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**User Satisfaction Analysis of Pikobar Covid19 Website Using the Webqual Method**

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# User Satisfaction Analysis of Pikobar Covid19 Website Using the Webqual Method

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**Abstract.** The PIKOBAR website is used as a place for public information in the form of data distribution of covid-19 sufferers that occurred in West Java. In this study, the quality of the PIKOBAR website is measured using the Webqual method as a measurement tool for website system development, where there are variables consisting of assessing the quality of usability, information quality, service interaction quality and interface quality. In determining the results of the four variables, SmartPLS is used to determine the effect of these variables on respondent satisfaction. Data obtained in this study were obtained from questionnaire processing as many as 120 respondents. The results obtained in this study include (1) quality of usability does not have a positive and significant effect on website user satisfaction, (2) the quality of information that is positive and significant for website user satisfaction, (3) the quality of service interactions has a positive and significant impact on website user satisfaction, and (4) quality of interface has a positive and significant effect on website user satisfaction. These results indicate that the quality of information, the quality of service interactions and the quality of the interface have a positive influence on PIKOBAR website users.

## 1. Introduction

Website is a complete information provider and has become one of the important aspects in various fields, especially education because it can be accessed easily and without restrictions [1]. Today's website is a very important issue in interacting with an information [2]. At present the website is superior to the community [3]. This website is based on the development of information technology [4]. Today's user response is where a good information system is where users are satisfied with the quality of the website [5]. This is what makes the website as information for the community, the West Java Covid-19 website Information and Coordination Center (PIKOBAR) is a website that provides information about the development of the Covid-19 virus in West Java. This website is created with a specific purpose and can be accessed widely by using a URL, the PIKOBAR website service is certainly supported by many features such as information such as positive co-19 data, number of patients under surveillance (PDP), number of people under surveillance (ODP), asymptomatic people, even the distribution of hospitals that handle co-19 cases in West Java.

Corona virus disease (Covid-19) is a new type of virus that is transmitted to humans and attacks the human respiratory system, leading to death. As one of the supports in developing this PIKOBAR website, a study was conducted on community satisfaction with the website by



distributing questionnaires to the community as respondents. Respondents used in this study were people in West Java and outside West Java.

There are many ways or methods to find a relationship between the quality of website services with user satisfaction, one of which is the Webqual method [6]. Webqual is a method used for measuring website quality [7]. In this study using the Webqual method in order to determine the level of user satisfaction, because the measurement technique of Webqual method is based on the perception of end users [8].

Similar studies have been carried out by previous researchers, namely research conducted by Manik [9] regarding how much Webqual method affects website user satisfaction. From his research, this proves that all the variables in this Webqual method are very influential in analyzing website user satisfaction. Subsequent research was conducted by Monalisa [1] who analyzed the satisfaction of students on the quality of website services using the Webqual method. From his research also proved that website service quality is very influential on student satisfaction in other words this Webqual method is very influential in analyzing user satisfaction on website quality.

## 2. Method

The research method used in this study consisted of 3 parts, including observation, literature study and data analysis. This observation method is the first stage of the study which aims to make observations on respondents to be studied, namely the community in West Java and outside West Java. Furthermore, data analysis is done by distributing questionnaire links in the form of google forms to respondents where there are several lists of statements that must be filled out by respondents, then the results of the questionnaire are analyzed as material for research. Supported by the method of library study conducted by studying and viewing books, journals and other material as supporting material that is closely related to the discussion to further serve as a theoretical foundation. While the data analysis method used in this paper is the Webqual method.

The use of the Webqual 4.0 method itself is to find out how much user satisfaction has been done like “The Influence of Webqual 4.0 Method on the Satisfaction of Sriwijaya State Polytechnic Website Users” [9] and “Analysis of Website Service Quality Toward Student Satisfaction with the Application of the Webqual Method” [1]. However, the use of this theory is for assessment on the web relating to countermeasures 19 not much, so the contribution of this research is that it can provide recommendations on the satisfaction indicators of users of the covid19 web especially covid.

