ANALYSIS OF MSMEs' WEBSITE SERVICE QUALITY ON USER SATISFACTION USING WEBQUAL 4.0 METHOD

Yani Iriani
Verani Hartati
Setijadi
Rendiyatna Ferdian

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Yani Iriani, *Industrial Engineering Department, Widyatama University*
Email: yani.iriani@widyatama.ac.id

Verani Hartati, *Industrial Engineering Department, Widyatama University*

Setijadi, *Industrial Engineering Department, Widyatama University*

Rendiyatna Ferdian, *Industrial Engineering Department, Widyatama University*

ABSTRACT

The use of the internet as a marketing and selling medium has been increasing, nowadays. Hence, Micro, Small, and Medium Enterprises (MSMEs) also continue to strive in maximizing e-commerce facilities to compete. The MSMEs' website is one of the tools that is constantly developed to help achieve customer satisfaction. The research aims to analyze the influence of website service quality on the satisfaction of MSMEs' website users in Margasari Urban Village of Bandung. It is conducted by distributing questionnaires to 30 respondents. The study uses non-probability sampling with the type of convenience sampling. The data analysis technique applied is multiple linear regression. The WebQual 4.0 method is a method to determine the quality of a website based on public or user perceptions. The method consists of three categories, namely usability, information quality, and service interaction quality. The three categories are used as the reference in constructing the questionnaire to scrutinize the quality of the website. According to the results of data analysis, the variables consisting of usability, information quality, and service interaction quality have a significant effect on user satisfaction. The variable that greatly influences user satisfaction is the quality of information. Therefore, it is suggested to the website developer to improve the value of information quality both its navigations and appearance. With an attractive interface, the website will get a good first impression when users visit.

Keywords: *MSMW, multiple linear regression, website service quality, WebQual 4.0,*

INTRODUCTION

Nowadays, the internet has become a mainstay for business. As internet users are increasing in the world, it is easier for business owners to market and develop their business for consumers' efficiency in choosing goods or services. The purchasing and selling transactions using the internet are commonly referred to as e-commerce. Due to its high growth and intense competition, more online stores are emerging in cyberspace[1].

In supporting e-commerce, a website is an important component since the internet users, who are potential customers, must visit a website before deciding to purchase[2]. A website that is easy to use and provides clear information and security needs to be considered in order to gain customer satisfaction. Website is an application on the internet in the form of hypertext information, where information seekers can read and browse the information virtually without being tied to a particular media. A website that is easy to use and provides clear information and security can satisfy customers through its service.

According to[3], user satisfaction can only be achieved if customers are satisfied with the services they receive. It is the basis for attaining loyal customers. A company's success can be measured through its user satisfaction as it is the key to winning the competition.[4]argues that the quality of a website affects the rate of user satisfaction considerably. The higher the quality of a website, the more users will access the website. The main factors that influence service quality are expected services and perceived services. It can be concluded that good service quality can lead to customer satisfaction.

The research is conducted to analyze the influence of website quality (WebQual) on user satisfaction partially and simultaneously with the Home-Based Food Industry Group in Margasari Urban Village as the object of research. It uses a quantitative method with a descriptive approach. The data are collected through distributing questionnaires to participants (MSMEs) website users of Margasari Urban Village of Bandung, the total respondents are 30 respondents. The analysis technique applies multiple linear regression and hypothesis testing. The data is processed using Microsoft Excel 2013 and SPSS 21 for Windows. Thus, the authors are interested in researching the influence of website quality (WebQual) on user satisfaction in Margasari Urban Village of Bandung.

LITERATURE REVIEW

a. Website

A website is an entire web page contained in a domain that comprises information. A website is usually built on many interconnected webs[5]. According to[6], a web is a system with the information presented in the form of text, images, sound, and others stored on an internet web server that is presented in a hypertext form. Web information is generally written in HTML format. Web interaction is divided into three steps, i.e., request, processing, and respons.

b. Quality

According to[7], the concept of quality must be comprehensive, both product and its process. Product quality involves the quality of raw materials and finished goods, while the quality of the process involves everything related to the production process of a manufacturing company and the process of providing services or assistance of a service company. Quality must be built from the start, from receiving inputs to producing outputs for the customers.

