

Analysis of The Quality of The Eskanusa.Com Website on User Satisfaction with the Webqual 4.0 Method

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Abstract

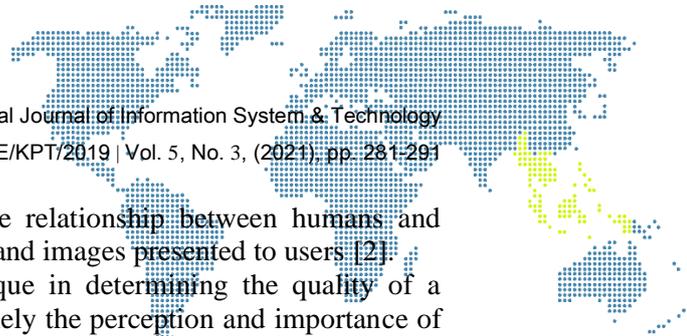
Information technology is currently growing rapidly, one of which is the use of the internet. PT. Eskanusa Putraco is one of the companies that use the internet as a medium to sell goods online on their website, namely eskanusa.com. User satisfaction with the use of the website will affect employee performance. This study aims to analyze how satisfied users are in their activities on the eskanusa.com website using the webqual 4.0 method with 3 independent variables, namely Usability, Information Quality, Interaction Quality, Service (Service Interaction Quality), and 1 dependent variable, namely Overall (Overall Impression) / User Satisfaction. Data collection techniques used questionnaires that were distributed to 44 respondents. Data management is carried out using descriptive statistics to calculate the overall data obtained, which is then tested for validity and reliability tests to find out the data obtained are valid and reliable, followed by classical assumption tests using 3 tests, namely normality, multicollinearity, and heteroscedasticity to determine if symptoms occur. or not on the data, and multiple linear regression analysis to determine the independent variable has an influence with the dependent variable with the F test and T test. It is known that the variables (usability), information quality (information quality), interaction quality, service (service interaction quality) affect user satisfaction, the results obtained are 40% or not good enough because the variables of information quality and interaction quality, which are known to have not good enough influence on users.

Keywords: E-commerce, Webqual, User Satisfaction, Website

1. Introduction

The development of technology and information today is very fast, from small businesses to large businesses, nowadays they no longer use manuals, but everything is organized by information systems or online from managing goods management, finance, administration, employees, and buying and selling transactions. often referred to as e-commerce. Technology and information help us easily interact, communicate and make transactions with all people in this world quickly and easily. With the existence of e-commerce in today's era, buying and selling transactions no longer have to meet face to face, go out of the house to go to the store or mall to buy necessities again but can be done anytime and anywhere without the time and place restrictions, e-commerce is an alternative business promising, because the producers and consumers are given a lot of conveniences[1]. PT. Eskanusa Putraco is one company that has also used their website information system to be able to make sales online. PT. Eskanusa Putraco itself is a company engaged in the retail sector that sells electronic goods and sells them online with an e-commerce system with the eskanusa.com domain. The eskanusa.com website has an e-commerce system using WordPress as its CMS which makes it easy to manage websites instantly, without the need for coding.

Websites that have high quality have several criteria based on the webqual 4.0 method that uses three categories of questions, namely Usability, Information Quality, and



Service Interaction Quality. Usability discusses the relationship between humans and computers, ease of navigation, suitability of designs and images presented to users [2].

The webqual method is a measurement technique in determining the quality of a website. the webqual method uses an approach, namely the perception and importance of the user. The user's perception of a good and correct information system is that users are satisfied with the quality of the website. This quality is divided into three dimensions, namely webqual 4.0, usability, information quality, and service interaction quality. Webqual measures the quality of the website based on the perception of the user[3]. The webqual 4.0 method has been successfully applied to a type of research that measures quality on a website and helps in understanding a factor that affects website user satisfaction[4]. This analysis is to determine the level of user satisfaction with the quality of the eskanusa.com website using the webqual 4.0 method with 3 independent variables, namely Usability, Information Quality, Interaction Quality, Service (Service Interaction Quality) and 1 dependent variable is Overall (Overall). Impression) / User Satisfaction.

