

## **Assessment of the Success Implementing Mobile Banking at East Nusa Tenggara Bank**

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### **ABSTRACT**

This research aims to determine the influence of Information Quality, Information System Quality, Service Quality, on User Satisfaction. This research uses a quantitative approach, this research was conducted at Bank Nusa Tenggara Timur (NTT). Bank NTT launched a Mobile Banking application (B'Pung Mobile) but does not yet have permission from Bank Indonesia so a system analysis needs to be carried out regarding the quality provided. This research refers to Financial Services Authority (OJK) regulations regarding the Crime of Money Laundering (TPPU), the Crime of Terrorism Financing (TPPT), and the Funding for the Proliferation of Weapons of Mass Destruction (PPSPM). The sampling method uses the incidental sampling method. The sample in this research is Bank NTT customers who use Mobile Banking. The total sample in this study was 200 samples. This research data was collected using a questionnaire which was then processed using multiple linear regression analysis tests with the help of SPSS version 24. The results of the research state that (1) Information Quality partially has a positive and significant effect on Mobile Banking User Satisfaction at Bank NTT. (2) Information System Quality partially has a positive and significant effect on Mobile Banking User Satisfaction at Bank NTT. (3) Service Quality partially has a positive and insignificant effect on Mobile Banking User Satisfaction at Bank NTT.

**Keywords: Information Quality, System Information Quality, Service Quality, User Satisfaction**

### **INTRODUCTION**

Technological developments related to digitalization have become consumed by all groups. The importance of using technology requires companies to be more competitive and highly competitive. Capabilities in managing information technology must be balanced with managing up-to-date accounting information systems. Indonesia has received many changes related to technology, especially in the digital payment system. The digital payment system in Indonesia has entered the use of E-Money, Mobile Banking, Internet Banking, and QRIS (Quick Response Code Indonesian Standard). Otoritas Jasa Keuangan Regulation (POJK) number 12 /POJK.03/2018 concerning the Implementation of Digital Banking Services by Commercial Banks, the definition of digital banking or digital banking is an electronic banking service developed by optimizing the use of customer data in order to serve customers more quickly and easily, and in accordance with customer needs (customer

experience), and can be carried out completely independently by the customer, taking into account security aspects.

The banking sector is an important pioneer in digitizing the flow of financial transactions. Bank Nusa Tenggara Timur is a Regional Development Bank which has started launching mobile banking called B'Pung Mobile. Mobile banking is a service that allows bank customers to carry out banking transactions via cellphone or smartphone (Saraswati, 2020). B'Pung Mobile was launched with three advantages, namely, (1) Ease of Access & Time Efficiency, (2) Security, and (3) Complete Payment Features (bpdntt.go.id, 2023).

Bank NTT's Mobile Banking application has problems related to mobile banking and internet banking permits. Bank Indonesia issued a letter to the Directors of Bank NTT No. 25/2/ DSSK/Srt/Rhs, dated January 2 2023, signed by the Executive Director of the BI Financial Systems Department NTT Representative, Y. Budiarmaka. The letter states that mobile banking services (B'Pung Mobile) and business internet banking services and virtual accounts do not yet have approval from Bank Indonesia, so Bank NTT is subject to administrative sanctions.

Mobile banking also opens up opportunities for crime and affects security, the confidentiality of personal and financial data is often questioned by customers before deciding to register for mobile banking. The shortcomings of the mobile banking system mean that service providers are required to always improve the quality of services provided in order to increase customer satisfaction because when using mobile banking there are often obstacles and risks caused by problems that occur, namely cases of crimes committed using technology. information and communication. One of them is data leakage, information data leakage has a negative impact because it harms many parties and disturbs the privacy and comfort of the community, but on the other hand, the existence of mobile banking can make a positive contribution to transaction activities between individuals and banking systems from all over the world in a faster way. and effectively simply by accessing via personal smartphone. According to several mobile banking users, mobile banking makes it easier for

customers, making all transactions more effective, this is due to technology such as the accounting information system used in creating mobile banking applications.