## 3. Results and Discussion

To find answers from this research a quantitative approach is used. This chapter will explain the stages for solving existing problems, namely starting from problem identification, literature study, compiling questionnaires, collecting data, analyzing data, and finally making conclusions.

Webqual method is used as a method in this study. From previous studies using 4 dimensions and 30 attributes [10]. In obtaining data, this study uses a questionnaire containing two parts. First, the questionnaire collected some of the respondents’ demographic data in Table 2 such as name, gender, age, level of education, domicile and the average respondent visited the PIKOBAR website. Then, the second part discusses the research questions of this study directly as in Table 1 as follows:

### 3.1. Research Instrument

According to Arifin [11], An instrument has an important role for a study, because with the instrument, the quality of a research can be known. If the instruments made have good criteria,

the quality of the research is also good, and vice versa. This study has 4 variables and 28 attributes to measure the quality of website services [12].

The following are indicators of the research variables used as questionnaire statements:

**Table 1.** Research Instruments

Variable	Indicator
<b>Quality of Usability (X1)</b>	KK1. I find it easy to operate this PIKOBAR website.
	KK2. I feel clear and understand this PIKOBAR website.
	KK3. This PIKOBAR website has easy navigation.
	KK4. I find it easy to find the PIKOBAR website address.
	KK5. This PIKOBAR website looks interesting in the preparation of information layout.
	KK6. This PIKOBAR website has the appearance to match the type of health website.
	KK7. The presence of information from the PIKOBAR website can increase knowledge.
<b>Quality of Information (X2)</b>	KI 8. This PIKOBAR website provides fairly clear information.
	KI 9. This PIKOBAR website provides reliable information.
	KI 10. This PIKOBAR website provides the latest information.
	KI 11. This PIKOBAR website provides relevant information.
	KI 12. This PIKOBAR website provides information that is easy to read and understand.
	KI 13. This PIKOBAR website provides sufficient detailed information.
	KI 14. This PIKOBAR website presents information in an appropriate format.
<b>Quality of Service Interaction (X3)</b>	KL15. This PIKOBAR website has a good reputation.
	KL16. This PIKOBAR website has security to complete transactions.
	KL17. This PIKOBAR website has security in the delivery of personal data.
	KL18. This PIKOBAR website easily attracts interest and attention.
	KL19. This PIKOBAR website has a community atmosphere.
	KL20. This PIKOBAR website provides convenience in providing input (feedback).
	KL21. This PIKOBAR website has a high level of trust in the information sent.
<b>Quality of Interface (X4)</b>	KA22. This PIKOBAR website uses images appropriately.
	KA23. This PIKOBAR website uses a clear font.
	KA24. This PIKOBAR website uses the right color.
	KA25. This PIKOBAR website design uses the appropriate page.
	KA26. The links on the PIKOBAR website are functioning well.
	KA27. This PIKOBAR website has a structured and consistent layout.
	KA28. This PIKOBAR website reflects regional identity.

**Table 2.** Respondents Demographic

Category	Variable	%	Category	Variable	%
<b>The average respondent visits the PIKOBAR website</b>	< 5	63%	<b>Domicile</b>	West Java	42,5%
	6-10	20%		Outside West Java	57,5%
	20	17%		S2	12,5%
<b>Gender</b>	Male	35%	<b>Level of education</b>	S1	25%
	Female	65%		D3	16,7%
<b>Age</b>	≤20	25,8%		SMA	45%
	>20	74,2%		SMP	0,8%
				SD	0%

In this study, we obtained data from distributing questionnaires online using google form. In the questionnaire there is a question how many times a user accesses the website in one week. This question is used to ensure that the users who fill out the questionnaire are users who have visited the website or frequently visited the website, respondents used in this study are residents of West Java and outside West Java who have visited the PIKOBAR website at least less than five times. Of the total respondents of 120 people, which is shown in table 1 there are more than 57% of respondents who are residents who live outside West Java. 65% of all respondents were women, and at least 63% less than five times visited the PIKOBAR website. Also seen from the final education level of respondents who visited the website, namely: SMA, D3, and S1.