2. Research Methodology

2.1. Research Instruments

The research instrument used is to use primary data by distributing questionnaires to assess the quality of the website. Webqual 4.0 modeling, there are 3 dimensions of website quality which will later be used as an independent variable (independent) and one dependent variable (dependent) is user satisfaction or Overall/(Overall Impression)[5].

Table 1. Variables in Research Webqual 4.0

Variable	Information
X1	Usability
X2	Information quality
X3	Service Interaction Quality
Y1	User Satisfaction or Overall

The research instrument in this study was a questionnaire. The questionnaire that has been filled out by the respondent will later be processed into data using a Likert scale. Likert scale is a scale used to measure an attitude, opinion, and perception of a person or group of people. The Likert scale has 5 categories of answers from "strongly agree" to strongly disagree "[6]. The following is a measurement of the Likert scale:

- a) Strongly disagree
- b) Disagree
- c) Neutral
- d) Agree
- e) Strongly agree

The questionnaire was created and designed with attention to data collection that supports data processing on the webqual 4.0 method, with the webqual variable, 22 questions were made from Usability, Information Quality, and Service Interaction Quality, Overall impression [7].

2.2. Sample Technique

The sampling technique that will be used in this study uses a purposive sampling technique in which the sample is taken by determining the criteria beforehand from each respondent who has used or accessed the website by using the Slovin formula in equation 1 to determine the number of samples to be taken[8].

$$n = \frac{N}{N.(d)^2 + 1} \quad (1)$$

Source : [9]



Description :
n = Sample
N = Population
d = margin of error 5 % atau 0,05

Then the calculation on the sample to be obtained is based on equation 2. It is known that the number obtained from the calculation in equation 2 is 44.44444444 rounded up to 44 respondents.

$$n = \frac{50}{1 + 50(0,05)^2} = 44,44444444 \quad (2)$$

2.3. Descriptive Statistics

The process carried out is to calculate all the data that has been obtained from the respondents who have filled out the questionnaire, then calculations are carried out to find out the percentage of each question from each variable indicator.

2.4. Validity Test

To find out which questions are valid or invalid, the test is statistical testing using the criteria for the validity test by looking for the r table value with N = 44 (respondents) at 5% significance, then the value is 0.297.

- a) r count > 0.297 r table then it is valid
- b) r count < 0.297 r table then it is not valid

2.5. Reliability Test

The test is carried out using SPSS (Statistical Product and Service Solution) to determine the Cronbach's Alpha value is reliable or greater than the critical value of the data. the value set at the critical value is 0.6.

- a) If the Alpha value > 0.6 then reliable
- b) If the Alpha value < 0.6 then it is not reliable

2.6. Classical Assumption Test

Classical assumption test used in the analysis there is three processes, normality test, multicollinearity test, and heteroscedasticity test. In normality test, the graphical method used is P-Plot regression standardized residuals to be able to see the spread of the data on the diagonal line, whether the position of the residuals in the histogram is around the centerline or spreads far to the left and right. In the multicollinearity test the value of variance inflation factor (VIF) which is commonly used to show multicollinearity, namely $VIF < 10$, the data does not show symptoms of multicollinearity. If the VIF value for the variable > 10 then the data has symptoms of multicollinearity.

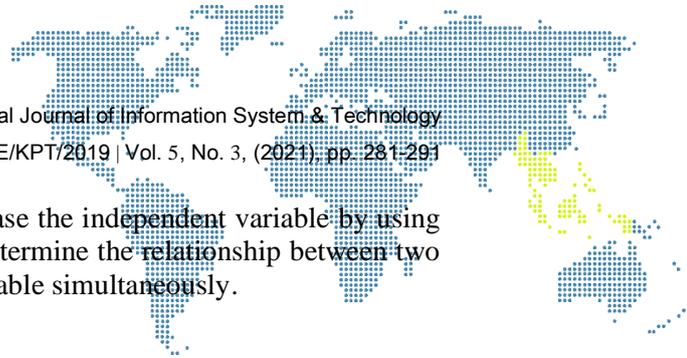
Testing on the SPSS output of the heteroscedasticity assumption test results using a scatterplot graph between the Standardized Predicted Value (ZPRED) which is the independent variable on the and the value on the Studentized Residual Residual (SRESID) active dependent variable.

