

The Effect of Self-Service Technology Service Quality and Customer Satisfaction toward Loyalty and Behavioural Intentions on E-banking Users

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Keywords: SST Service Quality, Customer Satisfaction, Customer Loyalty, Behavioural Intentions, E-banking, Banking Industry

Abstract: Research aims: this study aims to examine the effect of self-service technology service quality and customer satisfaction toward loyalty and behavioural intentions, particularly on e-banking users. Methodology: This study uses a quantitative method based on a questionnaire. The research design used is hypothesis testing that explains phenomena in the form of relationships between variables obtained based on data and facts. This study is used to test hypotheses regarding the effect of SST Service Quality on Loyalty, Customer Satisfaction and Behavioural Intentions, and the impact of Customer Satisfaction on Loyalty and Behavioural Intentions. Practical Implications: This study gives an outlook of an effect between the variable's relationships toward the e-banking customer. It provides several suggestion and recommendations for the industry of banking in Indonesia to maintain sustainable business toward industrial 4.0 era, which rely heavily on the internet. This study can be an insightful lesson-learned that can be used to create another better virtual banking experience services in Indonesia. Theoretical Implications: This study expands the existing literature on self-service technology service quality, customer satisfaction, loyalty and behavioural intentions by providing a theoretical support of e-banking services in the age of industrial revolution 4.0. It illustrates how the theoretical approach could help the banking industry creating better service that tailored to the customer needs and provide satisfaction to the customer.

1 INTRODUCTION

The Indonesian banking industry in the digital era has experienced significant developments which can lead to intense inter-bank competition. Therefore each bank is expected to attract attention and interest of the customer in various ways because the factors that are used as a customer assessment in choosing a bank is the reputation of the bank, friendliness of staff, a reasonably close and convenient location, Automatic Teller Machine (ATM) in an easily accessible location and availability of parking space (Aslam et al., 2011). A bank must be able to make innovations from other banks to face intense competition, where innovations made can be adjusted to the expectations of customers so that behavioural intentions and customers become loyal (Loanata et al., 2015).

The banking industry will not succeed without the existence of behavioural intentions and customer loyalty. Therefore, with the development of increasingly creative technological service innovations, customers are expected to remain loyal and even buy any service products provided by banks (Azisyah, 2016). Lovelock (2012) states that the service sector is an industry that must quickly innovate; otherwise, it will sink in the banking industry competition. The success of a bank to maintain customers remain loyal is strongly influenced by several marketing strategies such as product innovation, the provision of cutting-edge technology, the ease of the product and provide fast self-service via e-banking (Azisyah, 2016). Various facilities and strategies that are continually being developed, especially self-service banking technology, are expected to make customers have behavioural intentions for a particular bank (Azisyah, 2016).

This paper has formulated research problems in detail to examine the effect of self-service technology service quality on loyalty, behavioural intentions, and customer satisfaction. Further, it will also cover the effect of customer satisfaction on loyalty and behavioural intentions.

The objective research of this paper is to find out and analyse the effect of self-service technology service quality on loyalty, behavioural intentions and customer satisfaction. It will also expand to find out and analyse the effect of customer satisfaction on loyalty and behavioural intentions., the research will be conducted in several limitations such as four variables to make it clear and specific. The variables are self-service technology service quality that focuses on the outline, customer satisfaction, loyalty and behavioural intentions. Research sampling is the banking industry in general

2 LITERATURE REVIEW

2.1 Self Service Technology Service Quality

Self-service technology is a technology intermediary that occurs to customers, where customers do their own services without assistance or dependence on company employees (Rambat, 2013). Meuter (2000) explained that self-service technology is a technology that is made to make it easier for customers to transact independently. Further, Hsieh (2005) explains the factors that drive self-service technology are product quality, services offered, product costs, presentations and services, self-service technology design, how companies manage and prevent the failure of self-service technology and the company's ability to create self-innovation service technology. According to Kasmir (2012) the reason companies must use self-service technology includes: (a) many services are carried out through technology; (b) many companies have used self-service technology; (c) can provide convenience and comfort for customers.

2.2 Customer Satisfaction

Customer Satisfaction is a state of one's feelings that are obtained from the results of a comparison between the assessment of final product performance in relation to customer expectations (Kotler & Keller, 2016). Tjiptono (2014) explains that a customer will feel satisfaction or discomfort of the response given to the evaluation that can be felt

between expectations and performance felt after use. The purpose of measuring customer satisfaction is: (a) to identify the needs of customers who are considered necessary by the customer so that they can influence whether satisfied or not; (b) to determine the level of customer satisfaction on company performance; (c) to compare customer satisfaction with companies with customer satisfaction with other companies; (d) to identify priorities for improvement through analysing the level of essential needs with satisfaction; (e) to measure the customer satisfaction index which can be used as an indicator that can be monitored the progress of development from time to time.

According to Irawan (2009), some factors influence customer satisfaction. Firstly, product quality, customers will feel satisfied if the results of the product quality assessment are to meet the customers demand, adding value to customers' satisfaction. Secondly, service quality, customers are satisfied if the expected service is obtained, leading to a good perception of the product or service. Thirdly, emotional, satisfaction is obtained from satisfying social values. Fourthly, price, products with the relatively same quality and low price provide more value for consumers. The more expensive a product or service is, the higher expectations expected by customers; (e) ease: customers will be more satisfied if the products and services obtained provide convenience and comfort.

