

Analysis of the Effect of User Satisfaction on the Quality of the Shopee Application with the End User Computing Satisfaction Method (Survey on Followers of the Shopee Indonesia Instagram Account)

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Abstract. Shopee is one of the e-commerce platforms in Indonesia that supports the marketplace business model. Shopee faces a big challenge to compete with a large number of other e-commerce because it is one of the marketplaces that enliven the mobile segment. To win the competition, marketplace organizers must be able to meet consumer needs to win the competition because the rapid and diverse growth of e-commerce results in increasingly fierce competition. A service can be said to be successful in providing satisfaction if it can meet the needs of its users, and user satisfaction itself can be interpreted as an important thing for every service provider. User satisfaction with services can be used to identify the good and bad sides of services that can be implemented so that user needs can be met. In this study, the End User Computer Satisfaction (EUCS) method is used, the EUCS method has 5 variables that can be used in the analysis process, namely the Content, Accuracy, Format, Ease of Use, and Timeliness variables. The research was conducted by distributing questionnaires to @shopee_id Instagram followers, from distributing questionnaires, 385 data were taken as samples to measure Shopee marketplace user satisfaction. The results of the presentation of Shopee marketplace user satisfaction on all variables are stated to have a very satisfactory data interpretation because the presentation value is above 81%.

Keywords: Shopee application, EUCS, User satisfaction

1 Introduction

In today's digital era, the world of technology is developing very quickly and rapidly. With the increasing need for information, information technology can have a positive impact on various aspects of human life which can function to help and facilitate human life [1][2]. Data from the 2022 Susenas Survey data collection from BPS shows that 66.48% of the Indonesian population has accessed the internet in 2022 and 62.10% in 2021 [3]. Almost all sectors in the modern world are experiencing rapid technological development. One of them is in the business sector. Previously, we could only buy our needs at the market or mall, and traders could only trade at the market or mall. However, with the development of business in cyberspace today, people are starting to be very interested in online business or online buying and selling [4].

Online shopping is a new model that is favored by people today. This trend has triggered the emergence of a new type of business, namely electronic commerce or e-commerce for short. Business development in Indonesia in recent years seems to be focusing more on e-commerce [5]. The e-commerce business in Indonesia is number one in the world. Along with an increase in the number of products sold over the internet, as well as an increase in the country's population and economic growth, the Indonesian e-commerce market is expected to increase by 31% in 2019. Thus, the growth of e-commerce in Indonesia will lead to increasingly fierce competition every day. E-commerce companies compete for customers and other factors such as such as app installs, website visitors, staff, and social media followers [6]. This can be seen in the e-commerce competition map in the first and second quarter of 2022 [7].

Filter berdasarkan Marketplace Store Type Indonesia Pilih Data per Kuartal Q1 2022

Toko Online	Pengunjung Web Bulanan	Ranking AppStore	Ranking PlayStore	Twitter	Instagram	Facebook	Jumlah Karyawan
1 Tokopedia	157,232,200	#2	#2	1,000,000	5,194,000	4,518,940	7,409
2 Shopee	132,776,700	#1	#1	778,100	4,514,710	25,087,130	6,232
3 Lazada	34,686,700	#3	#2	464,000	3,132,270	31,833,880	1,447
4 Bukalapak	23,096,700	#7	#7	239,300	1,857,790	2,511,780	2,915
5 Orami	19,953,300	#6	#6	5,690	16,200	350,680	247
6 Blibli	16,326,700	#5	#5	173,600	32,32,230	4,476,930	2,768
7 Ralali	8,883,300	#22	#14	3,830	53,190	90,740	196
8 Zalora	2,776,700	#4	#8	7,460	756,890	3,512,210	271
9 JD ID	2,546,700	#8	#6	57,300	646,160	1,021,070	1,577
10 Bhinneka	2,360,000	#16	#12	66,100	42,220	1,028,810	606

Figure 1. E-commerce Competition Map in Indonesia Q1 2022

Filter berdasarkan Marketplace Store Type Indonesia Pilih Data per Kuartal Q2 2022

Toko Online	Pengunjung Web Bulanan	Ranking AppStore	Ranking PlayStore	Twitter	Instagram	Facebook	Jumlah Karyawan
1 Tokopedia	158,346,667	#2	#5	1,000,000	5,263,104	4,517,950	7,976
2 Shopee	131,296,667	#1	#1	842,900	8,727,742	25,778,184	6,781
3 Lazada	36,640,000	#3	#2	475,900	3,196,231	32,137,440	1,506
4 Bukalapak	21,303,333	#7	#6	252,500	2,110,525	2,505,675	2,962
5 Blibli	19,736,667	#5	#3	613,700	2,258,064	4,889,266	2,952
6 Orami	16,176,667	#14	#14	5,685	20,085	350,042	251
7 Ralali	10,830,000	#24	#14	3,736	50,778	90,396	204
8 Zalora	2,990,000	#4	#9	69,400	772,558	3,021,418	258
9 Klik Indomaret	2,846,667	#1	#6	NA	443,893	79,369	NA
10 JD ID	2,343,333	#9	#7	62,100	649,824	1,036,192	1,566

Figure 2. E-commerce Competition Map in Indonesia Q2 2022

In this study, the object to be researched is the Shopee marketplace, this is because Shopee is one of the largest users when viewed from Instagram followers, ranks in the Appstore, and also ranks in Playstore. Shopee is a subsidiary of Sea Group which was launched simultaneously in seven countries namely; Indonesia, Malaysia, Singapore, Philippines, Taiwan, Thailand and Vietnam in 2015. The purpose of Sea Group established shopee is to help customers and small businesses improve their lives with the help of technology. Shopee is one of the e-commerce platforms in Indonesia that supports the marketplace business model. Shopee's target market is sellers and buyers, buyers can see and choose the products they want through the advertising space provided by Shopee. The existing transaction system at Shopee is carried out through a joint account system, where the buyer's money goes to Shopee's account first through a joint account system, and when the goods arrive at the buyer's hands, the remaining money is transferred to the seller's account. [2]. Shopee faces a big challenge to compete with a large number of other e-commerce because it is one of the marketplaces that enliven the mobile segment. To win the competition, marketplace organizers must be able to meet consumer needs to win the competition because the rapid and diverse growth of e-commerce results in increasingly fierce competition [4].

