

## Original Research Article

# Website Quality: The Right Strategy of Service Quality and Information Quality for User Satisfaction

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**Abstract:** This research examines four variables, there are Service Quality, Information Quality, Website Quality, and User Satisfaction. The research aims to empirically test Service Quality and Information Quality on User Satisfaction by adding Website Quality as an Intervening Variable with the Malang Regency Government website as an object. This research used quantitative and casual-comparative research design. Research respondents are website operators of Government Organizations in Malang Regency, with 478 operators in total. By using Simple Random Sampling as the sampling technique with an error value of 10%, writers obtained 81 samples. Primary data were collected using a questionnaire assisted by google form. So 81 website operators work in Malang Regency Government Organizations as respondents. We applied Descriptive Analysis and Linear Regression Analysis using Structural Equation Modeling as the analysis technique in this research. The result indicates that Service Quality, Information Quality, and Website Quality significantly have a positive influence on User Satisfaction. Meanwhile Service Quality and Information Quality significantly cannot increase User Satisfaction through Website Quality.

**Keywords:** Service quality, information quality, website quality, and user satisfaction.

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## 1. INTRODUCTION

Department Communication and Information of Malang Regency is a Government Organization in Indonesia located in Malang Regency, formed in January 2017. The duties and functions of this department are providing service to the public by giving information service through the website ([www.malangkab.go.id](http://www.malangkab.go.id)). This website contains a lot of information needed by the public, including news about the activities of the regency head called “Bupati”. As the spearhead of information service to the public, Department Communication and Information of Malang Regency must be able to provide useful information for the public and be able to interact in two directions with the public, so that they can find out what information is needed by the public. Good website quality is one of the communication tools that can help to solve various problems.

In this digital era, the internet is an information technology that has an important part, since almost all activities in an organization are carried out through this technology. With internet media, the public can quickly and easily find any information they need. One of the uses of the internet is the presence of the public. The website has an important role for the organization

because it can provide online services for the public. One of the organizations that using a website is Malang Regency Government. Information technology used by the government is expected to be able to improve the quality of the services both for the public and government. Dissemination of information through a website ([www.malangkab.go.id](http://www.malangkab.go.id)) is an effort for improving knowledge access. Information that continuously exists, makes the website one of the information providers that is demanded to be up to date and has good quality.

User Satisfaction is about the level of user’s feeling after getting service from an organization. User Satisfaction can be measured by service performance, if the service performance is lower than expected, the user will feel dissatisfied, while service performance matches the expectations, the user will feel satisfied, and when the service performance exceeds the expectations, the user will feel delighted. A high level of satisfaction will bring up loyalty to the user. User Satisfaction on a website depends on its content, information updates time, security, and privacy of the website from hackers.

Good website design will attract people to return to the website to find out the latest information. For providing a good website quality, service quality is needed. A good website is one that providing maximum service with fast response and providing complete data information. Research by Nurefa *et al.* (2015) found out that Service Quality affects Website Quality. Another research by Nasrul (2018), Suryanto *et al.* (2018), Ulum (2018) found out that Service Quality affects User Satisfaction.

Malang Regency Government Website ([www.malangkab.go.id](http://www.malangkab.go.id)) aims to provide information to the public, therefore writers want to know between information quality and service quality, which one is more suitable to use as a strategy to achieve user satisfaction for the Government's website.

A website can be defined as a collection of pages that display some information in text, picture or motion pictures, animation, sound, video, or combination all of them, whether static or dynamic. The website has many advantages compared to other mass media. The cost of making a website is much cheaper and easy to upgrade anytime. Regarding website design, the operation of the website must be easy to access and user-friendly, website quality has to be responsive which can adjust the size automatically based on the device (desktop or smartphone). Other findings by Cahyono (2015), Nasrul (2018), stated that Website Quality affects User Satisfaction.

