Analyzing E-Commerce Customer Loyalty Using The E-Service Quality Method

Lisa Sibara[1], Denny Jean Cross Sihombing[2]*
[1,2]Information System Departement, Universitas Katolik Indonesia Atma Jaya, Indonesia
Email: [2]*denny.jean@atmajaya.ac.id

Abstract

Indonesia is a country of e-commerce service users that occupies the first globally. In Indonesia's increasingly fierce e-commerce competition, users are faced with various choices, so user loyalty in using one application is critical. Therefore, it is necessary to analyze user loyalty in e-commerce. This study measures customer loyalty to e-commerce, especially the Bukalapak application. This research uses a purposive sampling technique and an e-service quality measurement method. The results of this study are of the eight hypotheses proposed; there are five rejected hypotheses, namely the variables tangible, reliability, responsiveness, assurance, and fulfillment have no positive effect on satisfaction, and there are three accepted hypotheses, namely the variables privacy, compensation, and contact have a positive effect on satisfaction.

Keywords*: E-service quality, e-commerce, loyalty, Bukalapak*

1. INTRODUCTION

Indonesia is a country of e-commerce service users that occupies the first position globally, as much as 88.1% in April 2021 [1]. According to [2], the city that was most active in shopping online in 2017 is Jakarta (41.94%), followed by other cities, namely Surabaya (20.90%), Medan (7.72%), Bandung (7.72%), and Makassar (4.42%). Based on research conducted by Priceza Indonesia, for three consecutive years, Jakarta has consistently ranked first from 2015 to 2017. There are several popular e-commerce in Indonesia, namely Tokopedia, Shopee, Bukalapak, Lazada, and Blibli.

Online buying and selling transactions in e-commerce greatly help people fulfill their daily needs, so the importance of e-commerce is needed during the pandemic. E-commerce companies compete to provide the best quality products and services to attract consumer attention by adding various service features, offering discounts, and sellers must be friendly with buyers. E-service quality is a method to describe the level of customer satisfaction [1]. When consumers are satisfied with the service, it will increase customer loyalty.

In the increasingly fierce e-commerce competition in Indonesia, users are faced with various choices, so user loyalty to using one application is significant. Customer satisfaction depends on the company. Therefore, companies must provide good product quality to satisfy customers. If the product's quality matches the customer's expectations, the customer is satisfied. Customers will be loyal when customers are satisfied with the quality of the products provided by the company.

According to data from iPrice, Bukalapak received 37.3 million in the first quarter of 2020 visits from Indonesia. Bukalapak experienced an increase in the 4th quarter of 2020 to 38.5 million. Then, Bukalapak experienced a decline in the first quarter of 2021 to 34.1 million. In the 4th quarter of 2021, the number of

users became 25.7 million, then experienced a consecutive decline until the 2nd quarter of 2022 to 21.3 million [3].

Table 1. Bukalapak rating data

Quarterly data	Appstore	Playstore	Monthly Web Visitors
Q1 2020	4	4	37.633.300
Q2 2020	4	4	35.288.100
Q3 2020	4	5	31.409.200
Q4 2020	7	7	38.583.100
Q1 2021	6	5	34.170.000
Q2 2021	6	5	29.460.000
Q3 2021	6	5	30.126.700
Q4 2021	6	7	25.760.000
Q1 2022	7	7	23.096.700
Q2 2022	7	6	21.303.333

Based on the data in Table 1, there is a decrease in users on Bukalapak. This is also related to the level of user loyalty. Some methods for measuring user satisfaction with the application are the American Customer Satisfaction Index (ACSI), Customer Loyalty Index (CLI), and E-service quality. In this research, the method used is the e-service quality method.

Customer loyalty is a form of customer loyalty to purchase products or services repeatedly and recommend products or services to others. This can be profitable for a company [6]. Therefore, the company must be able to provide quality service to maintain customer loyalty so that they do not move to other companies [7]. If customers make repeated purchases, it means a form of loyalty from behavior, creating repeated purchases by satisfying customers [8].

