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The Effect of Usability, Quality of Information, And Interaction Services Quality on User Satisfaction of DEPOK City Government Website Services Using WEBQUAL 4.0 Method

Rienova Serry Donie[1], Edy Prihantoro[2] and Fitri Dwi Lestari[3]

[1] Faculty of Computer Science and Information Technology , Gunadarma University, Depok, 16454, Indonesia
[2] Faculty of Communication Science, Gunadarma University, Depok, 16454, Indonesia
[3] Faculty of Communication Science, Gunadarma University, Jakarta, 13790, Indonesia

[1]rienovadonie@gmail.com, [2]ediprie@gmail.com, [3]fitridl.ilkom@gmail.com

ABSTRACT

This study aims to determine how much influence does the variables of usability, the information quality, and the interaction service quality on the satisfaction of depok.go.id website users partially and simultaneously. Data collection tools used in this study are questionnaires and secondary data. The subjects in this study are 100 people who are visitors on depok.go.id website. In this study, the quality of depok.go.id website is measured using WebQual 4.0 method. The sampling technique uses purposive sampling technique. The data analysis used in this study is simple regression and multiple regression analysis. The results show that the variables of usability and the information quality partially influences with the influence of 67.5% and 37.5%, while the interaction services quality have no effect. Simultaneously, the three variables influence the satisfaction of website users with a large influence of 70.35.

Keywords: *WebQual 4.0, Official Government Portal, Website Quality.*

1. INTRODUCTION

The rapid growth of information technology has an impact on changes in the organization or company services. Currently, services to users can be done online, for example, companies can sell goods/services through the company's website. Whereas non-profit organizations including government agencies can provide services such as online giving information or online licensing to the public.

The application of communication and information technology in government, known as e-government, is believed to provide broad benefits, not only for the state and its organizers, but also for the public who receive services. The use of communication and information technology in government processes will increase efficiency, effectiveness, governance accountability and transparency, has been realized by Indonesian. Through Presidential Instruction No. 3 of 2003, the government, in this case the Ministry of Communication and Information has set a National Policy and Strategy on the development of e-government.

The local government website can be used as a tool to convey accountability in implementing the budget and local government to the public. Research in several countries shows that one form of transparency and accountability of local government is by publishing financial reports on the internet (Laswad et.al, 2005). Almost all local governments in Indonesia have websites but different quality and roles. There are those who just provide general information about the area, but there are also those who have used it for community service activities, regulatory socialization, and tool to communicate with their citizens interactively.

Depok City Government is one of the government agencies that has an active official news portal that does not only provide general information about Depok City, but also for community service activities and a tool to interact with the community. Moreover, the official website provides not only daily news about Depok City, but also presents a menu of Citizen Interaction choices with telephone communication options and several Depok City City social media official accounts. The official website of the Depok City Government also provides a Licensing Service menu, which contains online licensing forms and any licensing information that can be done.

The official website of the Depok City Government managed by Depok Communication and Information Agency which presents information and news that fairly complete news, such as general news about the activities and events that took place in Depok City, OPD news (Regional Device Organizations), press releases, and Depok News that released once a month. With this City Government website, it is very easy for Depok residents to get information about Depok City, what activities and events that occur every day in Depok City.

Several regulations in Indonesia have implicitly stated about utilizing electronic media to disclose information to the public. These regulations include *PP No. 6 of 2008, PP No. 3 of 2007, and Permendagri No. 7A in 2007*. The electronic media in the three regulations meant by refer to the website owned by the Regional Government that can be used by the Regional Government to disclose information to the public. Information that must be disclosed by the Regional Government through electronic media is: information reports on the implementation of regional government (*PP No. 3 of 2007 and Permendagri No. 7A of 2007*) and the results of evaluating the implementation of regional government (*PP No. 6 of 2008*). Referring to these three regulations, disclosure of information other than information reports on the implementation of regional government and the results of evaluating the implementation of regional government can be classified as voluntary disclosures.

To find out whether a website is said to have quality, use Webqual method. Webqual method is a method used to find out the quality of a website based on the perceptions of the community or users (Barnes and Vidgen, 2003). Webqual 4.0 method is used in this study which consists of three categories: usability, information quality, and quality of interaction services. Usability is the quality associated with site design; information quality is the quality of the content contained on the site; and the quality of interaction service is the quality of interaction services experienced by users when users investigate the site more deeply. The three categories are used as references in making a questionnaire to analyze the quality of Depok City Government website http://depok.go.id. The results of the analysis are expected to be a recommendation for a government agency in developing a quality website so that the development of the official website of Depok City Government can increase towards maturation, stabilization, and ultimately reach the level of utilization.

