

THE EFFECT OF E-SERVICE QUALITY ON E-CUSTOMER SATISFACTION OF DANA APPLICATION

Zacky Muhamad Ghifari¹, Syahputra²

^{1,2} Telkom University, Bandung

zackymuhammadg@student.telkomuniversity.ac.id¹, syahputra@telkomuniversity.ac.id²

ABSTRACT

Most of Internet-based companies offer digital wallet services based on the development of financial technology. One of them is PT Elang Mahkota Teknologi Tbk (EMTEK), which offers DANA as the application to make the users easily use financial transactions with their existing account without having to go through several steps that would otherwise be required. Nowadays, the quality of e-service is one of the important things that must be improved by companies. Thus, this study aims to show the relationship between E-Service Quality and E-Customer Satisfaction of DANA application. The quantitative descriptive and causal method is used in this research based on the EService Quality and E-Customer Satisfaction of DANAs' customers. Where the sampling technique that used is simple random sampling technique, which amounted to 100 respondents who already used the service of DANA application in Indonesia to fill the questionnaire in this research. Based on the descriptive analysis, E-Service Quality obtained the percentage score of 80%. While E-Customer Satisfaction obtained the percentage score of 77%. Based on the t-test E-Service Quality partially has a significant effect on E-Customer Satisfaction. Then, E-Service Quality also has an effect of 75.2% on E-Customer Satisfaction of DANA application. Based on the customers' perceptions of E-Service Quality, DANA must improve the term of Personalization regarding the feature requested by customers. Then, DANA can maintain the term of Interface Design, where DANA has an attractive, well-organized appearance, and easy to complete a transaction. For E-Customer Satisfaction, DANA can maintain the term of Convenience regarding the ease of uses of DANAs' features, where it has the highest score. While DANA must improve the term of Merchandising, Site Design, Security, and Serviceability.

Keywords: E-Service Quality, E-Customer Satisfaction, DANA

I. INTRODUCTION

In this global era, the information technology has been developed significantly, where it influences all of the aspects such as, people lifestyles, market, business, company or organization. Where the information technology is used by many companies to develop many types of services, especially in financial technology. Financial Technology is a combination of financial services and technology that ultimately requires the business model to be settled in cash, a method that had to bring a certain amount of cash in a traditional way. It was possible and it became a long-distance transaction, where it will be created only immediately. Moreover, financial technology gives the benefits for the those who use it such as, get a better service, simplify the transaction, freeze the flow of information, etc (www.bi.go.id, accessed on July, 2021). The applicates of technology information into the development of financial technology not only include mobile banking application, but also other services such as digital

wallet or e-wallet that already exists in Indonesia, which used by the peoples who already registered its' account. An e-wallet or digital wallet offers customers' convenience of digitally storing with one or more payment methods. Instead of carrying cash or cards, users store payment information on smart devices such as phones, watches, and tablets, and password-protect it. It can also store other information such as storage loyalty card information and digital coupons. Many of Internet-based companies offer digital wallet services based on the development of financial technology. One of them is PT Elang Mahkota Teknologi Tbk (EMTEK), which is DANA application. Nowadays, the quality of e-service is one of the important things that must be performed by the companies. If the number of customer complaints is very large, it means the quality of e-service is bad or does not meet the customers' expectation, which the customers feel dissatisfied. Thus, the companies must improve the quality of e-service to meet customers' expectation which will increase e-customer satisfaction. According to Puriwat and Tripopsakul (2017), E-Service Quality is a new version of Internet-based quality of service. The quality of the electronic service is very important in determining success or failure. E-service quality shows how e-commerce websites serve and facilitate online shopping, ordering, and delivery. The quality of electronic services is different from that of traditional service systems, which facilitate access to information between customers and electronic service providers (Laurent, 2016). According to American Society for Quality in Kotler and Keller (2016:156) stated that "*Quality is the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs*".

II. LITERATURE REVIEW

2.1 Service Quality

Service Quality is a measure of how well a service meets customers' expectation (Lewis and Booms in Alkhouli, 2018). According to Ramya et al., (2019:38), stated that Service quality refers to the ability of service providers to satisfy customers in an effective way to better conduct their business. While according to Hussain et al., (2015) Service quality is closely related to customers' satisfaction, and it refers to the overall impression of customers' judgments about the services provided by the company.

