

Comparative Analysis of Shopee and Lazada Web Service (Study on Shopee and Lazada Users in Jakarta City)

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Abstract— One type of technology that has developed quite rapidly is the internet network. This internet network technology, for some of the leading companies in Indonesia, has been used as a means for business of buying and selling e-commerce or online businesses, such as Shopee and Lazada. This study aims to measure the quality level of Shopee and Lazada sites, through the Webqual 4.0 approach and descriptive statistics, and to analyze the differences in quality at Shopee and Lazada sites. The researcher uses a webqual three-dimensional method approach, i) the quality of information, ii) the quality of interaction and iii) the quality of use for comparison of the quality of the site. The data used in this study were questionnaires distributed to 199 respondents with population of Shopee and Lazada users in the city of Jakarta. The results obtained are as follows, Shopee's site has an average score of 43.22% and Lazada with an average score of 37.69%. So that it can simply be concluded that these two sites are in the good category. In Lazada, the variables that influence customer satisfaction only come from the variable quality of use, whereas for Shopee, the three variables tested give an influence on customer satisfaction. This conclusion is supported by the results of paired t-test analysis on the quality variable and satisfaction variable which is indicated by the results of the probability of use quality is $0.056 > 0.05$, and t count the quality of use is $-1.923 < t$ table is 1.976, this also occurs in the analysis paired t-Test for customer satisfaction.

Keywords— Webqual 4.0, descriptive statistics, paired t-Test, information quality, interaction quality, quality of use.

I. INTRODUCTION

Businesses based on marketplace start-up (e-commerce) is currently one of the trading types that is quite prospective by business people around the world. The diversity of the emergence of online trading business provides choices for consumers to choose which sites benefited the most. according to Snapchart survey, the marketplace start-up that has been operating in the country today, i.e. ¹⁴ Shopee, Lazada, Tokopedia, Bukalapak, Elevenia, OLX, JD.id, MatahariMall, Zalora, Berrybenka, Salestock, Blanja, Bhinneka, Qoo10.

Among these e-commerce start-ups, we choose Shopee and Lazada as our research objects. This is because based on the results of a survey conducted by Snapchart in January 2018 of 6,123 respondents, Shopee was ranked first, followed by Lazada as runner up; although Lazada penetrated Indonesia on year earlier, which is in year 2014, than Shopee which began in 2015. According to scoring results given from Snapchart survey, Shopee scored 81 and Lazada scored 80.

Lazada and Shopee is one of the e-commerce that has a basic form of business customer to customer. Lazada and Shopee provide virtual store facilities to make transactions

with other customers. Various kinds of necessities are provided by lazada and shopee ranging from home needs to office needs, baby needs to adult needs. Other facilities provided are various kinds of payments such as telephone, electricity, PAM, PBB and others as. Ticket purchases are also common and shopees provide such as plane tickets, trains. The advantages offered are very tempting for consumers such as free shipping, on-site payment (COD), and discounts. Goods tracking facility from purchase to receipt of goods clearly illustrated.

II. LITERATURE REVIEW

Previous studies related to the use of webqual to assess the quality of a site are given as follows. The study was conducted with the aim of analysing the quality of information systems from the BSI Academy Service in Jakarta, Indonesia by using the webqual method, Importance Performance Analysis and Fishbone to increase the trust and satisfaction of students⁷. Research that uses webqual to analyse the quality of a site that explains about e-products has been done. This research focuses on assessing the role of e-products under the site and their effect on marketing. The usability, ease of use, visual appeal, and empathy of e-products under the site are investigated as well as other components including training, research, informative, ethnicity, and technical products⁸. The study was conducted using Tokopedia's online marketplace data in Indonesia. This study will measure the quality of the Tokopedia site through Webqual 4.0 dimensions (usability, information quality, service interaction) and user satisfaction variables¹³. The study was conducted by comparing 2 (two) e-commerce sites namely elevenia.co.id and bhinneka.com. In terms of situational evaluation bhinneka.com outperformed all aspects of the question aspect with elevenia.co.id in terms of the usability category 3,556 versus 3.5. In terms of the quality of information 3,683 versus 3,407. In terms of service interactions 3,590 versus 3,333 and in terms of impressions 3,833 versus 3,500⁶ The study was conducted in 2 (two) banks in West Java, Indonesia, namely BJB banks and Bank Mandiri. The results showed that there were no differences in perceptions about e-banking services between customers and BJB Bank banks¹². This study uses webqual to measure site quality in Saudi Arabia using the proposed evaluation instrument. To achieve this goal, six e-commerce websites were selected for evaluation and then categorized into three categories: domestic, regional and international². The study was conducted in 4 (four) banks operating in West Java,

namely BJB Bank, Mandiri Bank, DKI Bank, and Bank of BNI. The results of the three discriminant analysis factors show that there are differences between local government bank customers, government banks and private banks¹¹.