Regulation of the Financial Services Authority of the Republic of Indonesia Number 8 of 2023 concerning the Implementation of Anti-Money Laundering Programs, Prevention of Terrorism Financing, and Prevention of Funding for the Proliferation of Weapons of Mass Destruction in the Financial Services Sector is a form of Indonesia's commitment in the global arena to prevent and eradicate the Crime of Money Laundering (TPPU), Terrorism Financing Crimes (TPPT), and Funding for the Proliferation of Weapons of Mass Destruction (PPSPM) as well as realizing integrity in the financial services sector, the Financial Services Authority is committed to supporting regulations that are in accordance with the development of international principles governing the implementation of the Anti-Money Laundering (APU) program, Prevention of Terrorism Financing (PPT), and Prevention of Funding for the Proliferation of Weapons of Mass Destruction (PPPSPM). This regulation was developed to protect customer funds from financial institutions such as NTT Bank which provides Mobile Banking and Internet Banking services.

Based on the background described above, the use of mobile banking services is not as smooth as expected. So, researchers are interested in conducting research on the influence of mobile banking services on customer satisfaction because it is very important to know the extent of customer perceptions of mobile banking services. Therefore, the researcher wrote it with the title "Assessment of the Success of Implementing Mobile Banking at East Nusa Tenggara Bank". The variables used in this research are the Influence of Information Quality, System Information Quality, Service Quality, and User Satisfaction.

## LITERATURE REVIEW

### Theory of Reasoned Action

Theory of Reasoned Action (TRA) describes the behavior change based on the outcome of the behavior and intentions of behavior is influenced by social norms and individual attitudes toward behavior (Ajzen and Fishbein, 1980). The behavior observed in this study is the acceptability of the user in the application Cashless

System. Ajzen (1991) which says that attitudes influence behavior through a rigorous decision-making process and reasoning as well as its impact is limited to three things; First, the behavior is largely determined by the general attitudes but by the specific attitude towards something. Second, the behavior is influenced not only by attitudes but also by the norms of objective (subjective norms) that our belief about what other people want us to do. Third, the attitude towards a shared behavioral norm of subjective form a specific intention or intention to behave.

### **Information Quality**

Information quality is the degree to which information has characteristics of content, form and timing that give it value for certain end users (O'Brien, 2005). Information quality is the quality of output in the form of information produced by the information system used (Rai et al., 2002).

### **System Information Quality**

Information system quality means how well the hardware and software are able to produce information to meet the needs of information users (DeLone and McLean, 2003). Davis (1989) also defines information system quality as perceived ease of use, which is the degree to which computer technology is felt to be relatively easy to understand and use.

### **Service Quality**

Service quality is defined as how well the information technology team in the field supports the implementation of information systems. Perceived usefulness is defined as the level of user confidence that the information system used will bring benefits and improve its performance (Davis, 1989). The concept of information system service quality basically provides a concrete perception regarding the quality of a service provided by an information system application software provider.

### **User Satisfaction**

Consumer satisfaction in general is the level of consumer feelings after comparing what he expected and what he received. When consumer expectations match what they get, of course the consumer will feel satisfied. Listyowati et al.,

(2022) consumer satisfaction is a situation when what consumers need, want and expect, be it goods or services, is in accordance with or fulfilled by the appearance of the product and service. Repeated and continuous consumption indicates that consumers feel satisfied. Moreover, if consumers voluntarily and happily promote the product, that is a sign that consumers are loyal to the product. Consumer satisfaction is a form of pleasure or dissatisfaction felt by consumers when they compare the expected product to that product.

## **RESEARCH HYPOTHESIS**

### **The Influences of Information Quality on User Satisfaction**

Information quality is the level of characteristics that provide value to users. The measure of interest in using an information system is reflected by the quality of the information produced by a system. The user's interest in an information system is how the user views the information system in real terms, not the technical quality of the system. If information system users believe that the information produced from the system is optimal, they will use the system (Oktariyana et al, 2019). Research conducted by Asyifa (2020) and Husein et al (2022) shows that information quality has a positive effect on user satisfaction.