2.3 Loyalty

Creating customer loyalty is needed to maintain the success of a business because it can create innovation in sales (Musfar and Vivi, 2012). Ishaq (2014) mentions that loyalty is a process of customer satisfaction which in the end will have an impact to intentions. Customer loyalty is a commitment obtained from customers experience buy or use a product and service consistently by making repeated purchases on the same brand even though the customer gets influence from other competitors (Oliver, 2015).

Olivier (2015) describes four stages regarding loyalty, namely; (a) cognitive loyalty: the initial stage where more emphasis on customer confidence in a brand and is usually based on recent experience so that this stage can also be called the lowest stage; (b) affective loyalty: the second stage which is assessed based on the accumulation of customers in the use of the company's products and at this stage the customer is quite easy to move to another brand or try products from other companies; (c) conative

loyalty: a stage of loyalty where the customer is committed to buying back the product and at this stage is usually influenced by positive experiences that are repeatedly felt by the customer and usually at this stage the customer is more committed to the company; (d) action loyalty: the final stage of loyalty and at this stage is more about performance factors such as how a brand can be liked by customers so that the customer has the intention and act to buyback.

2.4 Behavioural Intentions

Behavioural intentions are a desire of the customer to behave as having, using or disposing of the product purchased so that the customer decides to find out information or notify others of the experience (Mowen, 2012). Schiffman and Kanuk (2010) explain that behavioural intentions are an indicator to assess whether customers will remain loyal or will move to products and services from other companies.

Zhillin et al. (2009) mention three dimensions of behavioural intentions namely; (a) recommendation: behavioural intentions at the recommendation stage are more about encouraging surrounding relatives to use goods or services from the company, in other words, the customer has carried out indirectly marketing activities and brought other customers to the company; (b) repurchase intention: behavioural intentions on this dimension are by using products twice, or more on the same products and services; (c) pay more: behavioural intentions that will occur are a result of customer satisfaction on a product so that even if there is a price change, the customer willing to pay more for it.

2.5 Hypothesis

H1: There is a positive influence between Self Service Technology Service Quality on Loyalty.

Self-service technology can affect loyalty if companies can improve service quality by creating new and exciting things to create loyalty (Iqbal, 2017). Other research explains that with the self-service technology innovation that is profitable for customers, it will create loyal customers (Azisyah, 2016).

H2: There is a positive influence between Self Service Technology Service Quality on Customer Satisfaction.

Iqbal (2017) carried out a test to see whether self-service quality influences customer satisfaction

and the results obtained is that it has a significant impact because by increasing the convenience of using self-service technology the customer will be created satisfaction. Customer satisfaction comes from customer expectations, by providing services that meet customer expectations it will improve customer satisfaction (Azisyah, 2016).

H3: There is a positive effect between Self Service Quality on Behavioural Intentions.

Iqbal (2017) states that self-service quality has a significant impact on behavioural intentions because behavioural intentions can be created if the company can provide quality self-service. While other studies also explain the same thing where quality self-service quality can create behavioural intentions (Winata, 2015).

H4: There is a positive influence between Customer Satisfaction on Loyalty.

Customer satisfaction is one of the essential factors of loyalty because it will make the customer loyal (Iqbal, 2017). Winata (2015) stated that customer satisfaction has a significant influence on loyalty, by increasing customer satisfaction, loyalty will also increase.

H5: There is a positive influence between Customer Satisfaction on Behavioural Intentions.

Loanata et al. (2015) explain that customer satisfaction has a significant and significant effect on behavioural intentions because it can encourage or influence behavioural intentions themselves, the higher customer satisfaction, the higher behavioural intentions will be created. Other research also confirms that customer satisfaction influences behavioural intentions (Winata, 2015).

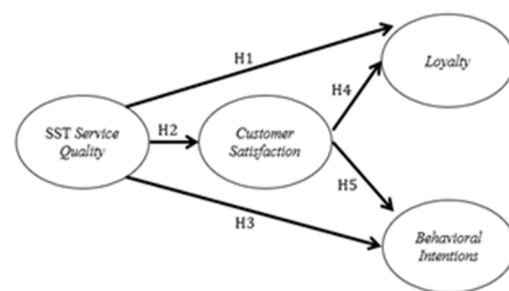


Figure 1: Conceptual Framework

3 METHODOLOGY

3.1 Research Approach and Design

This study refers to Iqbal et al. (2017). The research design used is hypothesis testing, where this study aims to test hypotheses and generally is a study that explains phenomena in the form of relationships between variables obtained based on data and facts. This study is used to test hypotheses regarding the effect of SST Service Quality on Loyalty, Customer Satisfaction and Behavioural Intentions, and the impact of Customer Satisfaction on Loyalty and Behavioural Intentions. The unit of analysis used in this study is that individuals who use e-banking will be asked directly through a questionnaire.

3.2 Variables and Measurements

There are four variables to be measured in this study, namely SST Service Quality, Customer Satisfaction, Loyalty, and Behavioural Intentions. SST Service Quality variables are measured using several dimensions, including Functionality, Enjoyment, Security, Design, Assurance, Convenience and Customization. Functionality dimensions are measured using five statement items. Enjoyment dimensions are measured using four statement items. The Security Dimension is measured using two statement items. Design dimensions are measured using two statement items. The Assurance Dimension is measured using two statement items. Convenience dimensions are measured using three statement items. Customisation dimensions are measured using three statement items. Customer Satisfaction variable is measured by using three statement items. Loyalty variables are measured using five statement items. Behavioural Intentions variable is measured by using three statement items.

