

Analysis of the Information Quality on the Jakarta Website in Response to Covid-19 Using the Webqual 4.0 Method to Measure User Satisfaction

Adisti Putri¹, Erny Pratiwi²

^{1,2}Information Systems Management, Postgraduate Program, University of Gunadarma

Jl. Margonda Raya No. 100, Depok 16424, East Java

Email address: ¹Putriadisti16 @ gmail.com, ²Ernypra @ staff.gunadarma.ac.id

Abstract— The usage of the internet as a source of knowledge demonstrates the rapid advancement of internet technology. One of the most recent pieces of information is that the Corona virus, which originated in Wuhan, has been officially labeled a pandemic by the WHO (World Health Organization). Indonesia is one of them. DKI Jakarta is one of the provinces with the greatest rates of Covid-19 transmission, and it uses the website to disseminate information about the virus. The goal of this study is to look at how website quality is measured using usability, information, and service interaction quality, as well as the partial and simultaneous effects on online user satisfaction. Usability quality, information quality, interaction service quality, and user happiness are the variables used. According to the findings, the website quality assessment based on usability, information, and interaction service quality was in the very good category. And it partially demonstrates that the usability quality variable has no effect on user happiness, however the information quality variable and interaction service quality do. It does, however, illustrate that all variables have an impact on consumer happiness.

Keywords— Covid-19, Website Quality, Webqual 4.0.

I. INTRODUCTION

The usage of websites as a source of information is one of the benefits of the advancement of internet technology. Websites are today's greatest information technology for transmitting information quickly, conveniently, and without constraints, both within and beyond the country. Through the website, any stakeholders can seek any information, precisely and appropriately, at any time. The presence of the Corona virus, which originated in Wuhan, was recently confirmed by WHO (World Health Organization), which proclaimed the corona virus (covid-19) a pandemic on March 9, 2020. People who have been infected with the corona virus can spread this illness to others. When someone infected with this virus sneezes or coughs, small droplets from the nose or mouth might spread the sickness. The droplets land on an object or surface that is then touched by a healthy person, who then touches their eyes, nose, or mouth. When little droplets are breathed by someone who is in close touch with an infected person, the corona virus can spread.

The corona virus has spread worldwide, even to Indonesia. With today's internet technology, this information has traveled swiftly, prompting people all around the world to prepare for the virus's spread. On 12/12/2020, the province with the highest corona virus infections was DKI Jakarta, with 151,201

infected patients, East Java with 69,130 infected patients, and Central Java with 151,201 infected patients, according to data on the spread of Covid-19. West Java had 65,355 infected patients, and South Sulawesi had 22,887 infected patients, totaling 70,193 persons. The DKI Jakarta government publishes a website that can be accessed by anyone to make it easier for its citizens to get quality information about the current pandemic. As one of the provinces with the highest cases, with all of the existing policies and regulations during this pandemic, the DKI Jakarta government publishes a website that can be accessed by anyone to make it easier for its citizens to get quality information about the current pandemic. This website gives daily updates on a variety of topics, including the number of Covid-19 tests performed in Jakarta, Covid-19 cases in Indonesia, national positive case graphs and Jakarta positive case graphs, general funeral charts, and Covid-19 management protocols, Details about the case, as well as a timeline from the Covid-19 distribution region in Jakarta to the DKI Jakarta Provincial Government Program's efforts to combat the Corona virus in Jakarta, and other facts. This site also has some information about the corona virus and how to protect yourself from it.

The goal of this study is to look at how website quality is measured using usability, information, and service interaction quality, as well as the partial and simultaneous effects on online user satisfaction. Usability quality, information quality, interaction service quality, and user happiness are the variables used. The following is a summary of previous research:

1. Agnes Manik, Irma Salamah, Eka Susanti (2017), The Impact of the Webqual 4.0 Method on Sriwijaya State Polytechnic's Website User Satisfaction. This sort of study data called Primary Data, and it is used in Quantitative research. Webqual 4.0 was used to analyze the data. The study's findings include the creation of a better website, as well as the discovery that usability and information quality have a beneficial impact on user happiness. User satisfaction with the Sriwijaya State Polytechnic website is negatively impacted by the quality of engagement services.
2. Syaifullah, Dicky Oksa Soemantri (2016), Evaluation of a Website's Quality The Webqual 4.0 Method was used. This sort of study data called Primary Data, and it is used in Quantitative research. Webqual 4.0 was used to analyze

the data. According to the study's findings, the highest usability quality is when a website provides clear interaction, while the worst is when a website has no competition, and the best information quality is when a website has no competition providing a website that can be trusted while the worst is that the website does not provide detailed information and the best quality of service interaction is the website provides security while the worst thing is that the website does not provide convenience for input (feed back) and the three variables are Webqual 4.0

3. Jasur Hasanov, Haliyana Khalid (2015), The Impact of Website Quality on Online Purchase Intention of Organic Food in Malaysia: A WebQual Model Approach. This sort of study data called Primary Data, and it is used in Quantitative research. Webqual 4.0 was used to analyze the data. The findings reveal that, through full mediation of customer happiness, the quality of the website has an indirect influence on the propensity to buy health food online in Malaysia. Demographic characteristics, on the other hand, have no bearing on internet buying intentions.

