EFFECTIVENESS OF MARKETING TECHNOLOGY WEBSITE QUALITY ON COMPANY PERFORMANCE AND THE IMPACT ON SMART CAMPUS STUDENT SATISFACTION

Harrie Lutfie

Faculty of Applied Science, Telkom University

Abstract: The increasing number of internet users in Indonesia has made business people competing to use internet media. Telkom University is one company that has implemented the website as a means of information in every academic activity. This study aims to determine the responses of visitors to the i-Gracias Telkom University website regarding the quality of the website (information quality, interaction, and usability) and its relationship with visitor satisfaction through the company's performance on the i-Gracias Telkom University website. The population used in this study is Telkom University Students Bandung. The research sample was taken by a non-probability sampling method with the number of respondents are 100 respondents, then for analysis used path analysis. The research method used in this study is quantitative research with a causal approach, which are validity and reliability test, classic assumption test, multiple linear regression analysis, F test, t test and coefficient of determination. Based on data analysis, the results of the study indicate that the indicators in this study are valid and reliable. In the classical assumption test of normally distributed data, heteroscedasticity and multicollinearity do not occur. The results of the path analysis test are Website Quality which has a significant effect on Customer Satisfaction with a direct effect greater than the indirect influence of Website Quality on Customer Satisfaction through Company Performance. The suggestion from this research is the need to improve the quality of the interaction of the i-Gracias Telkom University website. The author suggests the next researcher replace the intervening variable (intermediary) which has a significant and linear relationship with other variables.

Keywords: Website Quality, Company Performance, Customer Satisfaction, Path Analysis

Corresponding Author: Harrie Lutfie, Faculty of Applied Science, Telkom University, E-mail: harrie.lutfie@gmail.com, DOI: http://dx.doi.org/10.21776/ub.jam.2020.018.01.18

One phenomenon that appears in the world of information technology is the emergence of the internet. Based on Wearesocial reports there are some astonishing facts. Among them are about the number of world internet users that have reached 4.021 billion people. This means that more than half of humans on earth have used the internet. In Indonesia alone, it was explained that the number of internet users in the country reached 132 million people. This number shows that half or more than 50 percent of Indonesia's population can ac-

cess the internet. While in the same report, out of hundreds of millions of internet users in Indonesia, 60% of them have accessed the internet using smartphones. Not only in terms of access that continues to increase, but also from the duration of using the internet.Wearesocial reports that the average world uses the internet for six hours per day to access the internet through various devices. If this duration is multiplied by the number of world internet users, then the duration of internet usage by all humans on earth can reach more than 1 billion hours to be online in 2018. Indonesia in terms of internet usage time is ranked fourth in the world with an average duration of using the internet 8.51 minutes every day (Source: www.goodnewsfromindonesia. id, 2018).

Meanwhile, according to data from eMarketer (2018), Indonesia is the sixth ranked internet user in the world, besides that there is also a significant trend of increasing internet users in Indonesia, an increase in internet users in 2018 compared to 2017 has increased by 9.24% obtained from the percentage increase from 2013 to 2014 and is expected to continue to increase in the following year. The rapid development of the internet has had an impact on people's daily lives as well as business activities. Companies both small and large scale are competing to use internet media for their business activities. This happened because the company saw promising business potential when viewed from the growth of the internet.

Telkom University is one company that has implemented the Website as a means of information in every academic activity. The Director of the Information Systems Directorate said that the entire academic community, including leaders, employees and lecturers, and stu-dents need sufficient information to support their activities at Telkom University. Given the importance of information, the existence of SISFO is vital for Telkom University (Source: telkomuniversity.ac.id, 2018).
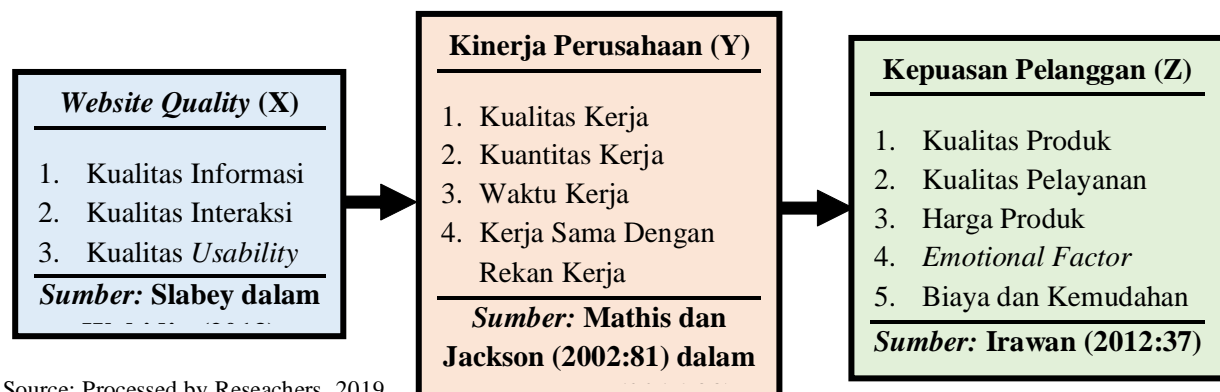
I-Gracias is specifically designed to meet the needs of universities that want computer-ized education services to improve performance, service quality, competitiveness and the quality of the hu-