The e-service quality method measures the quality of service that customers have experienced from their respective dimensions [4]. Here are eight dimensions of the Servqual model as follows: Tangible, something that displays physical facilities, equipment, and personnel appearance—reliability, Namely, the company's ability to provide the promised service accurately. Responsiveness is the company's willingness to help customers by quickly responding to customer problems. Assurance, namely employee behavior, can give customers a sense of trust in the company so that customers are not worried about security issues. Privacy It is providing a service to protect customer privacy in the form of their data so that it is always maintained safely. Fulfillment, Namely providing the right services and products according to what is needed by customers. Compensation Namely, providing compensation in the form of refunds/products to customers in case of an error or failure in the system. Contact: the company can provide a convenient communication medium when customers need information related to products and services online or by telephone.

The American Customer Satisfaction Index (ACSI) is an analytical method for measuring customer satisfaction with products, services, or companies. This method offers help in finding reasons for customer satisfaction or rather dissatisfaction. Customer Loyalty Index (CLI) is a research method to determine how much customer loyalty a product or service has. Meanwhile, E-service quality

is a method to measure the quality of service that customers have experienced from their respective dimensions [4]. E-service quality is explicitly used to measure the quality of service on applications and websites, services on the internet network of a site to facilitate shopping and transaction activities effectively [5]. Based on the description above, this research analyzes customer loyalty to e-commerce, especially the Bukalapak application, using the e-service quality method.

2. METHODS

This study uses a quantitative approach consisting of eight independent variables, namely tangible (X1), reliability (X2), responsiveness (X3), assurance (X4), privacy (X5), fulfillment (X6), compensation (X7) and contact (X8) and the dependent variable is satisfaction (Y). The following is the e-service quality framework used in this study in Figure 1.
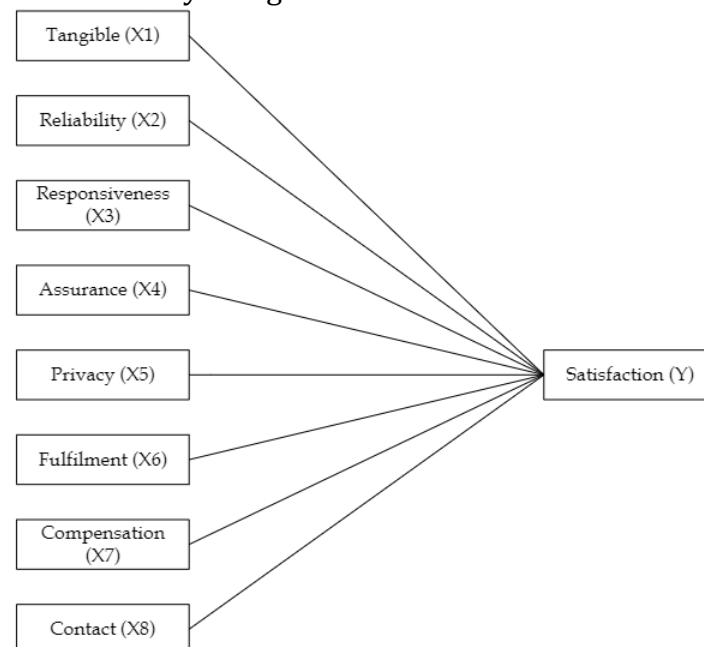

Figure 1, E-Service Quality Framework

Hypothesis
The following is the hypothesis that will use in this study
as follows:
H1: Tangible has a positive and significant effect on Satisfaction
H2: Reliability has a positive and significant effect on Satisfaction
H3: Responsiveness has a positive and significant effect on Satisfaction
H4: Assurance has a positive and significant effect on Satisfaction
H5: Privacy has a positive and significant effect on Satisfaction
H6: Fulfillment has a positive and significant effect on Satisfaction
H7: Compensation has a positive and significant effect on Satisfaction
H8: Contact has a positive and significant effect on Satisfaction

3. RESULTS AND DISCUSSION
3.1. Analysis of Respondents
The sample in this study was 100 Unika Atma Jaya students. The demographics of respondents in this study consisted of 41 men and 59 women. Based on cohort, the class of 2020 was 39 people, the class of 2021 was 29 people, the class of 2022 was 25 people, the class of 2019 was five people, and the lowest was the class of 2018, as many as two people. Respondent data consists of representatives from each faculty, including the 2021 Administration and Communication Science faculty of as many as 13 people, Engineering as many as 13 people, Medicine and Health Sciences as many as 13 people, Psychology as many as 13 people, Technology as many as 13 people, Education and Language as many as 12 people and the lowest at the Faculty of Law as many as 11 people.

