

## ANALYZING THE IMPACT OF ONLINE SERVICE QUALITY ON CUSTOMER SATISFACTION

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### Abstrak

Kehadiran teknologi komputer dengan kekuatan prosesnya telah memungkinkan pengembangan sistem informasi manajemen berbasis komputer. Penelitian telah berusaha untuk menganalisis faktor-faktor penting yang memberikan dampak atau pengaruh terhadap kepuasan pelanggan dari perusahaan dan itu adalah fokus penelitian ini. Tujuan dari makalah ini adalah untuk menganalisis faktor-faktor yang dari kualitas layanan online yang memberikan dampak yang paling untuk kepuasan pelanggan. Penelitian ini merupakan studi kasus, tentang Firstmedia.com – sebuah website perusahaan ISP. Data primer dalam penelitian ini menggunakan kuesioner. Sumber sekunder seperti laporan media, statistik industri, dan informasi dari situs web perusahaan juga dikumpulkan. Kualitas layanan online diukur dengan lima faktor: terdiri dari efisiensi, reliability, respon, pemenuhan, dan privasi. Kualitas layanan online tampaknya memiliki dimensi cukup mirip dengan kualitas e-service pada umumnya. Kualitas layanan online memiliki dimensi yang lebih mendalam tentang web dari yang telah ditemukan dalam penelitian sebelumnya pada kualitas e-service.

**Kata kunci:** Kualitas pelayanan online, kualitas pelayanan elektronik, dan kepuasan pelanggan.

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### Abstract

The presence of computer technology with the power of the process has enabled the development of computer-based management information system. Research has been tried to analyze the significance factors that give impact or effect to the company customer satisfaction– and that is the focus of this study. The aim of this paper is to analyze which factors from online service quality that gives the most impact to customer satisfaction. This research is a case study, about Firstmedia.com – a website from ISP Company. Primary data in this research is using questionnaire. Secondary sources such as media reports, industry statistics, and information from company web sites were also collected. Online service quality was measured by five factors: their efficiency, reliability, responsiveness, fulfillment, and privacy. Online service quality appears to have quite similar dimension to e-service quality in general. Online service quality had deeper dimension about web than have been found in prior research on e-service quality.

**Keywords:** Online Service Quality, E-Service Quality, and Customer Satisfaction

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## 1. Introduction

In the era of globalization, the products or services that compete in the market more numerous and diverse due to the openness of the market. Therefore, the competition among manufacturers to meet customer needs as well as provide customer satisfaction to the fullest, because basically the purpose of a business is to create customer satisfaction. One of the actions to satisfy the customer is to provide service to customers as well as possible. This fact can be seen as there are something's that can give the value of customer satisfaction.

In 2014, the Asia Pacific region counts a total of 1.25 billion Internet users, representing 47% of the global online population. This means that the Internet penetration in Asia Pacific reached 32%, which lies just below the global average of 37%. However the regional differences in terms of internet adoption are significant. Whereas South Asia is in a rather under developed stage with penetration levels of 17%, Oceania exceeds the global average by almost 200%, with a penetration level of 63%. However, especially the two big Asian players, India and China, will drive the digitalization of the region in the near future. Also other developing countries such as Indonesia are expected to feature double digit internet user growth rates over the coming years (etc-digital.org., 2014).

PT. First Media formerly known as PT Broadband Multimedia, as an Indonesian public company listed on Indonesia Stock Exchange. First Media provides broadband internet service, cable television, and data communications, which as a whole is introduced as the "Triple Play". The products are sold either separately or in package. In 2008, First Media has approximately 180,000 internet subscribers and around 130,000 television subscribers. First Media's fiber optic network has a length of 2,597 kilometers spread across Jabodetabek, Surabaya, and Bali.

Complaints for PT.Firstmedia and Firstmedia.com

Complains	
2012	19 Report
2013	37 Report
2014	65 Report

Source: Kaskus.co.id, Rumahpengaduan.com, komplain.info.com, kompas.com, myzone.okezone.com.