man resources it produces. I-Gracias has also been adapted to the needs of the College including the making of EPSBED reports (Evaluation of Study Programs Based on Self Evaluation) which are automatically submitted to DIKTI each semester. This Academic Information System is very helpful in managing student value data, courses, teaching staff data (lecturers) and faculty or department administration that are still manual to work with the help of applications to be able to streamline time and reduce operational costs. But in its implementation, i-Gracias has many problems. Most complaints came from students, which were 176 complaints each month with the most types of academic i-Gracias complaints, 111 complaints (Source: Data from the Information Systems Directorate).

Based on the data above, the need for an evaluation of the Telkom University i-Gracias Website. To measure the quality of the Telkom University i-Gracias Website using the Webqual scope including Information Quality, Interaction Quality, and Usability. With these 3 webqual dimensions, we will measure how good the quality of the Telkom University i-Gracias Website is. In addition to measuring the level of customer satisfaction (Telkom Uni-versity Students), there are several methods that companies can do to measure customer satis-faction, namely through the intermediary variable of the company's performance on the system of complaints and suggestions submitted by Students. In this study, the survey was conducted for users who have made purchasing decisions, namely Telkom University Students.

Based on the description of the background above, the aims of this study can be formulated as to determine the impact of the effectiveness of using marketing technology by website quality on customer satisfaction with intervening or mediating by company performance. This research is expected to provide benefits for companies or universities in an effort to increase student satisfaction and company performance by focusing on improving the quality of the website

The framework used in this study can be seen in Figure. 1 below:

Website Quality (X)	**Kinerja Perusahaan (Y)**	**Kepuasan Pelanggan (Z)**
1. Kualitas Informasi 2. Kualitas Interaksi 3. Kualitas *Usability* ***Sumber:* Slabey dalam**	1. Kualitas Kerja 2. Kuantitas Kerja 3. Waktu Kerja 4. Kerja Sama Dengan Rekan Kerja ***Sumber:* Mathis dan Jackson (2002:81) dalam**	1. Kualitas Produk 2. Kualitas Pelayanan 3. Harga Produk 4. *Emotional Factor* 5. Biaya dan Kemudahan ***Sumber:* Irawan (2012:37)**

Source: Processed by Reseachers, 2019

Figure 1 Theoretical Framework

METHOD

The research method used in this study is quantitative research with a causal approach. According to Sugiyono (2014: 35-36), the quantitative method is a research method based on the nature of positivism, used to examine certain populations or samples, data collection using research instruments, quantitative/statistical data analysis, with the aim of testing predetermined hypotheses. Rangkuti (2017: 24) describes causal or associative research aimed at finding the relationship between cause and effect to find out the relationship or interrelationship between these variables.

According to Sugiyono (2014: 115), the population is a generalization region consisting of objects/subjects that have certain quantities and characteristics set by researchers to be studied and then conclusions drawn. The population in this study were all Telkom University Students in Bandung who were users of the I-Gracias Website. According to Sugiyono (2014: 116), the sample is part of the number and characteristics possessed by the population. If the population is large, and researchers are not likely to learn all that exists in the population, then use samples from the population.

Considering the total population is uncertainly known, thus, to determine the minimum sample size can not be used tables because the number of samples taken must adequately represent the population of respondents studied. To determine the sample number, it was implemented Bernoulli's equation formula (Zikmund, 2013:436) with a 10% margin of error. Therefore, when it was calculated using the Bernoulli's formula, a research sample of 96,04 (»100) respondents was obtained.