Based on this background the researchers intend to make a comparison of the Shopee site and the Lazada site by using the Webqual 4.0 method by using three main indicators in the Webqual method, including usability, information quality, and service quality.

III. RESEARCH METHODS

In general, the research methods conducted by researchers on this research consist of 4 phases. The chart of the research outline is presented in Figure 1.

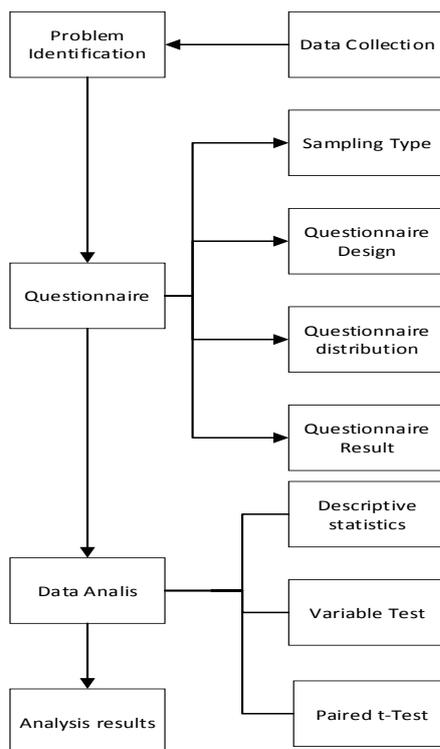


Fig. 1. Research Method

A. Problem Identification

The problems are derived from data and information obtained by external parties in Shopee.co.id and Lazada.co.id. which is Snapchart survey. The results imply that Shopee and Lazada are in the top rank in the category of e-commerce brands and most e-commerce platforms that are used in buying and selling transactions.

Samples are collected in the area of Jakarta and surrounding cities, i.e. Bekasi, Tangerang., namely internet users who have done online shopping through e-commerce sites at least once, especially on Lazada.co.id and Shopee.co.id sites. The study took approximately 6 months starting from August to December 2018.

The object of research is comparing the site quality between Lazada.co.id and Shopee.co.id specified in customer satisfactory level of conducting transactions using these sites.

B. Questionnaire

Questionnaire questions are presented in the Tables 1, 2, 3 and 4.

TABLE 1. Information Quality Question Construct

NO	Question / Statement	Code
1Q	Information Quality	
1	Website provides product information in detail	X11
2	Website provides reliable product information	X12
3	Information on the website is always updated information	X13
4	The website provides product information that suits user needs	X14
5	The website provides information about products that are easy to read and understand	X15
6	Website provides relevant product information	X16
7	Overall, the information provided by the site satisfies the user	X17

TABLE 2. Construct Questions for Interaction Quality

NO	Question / Statement	Code
SIQ	Information Quality	
1	The website has a good reputation	X21
2	Users feel safe when making transactions / interactions through the website.	X22
3	The website maintains the user's personal information	X23
4	Users feel safe when sharing website information links through social media	X24
5	The website provides an opportunity to give suggestions / complaints on the rating / review page	X25
6	Users feel confident that all information and services on the website are running well as promised.	X26
7	The website responds to complaints / criticism from users	X27
8	The website provides online chat facilities for product and service questions and answers	X28
9	Overall, users are satisfied to interact with the site	X29

TABLE 3. Construct Question Ease of Use

NO	Question / Statement	Code
UQ	Use Quality	
1	Users find it easy to learn about the operation of the site	X31
2	The site is very easy to understand and not confusing.	X32
3	Users easily find the desired product (easy to navigate) through the site.	X33
4	Site has an attractive appearance	X34
5	The site address is easy to access	X35
6	Overall, sites are easy to use	X36

TABLE 4. Construct Customer Satisfaction Questions

NO	Question / Statement
ALL	Overall
1	In general, e-commerce sites are commonly used for transactions a. Lazada b. Shopee c. Others:
2	In general, e-commerce sites are better: a. Lazada b. Shopee c. Others:
3	Are you going to promote e-commerce sites that you use to your friends or relatives? 1. Iya 2. Tidak 3. Mungkin
4	Why don't you switch to the mobile application?