c. Website Quality

[8]reveals that previous researchers divided the dimensions of website quality into five, namely (1) information, covering content quality, usability, completeness, accuracy, and relevance; (2) security, including trust, privacy, and security guarantees; (3) convenience, including easy to operate, easy to understand, and fast; (4) comfort, covering visual appeal, emotional appeal, and creative and attractive design; and (5) service quality, including online comprehensiveness and customer service. According to[9], an effective website features seven design elements called the 7Cs, that are: (1) context, layout, and design; (2) content, text,

images, sounds, and videos on the website; (3) community, how the site allows communication between users; (4) customization, the ability of the site to present itself to various users or allow users to personalize the site; (5) communication, how the site allows site-to-user communication, user-site, or two-way communication; (6) connection, the level of connection of the site with other sites; and (7) commerce, the ability of the site to enable commercial transactions.

d. Website Quality Dimensions

[10]identifies that there are three dimensions of WebQual, which are: a. Quality of Use, which encompasses easy to learn, easy to understand, easy to browse, easy to use, engaging, pleasing visual form, a good competence, a pleasant new experience the user's perception consists of two parts, namely perception about the perceived service quality (actual) and the level of expectations (ideal); b. Information Quality, which comprises values such as accurate information, reliable information, up-to-date or latest information, related to the topic of discussion, and easy to understand. The information is precise and is presented in an appropriate design format; c. Quality of Interaction, which involves the ability to provide a sense of security during transactions, a good reputation, facilitating communication, creating a more personal emotional feeling, confidence in storing users' personal information, establishing a more specific community, and confidence in maintaining agreements.

e. WebQual

WebQual is a website quality measurement method developed by Stuart Barnes and Richard Vidgen. WebQual is based on the concept of Quality Function Deployment (QFD), which is a process based on the “voice of the customer” in the development and implementation of a product or service. From the QFD concept, WebQual is structured based on the end user's perception of a website[11]. WebQual has undergone several iterations in the preparation of categories and questions. The latest version is WebQual 4.0 which utilizes three measurement categories with 22 questions. The three categories are usability, information, and service interaction. The usability category is based on studies on the relationship between humans and computers and studies on web usability, including the ease of navigation, suitability of designs, and images presented to users. The information category is reviewed based on a general information system study. It connects to the quality of website content i.e., the appropriateness of the information for user purposes, for example, its accuracy, format, and relevance of the information presented. The service interaction category relates to the service interactions that users experience during their visits to a website[11].

f. User Satisfaction

User satisfaction is a person's pleasure arising from comparing a product’s perceived performance (or results) to their expectations. If the performance fails to meet the expectations, customers will be dissatisfied. Otherwise, if it matches their expectations, customers will be satisfied. Additionally, if the performance exceeds their expectations, the customer will be very satisfied or glad. Customer satisfaction can only be established once customers are satisfied with the services they receive[12].

User satisfaction is the basis for attaining loyal customers. Several factors that affect user satisfaction are:

1. Reliability, which has a significant effect on customer satisfaction. Reliability is the ability to provide the agreed service immediately, accurately, and adequately, which encompasses punctuality, honesty, and accuracy.
2. Responsiveness, which has a significant effect on customer satisfaction. Responsiveness is the employees’ commitment to assisting customers and providing

responsive services, which encompasses keenness in assisting customers, agility in service, and smooth communication.

3. Assurance, which has a significant effect on customer satisfaction. Assurance is the knowledge, ability, courtesy, and trustworthiness of employees in providing service to customers.

4. Empathy, which has a significant effect on customer satisfaction. Empathy is the ease in establishing a connection, good communication, personal attention, and understanding the needs of customers by employees.

5. Tangible variables (Physical Evidence), that have a significant effect on customer satisfaction. Physical evidence is a physical form, such as good interior and exterior arrangements, neatness and cleanliness of the room, and sophisticated technology.

METHODOLOGY

In accordance with the background, problem identification, and research objectives, the research can be categorized as descriptive research, descriptive studies are carried out to identify and analyze the characteristics of the variables studied in a situation. The variables used in this study are based on the WebQual 4.0 method from the research conducted by [13]which consists of usability, information, and service interaction with a total of 22 indicators. The type of questions used in this research questionnaire is the closed-ended question. The technique used in the sampling is judgment sampling which is measured on five scales ranging from strongly disagree to strongly agree. The Likert scale of one to five (1-5) is used to reduce the risk of personal decision making and it has high reliability from eliminating the neutral scale. The number of samples used is 30 respondents, who are the respondents selected from MSMEs in Margasari Urban Village of Bandung. Based on the literature review and previous researches described, the framework of the research paradigm is illustrated as follows:

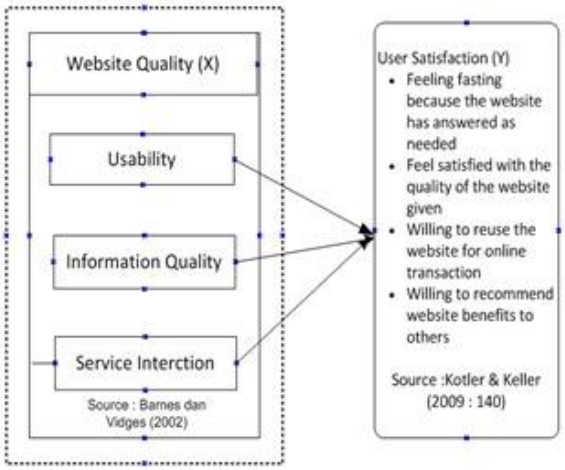

Figure 1. Research Framework

The hypothesis formulation is written, as follows:

H_1: There is an influence of the website Usability dimension on user satisfaction.

H_2: There is an influence of the website Information Quality dimension on user satisfaction.

H_3: There is an influence of the website Service Interaction Quality dimension on user satisfaction.

The following are the variable operations used:

Table 1

Variable Operations

Variables	Indicators	Item
Usability Quality	Easy to learn	1
	Easy to understand	2
	Easy to browse	3
	Easy to use	4
	Engaging look	5
	Pleasing visual form	6
	Good competence	7
	Providing new experience	8
Information Quality	Accurate information	9
	Reliable information	10
	Latest information	11
	Information related to the topic of discussion	12
	Information that is easy to understand	13
	Detailed information	14
	Presented in an appropriate design format	15
Interaction Quality	Providing a sense of security during transactions	16
	Good reputation	17
	Facilitating communication	18
	Creating a more personal emotional feeling	19
	Confidence in storing information	20
	Establishing a more specific community	21
	Confidence in maintaining agreements	22
User Satisfaction	Satisfied that the website has answered as needed	23
	Satisfied with the website quality	24
	Willing to revisit the website for online transactions	25
	Willing to recommend the website to other people	26

RESULTS AND DISCUSSION

a. Validity and Reliability Test Results

A validity test is used to measure whether a questionnaire is valid. A statement is said to be valid and can be used to measure research variables if the value of the validity coefficient is more than or equal to 0.3 (Kaplan and Saccuzzo, 2005). The coefficient value obtained from the calculation is then compared with the critical value (0.30). The criteria applied to measure the validity of data is using Pearson Correlation.

Reliability is a tool to measure a questionnaire which is an indicator of a variable or constructs. A questionnaire is said to be reliable if someone's answer has a critical value significance of > 0.03. On the other hand, the results of the reliability test on each variable that has a Cronbach Alpha value to the statement are consistent or remain stable. A variable is said to be reliable if it has a Cronbach Alpha value of > 0.70.

Table 2

Validity and Reliability Test

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
X1	166.60	251.879	.443	.818
X2	166.62	255.369	.316	.822
X3	167.00	251.253	.431	.818
X4	166.80	249.394	.455	.818
X5	166.76	253.275	.367	.820
X6	167.17	256.062	.350	.823
X7	166.74	252.578	.382	.820
X8	166.97	254.494	.309	.822
X9	166.98	251.777	.369	.820
X10	167.25	254.553	.300	.822
X11	167.08	257.408	.410	.823
X12	166.60	257.778	.335	.822
X13	166.87	250.902	.401	.819
X14	166.87	240.862	.691	.811
X15	166.58	255.539	.319	.821
X16	167.02	251.232	.442	.818
X17	166.45	252.775	.396	.819
X18	166.72	268.345	.325	.832
X19	166.75	252.189	.393	.819
X20	167.10	252.677	.392	.820
X21	166.61	258.159	.310	.823
X22	166.47	255.605	.350	.821
Y1	166.71	253.925	.463	.819
Y2	166.63	259.892	.405	.824
Y3	167.07	268.773	.320	.833
Y4	166.76	256.507	.335	.822

Based on the validity test in Table 2, it can be seen that the instrument testing on the construct of User Quality variable (X_1), Information Quality variable (X_2), Interaction Quality variable (X_3), and User Satisfaction variable (Y) are declared valid since the critical value significance value is > 0.03. Meanwhile, the results of the reliability test on each variable have a Cronbach Alpha value of 0.70 i.e., Usage Quality variable of 0.820, Information Quality of 0.820, Interaction Quality of 0.822, and User Satisfaction of 0.825. According to the results of the reliability test, it can be concluded that the questions that measure the variables of Usage Quality, Information Quality, Interaction Quality, and User Quality are reliable.