Regarding how Website Quality has an important role in public service and quality of the service for website operators, so that :

H1: There is the direct effect of Service Quality toward User Satisfaction by Website Quality as an intervening.

Currently, the Government uses internet media for their activities to build e-Government. Internet media uses for interactive media and communication between the central government/local government and the public. The advantages of a Government website are interactively providing information about government activities, providing tourism information, as an interactive media for the public to the government, providing an electronic project auction (LPSE), informing about legal products issued by the government (JDIH). Information Quality is needed by the public. To providing good quality information on the website, the information must be accurate and easy to understand by the public. Research by Sanjaya (2012), Fendini *et al.* (2013) found that Information Quality affects User Satisfaction. In addition, the previous research proves that Information Quality affects Website Quality such as Suryani *et al.* (2016). Nasrul (2018), found out that Website Quality affects User satisfaction.

Regarding previous research, and how website quality has a role to increase user satisfaction, so the second hypothesis is:

H2: There is the direct effect of Information Quality toward User Satisfaction by Website Quality as an intervening.

## 2. LITERATURE REVIEW

User Satisfaction was first introduced by Gree and Perason in 2009. User Satisfaction is defined as the overall evaluation of the user experience while using the information system and the potential impact of the information system. User Satisfaction is also a pleasant/unpleasant feeling using the information system. According to Montana and Noor (2010), User Satisfaction is determined by user perceptions of products or services to fulfill user expectations. In general, User Satisfaction includes the difference between expectations and results obtained. User Satisfaction is the best measure of correlation quality. User Satisfaction in government organization websites measures the data and information provided on the website. It affords quantitative and qualitative measurement results of public opinion during obtaining services/information from the website by comparing their expectations and needs. User Satisfaction Index Survey aims to determine the level of service unit performance to improve the quality of public services.

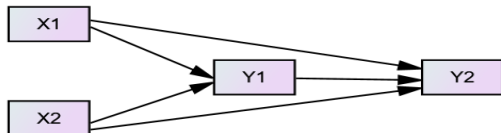
Hasbullah *et al.*, (2016) state that website quality is an important part of user experience and it is the most important factor for website users/visitors, it can be used to evaluate the website performance. Website Quality is used in measuring the quality of a website based on user perceptions that users consider in assessing the website. The higher quality of a website, the better user's perception of the website so that user loyalty increased.

Quality of service can be measured by comparing the perception of service received and expected service. Service quality is defined as the expected quality and control quality to fulfill the user's desires. Service quality is an action that aimed to provide satisfaction to users (Kasmir, 2017).

Information quality is defined as the user's perception of information quality about the services provided by a website (Chun, 2011) "An information should be useful and relevant in predicting the quality and function of a product or service. To fulfill user's information needs, information must be up-to-date and easy to understand. Information technology that used in the government is expected to be able to improve the quality of the services for the public and also the government itself.

Service Quality has a positive effect on Website Quality, which is explained in research by Nurefa *et al.*, (2015). Research by Nasrul (2018),

Suryanto et al., (2018), and Ulum (2018) stated that Service Quality has a positive effect on User Satisfaction. Meanwhile, research by Suryani et al., (2016), explained that there is a positive effect of Information Quality variables on Website Quality. Each research from Wicaksono et al., (2012), Wibowo (2013), and Nasrul (2018) stated that there is a positive effect of Information Quality on User Satisfaction. And according to Fendini et al., (2013), Suryani et al., (2016), Ulum (2018) and Hsieh (2019) there is a positive effect of Website Quality on User Satisfaction.



**Figure 1: Research Conceptual Framework**

Note:

- X1 = Service Quality.
- X2 = Information Quality.
- Y1 = Website Quality.
- Y2 = User Satisfaction.