Questionnaires were distributed through communication media and electronic media. For communication media, sampling spread is obtained from WhatsApp online chat media. The sample for this study is expected to be a number

of:

$$n = \frac{N}{1 + N(e^2)} = \frac{24.219.556}{1 + 24.219.556(5\%^2)} = 400$$

by taking an error margin of 5%

C. Data Analysis

The period of online survey is between 23 October 2018 to 14 November 2018, that consist of 205 respondents. We then, purified these respondents by deleting respondents 1, 2, and 3 since the filling in both the Lazada and Shopee core questionnaire was incomplete. We also eliminate Questionnaires 85, 133 and 157 due to common answers. Thus, a total of 199 answers were obtained.

D. Test Validity & Reliability

According to Masrun, in Sugiyono (2003: 124) states that items that have a positive correlation with criteria (total score) and high correlation, indicate that the item has high validity as well. Statistical testing refers to the criteria:

- $r_{count} < r_{critical}$ then invalid
- $r_{count} > r_{critical}$ then valid

The item is said to be reliable if the Cronbach's Alpha value is greater than the critical value. The critical value set is between 0.6 and 0.7 (Sugiyono, 2003: 124).

- If the Alpha value > 0.6 is reliable
- If the Alpha value < 0.6 is not reliable.

E. Paired Samples t-Test

To answer the truth of the results of the linearity test analysis as well as to answer hypotheses from any dimension, the t-test is used between the perceptions and expectations of users to find out the quality of Lazada and Shopee sites.

$$H_0 : \mu_1 = \mu_2$$

$$H_1 : \mu_1 \neq \mu_2$$

IV. RESULTS AND DISCUSSION

A. Descriptive Statistics

The number of respondents who used Lazada to conduct transactions amounted to 74 respondents, the difference was only 3 respondents with Shopee who had a frequency of 77 respondents. While other e-Commerce site users were 48 respondents. While the frequency of respondents who chose Shopee as well as the best site at this time was 86 respondents, disputing 11 respondents with Lazada who was chosen as the best site with 75 respondents. The remaining 38 respondents do not have Lazada or Shopee as well as the best sites. And in percentage, respondents who are willing to promote their site are 51.76%, while those who are not willing to promote are 13.07%. This indicates that many respondents are willing to promote because of their satisfaction in conducting transactions on both e-commerce sites. Table 5 describes the results of the customer satisfaction questionnaire given by respondents.

TABLE 5. Descriptive Statistics of Customer Satisfaction

Category	Site	Frequency	Percentage
Transaction Site	Other	48	24,12%
	LAZADA	74	37,19%
	SHOPEE	77	38,69%
Best Site	Other	38	19,10%
	LAZADA	75	37,69%
	SHOPEE	86	43,22%
Promotion Agreement	Maybe	70	35,18%
	No	26	13,07%
	Yes	103	51,76%
Grand Total		199	100,00%

B. Variable Test

Validity & Reliability Test

In the output of correlation table 6 for Lazada customer satisfaction, it can be seen in the Corrected Item-Total Correlation column, known Y1L correlation with a total score of 0.692. See also the correlation Y2L and Y3L with a total score showing the correlation value above the value of r table 0.168, it can be concluded that the item is valid and for Shopee customer satisfaction, it can be seen in the Corrected Item-Total Correlation column, Y1L correlation is known with a total score of 0.743. See also the correlation Y2L and Y3L with a total score showing the correlation value above the value of r table 0.168, it can be concluded that the item is valid.