### 3.2. Validity and Reliability Test

This validity test is used to obtain valid data or in accordance with the research used. In this test the principle used is to correlate each score value on the X variable with the total Y variable score.

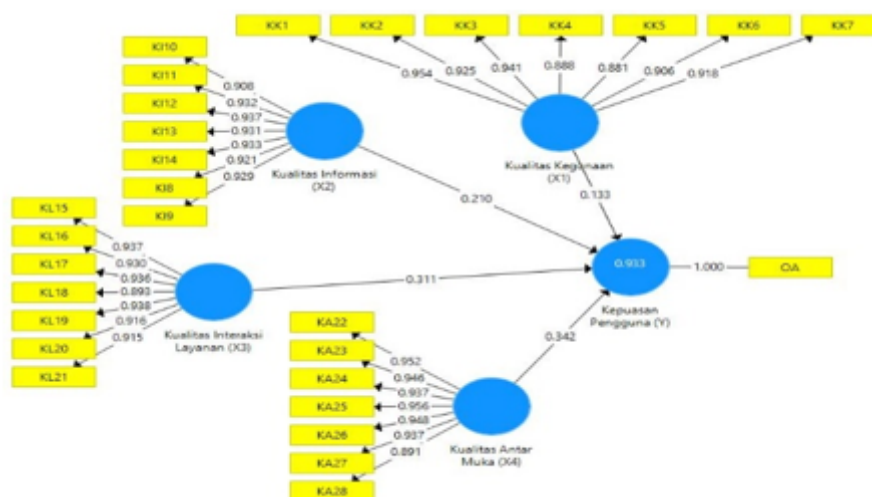
If the value of t count  $t_i$  from the value of r table, then the questionnaire is declared valid. If the calculated value of the table value, the questionnaire is declared invalid. The next step is to compare the value of r count with r table for N (total respondents) = 120 with a 5% significance distribution obtained r table value of 0.195. As for the reliability test using the Alpha (Cronbach's) method. The reliability test is used to see the extent to which the measurement instrument shows the degree of accuracy, accuracy, and accuracy.

Table 3 shows the results of r arithmetic of all variables as follows:

**Table 3.** Validity and Reliability Test Results

	Average Varian Extracted (AVE)	Cronbach's Alpha
<b>Y</b>	1.000	1.000
<b>X1</b>	0.881	0.977
<b>X2</b>	0.860	0.973
<b>X3</b>	0.853	0.971
<b>X4</b>	0.840	0.968

From Table 3, it can be seen that all variables have AVE or r count exceeding r tables, Therefore, because r counts the variables Y, X1, X2, X3 and X4 > r tables, all variables are declared valid. And it can be seen that all variables have alpha or r count exceeds r table. Therefore, because r count Y, X1, X2, X3, and X4 table  $\geq$  r tables, all variables are declared reliable. Following Figure 1 the conceptual model results from the validity and reliability test.



**Figure 1.** Conceptual Model Results From Validity and Reliability Tests

### 3.3. Hypothesis Testing

Hypothesis Testing is to establish a basis so that it can gather evidence in the form of data in determining decisions whether to reject or accept the truth of statements or assumptions that

have been made, hypothesis testing can also provide confidence in objective decision making. In Table 5 explain the results of hypothesis testing using SmartPLS to be compared with t tables to find out whether the independent variables individually affect the dependent variable. Table 3 shows the results of r arithmetic of all variables as follows:

**Table 4.** Hypothesis Test Results

	<b>T Statistics ( O/STDEV )</b>	<b>P Values</b>
<b>X1 -&gt; Y</b>	1.298	0,195
<b>X2 -&gt; Y</b>	2.093	0,037
<b>X3 -&gt; Y</b>	3.349	0,001
<b>X4 -&gt; Y</b>	3.883	0,000