2.2 E-Service Quality

According to Puriwat and Tripopsakul (2017), E-Service Quality is a type of service quality that has a new version that is carried out via the internet network. E-Service Quality is very important to determine the success or failure of an electronic merchant, where e-service quality shows how the status of an electronic commerce site serves and facilitates online shopping, ordering, and delivery. Nasution, Fauzi, and Rini (2019) stated that "*E-Service Quality is a consumer evaluation of quality services or service providers that are carried out using the internet network*". E-Service Quality has five dimensions to be measured, which consist of Interface Design, Reliability, Responsiveness, Trust, and Personalization (Puriwat & Tripopsakul, 2017).

2.3 E-Customer Satisfaction

Customer satisfaction is a process to find a match between their expectations and the actual service performance after being used (El-Adly, 2019). E-Satisfaction is user satisfaction with previous transactions or experiences with a particular bank (Raza et al., 2020). E-Satisfaction is always expressed as customer satisfaction that comes from the experience of using a particular e-commerce company (Ong et al., 2016). Then

Amin (2016) states, customers will demand to meet or exceed their satisfaction expectations and online banking greatly increases that satisfaction. Then Ranjbarian et al in Tobagus (2018) said there are several dimensions that can affect e-satisfaction, which includes Convenience, Merchandising, Site Design, Security, and Service Ability.

2.4 The Relationship Between E-Service Quality and E-Customer Satisfaction

According to a study from Shared (2019), shows that there is a large influence between E-Service Quality and E-Customer Satisfaction. Likewise, the research of Puriwat and Tripopsakul (2017) stated that E-Service Quality can have a significant and positive effect on customer satisfaction. Another previous study of Meesala and Paul (2018) said that not all E-Service Quality is able to influence the variable about satisfaction. Then, the research of Singh (2019) said that there is a positive correlation between the dimensions of electronic service quality and online banking customer satisfaction.

2.5 Conceptual Framework

Based on those definitions above, the conceptual framework can be described in Figure below.

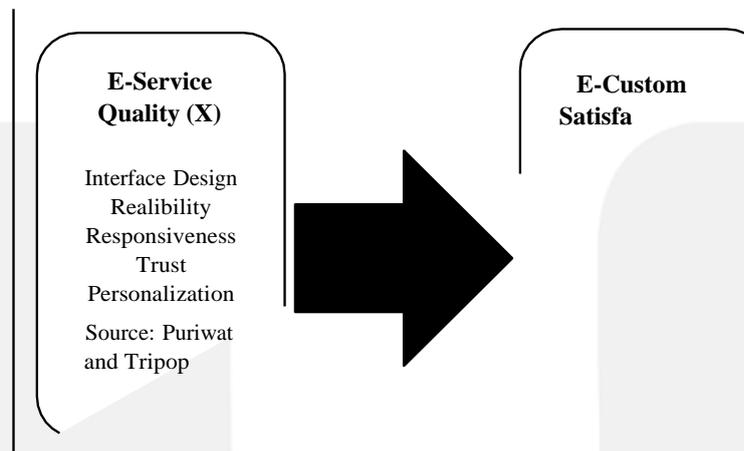


Figure 2.1 Conceptual Framework

Source: Processed by Author, 2021

Based on the conceptual framework above, the hypothesis to be tested as follows:

H₀: There is no effect of E-Service Quality on E-Customer Satisfaction of DANA application.

H₁: There an effect of E-Service Quality on E-Customer Satisfaction of DANA application.

III. RESEARCH METHODS

The quantitative and descriptive methods is used in this research, by distributing a questionnaire, and observation. The sampling technique that used is probability with the simple random sampling technique, where the sample was taken are the customers of DANA who have used this application. An ordinal scale is used as the measurement scale by using a 5-point scale for questionnaires, whereas strongly disagree as 1 and strongly agree as 5 to know the respondent's perceptions about the statements that given. There are several stages to completing this research are as follows:

1. Validity and Reliability test;
2. Determine the description of 100 respondents;

3. MSI is used to test the regression analysis, correlation coefficient analysis, partial t-test, and coefficient of determination.

IV. RESEARCH RESULTS

4.1 Characteristics of Respondents

The 100 respondents obtained are valid in this research, which the respondents who have used the service of DANA application. The majority of respondents based on gender are female (57%), age between 23-28 years old (41%), as an entrepreneur (39%), and frequency of DANAs' monthly uses 6-10 times (46%).

4.2 Descriptive Analysis

Descriptive analysis is used to know the perception of customers of 100 respondents regarding E-Service Quality (Interface Design, Reliability, Responsiveness, Trust, and Personalization) as independent variable and E-Customer Satisfaction (Convenience, Merchandising, Site Design, Security, and Serviceability) as dependent variable of DANA application. The results of the descriptive data are shown on the table below.