Table above show us the increasing in complain for PT.Firstmedia and Firsmedia.com from 2012-2014. From 2012, there are 19 complaints posted in social media and also website media that shows PT.Firstmedia and Firstmedia.com has a problem. In 2013 the complaints posted was increased to 37 complaints and keep increased in 2014 that has 65 complaints posted. It shows that PT.Firstmedia is unable to prevent the problems that occur in their services in the future.

Service Quality has defined as Tangibility, Empathy, Reliability, Responsiveness, and Assurance (Parasuraman, 2005). But, a recent study, based on data collected from focus group interviews, electronic service quality (e-SQ) defines with Reliability, Responsiveness, and Assurance. Those three dimension are important in both online and offline settings. However, some other dimensions are unique to customer's evaluation of e-SQ, including Ease of navigation, Flexibility, Efficiency, Site aesthetics, Price knowledge. According to Zeithaml (2002) online service quality is one of driven factors of customer satisfaction. Zeithaml (2002) developed the e-SERVQUAL measure of e-service quality to study how customers judge e-service quality. It contains seven dimensions: efficiency, reliability, fulfillment, privacy, responsiveness, compensation and contact. The first four dimensions are classified as the core service scale, and the latter three dimensions are regarded as a recovery scale, since they are only salient when online customers have questions or problems. Expectations play important role to determine the customer's service quality evaluation and satisfaction (O'Connor, 2000).

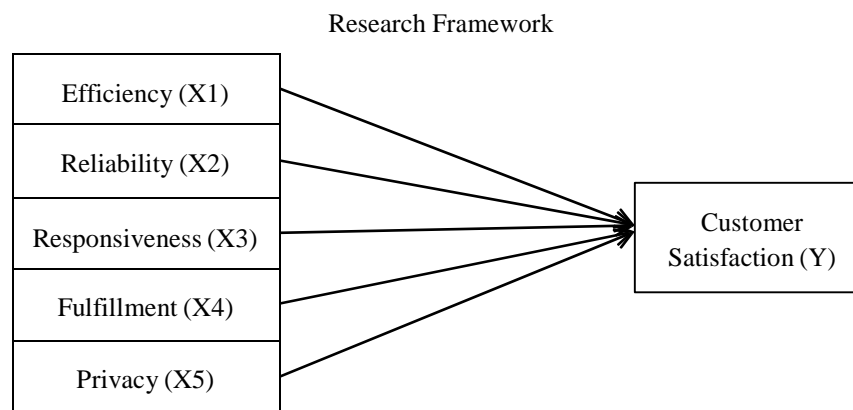
## **2. Literature Review**

Zeithaml (2001) is believed to be the first one who provided a formal definition of website service quality or E-Service Quality. According to Zeithaml (2001), e-service quality is defined as the extent to which a website facilitates efficient and effective shopping, purchasing, and delivering of products and services. As stated, the meaning of service is comprehensive, which includes both pre- and post-website service aspects. E-Service (Electronic Service) model is no longer just a form of added value delivered to the consumer. It has now become a thing to be offered by the service providers especially for internet service provider. Now most of the internet services provider using the E-Service System (e-services), by adapting online registry (Sistem Informasi, 03/2010).

A recent study, based on data collected from focus group interviews, electronic service quality (e-SQ) defines with Reliability, Responsiveness, and Assurance. Those three dimension are important in both online and offline settings. However, some other dimensions are unique to customer's evaluation of e-SQ, including Ease of navigation, Flexibility, Efficiency, Site aesthetics, and Price knowledge. While Zeithaml (2000) measuring the online service quality through focus group interview. They have identified seven dimensions of online service quality: efficiency, fulfillment, reliability, responsiveness, compensation, privacy and contact. Then later, they identified four dimensions: reliability, fulfillment, privacy and efficiency. Zeithaml (2002) also found another three dimensions that become make senses only when the online customers have questions or run into problems. The dimensions are compensations, contact and responsiveness.

Zeithaml (2003) stated that satisfaction is the customers' evaluation of a product or service in terms of whether that product or service has met their needs and expectations. Expectations play important role to determine the consumer's service quality evaluation and satisfaction (O'Connor, 2000). Customer satisfaction is the result of the correlation between a customer's assumption and a customer's feeling. By way of explanation, customer satisfaction is identified as the distinction between assumed quality of service and the customer's involvement or feelings after having perceived the service. Customer satisfaction depends on such dimensions as assurance, responsiveness, reliability, empathy and tangibles, and further components such as personal, price and situational factors that may arise as the service quality.