According to Ali and Limakrisna (2013: 141-143), path analysis is a multivariate data analysis method with the aim of knowing the direct and indirect effects of several (exogenous) causal variables on endogenous variables with patterns of all variables that can be directly observed. When going to do path analysis, it is recommended first to illustrate the diagrammatic structure of causal relationships between causal variables and dependent variables. This diagram is called a path diagram. A model of relationships between variables consisting of several structures must be identified to the sub-structure. Each subsequent substructure calculated the effect caused by exogenous variables on endogenous variables. The magnitude of the direct (relative) influence of an exogenous variable on a particular endogenous variable, expressed by the magnitude of the numerical value of the path coefficient (path coefficient) of the exogenous to endogenous (Ali and Limakrisna, 2013: 146). The two-way analysis structural equation includes X as an independent variable (exogenous variable); and Y as mediating variables (intervening variables) and Z as dependent variables (endogenous variables), and E = Error as follows:

$$Y = \beta YX + \epsilon_1 \text{ (substructure 1)}$$
$$Z = \beta ZX + \beta ZY + \epsilon_2 \text{ (substructure 2)}$$

RESULTS

First Substructure Output Analysis

The level of significance (α) in this study is determined by the examiner based on the difficulty level of data collection. In this study, researchers used a significance level of 5%. So using t table (α / 2) and df (n-k) then the value of t table = 0.05 (two-way test), and df (100-2) = df (98) = 1,984.

Based on the results of these calculations, it can be concluded that the testing criteria of this hypothesis, namely hypothesis 1 (H1) is accepted if t count (6.991) > t table (1.984) or significance value (0,000) < alpha (0.05), then H0 is rejected and H1 is accepted.

From the analysis, the results of the correlation coefficient are partially (R) of 0.577, which indi-

Table 1   The Result of First Substructure t Test

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	15.430	1.720		8.969	.000
Webqual	.464	.066	.577	6.991	.000

a. Dependent Variable: Kinerja Perusahaan

Source: Primary data processed, 2019

Table 2   First Substructure Determination Coefficient Test Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. An error of the Estimate
1	.577[a]	.333	.336	2.312072

a. Predictors: (Constant), Webqual

Source: Primary data processed, 2019

cates that the relationships that occur between variables fall into the strong category. The free variable Website Quality (X) is able to explain the relationship that occurs with Company Performance (Y) or called the coefficient of determination (D) indicated by R Square of 0.333 or 33.3%. While the remaining 66.7% or 0.667 is explained by other unknown variables. So, the model of the path regression analysis equation for the first substructure is:

$$Y = \beta YX +$$
$$Y = 0,577X + 0,667$$

Second Substructure Output Analysis

The level of significance ($\pm$) in this study is determined by examiners based on the difficulty of collecting data. In this study, researchers used a significance level of 5%. So using t table ($\pm$ / 2) and df (n-k) then the value of t table = 0.05 (two-way test), and df (100-2) = df (98) = 1,984.

Based on the results of these calculations, it can be concluded that the testing criteria of this hypothesis, namely hypothesis 3 (H3) is accepted if t count (6.479) > t table (1.984) or significance value (0,000) < alpha (0.05), then H0 is rejected and H3 is accepted.

Based on the results of these calculations, it can be concluded that the testing criteria of this hypothesis, namely hypothesis 2 (H2) is accepted if t count (2,695) > t table (1,984) or significance value

Table 3   The Result of Second Substructure t Test

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	**Std. Error**	**Beta**		
1 (Constant)	-1.323	1.364		-.970	.335
Webqual	.310	.048	.559	6.479	.000
Kinerja Perusahaan	.160	.059	.233	2.695	.008

a. Dependent Variable: Kep. Pelanggan

Source: Primary data processed, 2019

(0,000) <alpha (0,05), then H0 is rejected and H2 is accepted.

For the level of significance (α) for this simultaneous test, the researcher uses a significance level of 5%. The value of F table is searched by determining the degree of freedom (df) numerator (denator) and df denominator. Numerator = many independent variables (X, Y), while denominator = N-m-1. F table = F α; (df1, df2) = F5%; df1 (3-1); df2 (100-2-1) = F5%; df1 (2); df2 (97) = 3.09.

From the table above, it can be seen that the ratio of F count (51.997)> F table (3.09) and signifi-

Table 4   Test Results of Second Substructure F Test

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	191.988	2	95.994	51.997	.000[b]
	Residual	179.074	97	1.846		
	Total	371.062	99			

a. Dependent Variable: Kep. Pelanggan
b. Predictors: (Constant), Kinerja Perusahaan, Webqual

Source: Primary data processed, 2019

cance value = 0,000 <alpha = 0.05, then H0 is rejected and H4 is accepted. Then it can be concluded that the regression coefficient value of X and Y predictors is significant and there are influences from the Website Quality (X) and Company Performance (Y) variables on the Customer Satisfaction variable (Z) simultaneously.