A service can be said to be successful in providing satisfaction if it can meet the needs of its users, and user satisfaction itself can be interpreted as an important thing for every service provider. User satisfaction with services can be used to identify the good and bad sides of services that can be implemented so that user needs can be met. In this study, the End User Computer Satisfaction (EUCS) method is used because the EUCS method focuses on end user satisfaction based on user experience of insight into aspects of technology or services compared to others, and through this method it is possible to find out which factors have an influence on end user satisfaction [8]. [9] explain, in the EUCS method there are 5 variables that can be used in the analysis process, namely the Content variable, the Accuracy variable, the Format variable, the Ease of Use variable, and the Timeliness variable. The hope of this research is that it can be used as an evaluation for developers so that the satisfaction of users can be considered, so that the success rate of the application system is achieved.

By understanding the challenges in student selection and technological advances in education, the development of academic potential test applications with the Fisher-Yates Shuffle algorithm is relevant and can provide solutions to improve the student selection process at SMK Wisata Indonesia. This also underlies the researcher to design and build an academic potential test application with the title "Application of Academic Potential Test for New Student Admission Using Fisher-Yates Shuffle Algorithm".

Seeing the data and conditions that have been described, the researcher is interested in focusing on research with the title "Analysis of the Effect of User Satisfaction on the Quality of the Shopee Application with the End User Computing Satisfaction Method (Survey on Followers of the Shopee Indonesia Instagram account)".

2 Literature Study

The literature study in this study was conducted by searching for information on the internet such as articles and other similar studies related to analyzing the effect of user satisfaction using the End User Computing Satisfaction method. Literature studies are carried out by searching for information using the keywords "Analysis of the effect of user satisfaction on e-commerce with the End User Computing Satisfaction method" on search sites such as Google Scholar. At this stage, it takes a period of 1 week to search for and study information about the appropriate research title, namely ANALYSIS OF THE INFLUENCE OF USER SATISFACTION ON SHOPEE APPLICATION QUALITY BY THE END USER COMPUTING SATISFACTION METHOD (SURVEY ON FOLLOWERS OF SHOPEE INDONESIA INSTAGRAM ACCOUNT).

3 Research Method

3.1 Research Methods

The research method used by researchers is the survey method. There are several definitions of the survey method. According to [10] in general, the survey method consists of two types, namely descriptive and explanatory (analytical). In this study, researchers used a descriptive survey method with the intention of describing or describing the population under study, namely followers of the @shopee_id Instagram account. Researchers chose the descriptive survey research method to obtain data by circulating questionnaires to followers of the @shopee_id Instagram account to find out whether there is satisfaction with the @shopee_id Instagram account using the End User Computing Satisfaction method.

3.2 Location and Time of Research

This research was conducted at the residence of the researcher and respondents through Instagram social media on the @shopee_id account. Respondents can fill out questionnaires via personal computers or smartphones because researchers distribute questionnaires via Google Docs Forms so that respondents can fill in wherever the respondent is. The research time starts from November 20, 2023.

3.3 Determination of Research Objects

State that the research object is a collection of elements consisting of individuals, organizations, or products to be studied. "Research object" is a term used to describe the core of the research problem and the object that will then be examined to collect more specific data [11].

Based on this explanation, the researcher concludes that the object of research is a scientific target to obtain the objectives to be achieved, namely in the form of data. Researchers made the object of research with Instagram social media because researchers wanted to focus on Shopee user customer satisfaction on the @shopee_id account with the End User Computing Satisfaction method.

3.4 Population and Sample

3.4.1 Population

There is a fundamental difference in understanding between population and sample. Population is a generalization area consisting of objects or subjects that have certain qualities and characteristics that have been determined by researchers to be studied before reaching conclusions [12].

Based on this explanation, researchers made Instagram @shopee_id social media followers as the population in the study. The total population on Instagram @shopee_id social media is 8.9 million because the population is relatively large, this study uses probability sampling techniques.

3.4.2 Sample

According to [12] the sample is part of the number and characteristics possessed by a population. If the population is large and research cannot study all aspects of it, such as due to limited time, energy, or funds, then research can use samples taken from the population.

In this study, the sample used is followers or followers of Instagram social media @shopee_id. From the Rao Purba sample calculation formula [8], it is known that the minimum sample taken is as follows:

$$n = \frac{Z^2}{4(moe)^2}$$

Description:

n = Number of Samples

Z = Normal distribution level at a significant level of 5% = 1.96

Moe = Margin of error, namely the maximum sampling error rate that can still be tolerated or desired at 5% or 0.05

So the sample taken from the population in this study was:

$$n = \frac{1,96^2}{4(0,05)^2}$$

$$n = 384,16$$

So the minimum sample that must be taken is 384.16 and rounded up to 385 respondents.

3.5 Data Collection Technique

The data collection methods needed for this research are literature studies and questionnaires.

3.5.1 Questionnaire

This study uses a questionnaire as the main data source to determine the level of user satisfaction and the factors that influence user satisfaction with the Shopee application. This questionnaire consists of 6 general questions for the respondent's profile, and then converted into research demographic data. This questionnaire consists of 21 statements made to find references from previous studies with the same variables as the variables of this study.