Framework is a model of how theory connects several factors that have been identified as a main issue and important issue. A good framework will explain the strong theoretical linkage between the variables being studied. In conclusion, theoretically to explain the relationship between the independent variables and the dependent variable is necessary.



Source: Saha and Zaho (2005)

According to Zeithaml (2002) Efficiency is the ability of the customers to get to the websites, find their desired product, and other information that is associated with it. Reliability is correct technical functioning of the site and the accuracy of service promises (having items in stock, delivering what is ordered, delivering when promised), billing, and product information. Responsiveness is the ability of e-retailer to provide appropriate information to customers when a problem occurs and the willingness of the company to help customers and provide prompt service. Fulfillment is the accuracy of service promises, and delivering products in the promised time. Privacy is the condition whether the customer's personal information is not shared and their credit card or payment method information is secure.

In this research, hypotheses are explaining about the relation between online service qualities that includes: efficiency, reliability, responsiveness, fulfillment and privacy to the customer satisfaction.

**H1 : Efficiency has positive effect to customer satisfaction.**

**H2 : Reliability has positive effect to customer satisfaction.**

**H3 : Responsiveness has positive effect to customer satisfaction.**

**H4 : Fulfillment has positive effect to Customer Satisfaction**

**H5 : Privacy has Positive Effect to Customer Satisfaction.**

For this study, researcher has chosen quantitative approach for achieving the purpose of the study. This research used Quantitative Method as the main method and Multiple Regression as the analysis model. The quantitative method is emphasis on testing the theory by measuring the study variables with numbers, and analyzing data with statistical tools. This study uses multiple regressions because this study uses 5 variables as X variables which are: X1 – Efficiency, X2- Reliability, X3 – Responsiveness, X4 – Fulfillment, X5 – Privacy. These researches will use the descriptive-quantitative method. Malhotra (2010) states that "descriptive research is a type of conclusive research that has as its major objective the description of something" which means that descriptive research is the type of a conclusive research that has a primary goal to get a figure of something. This research use causal study. Causal study is a study in which the researcher wants to delineate the cause of one or more problem (Sekaran and Bougie, 2010:110). Population in this research is Firstmedia customer which is reach approximately 400.000 subscribers (2014). These numbers include the consumer of internet connection subscribers and TV subscribers. The author will approach the population in online forum and social media. Researcher will use 400 respondents as sample. Researcher will spread the questionnaire through social media (Twitter) to maximize the effectively and efficiency of the research questionnaire. Below is the example of the continuum line with accordance classification for each category. Thus, the continuum line will use to measure the data from respondents.

Continuum Line Measurement

Percentage	Category
$20\% \leq X \leq 36\%$	Very Bad
$36\% \leq X \leq 52\%$	Bad
$52\% \leq X \leq 68\%$	Not Bad, Not Good
$68\% \leq X \leq 84\%$	Good
$84\% \leq X \leq 100\%$	Very Good

Continuum Line Measurement



This analysis was performed to obtain a descriptive overview of the respondents in this research, especially research variables are used. In this study, questionnaires were distributed using a Likert scale, when the index calculation is done using the formula respondents as follows:

$$\text{Index Value} = ((F_1 \times 1) + (F_2 \times 2) + (F_3 \times 3) + (F_4 \times 4) + (F_5 \times 5)) / 5$$

Where:

$F_1$  is the frequency of respondents who answered 1.

$F_2$  is the frequency of respondents who answered 2.

$F_3$  is the frequency of respondents who answered 3.

And so on up to  $F_5$  to answer 5 scores were used in this research questionnaire.

In this questionnaire, the numbers of respondents did not begin from the numbers 0, but from the numbers 1 to 5. Therefore, the index number generated will start from number 20 to 100 with a range of 80. This research also using continuum line for measurement.