b. Multiple Linear Regression Test

Table 3

Multiple Linear Regression Test Coefficient [a)]

Mode1		Unstandardized		Standardized	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.384	.537		3.251	.000
	Usability	.108	.042	.380	4.150	.000
	Information	.318	.054	.391	3.019	.000
	Service	176	.034	.464	4.212	.029

a) Dependent Variable: User Satisfaction

According to the illustrated table, the multiple linear regression equation can be determined, that is: Y = a (constant) + b_1X_1 + b_2X_2 + b_3X_3, meaning Y = 1.384 + 0.108 X_1 + 0.318 X_2 + 0.176 X_3. The equation can show that the regression coefficient of all independent variables shows a positive value with the value of usability quality of 0.108, the value of information quality of 0.318, the value of service interaction quality of 0.176. These data indicate that all independent variables have a direct/positive relationship to the dependent variable. From the three independent variables, one that contributes the dominant influence is the information quality with a regression coefficient of 0.318.

c. Hypothesis Test Results

1. T Test Results

Hypothesis 1:

Based on the T test result in the previous table, the t_{value} of the usability quality variable (4.150) > t_{table} (1.988), which means that H_o is rejected, and H_a is accepted. It indicates that the usability quality variable has a positive and significant effect on user satisfaction.

Hypothesis 2:

The effect of the information quality variable based on the results of the T test in the previous table is the t_{value} of the information quality variable (4.212) > t_{table} (1.988), which means that H_o is rejected and H_a is accepted. It signifies that the information quality variable has a significant effect on user satisfaction.

Hypothesis 3:

The effect of the service interaction variable based on the results of the T test in the previous table is the t_{value} of the service interaction variable (5,867) > t_{table} (1,988), which means that H_o is rejected and H_a is accepted. It shows that the service interaction variable has a significant effect on user satisfaction. Thus, as the service interaction is better, user satisfaction will increase. Alternatively, if the service interaction is poor, user satisfaction will decrease.

2. F Test Results

Table 4.

F Test Results ANOVA[b)]

Mode1		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	44.472	3	51.479	47.105	.000 a)
	Residual	17.153	96	.741		
	Total	29.625	99			

a) Predictors: (Constant), Service Interaction Quality, Usability, Information Quality
b) Dependent Variable: User Satisfaction

With the p-value (sig) of 0,000. As the p-value < α = (0,000 < 0,05), H_0 is rejected, which means that Usability, Information Quality, and Service Interaction Quality has a significant effect on User Satisfaction. The effect of the quality of usability, quality of information, and service interaction variables based on the results of the F test in Table 4 is the F_{value} of the variable is (47.105) > F_{table} (2.70), which indicates that H_0 is rejected and H_a is accepted, p-value < = (0.000 < 0.05). In general, it is stated that Usability, Information Quality, and Service Interaction Quality (WebQual) have a significant effect on User Satisfaction.

3. ***R Test Result***

Tabel 5

R Test Result

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.789 a)	.622	.423	1.219

a. Predictors: (Constant), Service Interaction Quality, Usability, Information Quality

b. Dependent Variable: User Satisfaction

Based on Table 5, the amount of the correlation coefficient is (R = 0.789), which shows that the observed independent variables have a strong relationship with the dependent variable. On the other hand, the coefficient of determination (R Square) is 0.622, which means 62.2% of the independent variables can explain the dependent variable. Meanwhile, 37.8% is influenced by other independent variables.

CONCLUSION

Based on the results of the analysis of website quality on user satisfaction that has been carried out, it can be concluded that:

a. In general, the best usability quality is the website with a pleasing visual appearance while the worst is its ease to learn. In other words, the website tends to have a fairly good usability quality. Additionally, the usability quality has a positive and significant effect on user satisfaction with a regression value of 0.108.

b. In general, the best information quality is information that is following the topic of discussion while the worst is that the website does not provide detailed information. Thus, the website tends to have poor-quality information. Furthermore, information quality has a positive and significant effect on user satisfaction with a regression value of 0.318.

c. In general, the best service interaction quality is the website's good reputation while the worst is that the website does not provide confidence in maintaining agreements (feedback), therefore, the website tends to have a fairly good quality of service interaction. Moreover, the service interaction quality has a positive and significant effect on user satisfaction with a regression value of 0.176.

d. Based on the results of the partial test, the largest variable value is information quality. Thus, these variables have the greatest influence on user satisfaction. Therefore, it is suggested to the MSMEs' website developers to improve the value of information quality both its navigations and appearance. With an attractive interface, the website will get a good first impression when users visit.

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