This study used a Likert scale for filling out the questionnaire. The rating scale uses five answer options consisting of:

Table 1. Skala Likert

No	Likert Scale	Value
1	Strongly Agree	5
2	Agree	4
3	Undecided	3
4	Disagree	2
5	Strongly Disagree	1

This questionnaire has two parts, the first part is questions about the respondent's profile which consists of 6 questions. Questions regarding the identity of the respondent's profile are as follows:

Table 2. First Part of Questionnaire

No	Questions
1	Respondent's Name
2	Gender of Respondent
3	Age
4	Occupation
5	Income
6	Domicile

The list of statements regarding user satisfaction consists of 21 statements, which are as follows:

Table 3. Part Two of the Questionnaire

Variabel EUCS	Indicator	Questions
Content (X1)	Clarity	Aplikasi shopee memberikan informasi yang jelas?
	Ease	Aplikasi shopee menyediakan informasi yang jelas dan mudah dipahami?
	Informative	Aplikasi shopee menawarkan informasi yang sesuai dengan kebutuhan anda?
	Feasibility	Aplikasi shopee menyediakan informasi yang relevan dan berguna?
	Accuracy	Aplikasi shopee sudah menyediakan informasi yang akurat?
Accuracy (X2)	Believability	Aplikasi shopee memberikan informasi yang dapat dipercaya?
	System Proficiency	Aplikasi Shopee memiliki fitur yang memenuhi fungsinya?
	Alignment	Aplikasi Shopee menampilkan output yang sesuai dengan yang diinginkan?
Format (X3)	Interesting	Aplikasi shopee memiliki design layout yang menarik?
	Make it easy	Aplikasi Shopee memiliki layout yang menarik yang membuatnya mudah digunakan?
	Clear	Aplikasi Shopee memiliki menu yang mudah dipahami?
	Information Quality	Format aplikasi Shopee memberikan informasi berkualitas baik?
Ease of Use (X4)	Easy to access	Aplikasi shopee mudah untuk diakses?
	Easy to use	Aplikasi shopee mudah untuk digunakan?
	System Interaction	Anda merasa mudah untuk berinteraksi dengan customer service shopee jika ada masalah?
	Easy to pay	Aplikasi Shopee menawarkan banyak cara pembayaran yang mudah?
	System Readiness	Response time dalam menampilkan beranda pada aplikasi aplikasi sangat cepat?
	Up To Date	Aplikasi shopee menampilkan informasi produk terbaru dengan cepat?

Timelines (X5)	System Interaction	Costumer service shopee cepat dalam menanggapi komplain?
	Ease of System Usage	Aplikasi shopee memiliki kapasitas yang besar?
User Satisfication (Y)	Satisfaction	Anda merasa puas menggunakan aplikasi Shopee?

3.6 Model & Hypothesis

In this study, the method used to analyze user satisfaction is End User Computing Satisfaction, as mentioned earlier. This research uses five variables; content, accuracy, format, ease of use, and timeliness. These variables were hypothesized and tested for research. From the methods already mentioned, each variable used is hypothesized to have a positive impact on user satisfaction.

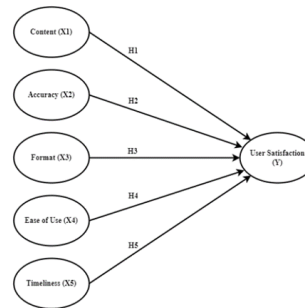


Figure 3. Research Model

Based on the research model that has been formulated above, the researchers propose the following hypotheses:

Table 4. Research Hypothesis

Hypothesis	Notes
H1	Content memiliki pengaruh yang signifikan terhadap kepuasan pengguna aplikasi shopee
H2	Accuracy memiliki pengaruh yang signifikan terhadap kepuasan pengguna aplikasi shopee
H3	Format memiliki pengaruh yang signifikan terhadap kepuasan pengguna aplikasi shopee
H4	Ease of Use memiliki pengaruh yang signifikan terhadap kepuasan pengguna aplikasi shopee
H5	Timeliness memiliki pengaruh yang signifikan terhadap kepuasan pengguna aplikasi shopee

3.7 Research stages

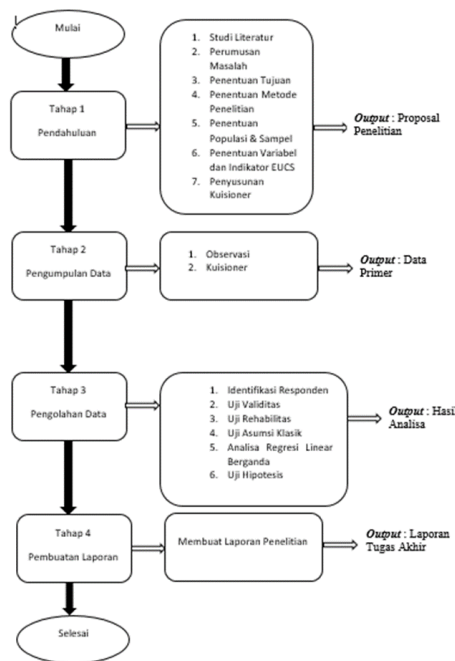


Figure 4. Research Stages

3.8 Data Analysis Stages

After the questionnaire data has been obtained, the researcher will process the data obtained with several tests to get the research results.

3.8.1 Respondent Identification

This step explains how each respondent responds to each EUCS variable. To see the percentage of all questions in this survey [2].

3.8.2 Validity Test

This validity test is carried out to check the validity of the questions in the questionnaire. To test the validity of this study, by comparing r count with r table, the value of r count is obtained from testing with the help of the SPSS program, while r table is obtained from the degree of freedom with the formula $(df = N-2)$ then the results are seen in the distribution table of r table values. If the results obtained are r count $\geq r$ table, the question is considered valid and vice versa [13][14].

