application is very satisfying.	2.0821	0.0397

"const" - This is a constant or intercept in multiple linear regression models. It represents the average value of the dependent variable (Y) when all independent variables (X1) are zero. In this case, the count t is 1.1412, which may not be significant, and the p-value is 0.2564, which indicates that this constant is insignificant in predicting Y.

"When I use the Shopee application, I feel that the performance or performance is effective." - This is one of the independent variables (X1) used in regression models. The result of the t-test shows that the t-count is -0.0628, and the p-value is 0.9500. A high p-value indicates that this statement does not have a significant impact on the dependent variable (Y).

"The features available on the Shopee app meet my needs and provide clear benefits." - This is another independent variable (X1). The result of the t-test shows that the t-count is -0.5396, and the p-value is 0.5906. A high p-value indicates that this statement also does not have a significant impact on the dependent variable (Y).

"I am confident that the Shopee app will function consistently and without interruption." - This is the third independent variable (X1). The t-test result shows that the t-count is 1.9876, and the p-value is 0.0494. A low p-value indicates that this statement has a significant impact on the dependent variable (Y).

"The product specifications presented in the Shopee app match what I receive after purchase." - This is the fourth independent variable (X1). The t-test result shows that the t-count is 1.4956, and the p-value is 0.1377. A sufficiently high p-value indicates that this statement does not have a significant impact on the dependent variable (Y).

"I feel like the Shopee app remains responsive even though I've been using it for a long time." - This is the fifth independent variable (X1). The t-test result shows that the t-count is 1.6983, and the p-value is 0.0924. A sufficiently high p-value indicates that this statement also does not have a significant impact on the dependent variable (Y).

"Shopee is always updating to maintain the quality of the app." - This is the sixth independent variable (X1). The t-test result shows that the t-count is 3.5915, and the p-value is 0.0005. A very low p-value indicates that this statement has a very significant impact on the dependent variable (Y).

"The user interface of the Shopee app is aesthetically pleasing and easy to understand." - This is the seventh independent variable (X1). The result of the t-test shows that the t-count is -0.4693, and the p-value is 0.6398. A high p-value indicates that this statement does not have a significant impact on the dependent variable (Y).

"Overall, I find the quality of the Shopee app very satisfactory." - This is the last independent variable (X1). The result of the t-test shows that the t-count is 2.0821, and the p-value is 0.0397. A low p-value indicates that this statement has a significant impact on the dependent variable (Y).

Table 7. Test t for Variable X2

Variable	t count	p-value
const	**0.2288**	**0.8194**
The price I pay at Shopee is under the value of the product I receive.	2.4854	0.0144
I feel that the price of products on Shopee is more competitive compared to other competitors.	2.2461	0.0267
I feel like I'm getting good value from the product based on the price I pay on Shopee.	1.8043	0.0739
Shopee offers price variations that allow me to choose according to my budget.	4.3604	0.0000

"The price I pay at Shopee is under the value of the product I receive." - This is the first independent variable (X2). The result of the t-test shows that the t-count is 2.4854, and the p-value is 0.0144. A low p-value indicates that this statement has a significant impact on the dependent variable (Y).

"I feel that the price of products at Shopee is more competitive compared to other competitors." - This is the second independent variable (X2). The t-test result shows that the t-count is 2.2461, and the p-value is 0.0267. A low p-value indicates that this statement also has a significant impact on the dependent variable (Y).

"I feel like I get good value from products based on the price I pay at Shopee." - This is the third independent variable (X2). The result of the t-test shows that the calculated t is 1.8043, and the p-value is 0.0739. A sufficiently high p-value indicates that this statement does not have a significant impact on the dependent variable (Y).

"Shopee offers price variations that allow me to choose according to my budget." - This is the fourth independent variable (X2). The result of the t-test shows that the t-count is 4.3604, and the p-value is 0.0000. A very low p-value indicates that this statement has a very significant impact on the dependent variable (Y)

Table 1. Test t for Variable X3

	t count	p-value
const	**5.0758**	**0.0000**
Shopee was responsive in handling my requests and queries.	1.3243	0.1881
Shopee employees are always friendly and professional when interacting with me.	1.8274	0.0703

Shopee is quick in handling any issues or complaints I file.	0.6752	0.500

"Shopee is responsive in handling my requests and queries.- This is the first independent variable (X3). The t-test result shows that the t-count is 1.3243, and the p-value is 0.1881. A sufficiently high p-value indicates that this statement does not have a significant impact on the dependent variable (Y).