2. LITERATURE REVIEW

2.1 E-Government

E-Government Development, based on Presidential Instruction No. 3 of 2003, is the effort to develop governance based (using) electronics in order to improve the quality of public services effectively and efficiently.

To develop a management system and take advantage in information technology advances, the government must immediately implement the process of E-Government transformation. Through E-Government development, a management system and work processes in the government are structured by:

a. Optimizing the use of advances in information technology to eliminate organizational and bureaucratic barriers,
b. Establishing a network of management systems and work processes that enable government agencies to work in an integrated manner and the government must provide a simplify access to all public service information.

2.2 Public Service

Public services are all forms of services both in the form of public goods and public services, which in principle are the government agencies responsibility and carried out by them at the center, in the regions, and within the State-Owned Enterprises or Regionally-Owned Enterprises, in implementing regulatory provisions legislation.

Public service activities are organized by the government agencies. Government agencies are collective designations including work units or units of ministries, departments, institutions, non-departmental government, secretariat of the highest and highest state institutions, and other government agencies, both central and regional, including Regional-Owned Enterprises. As recipients of public services are people, communities, government agencies and legal entities.

2.3 WebQual 4.0

WebQual has developed since 1998 and has undergone several iterations in the preparation of the dimensions and items of the question. WebQual 4.0 is the development of predecessor versions of WebQual 1.0, WebQual 2.0, WebQual 3.0 and the merging and adjustment of Servqual. This study uses the WebQual 4.0 method to analyze the quality of the official website of the Depok City Government through the concept of usability, information quality, and quality of interaction services. Usability is quality that related to site design. The information quality is the quality of the content contained on the site. Quality of interaction service is the quality of interactions service experienced by users when users investigate the site more deeply. Table 2.1 shows the categories and statements on WebQual 4.0 that will be used in the questionnaire.

Table 1: WebQual 4.0 Method

Categories	WebQual 4.0 Questionnaire
Usability	1. No difficulties in using this website. 2. How to interact with this website is easy to understand. 3. Navigation/instructions on this website are clear. 4. This website is easy to operate. 5. The website design in accordance with the users need. 6. The response time on this website is in accordance with the users need.
Information Quality	1. The website provides accurate information. 2. The website provides information that is up to date. 3. The website provides relevant information. 4. The website provides information that is easy to understand. 5. The website provides detailed information. 6. The website presents information in a format that suits user's needs.
Quality of Interaction Service	1. The website has a good reputation. 2. The website gives a personal impression. 3. The website gives a pleasant impression. 4. The website provides a positive experience.

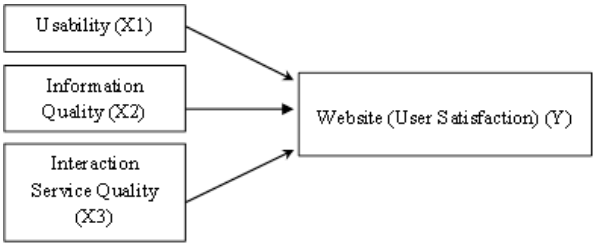

Fig. 1. Research Scheme

3. RESEARCH METHOD

This study uses a quantitative approach because the analysis in this study focuses more on numerical data (numbers) that are processed using statistical methods. In addition, WebQual methods and the analysis of question subcategories are used as quantitative approach.

3.1 Population

The population in this study are the users of Depok City Government website http://depok.go.id. The sample design used is purposive sampling, in which samples are selected which have the specified criteria. The total samples in this study are 100 respondents.

3.2 Data Analysis Technique

The data analysis technique used in this study is statistical analysis techniques. The researchers will use SPSS 20.0 software for Windows to calculate the data. Some of the tests performed are validity and reliability, and simple and multiple linear regression tests.