The items used were adapted from the research developed by Lien and Hsieh (2011) to measure the dimensions of the SST Service Quality variable. It was adapted from the research of Fornell et al., (1996) to measure the Customer Satisfaction variable. Items used were adapted from research developed by Cronin (2000) to measure Loyalty and Behavioural Intentions variables. Each item of the variable measured uses a five-point Likert scale, where “1” means “Strongly Disagree”, up to “5” which means “Strongly Agree”.

Table 1: Matrix Variables and Measurements

Variable		Items	Source
SST Service Quality		Functionality: 1. I can do financial needs transactions with a short period through e-banking SST. 2. The service process of e-banking SST is transparent. 3. Using SST e-banking requires a little effort. 4. I can do financial services smoothly through e-banking SST. 5. Every service function from e-banking SST is excellent (free of errors). Enjoyment: 1. Attractive e-banking SST operations. 2. I feel I can use SST e-banking well. 3. SST e-banking has an interesting additional function. 4. SST e-banking provides all information that is relevant to me. Security: 1. I feel safe in financial transactions through e-banking SST. 2. The privacy policy is clearly stated when I use e-banking SST. Design: 1. The layout of the SST e-banking is aesthetically attractive. 2. The bank seems to use	Lehtinen, 1991; Lien and Hsieh, 2011

Variable		Items	Source
		the latest technology for e-banking SST Assurance: 1. Bank X is a well-known SST e-banking provider. 2. Bank X is a company that has an excellent reputation for e-banking SST service providers. Convenience: 1. Operation of SST e-banking services from Bank X is convenient for customers. 2. Bank X’s SST e-banking is not easily erroneous when used. 3. It is effortless and convenient to use Bank X SST e-banking. Customisation: 1. SST e-banking Bank X understands my specific needs. 2. Bank X’s SST e-banking really attracted me. 3. SST e-banking Bank X has features that can be tailored to my needs.	
Customer Satisfaction	1.	2. I am satisfied with the technology services offered by Bank X. 3. The self-service technology offered by Bank X exceeded my expectations. 4. The self-service technology offered by Bank X is very close to my idea.	Kotler, 2016

Variable		Items	Source
Loyalty	1.	2. I will continue to use SST e-banking services from Bank X. 3. I will recommend SST e-banking Bank X to my friends. 4. If I need independent financial services, then I will use SST e-banking from Bank X. 5. I will comment positively about SST e-banking from Bank X to others. 6. SST e-banking from Bank X is my first choice.	Griffin, 2013
Behavioural Intentions	1.	2. My chances of using independent technology from Bank X will be high. 3. The possibility of me to recommend SST e-banking from Bank X to friends will be high. 4. If I must choose in the use of e-banking SST, then I will choose SST e-banking from Bank X.	Schiffman and Kanuk, 2012

3.3 Research Population

The sampling method in this study is non-probability sampling which is a technique that does not provide equal opportunities and opportunities for each element or member of the population to be sampled. The sampling technique using purposive sampling technique is a technique for determining samples with specific considerations, where consideration is based on certain characteristics that are considered to have a close relationship with the characteristics of a population that has been previously known

(Sekaran, 2012). In other words, the sample units contacted are adjusted to specific criteria applied based on the research objectives. The characteristics of respondents needed in this study are customers who use e-banking at least three times a month in one year.

The data used in this study is primary data, namely, data collected directly by researchers who are given directly to the selected sample to answer the problem or purpose of the study. In this study carried out through distributing questionnaires to 160 respondents (Sekaran, 2012). After being collected, 160 respondents who were valid to be processed were explained as follows:

Table 2: Respondent Gender

Gender	Total Respondent	Percentage (%)
Male	89	55,6
Female	71	44,4
Total	160	100

Table 3: Respondent Age

Age	Total Respondent	Percentage (%)
< 20 years old	13	8,1
21 – 25 years old	36	22,5
25 – 30 years old	50	31,3
30 – 35 years old	38	23,8
> 35 years old	23	14,4
Total	160	100

Table 4: Respondent Education Background

Educational Background	Total Respondent	Percentage (%)
Senior High School	24	15
Vocational Higher Education	28	17,5
Bachelor Degree	90	56,3
Post Graduate Degree	18	11,3
Total	160	100

Table 5: Respondent Profession Background

Profession	Total Respondent	Percentage (%)
Student	24	15
Private Employees	96	60
Civil Servant	21	13,1
State-owned Enterprises Employees	10	8
Entrepreneur	9	5,6
Total	160	100

Table 6: Respondent Monthly Income Background

Monthly Income	Total Respondent	Percentage (%)
< Rp 3.000.000	23	14,4
Rp 3.000.000 – Rp 4.999.000	33	20,6
Rp 5.000.000 – Rp 6.999.000	49	30,6
Rp 7.000.000 – Rp 8.999.000	29	18,1
> Rp 9.000.000	26	16,3
Total	160	100

Table 7: Respondent Monthly E-banking Use Background

Monthly E-banking Use	Total Respondent	Percentage (%)
3 – 4 times	102	63,8
5 – 7 times	35	21,9
8 – 10 times	14	8,8
> 10 times	29	18,1
Total	160	100

3.4 Validity Test

Validity test is a test in the valid or valid measure of a questionnaire. A questionnaire is valid only if the question in the questionnaire can reveal something that will be measured by the questionnaire (Ghozali, 2013). The analytical tool for testing the validity of this study is factor analysis using the Kaiser-Meyer-Olkin (KMO) value approach. Fundamental testing decision making on the validity of factor analysis, namely:

If the value of $-KMO > \alpha (0.05)$, then the item statement is valid.