3.8.3 Reliability Test

This reliability test is carried out to test the measurement results with the same object producing the same data. In this study, the method used to test reliability is the Cronbach's Alpha method. If the Cronbach's Alpha value obtained is greater than 0.6, the questionnaire is considered reliable. The test was carried out using the SPSS program [13].

3.8.4 Data Interpretation

Data interpretation is to descriptively explain the variables in this study from the descriptive results of respondent data. In this study there are 5 independent variables, namely Content (X1), Accuracy (X2), Format (X3), Ease of Use (X4), and Time liness (X5) and the dependent variable end User Satisfaction (Y). Data interpretation of these variables on end user satisfaction (EUCS) on the performance of the Shopee Marketplace.

Analysis with the Likert method from the above calculations will determine the category range, there are 5 category ranges, namely [2][8]:

0-20% = Very Dissatisfied

21-40% = Dissatisfied

41-60% = Neutral

61-80% = Satisfied

81-100% = Very Satisfied

3.8.5 Classical Assumption Test

The classical assumption test is a prerequisite test that is carried out before conducting multiple linear regression analysis. The classic assumption tests used in this study are; Multicollinearity, heteroscedasticity, autocorrelation, and normality [2].

a. Multicollinearity

Multicollinearity test, used to determine the correlation between independent variables (free). Good regression assumes the absence of multicollinearity. In this study, the multicollinearity test was carried out by looking at the Tolerance and VIF values. If the Tolerance value > 0.10 and $VIF < 10$, it is stated that there is no multicollinearity and vice versa.

b. Heteroscedasticity

Heteroscedasticity test, used to determine the inequality of variance from the residuals of one observation to another. If the residual value of the independent variable > 0.05 , then there is no heteroscedasticity and vice versa.

c. Normality

The data normality test is used to determine whether the data distribution is normal or not. In this study, the method used to test normality is the probability plot method. The basis for decision making to identify normality is seen if the data is spread around the diagonal line and follows the diagonal direction, the regression model fulfills the assumption of normality and vice versa.

After the classical assumption test is fulfilled, the next step is to conduct multiple linear regression testing. Where in this study it is used to determine whether there is a contribution of the independent variable to the dependent variable.

3.8.6 Multiple Linear Regression Analysis

After the classical assumption test is carried out, multiple linear regression analysis is continued which aims to determine whether there is a contribution of the independent variable (X) to the dependent variable (Y). The following is a formula that shows the regression equation [2]:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + e$$

Description:

Y = Response variable / user satisfaction

X = Variable

a = Constant

b = Regression parameter

e = Margin of Error

3.8.7 Hypothesis Test

a. T test

The T test is used to determine the effect of each independent variable on the dependent variable. In this study, the t test was carried out by comparing the t-count with the t-table. The t table value is obtained from the formula ($df = a/2; n-k-1$) then the t-table value is obtained using a probability value of 0.05. If the t-count $>$ t-table and significant value < 0.05 , it fails to reject H_0 or the independent variable individually affects the dependent variable [13][15].

b. F test

The F test is used to determine whether the independent variables together (simultaneously) affect the dependent variable. In this study, the f test was carried out by comparing the F-count value with the F-table (Ghozali, 2013). The F table value is obtained from the formula ($df = a/2; n-k-1$) then the t-table value is obtained with a significance level of 5%. If the F-count $>$ F-table result and a significant value < 0.05 , it

fails to reject H0 or the independent variable simultaneously has a significant effect on the dependent variable [13][15].

4 Result and Discussion

4.1 Identification of Respondents

Based on the data obtained, it is known that there are 5 characteristics of respondents, namely:

a. Gender

Based on the pie chart in Figure 5, it shows that of the 385 respondents in this study, female respondents dominated, namely 50.4% (194 people). Meanwhile, the male gender is 49.6% (191 people).

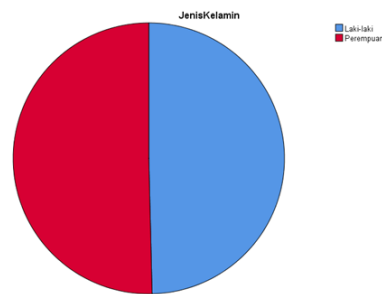


Figure 5. Pie chart of Gender

b. Age

Based on the pie chart in Figure 6, it shows that of the 385 respondents in this study, respondents with an age range of 20-25 years were dominated by 94.5% (364 people). Meanwhile, for ages in the range of > 20 years, namely 2.9% (11 people) and ages in the range of 26-30 years, namely 2.6% (10 people).

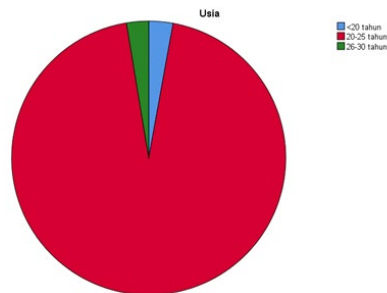


Figure 6. Pie chart Age

c. Occupation

Based on the pie chart in Figure 7 shows that of the 385 respondents in this study, respondents with the occupation of an employee were dominated by 54.5% (210 people). Meanwhile, the rest is a student of 45.5% (175 people).