1. If the dots on the pattern are regular (widening, narrowing, and wavy) then heteroscedasticity occurs.
2. If the pattern points are clear and do not spread above and below the number 0 on the Y axis, then there is no heteroscedasticity.

Testing was also carried out using the Glejster test by looking at the significance value obtained > 0.05 , so there was no heteroscedasticity.

2.7. Multiple Linear Regression Analysis

Multiple linear regression analysis is used to determine whether the independent variable and the dependent variable are positively or negatively related and predict the



value of the dependent variable to increase or decrease the independent variable by using the Coefficient of Determination or (R Square) to determine the relationship between two or more variables. independent of the dependent variable simultaneously.

2.8. F Test

The method used to determine the independent variable has an influence on the dependent variable is to use the Anova output by calculating the comparison at the significance value (sig) > 0.05 then H0 is rejected, if the significance is <0.05 then H1 is accepted.

2.9. T Test

The method used for decision making [10] to find out the independent variable has an individual influence on the dependent variable is to look at the significance value (sig) of 0.05 > then H0 is rejected and if the significance is < 0.05 then H1 is accepted.

3. Results And Discussion

3.1. Descriptive Statistics

All data has been obtained from the questionnaire by displaying the mean, median, range, minimum, maximum, sum (total), count (Number of respondents), and percentages. To calculate the percentage value of the data that has been obtained using the percentage formula.

$$Score \% = \frac{Total\ score\ obtained}{Maximum\ total\ score} \times 100\% \quad (3)$$

Source : [11]

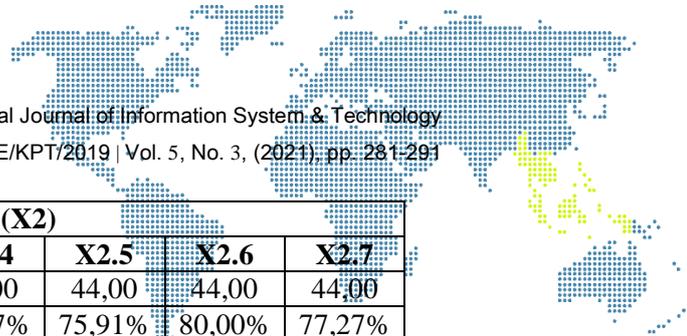
The results of descriptive statistical tables on usability (X1) table 2 quality of information (X2) table 3, quality of service interaction (X3) table 4, overall (Y1) table 5 can be seen that the value of each question indicator is different of the lowest and highest values. From the whole table, the lowest percentage value is obtained by the X3.2 indicator of 60.00%, while the highest percentage value is obtained by the X1.8 indicator with a value of 82.73%.

Table 2. Descriptive statistical results of usability (X1)

Usability (X1)								
	X1.1	X1.2	X1.3	X1.4	X1.5	X1.6	X1.7	X1.8
Mean	3,57	3,66	3,48	3,36	3,20	3,70	3,48	4,14
Median	3,00	4,00	3,00	3,00	3,00	4,00	3,00	4,00
Range	3,00	3,00	3,00	4,00	4,00	3,00	3,00	3,00
Minimum	2,00	2,00	2,00	1,00	1,00	2,00	2,00	2,00
Maximum	5,00	5,00	5,00	5,00	5,00	5,00	5,00	5,00
Sum	157,00	161,00	153,00	148,00	141,00	163,00	153,00	182,00
Count	44,00	44,00	44,00	44,00	44,00	44,00	44,00	44,00
Persentase	71,36%	73,18%	69,55%	67,27%	64,09%	74,09%	69,55%	82,73%

Table 3. Descriptive statistical results of Information Quality (X2)