"Shopee employees are always friendly and professional when interacting with me." - This is the second independent variable (X3). The result of the t-test shows that the t-count is 1.8274, and the p-value is 0.0703. A sufficiently high p-value indicates that this statement also does not have a significant impact on the dependent variable (Y).

"Shopee is quick in dealing with any issues or complaints I file." - This is the third independent variable (X3). The t-test result shows that the t-count is 0.6752, and the p-value is 0.500. A high p-value indicates that this statement does not have a significant impact on the dependent variable (Y).

The Effect of Product Quality on Shopee Consumer Satisfaction

The t-test results for independent variables related to product quality showed that most of the statements in these variables did not have a significant impact on Shopee consumer satisfaction. Statements such as "The product specifications presented in the Shopee application correspond to what I receive after purchase" and "I feel that the Shopee application remains responsive even though I have used it for a long period " have a fairly high p-value, indicating that

the contribution of this variable to consumer satisfaction is not significant.

However, there is one statement, namely "Shopee always updates to maintain the quality of the application," which has a significant impact on consumer satisfaction with a very low p-value (0.0005). This indicates that Shopee's efforts to maintain application quality through updates have a positive impact on consumer satisfaction.

The Effect of Price Quality on Shopee Consumer Satisfaction

Independent variables related to price quality, such as "The price I pay at Shopee is under the value of the product I receive" and "I feel the price of products at Shopee is more competitive compared to other competitors," have a significant impact on consumer satisfaction. Both of these statements have a low p-value, indicating that prices that match the value of the product and are competitive can increase consumer satisfaction.

In addition, the statement "Shopee offers price variations that allow me to choose according to my budget" also has a significant impact on consumer satisfaction with a very low p-value (0.0000). This shows that the price variations offered by Shopee allow consumers to choose products according to their budget, which also increases satisfaction.

The Effect of Service Quality on Shopee Customer Satisfaction

The t-test results for independent variables related to service quality showed that most of the statements in these

variables did not have a significant impact on Shopee customer satisfaction. Statements such as "Shopee is responsive in handling my requests and queries" and "Shopee employees are always friendly and professional when interacting with me" have a fairly high p-value, indicating that the contribution of this variable to consumer satisfaction is not significant.

The R-squared coefficient of determination (R-squared) of 44.3% shows that 44.3% of the variation in Shopee's customer satisfaction can be explained by variables in this model, namely product quality, price quality, and service quality. The remaining 55.6% can be attributed to other factors not investigated in the study. This indicates that there are still other factors such as risk perception, ease of use, or price factors that may also contribute significantly to consumer satisfaction that need to be considered in future research or company strategies.

Test F examines the joint effect of all independent variables (product quality, price quality, and service quality) on the dependent variable (customer satisfaction). The results of the F test show that there is a significant effect of the three independent variables on consumer satisfaction with a very low p-value (0.0000). This indicates that product quality, price quality, and service quality have a positive and significant influence on Shopee customer satisfaction.

CONCLUSION

Based on the results and discussion, the results of the hypothesis calculation show the following findings. First, in terms of Product Quality (H1), such as specifications, application responsiveness, and interface aesthetics, only application update efforts have a significant positive impact on Shopee consumer satisfaction in Medan City. Second, in the Price variable (H2), prices that are considered appropriate, competitive, and provide good value contribute positively and significantly to the consumer satisfaction of Shopee application users in Medan City. Third, Quality of Service (H3), such as responsiveness, employee friendliness, and speed of problem handling, had no significant effect on customer satisfaction in Medan City, although note that these results may be influenced by sample size and variations in consumer perception. Finally, Simultaneous Influence (H4) shows that product quality, price, and service together have a positive and significant effect on consumer satisfaction of the Shopee application in Medan City. With these findings, it is recommended to expand the study sample with a larger number of respondents and demographic diversification for more representative results. Adding additional variables such as risk perception, ease of use, or consumer loyalty can also provide a more comprehensive understanding of the factors that affect consumer satisfaction. In addition, making comparisons between Shopee and other e-commerce platforms can provide valuable insights into market competition.

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