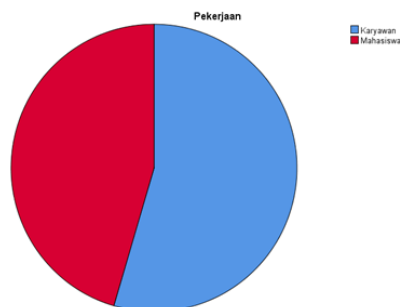


Figure 7. Pie chart Occupation

d. Income

Based on the pie chart in Figure 8 shows that of the 385 respondents in this study, respondents with an income range of Rp.1000,000 - Rp.5000,000 were dominated by respondents, namely 64.7% (249 people). Meanwhile, respondents who do not have an income are 19.7% (76 people), respondents with an income range of Rp.6000,000 - Rp.10,000,000, namely 8.6% (33 people), respondents with an income range <Rp.1000,000, namely 6.5% (25 people) and respondents with an income range > Rp.10,000,000, namely 0.5% (2 people).

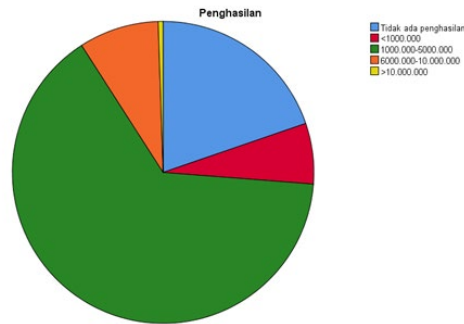


Figure 8. Pie chart Income

e. Domicile

Based on the pie chart in Figure 9, it shows that of the 385 respondents in this study, 70.1% (270 people) were dominated by respondents from Jabodetabek. Meanwhile, the rest are from outside Jabodetabek, which is 29.9% (115 people).

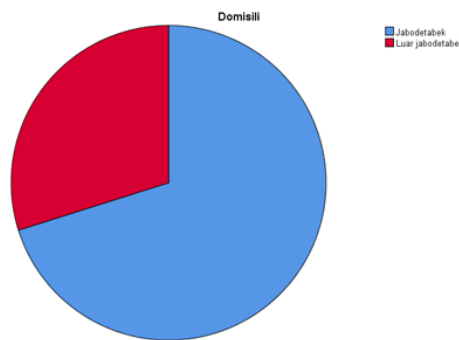


Figure 9. Pie chart Domicile

4.2 Validity Test

The criteria for testing the validity test in this study, by comparing r count with r table. If the results obtained are $r \text{ count} \geq r \text{ table}$, the question is considered valid and vice versa [13].

Before conducting the validity test, the first thing to do is to find the value of r table, the value of r table is obtained from the degree of freedom with the formula ($df = N-2$) obtained the value of r - table using a significant level of 5% and twotailed with the number of respondents $N = 385$, the value of r - table = 0.100. Because the r-count value shown in table 5 is greater than 0.100, all variables in this study are considered valid.

Table 5. Validity Test Results

Variable	Indicator	R-calculated value	Description
<i>Content</i> (X1)	X1.P1	0,663	VALID
	X1.P2	0,664	VALID
	X1.P3	0,692	VALID
	X1.P4	0,727	VALID
<i>Accuracy</i> (X2)	X2.P1	0,727	VALID
	X2.P2	0,693	VALID
	X2.P3	0,732	VALID

	X2.P4	0,723	VALID
	X3.P1	0,778	VALID
<i>Format</i> (X3)	X3.P2	0,744	VALID
	X3.P3	0,748	VALID
	X3.P4	0,770	VALID
	X4.P1	0,741	VALID
<i>Ease of Use</i> (X4)	X4.P2	0,723	VALID
	X4.P3	0,722	VALID
	X4.P4	0,664	VALID
	X5.P1	0,764	VALID
<i>Timelines</i> (X5)	X5.P2	0,766	VALID
	X5.P3	0,685	VALID
	X5.P4	0,681	VALID
<i>User Satisfaction</i> (Y)	Y1.P1	0,709	VALID

From table 5 above it can be seen that the correlation between each question item has a high correlation value, because it is greater than the r-table value; in the content variable (X1) all question items are declared valid, in the Accuracy variable (X2) all question items are declared valid, in the Format variable (X3) all question items are declared valid, in the Ease of Use variable (X4) all question items are declared valid, in the Timeliness variable (X5) all question items are declared valid, and in the User Satisfaction variable (Y) thus the statement items are declared Valid.

4.3 Reliability Test

In this study, the method used to test reliability is the Cronbach's Alpha method. The test criteria in this study are if the Cronbach's Alpha value obtained is greater than 0.6, the questionnaire is considered reliable [13].

Table 6. Reliability Test Results

Variable	Indicator	Cronbach's alpha value	Description
	X1.P1	0,954	RELIABLE
<i>Content</i> (X1)	X1.P2	0,954	RELIABLE
	X1.P3	0,954	RELIABLE
	X1.P4	0,953	RELIABLE
	X2.P1	0,953	RELIABLE
<i>Accuracy</i> (X2)	X2.P2	0,954	RELIABLE
	X2.P3	0,953	RELIABLE
	X2.P4	0,953	RELIABLE
	X3.P1	0,952	RELIABLE
<i>Format</i> (X3)	X3.P2	0,953	RELIABLE
	X3.P3	0,953	RELIABLE
	X3.P4	0,952	RELIABLE
	X4.P1	0,953	RELIABLE
<i>Ease of Use</i> (X4)	X4.P2	0,953	RELIABLE
	X4.P3	0,953	RELIABLE
	X4.P4	0,954	RELIABLE
	X5.P1	0,953	RELIABLE
<i>Timelines</i> (X5)	X5.P2	0,953	RELIABLE
	X5.P3	0,954	RELIABLE
	X5.P4	0,954	RELIABLE
<i>User Satisfaction</i> (Y)	Y1.P1	0,953	RELIABLE

From the reliability results obtained in this study, all variables are declared reliable. This is because the Cronbach's alpha value obtained is > 0.60 . In the content variable (X1) all question items are declared reliable, in the Accuracy variable (X2) all question items are declared reliable, in the Format variable (X3) all question items are declared reliable, in the Ease of Use variable (X4) all question items are declared reliable, in the Timeliness

variable (X5) all question items are declared reliable, and in the User Satisfaction variable (Y) thus the statement items are declared reliable.