Information Quality (X2)							
	X2.1	X2.2	X2.3	X2.4	X2.5	X2.6	X2.7
Mean	3,89	3,93	3,86	4,11	3,80	4,00	3,86
Median	4,00	4,00	4,00	4,00	4,00	4,00	4,00
Range	3,00	2,00	2,00	2,00	2,00	3,00	2,00
Minimum	2,00	3,00	3,00	3,00	3,00	2,00	3,00
Maximum	5,00	5,00	5,00	5,00	5,00	5,00	5,00
Sum	171,00	173,00	170,00	181,00	167,00	176,00	170,00



Information Quality (X2)							
	X2.1	X2.2	X2.3	X2.4	X2.5	X2.6	X2.7
Count	44,00	44,00	44,00	44,00	44,00	44,00	44,00
Persentase	77,73%	78,64%	77,27%	82,27%	75,91%	80,00%	77,27%

Table 4. Descriptive statistical results of service interaction quality (X3)

Service Interaction Quality (X3)						
	X3.1	X3.2	X3.3	X3.4	X3.5	X3.6
Mean	3,50	3,00	3,23	3,23	3,41	3,93
Median	3,00	3,00	3,00	3,00	3,00	4,00
Range	3,00	3,00	3,00	3,00	3,00	3,00
Minimum	2,00	2,00	2,00	2,00	2,00	2,00
Maximum	5,00	5,00	5,00	5,00	5,00	5,00
Sum	154,00	132,00	142,00	142,00	150,00	173,00
Count	44,00	44,00	44,00	44,00	44,00	44,00
Persentase	70,00%	60,00%	64,55%	64,55%	68,18%	78,64%

Table 5. Overall descriptive statistics (Overall Impression) (Y1)

Overall Impression (Y1)	
	Y1.1
Mean	3,89
Median	4,00
Range	2,00
Minimum	3,00
Maximum	5,00
Sum	171,00
Count	44,00
Persentase	77,73%

From table 6 it can be seen that the percentage value obtained by the usability variable (X1) is 71.48%, the information quality variable (X2) is 78.44%, the service interaction quality variable (X3) variable by 67.65%, and the overall variable/Overall Impression (Y1) of 77.73%.

Table 6. The percentage value of respondents answers to each variable

	usability	information quality	service interaction quality	overall Impression
	X1	X2	X3	Y1
Mean	28,59	27,45	20,30	3,89
Sum	1258,00	1208,00	893,00	171,00
Persentase	71,48%	78,44%	67,65%	77,73%

3.2. Validity Test

Validity test is carried out with the following measurements:

- $r \text{ count} > 0.297$ ($r \text{ table}$) then it is valid
- $r \text{ count} > 0.297$ ($r \text{ table}$) then it is not valid

Table 2. Validity Test

Quest Code	r count	r table	Status
X1.1	0,74	0,297	Valid
X1.2	0,60	0,297	Valid



Quest Code	r count	r table	Status
X1.3	0,71	0,297	Valid
X1.4	0,66	0,297	Valid
X1.5	0,76	0,297	Valid
X1.6	0,53	0,297	Valid
X1.7	0,69	0,297	Valid
X1.8	0,45	0,297	Valid
X2.1	0,50	0,297	Valid
X2.2	0,48	0,297	Valid
X2.3	0,38	0,297	Valid
X2.4	0,38	0,297	Valid
X2.5	0,45	0,297	Valid
X2.6	0,39	0,297	Valid
X2.7	0,41	0,297	Valid
X3.1	0,54	0,297	Valid
X3.2	0,65	0,297	Valid
X3.3	0,67	0,297	Valid
X3.4	0,51	0,297	Valid
X3.5	0,58	0,297	Valid
X3.6	0,38	0,297	Valid
Y1.1	0,66	0,297	Valid

From the results of the validity test in table 7, it can be seen that the value of r count on each item is greater than the value of r table and it can be concluded that all data items are valid.

3.3. Reliability Test

Tests to determine the data can be trusted and reliable in the reliability test using a limit of 0.6. if the reliability value is less than 0.6 then it is not reliable or not good, whereas if it is more than 0.6 then it is reliable and can be accepted well. In the reliability test, the formula used to calculate reliability is the Cronbach alpha formula.