3.2. Validity and Reliability Test
The r_{table} value is a table to compare with the r_{count} value. The significance level used is 5%, and the sample size is 100 students, with the r_{table} value obtained being 0.195. If there is a value below 0.195, then the indicator is considered invalid. The validity test results on the indicators in this study are in Table 2.

Table 2. Validity Test

Variabel	Indicator	r count	R table	Conc.
Tangible	1	0.603	0.195	*Valid*
	2	0.732		*Valid*
	3	0.648		*Valid*
	4	0.683		*Valid*
	5	0.714		*Valid*
Reliability	1	0.688	0.195	*Valid*
	2	0.766		*Valid*
	3	0.701		*Valid*
	4	0.703		*Valid*
Responsiveness	1	0.627	0.195	*Valid*
	2	0.655		*Valid*
	3	0.693		*Valid*
Assurance	1	0.688	0.195	*Valid*
	2	0.638		*Valid*
	3	0.661		*Valid*
	4	0.604		*Valid*
Privacy	1	0.586	0.195	*Valid*
	2	0.684		*Valid*
	3	0.614		*Valid*
Fullfilment	1	0.436	0.195	*Valid*
	2	0.611		*Valid*
	3	0.589		*Valid*
	4	0.654		*Valid*
Compensation	1	0.639	0.195	*Valid*
	2	0.641		*Valid*
	3	0.757		*Valid*
Contact	1	0.593	0.195	*Valid*
	2	0.681		*Valid*

Variabel	Indicator	r count	R table	Conc.
	3	0.597		*Valid*
	4	0.598		*Valid*
Satisfaction	1	0.601	0.195	*Valid*
	2	0.633		*Valid*
	3	0.270		*Valid*

3.3. Reliability Test

The reliability test is carried out to see whether the variables used are relevant for testing. This test can be done with Cronbach's alpha. The provision of Cronbach's alpha is that the variable value must be greater than 0.6. The indicator is only considered reliable if there is a value below 0.6. The reliability test results on the indicators in this study are in Table 3.

Table 3. Realibility Test

Variables	Indikator	Cronbach's Alpha	Conc.
Tangible	1	0,952	Reliabel
	2	0.951	Reliabel
	3	0.952	Reliabel
	4	0.951	Reliabel
	5	0.951	Reliabel
Reliability	1	0.951	Reliabel
	2	0.951	Reliabel
	3	0.951	Reliabel
	4	0.951	Reliabel
Responsiveness	1	0.952	Reliabel
	2	0.951	Reliabel
	3	0.951	Reliabel
Assurance	1	0.951	Reliabel
	2	0.952	Reliabel
	3	0.951	Reliabel
	4	0.952	Reliabel
Privacy	1	0.952	Reliabel
	2	0.951	Reliabel
	3	0.952	Reliabel
Fullfilment	1	0.953	Reliabel
	2	0.952	Reliabel
	3	0.952	Reliabel
	4	0.951	Reliabel
Compensation	1	0.952	Reliabel
	2	0.952	Reliabel
	3	0.951	Reliabel
Contact	1	0.952	Reliabel
	2	0.951	*Reliabel*
	3	0.952	*Reliabel*
	4	0.952	*Reliabel*
Satisfaction	1	0.952	*Reliabel*
	2	0.952	*Reliabel*
	3	0.956	*Reliabel*
Conclusion			
Cronbach's	R coefficient	*N of Items*	

Variables	Indikator	Cronbach's Alpha	Conc.
Alpha Result	value		
0.953	0.6	33	*Realiabel*

3.4. Multiple Regression Test

Based on the research results:

1. Sig. The value of the tangible variable (X) on satisfaction (Y) is 0.861> 0.05, and the tcount value is 0.176 < 1.986. It can be concluded that the tangible variable has no positive effect on satisfaction, or the hypothesis is rejected.