### **3. Result and Discussion**

#### **Respondent's Responds about Online Service Quality in Firstmedia.com**

There are 5 (five) variables of E-Service Quality in this research, each variable have a response from respondents. Based on the calculation for the Efficiency variable, the obtained percentage is 66.79% which is based on the measurement level is categorized as "Not Bad, Not Good" in Continuum Line. Also, Based on the calculation for the Reliability variable, the obtained percentage is 69.375% which is based on the measurement level is categorized as "Good" in Continuum Line. Regarding on the calculation for the Responsiveness variable, the obtained percentage is 67.33% which is based on the measurement level is categorized as "Not Bad, Not Good" in Continuum Line. Based on the calculation for the Fulfillment variable has a smallest value which means this sub variable have more significant effect from the other variables, the obtained percentage is 65.1% which is based on the measurement level is categorized as "Not Bad, Not Good" in Continuum Line. Moreover, based on the calculation for the Privacy variable, the obtained percentage is 69.33% which is based on the measurement level is categorized as "Good" in Continuum Line.

#### **Respondent's Responds about Customer Satisfaction in Firstmedia.com**

There is one dependent variable in this research which is Customer Satisfaction, this variable have a response from respondents. Based on the calculation for the Customer Satisfaction variable, obtained percentage is  $(1358.25 \div 2000) \times 100\% = 67.91\%$  which is based on the measurement level is categorized slightly as "Not Bad, Not Good" in Continuum Line.

**Multiple Regression Analysis**

Multiple regression analysis is a general statistical technique used to analyze the relationship between a single dependent variable and several independent variables (Hair, 2010:161). The general formula adopted by Hair (2010) is:

$$Y = b_0 + b_1 X_1 + b_2 X_2 + e$$

- Where:
- Y = Dependent variable
  - b<sub>0</sub> = Constant
  - b<sub>1</sub> = Coefficient regression variable X<sub>1</sub>
  - b<sub>2</sub> = Coefficient regression variable X<sub>2</sub>

According to Hair (2010:161) said that multiple regression analysis is a statistical technique used to examine the relationship between a single dependent variable and a set of independent variables. The ever-widening application of multiple regression fall into two broad classes of research problem which are prediction and explanation. Prediction involves the extent to which the regression variate (one or more independent variables) can predict the dependent variable.

Variable Coefficients<sup>2</sup>

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.114	.113		-1.012	.312
	Efficiency	.258	.045	.252	5.744	.00
	Reliability	.259	.045	.256	5.806	.000
	Responsiveness	.332	.045	.294	7.464	.000
	Fulfillment	.049	.023	.051	2.120	.035
	Privacy	.153	.045	.163	3.416	.001

a. Dependent Variable: Customer Satisfaction

Regression model that can be explained from the results in the form of regression equation as follows:

$$Y = -0.114 + 0.258 X_1 + 0.259 X_2 + 0.332 X_3 + 0.049 X_4 + 0.153 X_5$$

Those equations can means that the coefficient regression of efficiency has positive effect to customer satisfaction. With the unstandardized Beta value 0.258, this variable has a positive effect to customer satisfaction. Also for reliability, the coefficient regression of reliability has positive

effect to customer satisfaction. With the unstandardized Beta value 0.259, this variable has a positive effect to customer satisfaction. For Responsiveness sub variable the coefficient regression of responsiveness has positive effect to customer satisfaction. With the unstandardized Beta value 0.332, this variable has a positive effect to customer satisfaction. The coefficient regression of fulfillment has positive effect to customer satisfaction. With the unstandardized Beta value 0.049, this variable has a positive effect to customer satisfaction. The coefficient regression of privacy has positive effect to customer satisfaction. With the unstandardized Beta value 0.153, this variable has a positive effect to customer satisfaction.

If a correlation coefficient is negative, the values of the two variables that are correlated are inversely related; as one variable's scores increase, the other variable's scores decrease. If a correlation coefficient is positive, an increase (or decrease) in one variable is related to an increase (or decrease) in the other variable in the coefficient. If the value of the correlation coefficient is zero, there is no relationship between the two variables (Laura L.N, 2012). Despite from the constant value that has negative value, it means that Online Service Quality already giving negative effect to customer satisfaction in firstmedia.com. From the results of multiple regression analysis that has been describe before, the author will continue to the hypothesis testing that will be done in partialy.