Table 4.1 Descriptive Analysis Recapitulation

Sub-Variable	Total Score	%	Category
E-Service Quality (X)	6439	80%	High
E-Customer Satisfaction (Y)	5029	77%	High

Source: Author's Processed Primary Data, 2021

4.3 Simple Linear Regression Analysis

Simple linear regression analysis is used to see the effect of E-Service Quality on E-Customer Satisfaction of DANA application with the following equation:

$$Y = a + bX$$

Then, the result for regression analysis is presented in the following table below by using SPSS 25.0 software:

Table 4.2 Simple Linear Regression Analysis

Model	Unstandardized Coefficients B
(Constant)	2.528
E-SQ	0.751

a. Dependent Variable: E-CS

Source: SPSS Output, 2021

Based on the results in the table above, the following form of linear regression is obtained: **$Y = 2.528 + 0.751X$** .

Based on that linear regression equation, obtained a constant value of 2.528. This indicates that if the variable of E-Customer Satisfaction of DANA influenced by one independent variable. Then, the average amount of E-Customer Satisfaction of DANA will be worth of 2.528. Furthermore, the value of regression coefficient for E-Service Quality (X) is 0.751, which in a positive direction. This means that if the E-Service Quality (X) variable increases by one unit, it will also increase E-Customer Satisfaction of DANA by 0.751.

4.4 Correlation Coefficient Analysis

Correlation analysis is used to find out the relationship between E-Service Quality on E-Customer Satisfaction of DANA application. The following is the result of processing SPSS 25.0 software for the correlation coefficient regarding the

relationship between E-Service Quality on E-Customer Satisfaction of DANA application.

Table 4.3 Coefficient Correlations^a

Model		E-SQ	E-SQ
1	Correlations	E-SQ	1.000
	Covariances	E-SQ	.002

a. Dependent Variable: E-CS

Source: SPSS 25.0 Output, 2021

Based on the table above, the coefficient correlation obtained the coefficient value of 1.000, which means there is a very strong relationship between E-Service Quality on E-Customer Satisfaction of DANA application.

4.5 Partial T-Test

Partial T-Test is used to find out the presence or absence a significant effect of the independent variables partially on an independent variable. The results of t-test is presented in the table below.

Table 4.4 Partial T-Test Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
1 (Constant)	2.528	2.325		1.087	0.280
E-SQ	0.751	0.044	0.867	17.257	0.000

a. Dependent Variable: E-CS

Source: SPSS Output, 2021

Based on the SPSS 25.0 output above, obtained the sig. value of 0.000 or < 0.05. While the t-count obtained of 17.257 or > the t-table of 1.66055, then, H1 accepted. Therefore, it can be concluded that, E-Service Quality partially has a significant effect on E-Customer Satisfaction of DANA application.

4.6 Coefficient of Determination

Table 4.5 Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.867 ^a	.752	.750	4.71651

a. Predictors: (Constant), E-SQ

b. Dependent Variable: E-CS

Source: SPSS Output, 2021

Based on Table 4.19 above, it is known that the correlation coefficient (R) obtained is 0.867. The R value is then used to calculate the coefficient of determination.

$$\begin{aligned}
 KD &= R^2 \times 100\% \\
 &= (0.867)^2 \times 100\% \\
 &= 75.2\%
 \end{aligned}$$

This means that E-Service Quality has an effect of 75.2% on E-Customer Satisfaction of DANA application. The remaining 24.8% is contributed by other variables besides E-Service Quality.

V. CONCLUSSION AND SUGESTIONS

Based on the respondents' response, the percentage score for E-Service Quality that is equal to 80%. Thus, E-Service Quality is in High category. Based on the respondents' response, the percentage score of E-Customer Satisfaction that is equal to 77%. Thus, E-Customer Satisfaction is in High category. Based on the hypothesis testing of T-Test, E-Service Quality partially has a significant effect on E-Customer Satisfaction of DANA application. While based on coefficient of determination E-Service Quality has an effect of 75.2% on E-Customer Satisfaction of DANA application. Based on the respondents' responses of E-Service Quality, DANA must improve the term of Personalization regarding the feature requested by customers. Then, DANA can maintain the term of Interface Design, where DANA has an attractive, well-organized appearance, and easy to complete a transaction. Based on the respondents' response of E-Customer Satisfaction, DANA can maintain the term of Convenience regarding the ease of uses of DANAs' features, where it has the highest score. While DANA must improve the term of Merchandising, Site Design, Security, and Serviceability.