### 3. RESEARCH METHODOLOGY

#### 3.1 Research Design

This research used a quantitative design with two hypotheses. Descriptive analysis is used to explain the description of each variable. Regression Analysis is used for the estimation of relationships between each variable and it can be utilized to assess the strength of the relationship between variables and for modeling the

relationship between the variables. Questionnaires are used to collect primary data. In this research, writers accommodated the questions using 5 points of Likert scale where 1 represented ‘strongly disagree’, 2 is ‘disagree’, 3 is ‘neutral’, 4 is ‘agree’ and 5 is ‘strongly agree’. Instrument test results are shown in the appendix.

#### 3.2 Subjects

Research’s respondent was 81 website operators of Malang Regency Government Organizations. This research was done in period time from March 26 to May 26, 2021, at Department Communication and Information of Malang Regency. Slovin’s formula was used to determine the sample of the population by considering an error value of 10%, so writers obtained 81 respondents from 478 website operators in Malang Regency Government Organizations. Stratified Random Sampling was applied as the sampling technique and considered that every website operator has the same opportunity to answer the questionnaire.

#### 3.3 Variable and Indicator

Service Quality is measured by two indicators, there are fast response and complete data. Information Quality is measured by two indicators, as follows: accurate information and easy to understand information. Website Quality consists of two indicators: user friendly and responsiveness, meanwhile, User Satisfaction is measured by three indicators as follows: content, timeliness, security, and privacy. Variables, Indicators, and Instruments are shown in Table 1.

**Table 1: Variables, Indicators, and Instruments**

Variables and Indicators	Number of Instruments
Service Quality (X <sub>1</sub> )	
Fast response (X <sub>1.1</sub> )	2
Complete data (X <sub>1.2</sub> )	2
Information Quality (X <sub>2</sub> )	
Accurate information (X <sub>2.1</sub> )	2
Easy to understand information (X <sub>2.2</sub> )	2
Website Quality (Y <sub>1</sub> )	
User-friendly (Y <sub>1.1</sub> )	2
Responsive (Y <sub>1.2</sub> )	2
User Satisfaction (Y <sub>2</sub> )	
Content (Y <sub>2.1</sub> )	2
Timeliness (Y <sub>2.2</sub> )	2
Security and privacy (Y <sub>2.3</sub> )	2
total	18

### 4. RESULTS

#### 4.1 Respondent Profile

The writer analyzed respondent’s perceptions about Service Quality, Information Quality, and

Website Quality as intervening variables toward User Satisfaction. The data collected were 81 questionnaires. Respondent profiles are shown in Table 2.

**Table 2: Respondent Profile**

Employee Status	%	Education Level	%
Civil Servant	50,6	High School	23,5
Non-permanent Employee	49,4	Bachelor Degree	49,4
		Master Degree	27,2
Length of work	%	Technical Guidance Attendance	%
< 5 Years	18,5	Yes, Attended	69,1
5 - 10 Years	29,6	Not Attended	30,9
> 10 Years	51,9		
Gender	%	Age	%
Male	55,6	20-30	30,9
Female	44,4	31-40	30,9
		41-50	23,5
		51-60	14,8

Most respondents are male civil servants, with an age range from 31 to 40 years old. It can be concluded that respondents are at a high level of maturity with a good level of intelligence. Furthermore, most of them are bachelor degrees who have worked for more than 10 years and they had attended the website’s technical guidance.

**4.2 Descriptive Analysis Result**

The data analysis was processed by the SPSS program (Statistical Package for School Science). There are 4 variables, 9 indicators, and 18 instruments to be analyzed. The results of the validity and reliability test for 18 instruments proved valid, it can be concluded by the probability of each instrument does not exceed the 5% error value, which means that the respondent understands about the questionnaire contains. The results of the reliability test showed that the Chronbach’s alpha value does not higher than the r table (0,219), so the instruments are considered reliable. All the results of descriptive analysis for each variable, indicator, and instrument are shown in the appendix.