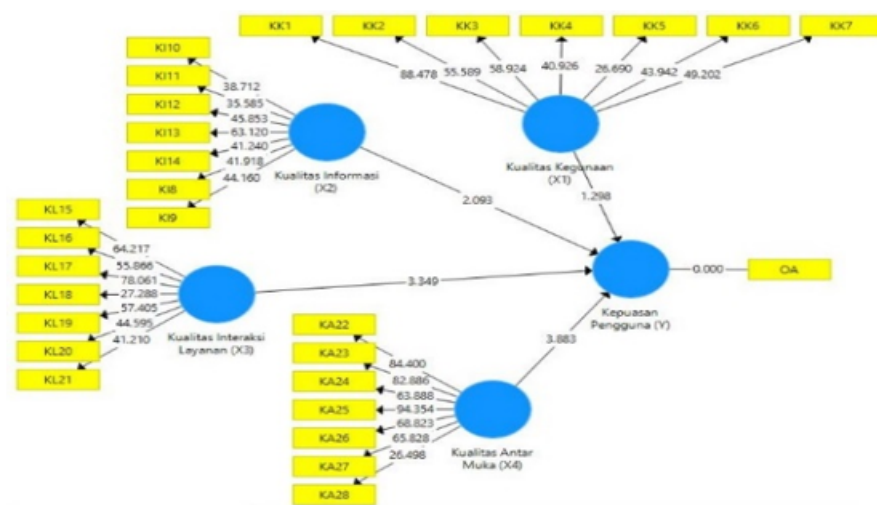
From Table 4 there are 4 hypotheses i.e.:

Hypothesis 1 : The quality of usability variable (X1) has t count < t table ( $1,298 < 1,982$ ) so  $H_0$  is accepted and  $H_a$  is rejected. while the value of P values / significant quality of use is  $0.195 > 0.05$ . Based on these results it can be concluded that the quality of usability variable does not have a positive and significant effect on website user satisfaction.

Hypothesis 2 : Information quality variable (X2) has t count  $\geq$  t table ( $2.093 \geq 1.982$ ) so  $H_0$  is rejected and  $H_a$  is accepted, while the P values / significant quality of information is  $0.037 \leq 0.05$ . Based on these results it can be concluded that the variable information quality has a positive and significant effect on website user satisfaction.

Hypothesis 3 : Service interaction quality variable (X3) has t count  $\geq$  t table ( $3.349 \geq 1.982$ ) so  $H_0$  is rejected and  $H_a$  is accepted, while the P value / significant quality of service interaction is  $0.001 \leq 0.05$ . Based on these results it can be concluded that the service interaction quality variable has a positive and significant effect on website user satisfaction.

Hypothesis 4 : Interface variable (X4) has t count  $\geq$  t table ( $3.883 \geq 1.982$ ) so  $H_0$  is rejected and  $H_a$  is accepted, while the P value / significant interface is  $0,000 \leq 0.05$ . Based on these results it can be concluded that the interface quality variable has a positive and significant effect on website user satisfaction.



**Figure 2.** Conceptual Model Results From Hypothesis Testing

#### 4. Conclusions

The conclusions of this study are as follows 1) usability quality does not have a positive and significant effect on website user satisfaction. This shows that the quality of usability on the PIKOBAR website does not provide satisfaction to website users. 2) information quality has a positive and significant impact on website user satisfaction. This shows that the quality of information on the PIKOBAR website gives satisfaction to website users. 3) service interaction quality has a positive and significant impact on website user satisfaction. This shows that the quality of service interaction on the PIKOBAR website gives satisfaction to website users. 4) interface quality has a positive and significant effect on website user satisfaction. This shows that the interface quality on the PIKOBAR website gives satisfaction to website users.

The suggestions put forward in this research are to further improve the quality of usability, to increase user satisfaction on this PIKOBAR website. Whereas for further research, research can be carried out again on this website with different respondents and different number of respondents to ensure that the usability quality variable has a significant or no influence on user satisfaction on the PIKOBAR website. And maybe by using another method.

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