4.4 Data Interpretation

Data interpretation is to descriptively explain the variables in this study from the descriptive results of respondent data. In this study there are 5 independent variables, namely Content (X1), Accuracy (X2), Format (X3), Ease of Use (X4), and Time liness (X5) and the dependent variable end User Satisfaction (Y). Data interpretation of these variables on end user satisfaction (EUCS) on the performance of the Shopee Marketplace.

Table 7. Descriptive Statistics Results

Variable	Indicator	Description				
		1	2	3	4	5
<i>Content</i> (X1)	X1.P1	4	8	111	900	575
	X1.P2	2	18	78	840	690
	X1.P3	3	12	96	792	720
	X1.P4	3	12	96	860	645
<i>Accuracy</i> (X2)	X2.P1	2	8	162	768	665
	X2.P2	2	17	78	812	678
	X2.P3	3	16	117	784	695
	X2.P4	3	10	93	808	720
<i>Format</i> (X3)	X3.P1	7	10	135	716	745
	X3.P2	7	20	126	716	735
	X3.P3	4	18	84	740	795
	X3.P4	7	4	105	764	750
<i>Ease of Use</i> (X4)	X4.P1	5	8	75	704	875
	X4.P2	6	4	45	744	880
	X4.P3	8	20	171	716	655
	X4.P4	4	4	93	724	835
<i>Timelines</i> (X5)	X5.P1	10	26	177	732	600
	X5.P2	7	10	135	768	680
	X5.P3	10	14	174	696	680
	X5.P4	5	14	132	708	760
<i>User Satisfaction</i> (Y)	Y1.P1	4	10	96	768	760

Then the percentage value of the data interpretation is calculated by summing the results of each question in one variable which is then divided by 1,925 (5 x 385, where 5 is the highest value of the measurement scale and 385 is the number of respondents), the following table of interpretation of question indicators:

Table 8. Interpretation of Variable Indicators

Variable	Indicator	Mark	Average Value	Description (Interpretation)
<i>Content</i> (X1)	X1.P1	83,01%	83,95%	Sangat Puas
	X1.P2	84,57%		
	X1.P3	84,31%		
	X1.P4	83,94%		
<i>Accuracy</i> (X2)	X2.P1	83,37%	83,64%	Sangat Puas
	X2.P2	82,44%		
	X2.P3	83,89%		
	X2.P4	84,88%		
<i>Format</i> (X3)	X3.P1	83,79%	84,25%	Sangat Puas
	X3.P2	83,32%		
	X3.P3	85,24%		
	X3.P4	84,67%		

<i>Ease of Use</i> (X4)	X4.P1	86,59%	85,39%	Sangat Puas
	X4.P2	87,22%		
	X4.P3	81,55%		
	X4.P4	86,23%		
	X5.P1	80,25%		
<i>Timelines</i> (X5)	X5.P2	83,11%	82,30%	Sangat Puas
	X5.P3	81,76%		
	X5.P4	84,10%		
<i>User</i> <i>Satisfaction</i> (Y)	Y1.P1	85,09%	85,09%	Sangat Puas

Based on the results obtained in table 8, the percentage of answers from respondents based on the Content (X1) variable is 83.95% and is included in the very satisfied category, this means that users believe and accept the content or information presented according to user needs. For the Accuracy (X2) variable, which is 83.64% and is included in the very satisfied category, this means that users believe and receive services that are in accordance with user needs. For the Format variable (X3), which is 84.25% and is included in the very satisfied category, this explains that users believe and receive an attractive appearance that suits user needs. For the Ease of Use (X4) variable, which is 85.39% and is included in the very satisfied category, this means that users believe and accept an attractive appearance that suits their needs and ease of use for users. For the Timelines variable (X5), which is 82.30% and falls into the very satisfied category, this means that users believe and accept the updates that users need. And for the User Satisfaction (Y) variable, which is 85.09% and is included in the very satisfied category, this means that users are very satisfied with the Shopee Marketplace.

4.5 Classic Assumption Test

4.5.1 Multicollinearity

The multicollinearity test is carried out to find out whether there are independent variables that are similar between the independent variables in the regression model. If there is correlation, then the regression model is said to have a multicollinearity problem. The multicollinearity test was carried out by looking at the tolerance value and the Variance Inflation Factor (VIF) value. The testing criteria used in the multicollinearity test are; If the Tolerance value is > 0.10 and $VIF < 10$, then it is stated that there is no multicollinearity and vice versa [2].

From the multicollinearity results obtained in this study, all variables show that they are free of multicollinearity or that multicollinearity does not occur. This is because the tolerance value obtained shows > 0.10 and the VIF value obtained shows < 10 .

Table 9. Multicollinearity Test Results

Variable	Collinearity Statistic		Description
	Tolerance	VIF	
<i>Content</i> (X1)	0,318	3,144	No multicollinearity occurs
<i>Accuracy</i> (X2)	0,253	3,951	No multicollinearity occurs
<i>Format</i> (X3)	0,283	3,538	No multicollinearity occurs
<i>Ease of Use</i> (X4)	0,232	4,314	No multicollinearity occurs
<i>Timelines</i> (X5)	0,272	3,670	No multicollinearity occurs

Based on multiple regression calculations between the EUCS variables, namely Content, Accuracy, Format, Ease of Use, and timeliness using the SPSS 25 program in table 9. The results obtained were that it was free of multicollinearity or that multicollinearity did not occur. This is because the tolerance value obtained shows > 0.10 and the VIF value obtained shows < 10 .