The respondent’s perception can be analyzed from the average value generated by indicators and instruments. In advance, Service Quality is measured by fast response and complete data. Fast response affects Service Quality the most. This can be concluded when the website operator quickly responds to complaints entered by website visitors in the interactive column. Information Quality indicators are obtained from accurate information and easy to understand information. The main thing that affects information quality is information that is easy to understand. A system that can provide information that is precisely and easily understood by users and also answering user’s ignorance, will be better and make users feel satisfied with the system. Website Quality is measured by a user-friendly website and responsive website. A user-friendly website highly affects website quality. Website users will feel satisfied when the website is

easy to operate (user friendly). User Satisfaction is formed by website content, website timeliness, website security, and privacy. The timeliness of website updates very affects user satisfaction. An up-to-date website will give more satisfaction to website users.

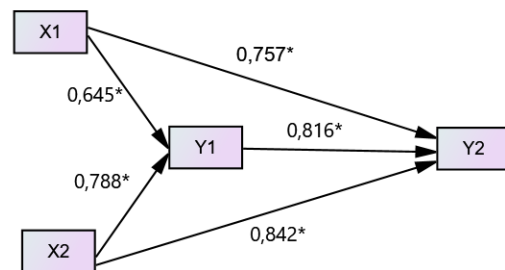
**4.3 Linear Regression Results**

To make a model on path analysis, a linear regression test could be conducted twice. Thus, writers got the regression model as follows:

First multiple linear regression model:  $Y1 = 0,645X1 + 0,788X2 + e1$

Second multiple linear regression model:  $Y2 = 0,757X1 + 0,842X2 + 0,816Y1 + e2$

Note: X1 = Service Quality; X2 = Information Quality; Y1 = Website Quality ; Y2 = User Satisfaction



**Figure 2: Coefficient value**

\*) level of significant (p) is less than 5%

There are seven coefficients value in the path model above. According to the coefficient value, the Service Quality variable on User Satisfaction with the Website Quality as an intervening variable shows that it has no significant effect and also Information Quality variable toward User Satisfaction with the Website Quality as an intervening variable shows no significant effect either. Meanwhile, the other five regression coefficients show that there is a significant effect. The results of path analysis are shown in Table 2.



**Table 3: Path Analysis Results**

Variables			Coefficients			Result
Independent	Intervening	Dependent	direct	indirect	Totals	
Service Quality	Website Quality	-	0,645	-	-	Sig.
Information Quality	Website Quality	-	0,788	-	-	Sig.
Service Quality	-	User Satisfaction	0,757	-	-	Sig.
Information Quality	-	User Satisfaction	0,842	-	-	Sig.
	Website Quality	User Satisfaction	0,816	-		Sig.
Service Quality	Website Quality	User Satisfaction	0,757	0,645 X 0,816 = 0,526	1,283	H1 accepted
Information Quality	Website Quality	User Satisfaction	0,842	0,788+ 0,816 = 0,643	1,485	H2 accepted

## 5. DISCUSSION

The test results show that Service Quality is formed through the fast response by website operators and the completeness of data contained in the website. Both public and Government Organizations need information about government activities, development results, financial reports, organization statistics, regional potential, tourism potential any time through the website to support the government. This does not contradict previous research by Nurefa et al., (2015) which stated that Service Quality is a variable that has a dominant effect on Website Quality. According to the research results, better Service Quality will increase the satisfaction of website users. Otherwise, when Service Quality is poor, the satisfaction of website users will decrease.

Information Quality is measured by indicators as follows: accurate information and easy to understand. This kind of information is expected to achieve a good quality of a website because it is useful for website users. This is in accord with previous research by Suryani et al., (2016) which states that there is a significant effect between Information Quality toward Website Quality. According to the Linear Regression Analysis, the Information Quality must be increased on the Malang Regency Government Website through feedback provided by the operators. Better information quality will increase the satisfaction of website users. Otherwise, if the information quality is bad, then the satisfaction of website users will decrease.