VI. REFERENCES

- Alkhouli, S. (2017). The Effect of Banks Website Service Quality and E-satisfaction on E-loyalty: An Empirical Study on Swedish Banks. *International Journal of Business and Management*, 13(1), 1-12. doi:doi:doi:10.5539/ijbm.v13n1p1
- Amin, M. (2016). Internet banking service quality and its implication on e-customer satisfaction and e-customer loyalty. *International Journal of Bank Marketing*, 34(3), 280-306. doi:https://doi.org/10.1108/IJBM-10-2014-0139
- El-Aldy, M. I. (2019). Modelling the relationship between hotel perceived value, customer satisfaction, and customer loyalty. *Journal of Retailing and Consumer Services*, 322-332. doi:https://doi.org/10.1016/j.jretconser.2018.07.001
- Hussain, R., Naseer, A., & Hussain, Y. K. (2015). Service quality and customer satisfaction of a UAE-based airline: An empirical investigation. *Journal of Air Transport Management*, 167-175.
- Komunikasi, D. (2018). *MENGENAL FINANCIAL TEKNOLOGI*. Retrieved from Bank Indonesia: <https://www.bi.go.id/id/edukasi/Pages/mengenal-Financial-Teknologi.aspx#>
- Kotler, P., & Keller, K. G. (2016). *Marketing Management* (15 ed.). Endiburg Gate, Harlow: Pearson Education.
- Laurent, F. (2016). PENGARUH E-SERVICE QUALITY TERHADAP LOYALITAS PELANGGAN GO-JEK MELALUI KEPUASAN PELANGGAN. *AGORA*, 4(2), 95-100.
- Meesala, A., & Paul, J. (2016). Service quality , consumer satisfaction and loyalty in hospitals : Thinking for the future. *Journal of Retailing and Consumer Services*, 1-9. Retrieved from <https://doi.org/10.1016/j.jretconser.2016.10.011>
- Nasution, H., Fauzi, A., & Rini, E. S. (2019). THE EFFECT OF E-SERVICE QUALITY ON E-LOYALTY THROUGH E-SATISFACTION ON STUDENTS OF OVO APPLICATION USERS AT THE FACULTY OF ECONOMICS AND BUSINESS, UNIVERSITY OF NORTH SUMATRA, INDONESIA. *European Journal of Management and Marketing Studies*, 4(1), 146-162. doi:http://dx.doi.org/10.5281/zenodo.3360880
- Ong, S. T. (2016). E-Service Quality, E-Satisfaction And E-Loyalty of Online Shoppers In Business to Consumer Market; Evidence form Malaysia. *IOP*

- Conference Series: Materials Science and Engineering*. doi:10.1088/1757-899X/131/1/012012
- Puriwat, W., & Tripopsakul, S. (2017). THE IMPACT OF E-SERVICE QUALITY ON CUSTOMER SATISFACTION AND LOYALTY IN MOBILE BANKING USAGE: CASE STUDY OF THAILAND. *POLISH JOURNAL OF MANAGEMENT STUDIES*, 15, 183-193. doi:doi:10.17512/pjms.2017.15.2.17
- Ramya, N., Kowsalsya, A., & Dharanipriya, K. (2019). SERVICE QUALITY AND ITS DIMENSIONS. *EPRA International Journal of Research and Development (IJRD)*, 4(2), 38-41. Retrieved from <http://www.eprajournals.com/>
- Ranjbarian, B., Fathi, S., & Razei, Z. (2012). Factors Influencing on Customers' E-Satisfaction: A case Study from Iran. *INTERDISCIPLINARY JOURNAL OF CONTEMPORARY RESEARCH IN BUSINESS*, 3, 1496-1511.
- Raza, S. A., Umer, A., Qureshi, M. A., & Dahri, A. S. (2020). Internet banking service quality, e-customer satisfaction and loyalty: the modified e-SERVQUAL model. *TQM Journal*. doi:<https://doi.org/10.1108/TQM-02-2020-0019>
- Shared, H. (2019). The Relationship between E-Service Quality and E-Customer Satisfaction: An Empirical Study in Egyptian Banks. *International Journal of Business and Management*, 14(5). Retrieved from <http://dx.doi.org/10.5539/ijbm.v14n5p171>
- Singh, S. (2019). Measuring E-Service Quality and Customer Satisfaction with Internet Banking in India. *Scientific Research*, 9(2). Retrieved from <https://doi.org/10.4236/tel.2019.92023>
- Tobagus, A. (2018). Pengaruh E-service Quality Terhadap E-satisfaction Pada Pengguna Di Situs Tokopedia. *AGORA*, 6(1), 1-10.