Table 3. Reliability Test

Reliability Statistics	
Cronbach's Alpha	N of Items
0,893	22

In table 8 reliability statistics, it is known that the value of Cronbach's Alpha obtained is 0.893 from 22 question items. From the results obtained, it is known that the Cronbach's Alpha value obtained is more than 0.6 then the data on the questionnaire is declared reliable.

3.4. Normality Test

The results of implementing the data using SPSS with the P-Plot of regression standardized residual graph to determine whether the data obtained is normally distributed or not. Then the results obtained are in Figure 1.

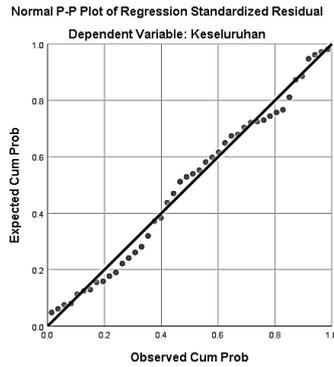


Figure 1. P-Plot graph of regression standardized residual

From the P-Plot graph of regression standardized residual in Figure 1, it is found that the points on the graph spread around the diagonal line following the direction of the line, this shows that the residuals in this normality test are normally distributed.

3.5. Multicollinearity Test

Based on the results of calculations using SPSS, the results of the variance inflation factor (VIF) are in table 9. The multicollinearity results shown are known that the value of the variance inflation factor (VIF) on the Usability variable (X1) is 2.189, Information Quality (X2) is 1.637, Service Interaction Quality (X3) is worth 1.844. So it can be concluded that the value of the variable on the variance inflation factor (VIF) is less than 10, thus the data on the variable does not show symptoms of multicollinearity.

Table 9. Multicollinearity test results

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	0,444	0,788		0,563	0,577		
	Usability (X1)	0,052	0,024	0,392	2,173	0,036	0,457	2,189
	Information Quality (X2)	0,065	0,036	0,283	1,818	0,077	0,611	1,637
	Service interaction quality (X3)	0,009	0,034	0,044	0,267	0,790	0,542	1,844

*a. Dependent Variable: Overall Impression (Y1)

3.6. Heteroscedasticity Test

The results of the calculation of the heteroscedasticity test using SPSS, the results are described in the scatterplot diagram and the glejser test as shown in Figure 2.

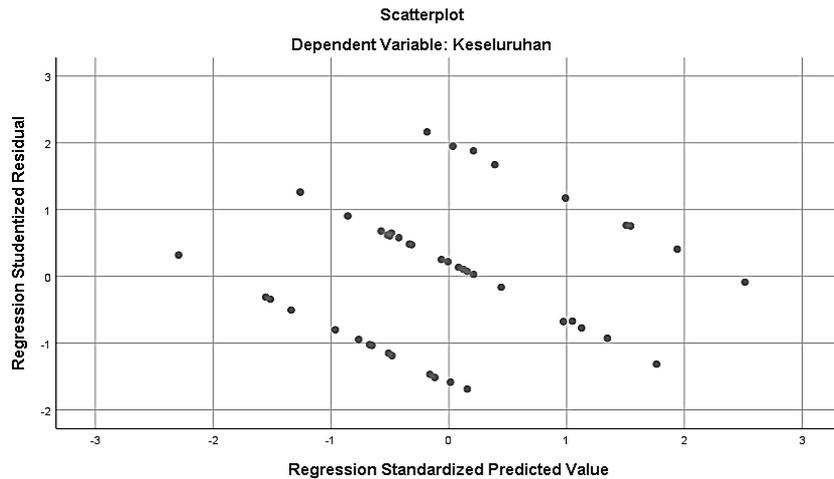


Figure 2. The results of the scatterplot graph test

The analysis on the results of the SPSS output of the scatterplot graph in the image of the points on the graph spreads irregularly and does not form a certain pattern. So from the scatterplot graph, it is concluded that the dependent variable does not occur heteroscedasticity because the points spread above and below on the number 0 on the Y axis.