II. THEOROTICAL BASIC

A. Website Quality

User views of a website's quality are dependent on the features on the website, where these elements can match user needs and emphasize the website's advantages. Khalid and Hasanov (2015). A website's quality is determined by its ability to be representative, interactive, appealing in design, concise and straightforward, and safe and secure.

TABLE I. Dimensions and Variables in Webqual 4.0

Dimension	Variables in Webqual 4.0
Usability	<ol style="list-style-type: none"> 1. Simple to use 2. The website's interaction is simple and straightforward. 3. Navigational ease. 4. It has a pleasing appearance. 5. Adapt the display to the type of website. 6. There is more website information understanding. 7. Precise in the preparation of the information arrangement. 8. Obtaining website addresses is simple.
Information Quality	<ol style="list-style-type: none"> 1. Give accurate information. 2. Make sure you have the most up-to-date information. 3. Give information that is simple to read and comprehend. 4. Provide enough specific details. 5. Include pertinent information. 6. Make sure all information is correct. 7. Providing information in a way that is acceptable.
Service Interaction Quality	<ol style="list-style-type: none"> 1. Have an excellent track record. 2. Assist in the completion of transactions by providing security. 3. Confidentiality in the transmission of personal information. 4. There is a sense of belonging. 5. Attracting interest and attention is simple. 6. Communication is simple. 7. A high degree of trust in the delivery of products and services

B. Webqual 4.0

According to Webqual theory, a website's quality can be measured in three ways: usability, information quality, and service interaction quality. Easy learning, understanding, and browsing are all aspects of usability. The term "usability" refers to the quality of a website's design. The relevance, timeliness, and correctness of information are frequently used to assess its quality. Information relevance refers to data presented in a format that is relevant to the subject and simple to comprehend. In the meantime, timeliness refers to current information, while accuracy refers to correct and trustworthy data. The quality of the service interaction experienced by users when they explore the website more thoroughly is referred to as service interaction quality. For example, transaction difficulties and information security while using websites, the quality of interaction services is frequently tied to trust and empathy. Dimensions and Variables Webqual 4.0

III. RESEARCH METHOD

A. Subject of Study

The Jakarta Respond Covid-19 site with site user respondents, namely: All people who have accessed the Jakarta Responsive Covid-19 site and are domiciled in JABODETABEK, are the objects of this study (Jakarta, Bogor, Depok, Tangerang, Bekasi).

B. Research Methodology

The data used are primary data, and the sort of research performed is descriptive statistical research.

C. Mapping of Respondents

All visitors to the Jakarta Respond Covid-19 site, that is, all people who have accessed the Jakarta Respond Covid-19 site and are residents of JABODETABEK, are included in this study (Jakarta, Bogor, Depok, Tangerang, Bekasi). And they got up to 150 people to respond, which will be used as samples.

The non-probability sample or non-random method used in this study is a sample selection technique that is not based on the law of probability, and thus does not require that members of the population be selected equally. Instead, the selection is based on certain subjective criteria, but the criteria must remain clear to avoid bias. And convenience sampling is based on the availability of the sample and the ease with which it can be obtained.

D. Techniques for Data Collection

A questionnaire was utilized to gather information for this investigation. The ordinal Likert scale was utilized as the measurement scale. The variables to be measured are converted into variable indicators using a Likert scale. From Strongly Agree to Strongly Disagree, the Likert scale comprises five categories.

E. Webqual Instruments for Measurement

A questionnaire in the form of statements with a Likert scale was utilized in this investigation. The researcher used the statement indicators in Webqual 4.0 to create the

instrument. With 20 question indicator items, it consists of three variables: usability, quality of information, and quality of service interaction. Then one more variable, user satisfaction, with three indicators, was introduced. There are a total of 23 statements in the questionnaire.

F. Methods for Data Processing and Analysis

Some data will be offered in this study, ranging from raw data collected from respondents to final data derived from the study's analytical results, which will be presented using a descriptive statistical model. Microsoft Excel 2013 and SPSS 22 software were used to aid the data testing and data analysis processes in this investigation.