Table 5   Test Results of Second Substructure Determination Coefficient

Model Summary

Model	R	R Square	Adjusted R Square	Std. An error of the Estimate
1	.719[a]	.517	.507	1.358723

a. Predictors: (Const.), Kinerja Perusahaan, Webqual

Source: Primary data processed, 2019

From the results of the analysis, the results of the simultaneous correlation coefficient (R) of 0.719 are obtained, which indicates that the relationship between variables belongs to the strong category. The free variable Website Quality (X) and Company Performance (Y) is able to explain the relationship that occurs with Customer Satisfaction (Z) or called the coefficient of determination (D) indicated by R Square of 0.517 or 51.7%. While the remaining 48.2% or 0.482 is explained by other unknown variables. So, the path regression analysis equation model for the second substructure is as follows:

$$Z = \beta ZX + \beta ZY + \in$$
$$Z = 0,559X + 0,233Y + 0,482$$

Path Analysis

From the calculation of first and second substructures, the direct effect is obtained (direct effect), indirect (indirect effect) and the following total effect.

The direct effect of Website Quality (X) variable on Company Performance (Z) is X to Z (ρZX) = 0,559. The indirect effect of Website Quality (X) variable through Company Performance (Y) on Customer Satisfaction (Z) is X to Z through Y = ρYX x ρZY = 0,577 x 0,233 = 0,134441. Meanwhile the total effect of Website Quality (X) & Company Performance (Y) variables simultaneously on Customer Satisfaction (Z) is X and Y to Z = ρZX + (ρYX x ρZY) = 0,559 + (0,577 x 0,233) = 0,693441.

From the calculation above, it can be concluded that the Website Quality (X) variable through Company Performance (Y) influences Customer Satisfaction (Z). The magnitude of the effect of variable X through Y on Z is 0.134441. While the magnitude of the total influence, namely the influence of Website Quality (X) and Company Performance (Y) together affect Customer Satisfaction (Z) of 0.693441.

Calculations for all paths of influence have been completed, so a path diagram will be created for the path analysis model as shown in Figure 2. above. The above path diagram has the following structural equation:
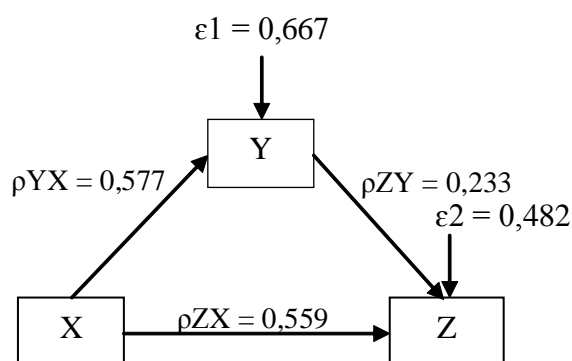
Source: Processed by Reseachers, 2019

Figure 2   Second Equation Model

Sub-structure 1: Y = 0,577X + 0,667
Sub-structure 2: Z = 0,559X + 0,233Y + 0,482

DISCUSSION

The Testing of Hypothesis 1 (The Effect of Website Quality on Company Performance)

Based on the results of these calculations, it can be concluded that the testing criteria of this hypothesis, namely hypothesis 1 (H1) are accepted if t count greater than t table or significance value smaller than alpha, then H0 is rejected and H1 is accepted. Thus, it can be concluded that the predictive regression coefficient value of Website Quality (X) has a significant and positive effect on Company Performance (Y). From previous research conducted by Pribadi (2018), it is known that website quality is directly proportional to business performance. This is evidenced by the website ranking one in terms of website quality the same as websites ranking one in terms of business performance.

The Testing of Hypothesis 2 (The Effect of Website Quality on Customer Satisfaction)

Based on the results of these calculations, it can be concluded that the testing criteria of this hypothesis, namely hypothesis 2 (H2) are accepted if t count greater than t table or significance value less than alpha, then H0 is rejected and H2 is accepted. Thus, it can be concluded that the Corporate Performance predictor regression coefficient (Y) has a significant and positive effect on Cus-

tomer Satisfaction (Z). According to Sulistiowati, et al (2016), previous results produce analysis to influence the quality of services website has an effect on the satisfaction of college students.

The Testing of Hypothesis 3 (The Effect of Company Performance on Customer Satisfaction)

Based on the results of these calculations, it can be concluded that the testing criteria of this hypothesis, namely hypothesis 3 (H3) are accepted if t count greater than t table or significance value (0,000) smaller than alpha, then H0 is rejected and H3 is accepted. Thus, it can be concluded that the predictive regression coefficient value of Website Quality (X) has a significant and positive effect on Customer Satisfaction (Z). Previous research conducted by Asih (2019) shows that academic administrative service performance has a significant effect on student satisfaction.