2. Sig. The value of the reliability variable (X) on satisfaction (Y) is 0.698> 0.05, and the tcount value is -0.389 < 1.986. It can be concluded that the reliability variable has no positive effect on satisfaction, or the hypothesis is rejected.

3. Sig. The value of the responsiveness variable (X) on satisfaction (Y) is 0.417> 0.05, and the tcount value is -0.815 < 1.986. It can be concluded that the responsiveness variable has no positive effect on satisfaction, or the hypothesis is rejected.

4. Sig. The value of the assurance variable (X) on satisfaction (Y) is 0.582> 0.05, and the tcount value is 0.553 < 1.986. It can be concluded that the assurance variable has no positive effect on satisfaction, or the hypothesis is rejected.

5. Sig. The value of privacy variable (X) on satisfaction (Y) is 0.034 <0.05, and the tcount value is 2.156> 1.986. It can be concluded that the privacy variable positively affects satisfaction, or the hypothesis is accepted.

6. Sig. The value of the fulfillment variable (X) on satisfaction (Y) is 0.366> 0.05, and the tcount value is -0.908 < 1.986. It can be concluded that the fulfillment variable has no positive effect on satisfaction, or the hypothesis is rejected.

7. Sig. The value of the compensation variable (X) on satisfaction (Y) is 0.010 <0.05, and the tcount value is 2.624> 1.986. It can be concluded that the compensation variable positively affects satisfaction, or the hypothesis is accepted.

8. Sig. The value of the contact variable (X) on satisfaction (Y) is 0.021 <0.05, and the tcount value is 2.345> 1.986. It can be concluded that the contact variable positively affects satisfaction, or the hypothesis is accepted.

3.5. Discussion

Based on the research results, of the eight independent variables, namely tangible (X1), reliability (X2), responsiveness (X3), assurance (X4), privacy (X5), fulfillment (X6), compensation (X7) and contact (X8) and the dependent variable is satisfaction (Y). The following is an analysis of each variable: Hypotheses 1, 2, 3, 4, and 6 have no positive effect on satisfaction, or the hypothesis is rejected. While Hypotheses 5, 7, and 8 Privacy positively affects satisfaction, or the hypothesis is accepted. In this case, customers feel satisfied because they feel that they have fulfilled what they need, such as user customer data being guaranteed safe and protected. Bukalapak resolves privacy issues that occur quickly, and user transaction data is guaranteed to be safe and protected.

Then, Compensation positively affects satisfaction, or the hypothesis is accepted. Hypothesis accepted. In this case, customers are satisfied because they feel that they have fulfilled what the customer needs, such as the compensation process is quick and easy to do, then the compensation process is satisfactory and transparent so that customers can understand it, and every product purchase gets a warranty. Understood by customers, and every product purchase gets a warranty compensation in the form of a refund or product replacement.

Furthermore, the contact variable positively influences satisfaction or the hypothesis accepted. In this case, customers are satisfied because they feel that they have fulfilled what the customer needs, such as customer service can provide solutions. Customer needs, such as customer service, can provide fast and practical solutions to help customers and customers feel that they have fulfilled what they need. Fast and effective to help customers, and customers find it easy to find Bukalapak customer service contacts. Find the Bukalapak customer service contact. So customers do not find problems in the contact variable.

4. CONCLUSION

Based on the results of this study, the e-service quality method was successfully used to measure customer loyalty to e-commerce. In this research, There are eight initial hypotheses; of the eight hypotheses proposed, there are five rejected and three accepted hypotheses. They have rejected hypotheses and three accepted hypotheses. The rejected hypotheses are H1: tangible variables, H2: reliability variables, H3: responsiveness variables, H4: assurance variable, and H6: fulfillment variable. The accepted hypotheses are H5: privacy variable, H7: compensation variable, and H7: contact variable. Based on the results of the research that has been done, three variables were found to affect Bukalapak customer loyalty, namely privacy, compensation, and contact. So these three variables can be used as a reference for increasing customer loyalty to Bukalapak. Respondents of this study are still limited to students. Then further research is recommended to be carried out using a more comprehensive range of respondents. In addition, in this study, the measurement of loyalty used the e-service quality method with tangible variables, reliability, responsiveness, assurance, privacy, fulfillment, compensation, and contact, so in future research, other methods can be compared. Future research can compare other methods or add more variables.