- Descriptive statistics are statistics that describe something. Descriptive analysis is used to give a general summary of the variables under investigation.
- Data from the test instrument. Validity and Reliability Tests are included. A validity test is required to verify the extent to which the instrument used to measure assessment data may accurately reflect real-world conditions. The validity test is performed by calculating the correlation between the variables and their total score, i.e., if the t count is more than the t table, the questions are valid, and vice versa. Because the instrument is already good, reliability is an instrument that can be trusted to be utilized as a data gathering tool. Instruments that may be relied on and will generate accurate data. Cronbach Alpha is a tool for determining reliability. A limit of 0.7 is commonly included in decision-making procedures for reliability tests.
- The old-fashioned assumption test. The multiple linear regression model was used in this investigation. A good multiple linear regression model is one that fits the data's normality and is free of traditional assumptions such as multicollinearity and heteroscedasticity. When the data has passed the traditional assumption test, it is possible to move forward with the multiple linear regression modeling method. In this investigation, three traditional assumption tests were employed, including the normality test, to determine how much the data in the variables utilized in this study is normally distributed. Good data is normally distributed data that can be seen on a graph or histogram; if the data spreads around the diagonal line and follows the direction of the line, it is normally distributed; then use the multicollinearity test to see if some or all of the independent variables in one model are correlated. The absence of multicollinearity in the data is a sign of a strong regression model. The value of Tolerance and VIF (variance inflation factor) acquired are used to determine the existence or absence of multicollinearity. There is no multicollinearity in the independent variables if the VIF value is less than 10 and the Tolerance value is less than 0,1. The heteroscedasticity test was then used to examine whether or not the residuals in the regression model had an inequality of variance. There is a resemblance of residual variance, which is known as homoscedasticity, in the regression model that fits the conditions, as seen on

the graph When points form a regular pattern (widening, narrowing, or wavy), heteroscedasticity has developed.

- Analysis of multiple linear regressions. The T test and F test were then used to examine the effect of the independent factors on the dependent variable simultaneously and partially utilizing multiple linear regression analysis. The T-test is used to determine how much one independent variable influences the dependent variable. The T-test results can be found in the Coefficient table of the SPSS output. The p-value reveals the T test's significance (in the Sig column). The F test is used to assess whether or not ability has a significant effect on the dependent variable when it is tested concurrently or jointly with the independent factors. The F test results can be seen in the SPSS output in the ANOVA table.

IV. RESULT AND DISCUSSION

A. Descriptive statistics

The usability quality variable received an 83% value, the information quality variable received an 81% value, the service interaction quality received an 81% value, and the user satisfaction variable received an 82% value. With these calculations, all variables can be said to be very good.

B. Data from the test instrument

A bivariate correlation between each indicator score and the total construct score was used to conduct the validity test. If the value of r count > r table, the questionnaire items will be regarded valid.

TABLE II. Results of the Validity Test

Variable	Code	R Count	R Table
Usability	X1.1	0,676	0,159
	X1.2	0,524	0,159
	X1.3	0,704	0,159
	X1.4	0,567	0,159
	X1.5	0,634	0,159
	X1.6	0,643	0,159
	X1.7	0,654	0,159
	X1.8	0,591	0,159
Information quality	X2.1	0,531	0,159
	X2.2	0,537	0,159
	X2.3	0,572	0,159
	X2.4	0,504	0,159
	X2.5	0,456	0,159
	X2.6	0,514	0,159
	X2.7	0,535	0,159
Service interaction quality	X3.1	0,700	0,159
	X3.2	0,761	0,159
	X3.3	0,793	0,159
	X3.4	0,704	0,159
	X3.5	0,704	0,159
User satisfaction	Y1.1	0,854	0,159
	Y1.2	0,827	0,159
	Y1.3	0,847	0,159

Because the estimated r value is greater than the table r value, all questionnaire items are considered genuine, according to the table.

Cronbach's alpha value > 0.70 indicates that a construct or variable is dependable when tested with only one shot or measurement.

TABLE III. Results of the Reliability Test

Cronbach's Alpha	N of Items
0,876	23

All of the questionnaire items are regarded to be reliable, according to the table.

C. The old-fashioned assumption test

If the data spreads around the diagonal line and follows the diagonal line's direction, or the histogram graph exhibits a normal distribution pattern, the regression model meets the normality requirement.

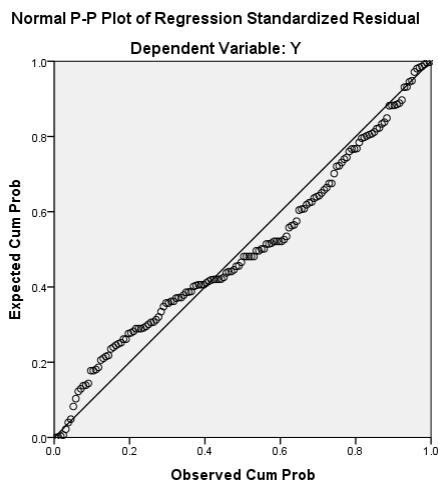


Fig. 1. Results of the Normality Test

The data in this study is deemed to be regularly distributed, as seen in the image.