If the value of $-KMO < \alpha (0.05)$, then the item statement is invalid.

The results of testing the validity of the SST Service Quality variables performed are as follows:

Table 8: Validity Test Results for Construct Quality Services for SST

No.	Statement item	KMO	Decision
1.	I can do financial needs transactions with a short period through e-banking SST.	0,778	Valid
2.	The service process of e-banking is transparent.	0,850	Valid
3.	Using SST e-banking requires a little effort.	0,886	Valid
4.	I can do financial services smoothly through e-banking SST.	0,910	Valid
5.	Each service function of the SST-banking SST is excellent (free of errors).	0,817	Valid
6.	Attractive e-banking SST operations.	0,854	Valid
7.	I feel I can use SST e-banking well.	0,781	Valid
8.	SST e-banking has interesting	0,731	Valid

	additional functions.		
9.	E-banking SST provides all information that is relevant to me.	0,929	Valid
10.	I feel safe in financial transactions through e-banking SST.	0,904	Valid
11.	The privacy policy is clearly stated when I use e-banking SST.	0,904	Valid
12.	The layout of the SST e-banking is esthetically attractive.	0,912	Valid
13.	Bank X seems to use the latest technology for e-banking SST.	0,879	Valid
14.	Bank X is a well-known SST e-banking provider.	0,732	Valid
15.	Bank X is a company that has an excellent reputation for e-banking SST service providers.	0,533	Valid
16.	Operation of SST e-banking services from Bank X is convenient for customers.	0,926	Valid
17.	Bank X SST e-banking is not easily errored when used.	0,834	Valid
18.	It is effortless and convenient to use Bank X e-banking SST.	0,844	Valid
19.	Bank X e-banking SST understands my specific needs.	0,786	Valid
20.	Bank X banking system attracts me.	0,860	Valid
21.	Bank X e-banking SST has features that can be tailored to my needs.	0,836	Valid

From the table above, each KMO value on the statement item SST Service Quality variable has a value of more than 0.5, which means that each item statement is valid. This value means that all statement items are suitable for measuring SST Service Quality variables.

Table 9: Validity Test Results for Customer Satisfaction Constructions

No.	Statement item	KMO	Decision
1.	I am satisfied with the independent technology services offered by Bank X.	0,681	Valid
2.	The self-service technology offered by Bank X exceeded my expectations.	0,697	Valid
3.	The self-service technology offered by Bank X is very close to my idea.	0,667	Valid

From the table above, each KMO value on the variable item statement of Customer Satisfaction has a value of more than 0.5, which means that each item statement is valid. This value means that all statement items are suitable for measuring Customer Satisfaction variables

Table 10: Validity Test Results for Loyalty Constructions

No.	Statement item	KMO	Decision
1.	I will continue to use SST e-banking services from Bank X	0,822	Valid
2.	I will recommend Bank X e-banking SST to my friends.	0,763	Valid
3.	If I need independent financial services, then I will	0,716	Valid

	use SST e-banking from Bank X		
4.	I will comment positively about SST e-banking from Bank X to others.	0,667	Valid
5.	SST e-banking from Bank X is my first choice.	0,736	Valid

From the table above, each KMO value on the item statement Loyalty variable has a value of more than 0.5, which means that each item statement is valid. This value means that all statement items are appropriate for measuring Loyalty variables

Table 11: Validity Test Results for Constructs of Behavioural Intentions

No.	Statement item	KMO	Decision
1.	I will continue to use SST e-banking services from Bank X	0,822	Valid
2.	I will recommend Bank X e-banking SST to my friends.	0,763	Valid
3.	If I need independent financial services, then I will use SST e-banking from Bank X	0,716	Valid
4.	I will comment positively about SST e-banking from Bank X	0,667	Valid
5.	SST e-banking from Bank X is my first choice.	0,736	Valid

From the table above, each KMO value in the item statement of Behavioural Intentions variable has a value of more than 0.5, which means that each item statement is valid. This value means that all statement items are appropriate for measuring Behavioural Intentions variables.

3.5 Reliability Test

Reliability test is a test to measure a questionnaire which is an indicator of a construct. A questionnaire is said to be reliable if someone's answer to the statement is consistent or stable over time (Ghozali, 2013). The reliability test of each construct can be seen from the value of Cronbach's Alpha, as the coefficient of the reliability test. An indicator is considered reliable if it has Cronbach's Alpha of 0.6 or more (Hair, 2013). Fundamental decision-making reliability is as follows:

If the Cronbach's Alpha value is 60 (0.60), then the statement in the questionnaire is appropriate to use. If the Cronbach's Alpha value is <0.60, the statement in the questionnaire is not suitable to use.

The reliability test results for each construct are shown in the following table:

Table 12: Reliability Test Results

Construct	Number of Items Statement	Cronbach's Coefficient Alpha	Decision
SST Service Quality	21	0,881	Reliable
Customer Satisfaction	3	0,722	Reliable
Loyalty	5	0,750	Reliable
Behavioral Intentions	3	0,704	Reliable

Based on the table above, Cronbach's Coefficient Alpha in the construct used in the study has met the criteria of reliability. Thus, if all constructs in the study have a Cronbach's Coefficient Alpha of at least 0.60 or more, then the respondent's answer to the statements used to measure each construct is consistent, and the construct is reliable.