4. RESULTS AND DISCUSSION

4.1 Depok City Government Profile

The implementation of regional autonomy aims to create information and technology-based services. Depok City, as one of the Regional Governments in Indonesia, which also took part in the framework of fulfilling the obligation to implement Presidential Instruction No. 3 of 2003, through the Depok City website: www.depok.go.id gives access to information, services, etc.
At this stage, the regional government website can display information about the local government, especially at the main menu/page by introducing various information related to the Regional Government. The following is the display of information or main menu on the official website/portal of Depok City through www.depok.go.id:

Fig. 2. Main Page of the Official City Portal of Depok City Government

The features or further information that can be accessed by the public on the local government website is:

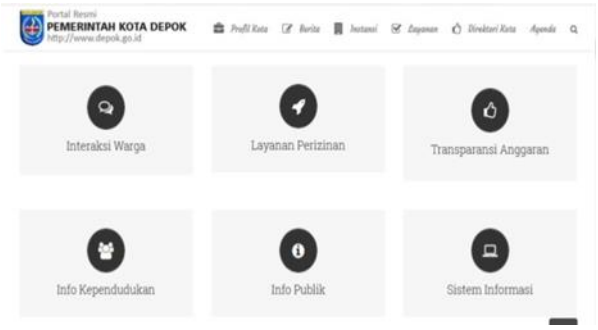

Fig. 3. Selection Menu of Community Needs are Presented on the Website

Data that the researchers obtained from the official administrator portal Depok City Government, the website visitors are around 552,510 visitors in 2017, from January 1 to December 31, 2017, with an average visitor reached to approximately 40,000 visitors each month.

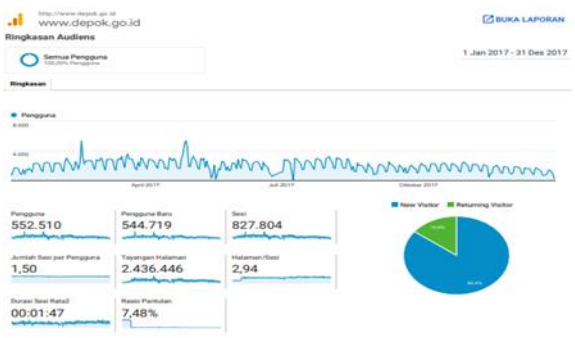

Fig. 4. Visitors Data Report on depok.go.id website in 2017

The local government website can display information about the local government, especially at the main menu/page by introducing various information related to the Regional Government. The official website/portal of Depok City through www.depok.go.id at the main displays of information, such as city profiles, news, agencies, services, city directorates, and agendas.

The features or further information that can be accessed by the public on the local government website are citizen interaction, licensing services, budget transparency, population information, public information, and information systems.

The data of visitors that obtained from the official administrator portal of the Depok City Government who visited the website are quite numerous. There are around 552,510 visitors in 2017, from January 1 to December 31, 2017, with an average visitor reached to 40,000 visitors each month.

A. Respondents

The questionnaire had distributed from March 29 to April 20, 2018 and filled by 100 respondents. The respondents of this study dominated by female. There are 67 females and 33 males as shown in Table 4.1:

Table 2: Gender of Respondents

Gender	Amount	Percentage (%)
Male	33	33
Female	67	67
Total	100	100

This multiple regression test is conducted to see how much influence the three independent variables simultaneously on user satisfaction.

B. Variable Descriptive Analysis

Descriptive analysis is used to look at the characteristics of the data, such as the mean of a data group. To do a descriptive analysis, the researcher used the IBM SPSS 20 Statistics application.

A. Descriptive Analysis of Variables Usability (X1)

The variables of usability consist of six indicators, such as easy to use, easy to navigate, clear navigation, easy to operate, attractive design, appropriate response time. Variables of usability have an average rating of 2.78, which means that the majority of respondents are quite neutral with the statements/items that exist on usability variables. The recapitulation of respondents' answers and the mean value of each item in the usability variables can be seen in Table 4.2 below:

Table 3: Description of Usability Variables

Items	Scale					Mean
	1	2	3	4	5	
The website is easy to use	10	23	45	13	4	2,88
Easy interaction with websites	6	12	36	32	14	2,36
Navigation on the website is clear	9	21	43	23	4	2,92
Easy website operation	15	21	41	19	4	2,76
Website design as desired	18	20	36	19	7	2,77
Website response time is appropriate	9	19	44	20	8	2,99

B. Descriptive Analysis of Information Variables of Usability(X2)

Information Variables of Usability consist of six indicators, such as accurate information, up to date information, relevant information, easy to understand information, detailed information, and accurate information format. Information Variables of Usability have an average rating of 3.29, which means that the respondents are very neutral towards agreeing to each statement of the information quality variable. Recapitulation of respondents' answers and the mean value of each item in the information quality variable can be seen in Table 4 below:

Table 4: Description of Information Quality Variables

Items	Scale					Mean
	1	2	3	4	5	
The website information is accurate	7	17	43	25	8	3,10
The Website information is up to date	7	22	37	25	9	3,07
The website information is relevant	3	15	30	25	27	3,58
The Website information is easy to understand	14	27	39	10	10	2,75
The website information is detailed	1	6	27	41	25	3,83
The website information format is appropriate	3	9	47	26	15	3,41

A. Descriptive Analysis of Variable Interaction Service Quality (X3)

The Interaction Service Quality variable consists of seven indicators, such as good reputation, personal impression, pleasant impression, positive experience, easy communication with the admin, information needed, and the last is communicative impression. The variables of Interaction quality service have an average rating of 3.90, which means that the respondents quite agree with each statement/item that exists in the variable service quality interaction. Recapitulation of respondent's answers and the mean value of each item in the variables of interaction service quality can be seen in Table 5 below:

Table 5: Description of Interaction Service Quality Variables

Items	Scale					Mean
	1	2	3	4	5	
Website reputation is good	3	9	46	27	15	3,42
Personal impression on the website	2	1	35	43	19	3,76
Pleasant impression on the website	3	3	20	35	39	4,04
Positive experience on the website	2	1	14	41	42	4,20
Easy to communicate with the administration	2	0	23	42	33	4,04
Information needed	11	0	41	31	17	3,54
Communicative impression on the website	2	0	9	32	57	4,42

B. Descriptive Analysis of Variable User Satisfaction (Y)

Variable User Satisfaction consists of three indicators such as good website, users are satisfied, and users will visit again. The user satisfaction variable has an average rating of 3.06, which means that the respondent is neutral with each statement/item in the variable user satisfaction. Recapitulation of respondents' answers and the mean value of each item in the user satisfaction variable can be seen in Table 6 below:

Table 6: Description of Variable User Satisfaction

Items	Scale					Mean
	1	2	3	4	5	
Website quality is good	7	10	42	30	11	3,28
Website users are satisfied	8	20	39	23	10	3,07
Users will visit again	13	13	48	16	6	2,85

C. Validity and Reliability Test

Validity test is done to measure the validity of the item or statement in the questionnaire that has been prepared. The validity test in this study is carried out by correlational analysis. Validity test in this study is conducted for all variables, namely, Usability, Information Quality, Interaction Service Quality, and User Satisfaction. An item or statement is said to be valid if the coefficient value can be seen in the Corrected Item-Total Correlation column ≥ 0.300.

Reliability Test

Reliability test is used to determine the consistency of a measuring instrument using a scale. Reliability test is used to find out whether the measuring instrument will get a consistent measurement result if the measurement is repeated again. High and low reliability, empirically indicated by a number called the value of the reliability coefficient. The reliability of this study is the value of Cronbach's Alpha 700 0,700 as in table 7 below:

Table 7: The reliability test of all variables

Reliability Test of Variable Measurement Tools	Cronbach's Alpha	N of Items
Usability	0,846	6
Information Quality	0,778	6
Interaction Service Quality	0,854	7
Users Satisfaction	0,744	3

D. Results of Linear Regression Analysis

In this study two regression analyzes were carried out, namely simple linear regression analysis and multiple linear regression analysis. Simple linear regression analysis is done to see how much contribution the variable of usability has on User Satisfaction, how much the contribution of the Information Quality variable to User Satisfaction, and how much the influence of the Interaction Service Quality variable on User Satisfaction. While the multiple regression analysis was conducted to see how much the influence of all independent variables on the dependent variable contributed.

Results of Simple Linear Regression Analysis

A. Usability of User Satisfaction

The results of regression analysis of Usability variables on User Satisfaction can be seen in table 4.7 where the value of R Square is 0.675, which means that the usability variable contributes an influence of 67.5% to user satisfaction.

Table 8: Simple Linear Regression Test Usability for User Satisfaction

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,821	,675	,671	1,46409

B. Information Quality on User Satisfaction

The results of the regression analysis of Information Variables of Usability on User Satisfaction can be seen in table 4.8 where the value of R Square is 0.373, which means that the variable information quality contributes an influence of 37.3% to user satisfaction.