The multicollinearity test examines the Tolerance and VIF values in the regression model to determine whether or not there is multicollinearity in the regression. There is no multicollinearity if the Tolerance value is more than 0.1 and the VIF is less than 10.

TABLE IV. Results of the Multicollinearity Test

Model	Tolerance	VIF
X1	0,609	1,641
X2	0,626	1,598
X3	0,602	1,661

According to the table, there is no multicollinearity, which means that there is no correlation between the independent variables in this regression model.

The graph plot between the predicted value of the dependent variable, specifically ZPRED, and the residual SRESID is used to determine heteroscedasticity. There is no heteroscedasticity if there is no evident pattern and the points are distributed above and below the number 0 and the Y axis.

As a result, it can be inferred that the data utilized in this study has no heteroscedasticity, and thus passes the classical assumption test and is suitable for linear regression analysis.

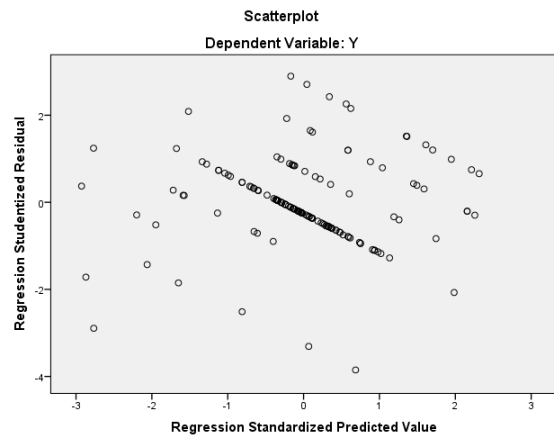


Fig. 2. Results of the Heteroscedasticity Test

D. Analysis of multiple linear regressions

$$Y = a + b(X1) + b(X2) + b(X3) + e$$

$$Y = 1,557 + 0,051 (X1) + 0,091 (X2) + 0,318 (X3) + e$$

The following can be deduced from the preceding equation:

1. In the regression, the coefficient of the constant is positive 1.557. The positive constant coefficient states that user satisfaction is a constant value of 1.557 if the quality of usability (X1), information (X2), and service interaction (X3) remains constant or does not change.
2. The usability quality (X1) regression coefficient is 0.051, and the positive regression coefficient shows that if usability quality improves by one percent, user satisfaction rises by 0.051 if other factors remain constant.
3. The information quality (X2) regression coefficient is 0.091, and a positive regression coefficient means that if the quality of information improves by one percent, user satisfaction rises by 0.091, assuming all other factors remain constant.
4. The regression coefficient of service interaction quality (X3) is 0.318, and a positive regression coefficient means that if the quality of service interactions improves by 1%, user satisfaction rises by 0.318, assuming all other factors remain constant.

The individual parameter significant test, also known as the t statistic test, is used to see if one independent variable has an effect on the dependent variable. If the significance value is less than 0.05, H0 is rejected and Ha is accepted; if the significance value is greater than 0.05, H0 is accepted and Ha is rejected.

TABLE V. Results of the T Test

Model	Signification
X1	0,140
X2	0,048
X3	0,000

According to the table, X1 is H0 accepted and Ha is rejected, while X2 and X3 are H0 rejected and Ha is accepted. The influence of the independent variables on the

dependent variable was tested using the F statistical test. If the significance value is less than 0.05, H0 is rejected and Ha is accepted; if the significance value is greater than 0.05, H0 is accepted and Ha is rejected.

TABLE VI. Results of the F Test

Model	Signification
X1	0,000
X2	0,000
X3	0,000

According to the table, X1, X2, and X3, i.e. H0, are all refused, whereas Ha is accepted.

V. CONCLUSION

It can be inferred from the data collection, data processing, and data analysis on website quality analysis research with three variables of usability quality, information quality, and interaction service quality on user satisfaction that:

1. The Jakarta Respond Covid-19 website received a very good rating for usability, information, and service interaction quality.
2. The findings reveal that while the usability quality variable has no effect on user satisfaction, the information quality and service interaction quality variables do.
3. The findings reveal that usability, information quality, and overall service interaction quality all have an impact on user satisfaction.

It can be used as a basis for giving guidance to, and ideas that the author can make to linked parties, based on the conclusions above, namely:

1. The recommendation for improving the quality of the Jakarta Responsive Covid-19 website is to add features

that are not currently available on the website, such as "Self Check", which allows the public to take a symptom screening test provided by the official website of the DKI Jakarta Provincial Government, which is a reliable source, and the results can directly determine the next stage.

2. Those who want to conduct research on this topic should be allowed to add or use other factors outside of the webqual 4.0 variable, as well as add research objects to allow for a comparison of websites.

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