3.6 Data Analysis Method

The analytical method used in this study is the Structural Equation Model (SEM). Structural Equation Model (SEM) is a statistical tool used to complete multilevel models simultaneously which cannot be solved by linear regression equations. SEM can also be considered as a combination of regression analysis and factor analysis (Ghozali, 2013). In SEM analysis techniques, the program can use the AMOS program version 24.

Before analysing the hypothesis proposed, the model conformity test is first carried out. Model suitability testing is done by looking at the measurement criteria, namely (Hair, 2013):

1. Absolute Fit Measure used to measure the overall fit model. The criteria are to look at the Chi-square value, Significant Probability and Root Mean Square Error of Approximation (RMSEA).
2. Incremental Fit Measure is a measure used to compare models proposed with other models specified by researchers. The criteria are by looking at the Goodness-of-fit Index (GFI), Normed Fit Index (NFI), Tucker-Lewis Index (TLI), Relative Fit Index (RFI), Comparative Fit Index (CFI), and Incremental Fit Index (IFI).

3. Parsimonious Fit Measure is an adjustment to the measurement of fit to be compared between models with a different number of coefficients. The criteria are to see the value of Normed Chi-square (CMIN).

The results of the Goodness of Fit Model measurement results are shown in the table below:

Table 13: Goodness of Fit Model

Type of measurement	Measurement	Value	Expected value	Conclusion
Absolute Fit Measures	Chi-Square	313,291	Expected to be small	Poor fit
	Sig. Probability	0,000	$\geq 0,05$	Poor Fit
	RMSEA	0,148	$\leq 0,10$	Poor Fit
Incremental Fit Measures	GFI	0,852	$\geq 0,90$	Marginal Fit
	NFI	0,853	$\geq 0,90$	Marginal Fit
	TLI	0,742	$\geq 0,90$	Poor Fit
	RFI	0,761	$\geq 0,90$	Poor Fit
	CFI	0,921	$\geq 0,90$	Goodness of Fit
	IFI	0,932	$\geq 0,90$	Goodness of Fit
Parsimonious Fit Measure	Normed Chi-Square	3,601	Lower limit 1, upper limit 5	Goodness of Fit

The test results of model suitability (goodness of fit) show the Chi-Square value of 313,291. It can be concluded that the value of Chi-Square is a poor fit. Significance Probability of 0,000 so that it can be concluded that poor fit. The RMSEA value is 0.148, which means that poor fit is due to the expected cut-off limit of ≤ 0.10 . The testing of the goodness of fit for an incremental fit measure is done by looking at the values of GFI, NFI, TLI, RFI, CFI and IFI with cut-off values that have the criteria ≥ 0.90 . The value obtained from processing SEM data on GFI and NFI is 0.852 and 0.853, which means marginal fit because the cut off value approaches the criteria value. For TLI and CFI, it is 0.742 and 0.761, which means that the weak fit data. The value of CFI and IFI has a value of 0.921 and 0.932. It means the goodness of fit because the value exceeds the cut-off.

The Normed Chi-Square value of the criteria is the lower limit of 1 or the upper limit of 5, and the

indicator value is 3.601, so it can be concluded that the model is the goodness of fit. That is, with various approaches used to produce conclusions the model produced in the goodness of fit. From the measurements for the model of suitability (goodness of fit), it can be concluded that the testing model is feasible because some items achieve marginal fit criteria and even meet the criteria of goodness of fit. Therefore, further hypothesis testing can be continued.

4 RESULT AND DISCUSSION

4.1 Descriptive Statistics

In this study, the first analysis carried out was the descriptive statistical analysis. Descriptive statistics aim to provide a description or description of data in terms of minimum values, maximum values, mean values and standard deviation (Hair, 2013). In the descriptive analysis of the data described as follows, the mean value is the average value of all respondents to the variables under study, while the standard deviation that shows the variation of respondents' answers. There is no limit on the standard deviation value, but the standard value of deviation that keeps away from zeros indicates that the spread of data (respondent's answer) is varied, whereas if the standard deviation value is given close to zero, then the respondent's answers do not vary. The minimum value is the lowest answer (scale) chosen by the respondent, and the maximum value is the highest answer (scale) chosen by the respondent. In this study, the descriptive statistics used are the mean and standard deviation. The results of the descriptive statistics calculation of the independent and bound variables are seen in the table below:

Table 14: Descriptive Statistics Variable SST Service Quality

Statement Item	N	Mean	Standard Deviation
I can do financial needs transactions with a short period through e-banking SST.	160	3,700	0,690
The service process of e-banking is transparent.	160	3,350	0,841
Using SST e-banking requires a little effort.	160	3,513	0,824
I can do financial services smoothly through e-banking SST.	160	3,269	0,895
Every service function of	160	3,706	0,813