The results also show that Service Quality can increase website User Satisfaction. By providing a fast response from the website operators and the completeness of data information in the website, it can create User Satisfaction. This is also proved by Nasrul (2018), Suryanto et al., (2018), and Ulum (2018) which states that Service Quality has a significant effect on User Satisfaction. With the higher Service Quality of Malang Regency Government website, the loyalties from website users will increase.

Information Quality provided on the website need to be accurate and easy to understand by website users. This information is expected to give user

satisfaction. This is equal with the research conducted by Wicaksono et al., (2012), Wibowo (2013), Utomo et al., (2017), Rakhmadian et al., (2017), Shodiq et al., (2018), and Nasrul (2018) which states that Information Quality has a significant effect on User Satisfaction. This shows that Information Quality has a strong relationship with User Satisfaction. Information Quality that builds with system reliability can increase User Satisfaction.

This research indicates that Website Quality can increase User Satisfaction. Website Quality in this research was formed from a user-friendly and responsive website. The important things that increase website User Satisfaction are the menus/tools on the website which are easy to operate and responsive while updating and uploading data. Previous research was conducted by Fendini et al., (2013), Suryani et al., (2016), Ulum (2018), Shodiq et al., (2018) and Hsieh (2019) stated that Website Quality has a significant effect on User Satisfaction.

Research results show that Service Quality cannot increase User Satisfaction through Website Quality. This can happen because services such as completeness of data and fast response are not the only reason that makes users feel satisfied. However, information system users need a user-friendly and responsive website application, so they can easily operate menus/tools on the website. Hence, user satisfaction can be achieved.

Results also show that Information Quality cannot increase User satisfaction through Website Quality. This is because Information Quality such as accurate information and easy-to-understand information on the website has not been effective in improving Website Quality. This is concluded from the respondent's opinions about the responses of service providers which obtained a smaller average score. Information Quality which users expect is the quality that can help the ignorance of system users.

## 6. CONCLUSION AND RECOMMENDATION

Results of the research proved that Service Quality on Malang Regency Government Website has a significant effect on Website Quality. Information

Quality has a significant effect on Website Quality. Service Quality directly has a significant effect on User Satisfaction. Information Quality directly has a significant effect on User Satisfaction. Website Quality directly has a significant effect on User Satisfaction. Service Quality through Website Quality has no significant effect on User Satisfaction. Information Quality through Website Quality has no significant effect on User Satisfaction. The research can be used as a reference for improving Service Quality websites to users/public/government. Technology Development now requires all aspects to be carried out effectively and efficiently.

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**Appendix****Instrument test results and descriptive analysis**

Variables and Indicators	Instrument's code	Coefficient Correlation	Coefficient Reliability	mean
Service Quality (X1)			0,812	4,07
Fast response (X1.1)	X1.1.1	0,827		4,10
	X1.1.2	0,761		4,05
Complete data (X1.2)	X1.2.1	0,818		3,99
	X1.2.2	0,747		4,12
Information Quality (X2)			0,818	4,10
Accurate information (X2.1)	X2.1.1	0,790		4,09
	X2.1.2	0,800		4,06
Easy to understand information (X.2)	X2.2.1	0,796		4,12
	X2.2.2	0,858		4,12
Website Quality (Y1)			0,832	4,03
User Friendly (Y 1.1)	Y1.1.1	0,869		4,14
	Y1.1.2	0,871		4,05
Responsive (Y1.2)	Y1.2.1	0,877		3,99
	Y1.2.2	0,828		3,93
User Satisfaction (Y2)			0,797	3,98
Content (Y2.1)	Y2.1.1	0,802		4,00
	Y2.1.2	0,777		3,93
Timeliness	Y2.2.1	0,780		4,00
	Y2.2.2	0,771		4,00
Security and privacy (Y2.3)	Y2.3.1	0,837		4,01
	Y2.3.2	0,783		3,96
r table ( $\alpha = 0,05$ ; $df = 81$ ) = 0,219				

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