TABLE 6. Lazada Customer Satisfaction Output Validity (YL)

Item-Total Statistics					
Site	Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Lazada	Y1L	7,39	1,583	0,678	0,649
	Y2L	7,40	1,777	0,595	0,742
	Y3L	7,15	1,873	0,606	0,730
Shopee	Y1S	7,57	2,085	0,743	0,804
	Y2S	7,52	2,140	0,728	0,818
	Y3S	7,36	2,210	0,749	0,800

Table 7 is the reliability test results for Lazada customer satisfaction where the value obtained on the Cronbach's Alpha value of 0.786 with the number of items as much as 3. Because the value is more than 0.6, it can be concluded that the instruments on customer satisfaction are reliable. And for the reliability test results for Shopee customer satisfaction, which obtained a Cronbach's Alpha value of 0.863 with the number of items as much as 3. Because the value is more than 0.6, it can be concluded that the instruments on interaction quality are reliable.

TABLE 7. Output Lazada Customer Satisfaction Reliability Test

Reliability Statistics		
Site	Cronbach's Alpha	N of Items
Lazada	.786	3
Shopee	.863	3

Paired t-Test

Based on the provisions by comparing with the calculated t value with t table, we get:

- If $t_{arithmetic} < t_{table}$, then H_0 is accepted, and H_a is rejected

- If $t_{arithmetic} > T_{table}$, then H_a is accepted, and H_o is rejected

In table 8, it is obtained that the probability for information quality and interaction quality is $0.013 < 0, 05$ and $0.030 < 0.05$, then H_o is rejected or the two population averages are not the same. While the probability of use quality is $0.056 > 0.05$, then H_o is accepted or both population averages are the same.

TABLE 8 Calculation of Paired Sample t - Test Sample Test

		Paired Samples Test							
		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error	95% Confidence Lower				Upper
Pair 1	Rata-Rata X1L - Rata - Rata X1S	-0.11127	0.62438	0.04426	-0.19855	-0.02399	-2.514	198	0.013
Pair 2	Rata-rata X2L - Rata - Rata X2S	-0.10385	0.67013	0.04750	-0.19753	-0.01017	-2.186	198	0.030
Pair 3	Rata-rata X3L - Rata - rata X3S	-0.09045	0.66344	0.04703	-0.18320	0.00229	-1.923	198	0.056

It also appears that the t value for customer satisfaction for the quality of information $t = +/- 2,116$, t count for customer satisfaction for the quality of interaction $t = +/- 2,070$ and t count for customer satisfaction for the quality of the use of $t = +/- 0.766$ and t the table can be found in the distribution table t value, i.e. at the 95% confidence level ($\alpha = 5\%$ and because the t test is two-sided, the a value that can be referenced in the t table is $\alpha / 2 = 0.05 / 2 = 0.025$) and degrees of freedom (df) = $n - 1 = 199 - 1 = 198$, so we can get the price of t table = 1.976.

Because $t_{arithmetic} > T_{table}$ for customer satisfaction over the quality of information and the quality of interactions, it can be decided H_a is accepted, and H_o is rejected. While $t_{arithmetic} < t_{table}$ in the calculation of the quality of use in table 9 is $t_{arithmetic} < t_{table}$, then it can be decided that H_o is accepted, and H_a is rejected.

TABLE 9. Calculation of Paired Sample t - Test Sample Customer Satisfaction Test

		Paired Samples Test							
		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error	95% Confidence Lower				Upper
Pair 1	Y1L - Y1S	-0.07538	0.95312	0.06756	-0.20862	0.05786	-2.116	198	0.027
Pair 2	Y2L - Y2S	-0.13568	0.92479	0.06556	-0.26496	-0.00640	-2.070	198	0.040
Pair 3	Y3L - Y3S	-0.04020	0.75102	0.05324	-0.14519	0.06479	-0.755	198	0.451

V. CONCLUSION

Of the 3 (three) webqual variables used to measure customer satisfaction, namely information quality, quality of use & quality of information, Shopee excels because satisfaction received by Shopee customers is obtained from the quality of 3 (three) variables.

Whereas on Lazada that affects customer satisfaction only comes from 1 (one) variable, namely the quality of use.

And this verification is strengthened by descriptive statistical methods where Shopee's site has an average score of

43.22% and Lazada with an average score of 37.69%. Also the results of calculations using the paired t-test method on the quality variable and satisfaction variable which is indicated by the results of the probability of use quality is $0.056 > 0.05$, and t count the quality of use is - 1.923 < t table that is 1.976, which means Shopee, has three variables which has an effect on customer satisfaction. This can be seen from the results carried out in all analyzes namely the t-Test analysis on the quality of the t-Test analysis on satisfaction.

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