SST-banking is excellent (error-free).			
Attractive e-banking SST operations.	160	3,619	0,776
I feel that I can use SST e-banking well.	160	4,306	0,604
SST e-banking has additional attractive functions.	160	4,281	0,646
E-banking SST provides all information that is relevant to me.	160	3,531	0,854
I feel safe in financial transactions through e-banking SST.	160	3,313	0,877
The privacy policy is clearly stated when I use e-banking SST.	160	3,456	0,882
The layout of the SST e-banking is esthetically attractive.	160	3,306	0,869
Bank X seems to use the latest technology for e-banking SST.	160	4,038	0,751
Bank X is a well-known SST e-banking provider.	160	4,088	0,730
Bank X is a company that has an excellent reputation for e-banking SST service providers.	160	3,338	1,312
Operation of SST e-banking services from Bank X is convenient for customers.	160	3,481	0,883
Bank X's SST e-banking is not easily erroneous when used.	160	3,806	0,781
It's easy and convenient to use Bank X's SST e-banking.	160	3,631	0,829
Bank X's SST e-banking understands my specific needs.	160	3,331	0,923
Bank X's SST banking attracted me.	160	2,969	0,914
Bank X's SST e-banking has features that can be tailored to my needs.	160	2,881	0,980
Total Average SST Service Quality	160	3,567	0,464

The magnitude of the mean or average value and standard deviation is for the SST Service Quality variable. Service Quality variable shows an average of 3.567. Based on the average value, it can be interpreted that the respondent can conduct financial needs transactions with a short period through e-banking SST and free from errors. In addition, the use of SST e-banking is easy to use and has a variety of new services. Bank X is a company that is well-known and has a good reputation chosen by customers because it has the latest technology for the improvement of maximum service quality. The

standard deviation value of 0.464 shows the spread of varied data.

Table 15: Descriptive Statistics of Customer Satisfaction Variables

Statement Item	N	Mean	Standard Deviation
I am satisfied with the standalone technology services offered by Bank X as a whole.	160	3,194	1,073
The self-service technology offered by Bank X exceeded my expectations.	160	3,663	0,958
The self-service technology offered by Bank X is very close to my idea.	160	3,369	0,956
Total Average Customer Satisfaction	150	3,408	0,799

The magnitude of the mean or average value and standard deviation is for the Customer Satisfaction variable measured in this study. The Customer Satisfaction variable shows an average of 3.408. Based on the average value, it can be interpreted that overall the customer is entirely satisfied with the new technology offered by Bank X, in line with expectations and the self-service technology offered in accordance with the ideas and thoughts of the customers as customers. The standard deviation value of 0.799 shows the spread of varied data.

Table 16: Descriptive Statistics of Loyalty Variables

Statement Item	N	Mean	Standard Deviation
I will continue to use SST e-banking services from Bank X.	160	3,481	0,883
I will recommend SST e-banking Bank X to my friends.	160	3,806	0,781
If I need independent financial services, then I will use SST e-banking from Bank X.	160	3,631	0,829
I will comment positively about SST e-banking from Bank X to others.	160	3,331	0,923
SST e-banking from Bank X is my first choice.	160	2,969	0,914
Total Average Loyalty	160	3,444	0,614

The magnitude of the mean or average value and standard deviation is for the Loyalty variables

measured in this study. Loyalty variables show an average of 3.444. Based on the average value, it can be interpreted that respondents will recommend the use of e-banking-based independent financial services to friends, customers will also continue to use e-banking in the future because it makes it very easy for customers to transact wherever and whenever. So, e-banking services have become the primary choice for them. The standard deviation value of 0.614 shows the spread of varied data.

Table 17: Descriptive Statistics Behavioral Intentions Variables

Statement Item	N	Mean	Standard Deviation
My chances of using technology independently from Bank X will be high.	160	2,881	0,980
My chances of recommending SST e-banking from Bank X to my friends will be high.	160	3,194	1,073
If I have to choose in using SST e-banking, then I will choose SST e-banking from Bank X.	160	3,663	0,958
Total Average Behavioral Intentions	160	3,246	0,796

The magnitude of the mean or average value, and the standard deviation is for the Behavioural Intentions variable measured in this study. The Behavioural Intentions variable shows an average of 3.246. Based on the average value, it can be interpreted that the possibility to continue using e-banking remains high, besides that it is possible to invite friends to use e-banking and confidence in choosing e-banking, namely by choosing the best Bank X as e-banking. The standard deviation value of 0.796 shows the spread of varied data.

4.2 Hypothesis Testing

After testing the suitability of the model, hypothesis testing is done using a structural equation model analysis (SEM). The primary decision-making hypothesis is as follows:

If $p\text{-value} < 0.05$, H_0 is rejected

If $p\text{-value} > 0.05$ then H_0 fails to be rejected (Ho accepted)

The primary decision-making hypothesis test is to compare the magnitude of the p-value with a significant level of 5% (alpha 0.05). If the p-value is more than alpha 0.05, the null hypothesis (H_0) fails to be rejected which means there is no significant relationship between the two variables and vice

versa if the p-value is lower than alpha 0.05, the null hypothesis (Ho) is rejected.

Hypothesis 1

The null hypothesis (Ho) and the alternative hypothesis (Ha) are as follows:

Ho1: There is no positive influence on the Self-Service Technology Service Quality on Loyalty.

Ha1: There is a positive influence on the Self-Service Technology Service Quality on Loyalty.

Table 18: Hypothesis 1 Testing Results

Hypothesis	Estimate	p-value	Decision
H1: There is a positive influence on the Self Service Technology Service Quality on Loyalty	0,897	0,000	Ha1 supported

Based on the results of statistical tests, the p-value is 0,000 <0,05, so Ho1 is not supported, and Ha1 is supported. This means that there is a significant influence of the Self-Service Technology Service Quality on Loyalty. Regression coefficient value of 0.897 indicates that the influence between Self Service Technological Service Quality on Loyalty is positive, which means that the higher the level of Self-Service Technology Service Quality, the loyalty will also increase.