REFERENCES
[1] Angely, G., Samuel Mukuan, D. D., & Elia Tampi, J. R. (2019). Pengaruh Kualitas Pelayanan Terhadap Kepuasan Pelanggan Jasa Service Pada PT. Astra International Tbk. –Daihatsu Malalayang. Jurnal Administrasi Bisnis, 51-59.
[2] Bernarto, I., Wilson, N., & Suryawan, I. N. (2019). Jurnal Manajemen Indonesia, 19(1), 80-90. Pengaruh website design quality, service quality, trust dan satisfaction terhadap repurchase intention (studi kasus: tokopedia. com), 80-90.
[3] Hasibuan, C. F. (2020). The measurement of customer satisfaction towards the service quality at xyz wholesale by using fuzzy service quality method. In IOP

Conference Series: Materials Science and Engineering (Vol. 909, No. 1, p. 012053). IOP Publishing., 1-6.

[4] Hermanto, A., Supangat, & Mandita, F. (2017). Evaluasi Usabilitas Layanan Sistem Informasi. Journal of Information Systems Engineering and Business Intelligence.

[5] iprice insights. (n.d.). Retrieved from Peta E-commerce: https://iprice.co.id/insights/mapofecommerce/.

[6] Irwansyah, A., & Mappadeceng, R. (2018). Pengaruh E-Service Quality Terhadap Customer Loyalty Melalui Customer Satisfaction Pada Toko On Line Buka Lapak. J-MAS (Jurnal Manajemen dan Sains) Vol.3 No.2, 128-136.

[7] Lidwina, A. (2021, Juni 4). Penggunaan E-Commerce Indonesia Tertinggi di Dunia. Retrieved from databoks: https://databoks.katadata.co.id/datapublish/2021/06/04/penggunaan-e-commerce-indonesia-tertinggi-di-dunia.

[8] Nuryadiputri, R. S., & Eryandra, A. (2020). Meningkatkan loyalitas melalui kepuasan konsumen terhadap pengguna transportasi berbasis online. Jurnal Spirits Volume 11 No.1, 27-50.

[9] Permana, H., & Djatmiko, T. (2018). Analisis pengaruh kualitas layanan elektronik (e-service quality) terhadap kepuasan pelanggan shopee di Bandung. Sosiohumanitas, 64-78.

[10] Pakurár, M., Haddad, H., Nagy, J., Popp, J., & Oláh, J. (2019). The service quality dimensions that affect customer satisfaction in the Jordanian banking sector. Sustainability 11(4), 1113.

[11] Peta E-Commerce Indonesia. (2021, Juni). Retrieved from iPrice: https://iprice.co.id/insights/mapofecommerce/.

[12] Peta E-Commerce Indonesia. (2022, Juni). Retrieved from iPrice: https://iprice.co.id/insights/mapofecommerce/.

[13] Priyo , J. S., Mohamad, B., & Adetunji, R. R. (2019). An Examination of the Effects of Service Quality and Customer Satisfaction on Customer Loyalty in the Hotel Industry. Int. J Sup. Chain. Mgt, 653-663.

[14] Selular.id. (2018, Juni 26). 5 Kota ini Paling Banyak Jumlah Pembelanja Online. Retrieved from Selular.ID: https://selular.id/2018/06/5-kota-ini-paling-banyak-jumlah-pembelanja-online/.

[15] Sidqi, A. N., & Pranitasari, D. (2021). Analisis Kepuasan Pelanggan Elektronik Shopee Menggunakan Metode E-Service Quality dan Kartesius. Jurnal Akuntansi dan Manajemen, 12-31.

[16] Virgianne, Y., Ariani, N. M., & Suarka, F. M. (2019). Pengaruh E-Service Quality Terhadap Kepuasan Wisatawan. Jurnal Kepariwisataan Dan Hospitalitas, 108-125.