In the content variable (X1), the tolerance value was $0.318 > 0.10$ and the VIF value was $3.144 < 10.00$. In the Accuracy variable (X2), the tolerance value was $0.253 > 0.10$ and the VIF value was $3.951 < 10.00$. In the Format variable (X3), the tolerance value was $0.283 > 0.10$. and the VIF value is $3.538 < 10.00$. In the Ease of Use (X4)

variable, the tolerance value is $0.232 > 0.10$ and the VIF value is $4.314 < 10.00$, and in the Timelines variable (X5), the tolerance value is $0.272 > 0.10$ and the VIF value is $3.670 < 10.00$.

4.5.2 Heteroscedasticity

The heteroscedasticity test is carried out to test whether there is an inequality of variance in the regression model data from other observations. If the residual variation from the second observation still exists, this is called heteroscedasticity. A good regression model is homoscedastic. The testing criteria for a good heteroscedasticity test is the absence of heteroscedasticity [2].

Table 10. Heteroscedasticity Test Results

<i>Correlations</i>		Description
Variable	<i>Unstandardized Residual</i>	
<i>Content</i> (X1)	0,831	No heteroscedasticity occurs
<i>Accuracy</i> (X2)	0,371	No heteroscedasticity occurs
<i>Format</i> (X3)	0,584	No heteroscedasticity occurs
<i>Ease of Use</i> (X4)	0,617	No heteroscedasticity occurs
<i>Timelines</i> (X5)	0,197	No heteroscedasticity occurs

Based on Table 10 Heteroscedasticity Test Results, heteroscedasticity results in this study showed that all variables did not occur. This is because the significance value is above the limit value, namely 0.05.

In the content variable (X1), the sig value is obtained. $0.831 > 0.05$, in the Accuracy variable (X2) the sig value is $0.371 > 0.05$, in the Format variable (X3) the sig value is $0.584 > 0.05$, in the Ease of Use variable (X4) the sig value is $0.617 > 0.05$, and in the variable Timelines (X5) obtained a sig value of $0.197 > 0.05$.

4.5.3 Normality

The normality test is carried out to test whether in the regression model, the confounding or residual variables have a normal distribution. A good regression model is normal distribution data. The basis for decision making to identify normality is if the data is spread around a diagonal line and follows the diagonal direction, the regression model meets the assumption of normality and vice versa [2].

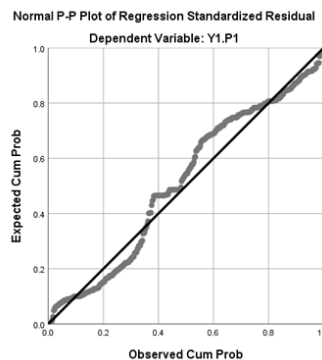


Figure 10. Normality Test Using the Probability Plot Method

From Figure 10 above, it is known that the data is spread around the diagonal line and follows the direction of the diagonal line, which means that the regression model meets the normality criteria or the data is said to be normal.

4.6 Multiple Linear Regression Analysis

Table 11. Results of Multiple Linear Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	.156	.209	
	Total.X1	.060	.021	.182
	Total.X2	.075	.022	.240
	Total.X3	.046	.018	.169
	Total.X4	.060	.023	.194
	Total.X5	.002	.018	.009

Obtained Multiple Linear Regression Equation:

$$Y = 0.156 + 0.060 X1 + 0.075 X2 + 0.046 X3 + 0.060 X4 + 0.002 X5$$

$a = 0.156$, is a constant value, if the value of all variables = 0, then the user satisfaction value = 0.156. From the equation obtained, it is known that all variables contribute to user satisfaction. A variable with a positive value means that if the value of the variable gets better, the level or results of user satisfaction with a service will get better too. However, on the other hand, if variables with negative values are getting better, the level or results of user satisfaction with a service will also be getting worse [8].

4.7 Hypothesis Testing

4.7.1 T test

The T test is used to determine the effect of each independent variable on the dependent variable. The testing criteria for the T test in this study are by comparing the t-count with the t-table. If the t-count > t-table and the significant value is < 0.05, then it fails to reject H0 or the independent variables individually influence the dependent variable and vice versa [13][15].

Before carrying out the T test, the first thing to do is look for the t table value, the t table value is obtained from the formula ($df = a/2 ; n-k-1$) then the t table value is obtained using a probability value of 0.05, namely t table = 1,966. Because the t-count value shown in table 4.8 is greater than 1.966, all independent variables individually influence the dependent variable.

Table 12. T Test Results

Variable	T-calculated value
<i>Content</i> (X1)	16,678
<i>Accuracy</i> (X2)	17,539
<i>Format</i> (X3)	16,781
<i>Ease of Use</i> (X4)	17,592
<i>Timelines</i> (X5)	15,223

Based on the results obtained in table 12, where all independent variables (Variable X) individually influence the dependent variable (Variable Y), this is in line with the hypothesis that has been made, namely:

H1 = Content has a significant influence on shopee application user satisfaction.

H2 = Accuracy has a significant influence on shopee application user satisfaction.

H3 = Format has a significant influence on shopee application user satisfaction.

H4 = Ease of Use has a significant influence on shopee application user satisfaction

H5 = Timeliness has a significant influence on shopee application user satisfaction

4.7.2 F test

The F test is used to find out whether the independent variables together (simultaneously) influence the dependent variable. If the results of $F\text{-count} > F\text{-table}$ and the significant value is < 0.05 , then it fails to reject H_0 or the independent variable simultaneously has a significant effect on the dependent variable [13][15].

Before carrying out the F test, the thing that must be done first is to look for the f table value, the f table value is obtained from the formula ($df = a/2 ; n-k-1$) then the f-table value is obtained with a significance level of 5%, namely $f\text{ table} = 2.237$. Because the calculated f-value shown in table 4.9 is greater than 2.237, all independent variables together (simultaneously) influence the dependent variable.