H1: There is a positive influence on the Self-Service Technology Service Quality on Loyalty.

Based on the testing of the first hypothesis, it can be concluded that "There is a positive influence on the Self-Service Technology Service Quality on Loyalty" can be supported. The test results show that the Self-Service Technology Service Quality has a positive influence on loyalty. Self-service technology can affect loyalty if the company can improve service quality by creating new and exciting things to create customer loyalty (Iqbal, 2017). With the innovation of self-service technology that is profitable for customers, the loyalty that customers will give will also increase because the use of self-service technology is effortless, it can be used anywhere, and the level of error in usage is also reduced due to the privacy policies provided by the company - each user (Azisyah, 2016).

Hypothesis 2

Ho2: There is no positive influence on the Self-Service Technology Service Quality on Customer Satisfaction.

Ha2: There is a positive influence on the Self-Service Technology Service Quality on Customer Satisfaction.

Table 19: Hypothesis 2 Testing Results

Hypothesis	Estimate	p-value	Decision
H2: There is a positive influence on the Self Service Technology Service Quality on Customer Satisfaction.	0,740	0,000	Ha2 supported

Based on the results of statistical tests, the p-value is 0,000 <0,05, so Ho2 is not supported, and Ha2 is supported. This value means that there is a significant influence between the Self-Service Technology Service Quality on Customer Satisfaction. The regression coefficient value of 0.740 indicates that the influence between Self Service Technology Service Quality on Customer Satisfaction is positive, which means that the higher the level of Self-Service Technology Service Quality, the Customer Satisfaction will also increase.

H2: There is a positive influence on the Self Service Technology Service Quality on Customer Satisfaction.

Based on the testing of the second hypothesis, it can be concluded that H2, which reads "There is a positive influence on the Self Service Technology Service Quality on Customer Satisfaction." Can be supported. The test results show that the Self Service Technology Service Quality has a positive influence on Customer Satisfaction. This result shows that there is a significant influence between the Self Service Technology Service Quality on Customer Satisfaction. Customer satisfaction comes from customer expectations by providing appropriate services will improve customer satisfaction (Azisyah, 2016). All financial needs carried out by the customer, if it is in accordance with the needs and desires of the customer itself, it will have an impact on satisfaction. When customers feel that the operation of self-service technology runs smoothly and attractively in terms of aesthetics, customers feel made happy by the service provider. Feelings of pleasure arising from customers will create satisfaction for customers. Self-service quality that affects customer satisfaction and has a significant impact because, by increasing comfort in the use of

self-service technology, customer satisfaction will be created (Iqbal, 2017).

Hypothesis 3

Ho3: There is no positive effect of the Self-Service Technology Service Quality on Behavioural Intentions.

Ha3: There is a positive influence on the Self-Service Technology Service Quality on Behavioural Intentions

Table 20: Hypothesis 3 Testing Results

Hypothesis	Estimate	p-value	Decision
H3: There is a positive influence on the Self Service Technology Service Quality on Behavioral Intentions.	0,448	0,016	Ha3 supported

Based on the results of statistical tests, the p-value 0.016 <0.05 means that Ho3 is not supported and Ha3 is supported. This value means that there is a significant influence between the Self-Service Technology Service Quality on Behavioural Intentions. The regression coefficient value of 0.448 shows that the effect of Self-Service Technician Service Quality on Behavioural Intentions is positive, which means that the higher the level of Self-Service Technology Service Quality, the Behavioural Intentions will also increase.

H3: There is a positive effect of Self-Service Technic Service Quality on Behavioural Intentions.

Based on the testing of the third hypothesis, it can be concluded that H3, which reads “There is a positive influence on the Self-Service Technology Service Quality on Behavioural Intentions” can be supported. The test results show that Self Service Technology Service Quality has a positive influence on Behavioural Intentions. Self-service quality has a significant impact on behavioural intentions because behavioural intentions can be created if the company can provide quality self-service (Iqbal, 2017). Self-service technology is basically to make it easier for customers to transact. Convenience in the operation of self-service technology is the basis for making someone have positive behavioural intentions. Quality self-service quality can create behavioural intentions (Nelwan, 2014).

Hypothesis 4

Ho4: There is no positive influence on customer Satisfaction on Loyalty.

Ha4: There is a positive influence on customer Satisfaction on Loyalty.

Table 21: Hypothesis 4 Testing Results

Hypothesis	Estimate	p-value	Decision
H4: There is a positive influence on Customer Satisfaction on Loyalty.	0,683	0,000	Ha4 supported

Based on the results of statistical tests, the p-value is 0,000 <0,05, so Ho4 is not supported, and Ha4 is supported. This value means that there is a significant influence between Customer Satisfaction on Loyalty. The regression coefficient of 0.683 shows that the effect of Customer Satisfaction on Loyalty is positive, which means that the higher the level of Customer Satisfaction, the loyalty will also increase.

H4: There is a positive influence on customer Satisfaction on Loyalty.

Based on the testing of the fourth hypothesis, it can be concluded that H4, which reads “There is a positive influence on Customer Satisfaction on Loyalty” can be supported. The test results show that Customer Satisfaction has a positive effect on loyalty. Customer satisfaction is one of the most critical factors of loyalty because of increasing satisfaction. It will make the customer loyal and loyal to his choice (Iqbal, 2017). Satisfaction arises when the desire offered by the service provider is given as a whole and in accordance with the wishes of the customers. Customer satisfaction has a significant influence on loyalty, namely by improving the quality of service, loyalty in the form of a product/service will also increase (Winata, 2015).