Based on the description above, it is said that if information system users believe that if the information produced from the system is relevant, accurate, timely and trustworthy, it will increase mobile banking user satisfaction. Based on this description, the following hypothesis is formulated:

H<sub>1</sub>: System quality has a positive effect on User Satisfaction

### **The Influences of System Information Quality on User Satisfaction**

DeLone and McLean (1992) assume that system quality and information quality, individually and jointly, influence user satisfaction and use. The better quality of information systems by providing flexibility, ease of use, system reliability will increase interest in using information systems. This statement is supported by research conducted by Asyifa (2020) and Husein et al (2022) which shows the results of Information System Quality have a positive effect on User Satisfaction.

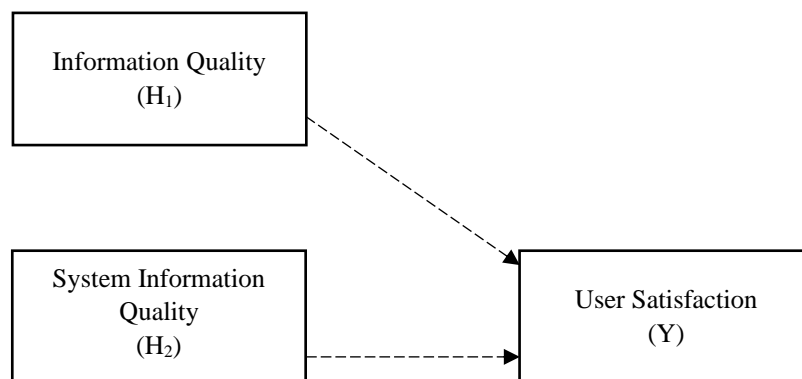
Based on the description above, it is said that if information system users believe that if the quality of the information system used is good, it will increase User Satisfaction of the system. Based on this description, the following hypothesis is formulated:

H<sub>2</sub>: System information quality has a positive effect on User Satisfaction

### The Influences of Service Quality on User Satisfaction

Baridwan and Hanum (2007) stated that service quality can be determined by comparing customers' perceptions of the service they actually receive or obtain with the service they actually expect or want. If the reality is more than expected, then the service can be said to be quality. Meanwhile, if the reality is less than expected, then the service can be said to be of poor quality. If reality is the same as expectations, then the service is said to be satisfactory (Oktariyana et al, 2019). This statement is supported by research conducted by Supriyono (2017); Marselia et al (2018) which shows that Service Quality results have a positive effect on User Satisfaction. Based on this description, the following hypothesis is formulated:

H<sub>3</sub>: Service Quality has a positive effect on User Satisfaction



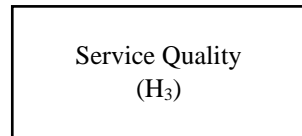


Figure 1. Research Concept

## METHODS

This research uses a quantitative approach, which was carried out at Bank Nusa Tenggara Timur. The population in this research is Bank NTT customers who use Mobile Banking services. The sampling method used in this research was the incidental sampling method, so that a sample of 200 respondents was obtained. This research data was collected using a questionnaire which was then processed using multiple linear regression analysis tests with the help of the SPSS version 24 program.

### Variable Operational Construct

**Table 1 Variable Operational Construct**

Construct	Definition	Indicators	Source
<i>Information Quality (IQ)</i>	Information quality is defined as the quality of the output of an information system.	1. Relevancy 2. Accuracy 3. Timeliness 4. Reliability	DeLone dan McLean (2003)
<i>System Information Quality (SIQ)</i>	The quality of information systems is perceived ease of use which is how much computer technology is felt to be relatively easy to understand and use.	1. Fleksibility 2. Ease of use 3. System Reliability	DeLone dan McLean (2003)
<i>Service Quality (SQ)</i>	Quality of service is a thorough assessment of the benefits of a service. Quality of service is described as a statement of attitude, relationships resulting from the comparison between the expectations of the performance.	1. Tangibles 2. Reliability 3. Responsiveness 4. Assurance 5. Empathy	DeLone dan McLean (2003)
<i>User Satisfaction (Y)</i>	An interest in someone to do a particular behavior.	1. System Security 2. Always try to use 3. Continues in the future	Davis <i>et al.</i> (1989)

## FINDINGS AND DISCUSSION

### Normality est

The normality test aims to test whether in the regression model, the confounding or residual variables have a normal distribution (Ghozali, 2016).