Table 13. F Test Results

		ANOVA ^a				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	112.485	5	22.497	83.127	.000 ^b
	Residual	102.570	379	.271		
	Total	215.055	384			

a. Dependent Variable: Y1.P1

b. Predictors: (Constant), Total.X5, Total.X1, Total.X3, Total.X2, Total.X4

Based on the results obtained in table 13, the f-count value is $83.127 > 2.237$ with a significance value of 0.00. The significance value is smaller than 0.05. So it can be concluded that failing to reject H_0 and accepting H_1 , which means the better the overall level of the variables Content (X1), Accuracy (X2), Format (X3), Ease of Use (X4), Timeliness (X5) on variable Y, the increase the level of customer satisfaction in using the Shopee marketplace application.

5 Conclusion

From the research results it can be concluded that:

- The results of data analysis carried out in this research using the EUCS method can be concluded that all independent variables (Content, Accuracy, Format, Ease of Use, Timelines) have a significant relationship. Because the t-calculated value shown in this study is greater than 1.966, all independent variables (variable X) individually influence the dependent variable (variable Y).
- From the results of data interpretation, the results of the presentation of Shopee marketplace user satisfaction are obtained, namely the level of satisfaction with the Content variable (X1) which is 83.95%, the level of satisfaction for the Accuracy variable (X2) which is 83.64%, the level of satisfaction for the Format variable (X3) which is 84.25%, the satisfaction level for the Ease of Use variable (X4) is 85.39%, the satisfaction level for the Timelines variable (X5) is 82.30%, and the satisfaction level for the User Satisfaction variable (Y) which is 85.09%. All variables were declared to have very satisfactory data interpretation because the presentation value was above 81%.

References

- [1] Yang, M. Z., & Sihotang, J. I. (2022). Analisis Kepuasan Pengguna Terhadap User Interface Aplikasi E-Commerce Shopee Menggunakan Metode EUCS di Jakarta Barat. *Informatics and Digital Expert (INDEX)*, 4(2), 53-60.
- [2] Pabottingi, M. A. (2023). Analisis Pengaruh Kualitas Marketplace Shopee Terhadap Kepuasan Pengguna Menggunakan Metode End User Computing Satisfaction (Doctoral dissertation, UNIVERSITAS ISLAM NEGERI SULTAN SYARIF KASIM RIAU).
- [3] Badan Pusat Statistik. (2022). *Statistik Telekomunikasi Indonesia 2022*. Jakarta: 2023.
- [4] Ariska, I., & Amelia, R. (2021, November). Analisis Tingkat Kepuasan Pengguna Marketplace Shopee Dan Lazada Menggunakan Metode End User Computing Satisfaction (Eucs). In *Bina Darma Conference on Computer Science (BDCCS) (Vol. 3, No. 2, pp. 321-327)*.
- [5] Nabilla, R. (2019). Analisis Kesesuaian Siklus Pendapatan E-Commerce Shopee Berdasarkan Model End User Computing Satisfaciton (EUCS). *Jurnal Ilmiah Mahasiswa FEB*, 7(2).

- [6] Aziati, Y. (2020). Analisis pengaruh user experience terhadap kepuasan pengguna mobile application e-commerce shopee menggunakan model delone & mclean (Bachelor's thesis, Fakultas Sains dan Teknologi Universitas Islam Negeri Syarif Hidayatullah Jakarta).
- [7] iPrice Group. (2022). The Map Of E-Commerce In Indonesia. Retrieved November 3, 2023, from <https://iprice.co.id/insights/mapofecommerce/>.
- [8] Kartikasari, R. A., & Suyatno, D. F. (2023). Analysis of User Satisfaction Live Shopping of the Shopee Application Using End User Computing Satisfaction (EUCS) and Performance, Information, Economic, Control, Efficiency, and Service (PIECES) Methods. *Journal of Emerging Information System and Business Intelligence (JEISBI)*, 4(2), 146-155.
- [9] Doll, W. J. and Torkzadeh, G. (1991). The measurement of end-user computing satisfaction: theoretical and methodological issues. *MIS quarterly*, pages 5–10.
- [10] Kriyantono, Rachmat. 2010. Teknik praktis riset komunikasi: disertai contoh praktis riset media, public relation, advertising, komunikasi organisasi, komunikasi pemasaran. Jakarta: Kencana.
- [11] Luthfiyah dan Muh Fitrah, Metodologi Penelitian : Penelitian Kualitatif, Tindakan Kelas & Studi Kasus (Sukabumi : CV Jejak, 2017) Hlm 156.
- [12] Sugiyono. 2010. Metode Penelitian Pendidikan Pendekatan Kuantitatif, kualitatif, dan R&D. Bandung: Alfabeta
- [13] Ardiyanto, A. A. (2020). Pengaruh Kualitas Pelayanan Dan Kepuasan Pelanggan Terhadap Loyalitas Pelanggan Pada Bisnis Jasa Transportasi Grab (Studi Kasus Mahasiswa Fakultas Bisnis dan Ekonomi Universitas Islam Indonesia).
- [14] Wolo, K. A., & Nugroho, P. I. (2021). Pengaruh Pembelajaran Online Terhadap Tingkat Motivasi Belajar Mahasiswa/Mahasiswi FEB Akuntansi UKSW di Masa Pandemi COVID 19. *Jurnal Akuntansi Profesi*, 12(1), 212-223.
- [15] Ghozali, Imam. 2013. Aplikasi Analisis Multivariate dengan Program IBM SPSS 21 Update PLS Regresi. Semarang: Badan Penerbit Universitas Diponegoro.