Hypothesis 5

Ho5: There is no positive effect of Perceived Value on Brand Loyalty.

Ha5: There is a positive effect of Perceived Value on Brand Loyalty.

Table 22: Hypothesis 5 Testing Results

Hypothesis	Estimate	p-value	Decision
H5: There is a positive effect of Perceived Value on Brand Loyalty	0,975	0,000	Ha5 supported

Based on the results of statistical tests, the p-value is $0,000 < 0,05$, so H_0 is not supported, and H_a is supported. This value means that there is a significant influence between Customer Satisfaction on Behavioural Intentions. The regression coefficient of 0.975 shows that the effect of Customer Satisfaction on Behavioural Intentions is positive, which means that the higher the level of Customer Satisfaction, the Behavioural Intentions will also increase.

H5: There is a positive influence on customer Satisfaction on Behavioral Intentions.

Based on the testing of the fifth hypothesis, it can be concluded that H5, which reads "There is a positive influence on Customer Satisfaction on Behavioral Intentions" can be supported. The test results show that Customer Satisfaction against Behavioral Intentions. Customer satisfaction can be formed by paying attention to the behaviour of prospective buyers. When someone feels satisfied with what has been obtained, then the intention of customers to be able to use products/services in the future will increase (Loana et al., 2015). The possibility of continuing to use products/services that have been chosen will be more substantial when the service provider gives what the customer wants according to their needs. Lin and Hsieh (2006) determined that satisfaction and intention behaviour had a positive effect. Collier and Sherrell (2010) empirically prove that the form of customer satisfaction positive intention to experience using self-service technology regarding future use will increase.

5 CONCLUSIONS

Based on the results of the study, it can be concluded that:

1. There is a positive effect of Self-Service Technology Service Quality on Loyalty. This effect shows that the higher the Self-Service Technology Service Quality, the loyalty will also increase. The innovation of self-service technology that benefits the customer, the loyalty that customers will give will also increase because the use of self-service technology is effortless, can be used anywhere. The usage level of error is reduced due to the privacy policies provided by the company for each user.

2. There is a positive effect of Self-Service Technology Service Quality on Customer Satisfaction. All financial needs carried out by the customer, if it is in accordance with the needs and desires of the customer itself, it will have an impact on satisfaction. When customers feel that the operation of self-service technology runs smoothly and attractively in terms of aesthetics, customers feel made happy by the service provider. Feelings of pleasure arising from customers will create satisfaction for customers.
3. There is a positive effect of Self-Service Technology Service Quality on Behavioural Intentions. Self-service technology is basically to make it easier for customers to transact. Convenience in the operation of self-service technology is the basis for making someone have positive behavioural intentions. Quality self-service quality can create behavioural intentions.
4. There is a positive influence on Customer Satisfaction on Loyalty. Satisfaction arises when the desire offered by the service provider is given and in accordance with the wishes of the customers. Customer satisfaction has a significant influence on loyalty, namely by improving the quality of service so that loyal feedback on a product/service will also increase.
5. There is a positive influence on Customer Satisfaction on Behavioural Intentions. Customer satisfaction can be formed by paying attention to the behaviour of prospective buyers. When someone is satisfied with what has been obtained, then the intention of customers to be able to use products or services in the future will increase. The possibility of continuing to use products or services that have been chosen will be more substantial when the service provider gives what the customer wants according to their needs.

5.1 Managerial Implication

The results show that the higher the Self-Service Technology Service Quality, the loyalty will also increase. Therefore, managers of SST e-banking service companies must be able to use SST e-banking properly. This result aims to anticipate if there are customers who want to use e-banking but cannot operate it, then the service provider must be able to explain how to use SST-banking well and

correctly. In addition, there is an increase in features that can be tailored to customer needs in order to improve service quality by adding services such as transfers to other banks or between banks using foreign currencies.

The results showed that the higher the Self-Service Technology Service Quality, Customer Satisfaction will also increase. Therefore, managers need to add additional e-banking functions that are attractive such as trading services for businesspeople, goods auction services (houses, cars, land). In addition, managers must also promote SST e-banking services to the fullest, hold prizes and prizes to attract customers to use e-banking SST. This value aims to increase customer satisfaction.

The results showed that the higher the Self-Service Technology Service Quality, the higher the Behavioural Intentions. Therefore, managers need to convince customers that the e-banking SST that has been chosen as the best SST, because it is easy to use, product and service offerings are also complete and in accordance with the wishes of the customers. Managers must also ensure that customers continue to use SST-banking by communicating with customers. Asking whether there are complaints or suggestions in supporting the improvement of service quality is one way to find out whether the customer has the intention to continue using the SST-banking service or not.

The results show that the higher the Customer Satisfaction, the loyalty will also increase. Self-service technology provided by the service provider company is in line with customer expectations, it is expected that managers can maintain the quality of service so that customers are more loyal to the service provider company. In addition, managers need to improve overall independent technology services. One way is to check the system regularly and provide monthly reports to oversee the system from e-banking.

The results showed that the higher the Customer Satisfaction, the Behavioural Intentions would also increase. Managers need to listen to the ideas of customers in order to improve self-service technology. This condition is so that the intention or behaviour of customers becomes positive and customers feel heard about the ideas given for the development of e-banking SST. In addition, managers must give a positive impression to customers, so that customers can provide recommendations to friends, family and relatives to participate in using services from SST e-banking.

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