Table 9: Simple Quality Linear Regression Test Information on User Satisfaction

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,611	,373	,367	2,03312

C. Service Quality Interaction with User Satisfaction

The results of the regression analysis of the Interaction Service Quality variable on User Satisfaction can be seen in table 4.9 where the value of R Square is 0.001, which means that the variable service quality of interaction contributes an effect of 0.01% to user satisfaction.

Table 10: Simple Linear Regression Test Interaction service Quality on User Satisfaction

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,028	,001	-,009	2,56645

D. Results of Multiple Linear Regression Analysis

This multiple regression test is conducted to see how much influence the three independent variables on user satisfaction.

Table 11: Output Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,838	,703	,694	1,41404

In table 4.10, the value of R Square is 0.703, which means that the three independent variables, namely usability, information quality, and service quality of users together contribute to the fall of 70.3% on user satisfaction. While the remaining 29.7% is the influence from other factors that were not examined in this study.

Table 12: Output Regression ANOVA

Model		Sum of squares	df	Mean Squares	F	Sig.
1	Regression	454,047	3	151,349	75,693	,000
	Residual	192,953	96	2,000		
	Total	646,000	99			

The results of ANOVA testing using the F test show the F value of 75.693, with a significance of 0.00. If the significance is less than 0.05 then there is a significant effect simultaneously between all the independent variables on the dependent variable.

Table 13: Output Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1,575	1,039		1,517	,133
X1	,378	,037	,707	10,107	,000
X2	,117	,042	,195	2,767	,007
X3	-,050	,031	-,089	-1,577	,118

Table 4.12 explains the *t* test, which is a partial test, while the significance measures the level of significance of the *t* test. The measurement is if the significance is less than 0.05 then there is a partial influence between the independent variables on the dependent variable. As shown in the table above that variable of usability (X1) and information Variables of Usability (X2) are statistically significant. Whereas for information service quality variable (X3) is not statistically significant because the significance value is 0.118, which means it is greater than 0.05.

Several tests using SPSS has been carried out to measure the quality of the website for each variable. This can be seen from all valid times pf each variable. The most important process of the test is simple linear regression test. This test is conducted to see the effect of each variable partially on user satisfaction of Depok City Government website http://depok.go.id and the influence of usability, information quality and interaction quality simultaneously on user satisfaction of Depok City Government website http://depok.go.id.

The results of a simple linear regression test obtained two variables, namely the usability and information quality that contributed to the Depok City Government website http://depok.go.id. Several tests using SPSS has been carried out to measure the quality of the website for each variable. This can be seen from all valid times pf each variable. The most important process of the test is simple linear regression test. This test is conducted to see the effect of each variable partially on user satisfaction of Depok City Government website http://depok.go.id and the influence of usability, information quality and interaction quality simultaneously on user satisfaction of Depok City Government website http://depok.go.id.

Id and one variable, namely the quality of service does not affect the website of the Depok City Government http://depok.go.id in this study. The variable of usability contributed 67.5% and the information quality contributed 37.5%.

From the results of multiple linear regression tests where this test was conducted to see the effect of three independent variables simultaneously on the dependent variable, user satisfaction, the results obtained if the three independent variables namely usability, information quality, and services contributed significantly 70.3% to dependent variable user satisfaction Depok City Government website http://depok.go.id

The use of the Depok City Government website http://depok.go.id has good quality but the information quality provided needs to be improved again. Furthermore, it is considered as important to improve the interaction services on the website, so that communication between Depok citizens and the government can be continued through the website as well as the services that available on the website.

The results of the research using the WebQual 4.0 method contains meaning that the higher the quality of service as a website, the more satisfaction and intensity the user will use the website. While the greater the level of satisfaction of someone to use the website, the higher the desire to use the website. Things that can be done to maintain and increase the satisfaction of the users on the official website of the Depok City Government is by increasing the usability, information quality, and interaction services quality of the website.

5. CONCLUSIONS AND RECOMMENDATIONS

Usability, information quality, and interaction quality have a positive and significant effect on user satisfaction with an effect of 70.3%, the remaining 29.7% is influenced by other variables which is not examined.

The results of the research using the WebQual 4.0 method contains meaning that the higher the quality of service as a website, the more satisfaction and intensity the user will use the website. While the greater the level of satisfaction of someone to use the website, the higher the desire to use the website. Things that can be done to

maintain and increase the satisfaction of the users on the official website of the Depok City Government is by increasing the usability, information quality, and interaction services quality of the website.

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