Table 10. Glejser test results

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0,297	0,439		0,677	0,503
	Usability (X1)	-0,007	0,013	-0,121	-0,522	0,605
	Information Quality (X2)	0,013	0,020	0,132	0,655	0,516
	Service interaction quality (X3)	-5,195E-05	0,019	-0,001	-0,003	0,998

a. Dependent Variable: Abs_Res

In table 10, it is known in the Glejster test that the value of the sig (significance) of the usability variable (X1) is 0.605, the information quality variable (X2) is 0.516, the service interaction quality variable (X3) is 0.998. So from this value, it can be seen that the comparison of the sig value (significance) obtained is > 0.05 , so the data is concluded that there is no heteroscedasticity.

3.7. Multiple Linear Regression Analysis

Multiple linear regression analysis was carried out with SPSS whose value results can be known in the coefficients. result section.

Table 11. Results of the coefficient of determination (R Square)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.638 ^a	0,407	0,362	0,57688

a. Predictors: (Constant), usability, information quality, service interaction quality, overall impression

In table 11 it can be explained that the value of R Square = 0.407 or equal to 40.7% which means that the independent variable or usability variable (X1), information quality (X2), service interaction quality (X3) has a contribution effect of 40, 7% of the dependent



variable or the overall variable (Y1), while the remaining 59.3% are influenced by other factors outside the study.

3.8. F Test

To find out the F test, it is used to test the effect of the independent variables simultaneously on the dependent variable, by determining the following conclusions:

- a. Significance value > 0.05 then H_0 is rejected
- b. Significance value < 0.05 then H_1 is accepted

Then the hypothesis used is:

1. H_0 : Usability, Information Quality, and Service Interaction Quality on the website do not affect service quality on user satisfaction
2. H_1 : Usability, Information Quality, and Service Interaction Quality on the website affect service quality on user satisfaction.

Table 12. F Test Results

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9,120	3	3,040	9,135	.000 ^b
	Residual	13,311	40	0,333		
	Total	22,432	43			
a. Dependent Variable: Overall Impression						
b. Predictors: (Constant), usability, information quality, service interaction quality, overall impression						

The results of the F test that the value of significance (sig) is 0.000. So the value obtained in the F test is $0.000 < 0.05$. Then it can be concluded from the results of this F test that H_1 is accepted, which means Usability, Information Quality, and Service Interaction Quality on the website greatly affect the quality of service on user satisfaction in facilitating activities on the website.

3.9. T Test

To find out the T test, it is used to test the influence of the independent variable individually on the dependent variable, by determining the following conclusions:

- a. Significance value > 0.05 then H_0 is rejected
- b. Significance value < 0.05 then H_1 is accepted

Table 13. T Test Results

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0,444	0,788		0,563	.577
	Usability (X1)	0,052	0,024	0,392	2,173	.036
	Information Quality (X2)	0,065	0,036	0,283	1,818	.077
	Service interaction quality (X3)	0,009	0,034	0,044	0,267	.790
a. Dependent Variable: Overall Impression						

In table 13 it is found that the value of the usability variable significance is 0.036, so it can be concluded that the value of the usability variable significance is $0.036 < 0.05$, which means that the usability variable on the website affects service quality on user satisfaction or H_1 . The value on the significance of the information quality variable is 0.077, it can be concluded that the value of the usability variable significance is $0.077 > 0.05$, which means that the information quality variable on the website does not affect

service quality on user satisfaction or H0. The value on the significance of the service interaction quality variable is 0.790, so it can be concluded that the value of the service interaction quality variable significance is $0.790 > 0.05$, which means that the information quality variable on the website does not affect service quality on user satisfaction or H0.

4. Conclusion

From the results of the study, it is known that the variables usability (X1), information quality (X2), service interaction quality (X3) have an influence on user satisfaction in the ease of user activities on the website. However, there are two variables that have less effect on user satisfaction, namely the information quality variable (X2) and the interaction quality variable (X3). While the most influential on user satisfaction is the usability variable (X1). So overall from the results of the coefficient of determination (R Square) in this study it was found that the eskansa.com website is still not good in quality to user satisfaction because the results obtained are 40.7% user satisfaction.

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