The Testing of Hypothesis 4 (The Effect of Website Quality & Company Performance on Customer Satisfaction)

Based on the results of these calculations, it can be concluded that the testing criteria of this hypothesis, it can be seen that the ratio of F count greater than F table and significance value less than alpha, then H0 is rejected and H4 is accepted. And it can be concluded that the regression coefficient value of X and Y predictors is significant and there are influences from the Website Quality (X) and Company Performance (Y) variables on the Customer Satisfaction variable (Z) simultaneously. According to Wekke, et al (2018), said that the website quality of information systems and the performance of service units simultaneously have a significant effect on student satisfaction.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on a study conducted to 100 respondents, it can be concluded as follows. Website Quality has a significant effect on Customer Satisfaction with a direct effect, meaning that the Website Quality of i-

Gracias Telkom University will form good Customer Satisfaction, i.e. Students who access one of the smart campus facilities integrated.

There is an effect of Website Quality on Customer Satisfaction through intermediary Company Performance. From these results, it can be seen that there is a lack of need for an intermediary variable between the Website Quality of Telkom University's i-Gracias and Customer Satisfaction, namely Students who access one of the integrated smart campus facilities. It is proven by the magnitude of the indirect effect coefficient which is smaller than the magnitude of the direct coefficient on sub-structure 2.

Recommendations

Telkom University Management is advised to add applications that further improve the quality of interactions, such as live chat columns that have been used by several websites or information sites. Because even though there is already a contact column on the Website, it still often occurs or there are obstacles that make it difficult for students to access the i-Gracias Website.

The next thing that should be a concern is the Company Performance variable that is not very influential, this can occur due to the handling of complaints that are less responsive from the application manager and the many facilities of the Website that must be repaired because they often experience obstacles and obstacles.

The author suggests the next researcher replace the intervening variable (intermediary) which has a significant and linear relationship with other variables. Because of the influence of Website Quality on Customer Satisfaction after going through Company Performance the level of influence is lower. The author also recommends that more often read journals that support research and can be used as a reference and more careful in choosing the journal to be referred.

REFERENCES

Abbas, W. 2013. *Analisa Kepuasan Mahasiswa Terhadap Website Universitas Negeri Yogyakarta (UNY)*. Prosiding SNST Fakultas Teknik, 1(1).

Ali, H. and Limakrisna, N. 2013. *Metodologi Penelitian: Petunjuk Praktis Untuk Pemecahan Masalah Bisnis, Penyusunan Skripsi, Tesis, dan Disertasi.* Yogyakarta: Deepublish.

Asih, S. S. 2019. *Pengaruh Dimensi Kinerja Pelayanan Administrasi Akademik Terhadap Kepuasan Mahasiswa S1 di Fakultas Ekonomi Dan Bisnis Universitas Airlangga.* Doctoral Dissertation. Universitas Airlangga.

Juana, N. P. P., Sudibya, I. G. A., and Sintaasih, D. K. 2016. *Pengaruh Implementasi Sistem Manajemen Mutu ISO 9001: 2008 terhadap Kinerja Pegawai dengan Mediasi Kepuasan Kerja.* Buletin Studi Ekonomi.

Pribadi, Farid Angga. 2018. *Pengaruh Kualitas Website Terhadap Kinerja Bisnis, Studi Kasus Website Travel.* Masters thesis. Institut Teknologi Sepuluh Nopember.

Rangkuti, F. 2017. *Riset Pemasaran.* Jakarta: PT. Gramedia Pustaka Utama.

Stats, I. W. 2014. *Internet world stats: Usage and population statistics. [On Line]. From:* Internet World Stats: http://www.internetworldstats.com/stats.htm., 14(7), 2018.

Sugiyono. 2014. *Metode Penelitian Bisnis.* Cetakan ke-Tujuh Belas. Bandung: Alfabeta.

Sugiyono. 2014. *Metode Penelitian Kuantitatif, Kualitatif, dan R & D.* Bandung: Alfabeta.

Sulistiowati, S. and Sutomo, E. 2017. *Analisis Pengaruh Kualitas Website Terhadap Kepuasan Mahasiswa Stie Perbanas Surabaya Menggunakan Metode Webqual.* Jurnal JSIKA, 5(7).

Suminar, R. 2017. *Pengaruh Kualitas Layanan Terhadap Kepuasan Konsumen Hypermarket.* Sekretari, 4(1), 28.

Wekke, I. S., Qadri, M. N., Saeka, S., and Idris, I. 2018. *Kualitas Sistem Informasi Akademik Dalam Meningkatkan Kepuasan Pelanggan Di Perguruan Tinggi.*