### **Hypothesis Testing**

To test the value of regression model for each variable in partial, the t test can be used to get the result. Following, the explanation of t test for each variable (*t table: 1.697*):

#### **Efficiency**

The t value for efficiency is  $t = 5.744$  with significant value  $0.000 < 0.05$ . With the significant value below 0.05 shows that efficiency has significant effect on customer satisfaction. This results approved that hypothesis 1 is accepted.

#### **Reliability**

From the statistical results, found that t value for reliability is  $t = 5.806$  with significant value  $0.000 < 0.05$ . With the significant value below 0.05 shows that reliability has significant effect on customer satisfaction. It means that hypothesis 2 is accepted.

#### **Responsiveness**

The t value for responsiveness dimension is  $t = 7.464$  with significant value  $0.000 < 0.05$ . With the significant value below 0.05, shows that responsiveness has significant effect on customer satisfaction. Therefore, hypothesis 3 is accepted.

#### **Fulfillment**



In the statistical results show that t count for fulfillment is 2.120 with significant value  $0.035 < 0.05$ . With the significant value below 0.05 shows that fulfillment has significant effect on customer satisfaction. Based on those results the hypothesis 4 can be accepted.

#### Privacy

The statistical results found that t value for privacy is 3.416 and the significant value  $0.001 < 0.05$ . With the significant value below 0.05 shows that privacy has significant effect on customer satisfaction.

### The Coefficient of Determination ( $R^2$ )

Coefficient determination used to know how the impact of independent variables to dependent variable. The value of coefficient determination defined by the adjusted R square.

#### Coefficients of Determination

##### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.881 <sup>a</sup>	.776	.773	.36285

a. Predictors: (Constant), VAR00005, VAR00004, VAR00003, VAR00001, VAR00002

b. Dependent Variable: VAR00006

From the results show that the adjusted R square in this research is 0.773. It means that 77.3% of customer satisfaction are affected by efficiency, reliability, responsiveness, fulfillment and privacy of online service quality. While the rest, which is 22.7% of customer satisfaction are effected by others variable which are not included in this research.

In general, this study showed satisfactory results. With 400 respondents in this research, the analysis can be conducted. Before conducting multiple regression analysis, the classical assumption test (normality, multi- collinearity and hetrocedasticity test) must be conducted first. The classical assumptions conducted in the regression model shows normality, no multi- collinearity and no hetrocedasticity found in the regression model. The normality shows that the model has normality distribution. Multi-collinearity test shows that there is no correlation between each independent variable. While no hetrocedasticity in the regression model shows that the model is feasible to be tested. If the classical assumption test has been conducted and shows the result of no classical assumption then the multiple regression can be conducted.

From the results of multiple regression analysis found that the variable of online service quality in the fifth dimensions which are efficiency, reliability, responsiveness, fulfillment and

privacy have a positive and significant effect on customer satisfaction. Therefore, by giving good online service quality will create the self-satisfaction of consumers. With significant value below 0.05 found that efficiency, reliability, responsiveness, fulfillment and privacy have significant influence to customer satisfaction. Fulfillment is the most influential variable of online service quality dimensions while Reliability is the least influential dimensions

#### **4. Suggestion**

The Fulfillment dimension of online service quality in firstmedia.com has the lowest score from the customer. Therefore, firstmedia.com must improve their fulfillment dimensions. Firstmedia through firstmedia.com should assume that their responses as the important factors that effected customer satisfaction. Firstmedia.com responsiveness is stated in the position below good but also not bad. Therefore, they should improve some aspects in responsiveness dimension.

To increasing the satisfaction level of firstmedia.com customers, Firstmedia Company should improve the online services given. Some of the respondents felt that they did not get correct online services and information from firstmedia.com sites. Hence the company should make sure that every service in the sites delivered to customer correctly and maintain their sites a technical function is working properly. Some of the respondents stated that they could not get information about what happen if they have problem. Firstmedia through firstmedia.com could improve this to create more satisfaction on their customers.

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