Table 2. Normality Test Results  
 One-Sample Kolmogorov-Smirnov Test

		Unstandardize d Residual
N	Mean	200
	Std. Deviation	,0000000
Normal Parameters(a,b)	Absolute	2,20122313
Most Extreme Differences	Positive	,091
	Negative	,063
		-,091
Kolmogorov-Smirnov Z		,911
Asymp. Sig. (2-tailed)		,382

- a Test distribution is Normal.
- b Calculated from data.

Based on the table above, it can be seen that the significance value of Asymp. 2 tailed is 0.382. Because the significance value is  $> 0.05$ , the data is normally distributed.

### Multicollinearity Test

The Multicollinearity Test is used to test whether in the regression model a correlation is found between the independent variables (Ghozali, 2016).

Table 3. Multicollinearity Test Results  
 Hasil Uji Uji Multikolinearitas  
 Coefficients(a)

Model	Unstandardized Coefficients	Standardized Coefficients	Collinearity Statistics



		B	Std. Error	Beta	T	Sig.	Tolerance	VIF
1	(Constant)	-2,017	2,424		-,830	,409		
	Information Quality	,277	,125	,253	2,221	,028	,390	2,560
	System Information Quality	,279	,137	,456	4,084	,001	,410	2,430
	Service Quality	,202	,139	,120	1,437	,151	,741	1,339

a Dependent Variable: Information Quality, System Information Quality, Service Quality

Based on the table above, it can be seen that the three independent variables have Tolerance values  $> 0.1$  and VIF  $< 10$ . Thus it can be concluded that the regression model does not have multicollinearity problems, and this regression model is suitable for use in research.

### Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is inequality of variance from the residuals of one observation to another (Ghozali, 2016).

Table 4. Heteroscedasticity Test Results

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1,194	1,465		-,815	,417
	Information Quality	,165	,075	,356	2,199	,030
	System Information Quality	-,089	,082	-,171	-1,085	,281
	Service Quality	,046	,084	,065	,552	,583

a Dependent Variable: RES2

Based on the table above, it shows that the significance value is  $> 0.05$ . So, it can be concluded that the regression model used does not occur heteroscedasticity or variance from the residuals from one observation to another.

**Hypothesis Testing Results****Multiple Linear Regression Analysis**

Multiple linear regression analysis is used to determine the magnitude of the influence of the independent variable on the dependent variable (Ghozali, 2016). This research uses multiple linear regression analysis methods with the help of the SPSS program. The results of the multiple linear regression test are as follows:

Table 5. Multiple Linear Regression Test Results

		Coefficients(a)			T	Sig.
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1	(Constant)	-2,037	2,423		-,821	,418
	Information Quality	,278	,114	,242	2,211	,018
	System Information Quality	,570	,126	,455	4,083	,001
	Service Quality	,211	,128	,129	1,436	,130

a Dependent Variable: User Satisfaction

Based on the results of data processing in the table above, the following regression equation can be obtained:

$$Y = -2,037 + 0,278X_1 + 0,570X_2 + 0,211X_3 + e$$

Based on this equation it can be described as follows:

- 1) The number -2.037 is a constant value, which shows the User Satisfaction obtained if the Information Quality, System Information Quality and Service Quality variables are 0. So the Mobile Banking User Satisfaction at Bank NTT is -2.037.
- 2) The regression coefficient value for Information Quality is 0.278. This shows that the Information Quality variable has a positive effect on User Satisfaction. This means that if the Information Quality variable increases by 1 unit, then Mobile Banking User Satisfaction at Bank NTT will tend to increase by 0.278 assuming the other variables are constant.

- 3) The regression coefficient value for System Information Quality is 0.570. This shows that the System Information Quality variable has a positive effect on User Satisfaction. This means that if the System Information Quality variable increases by 1 unit, then Mobile Banking User Satisfaction at Bank NTT will tend to increase by 0.570 assuming the other variables are constant.
- 4) The regression coefficient value for Service Quality is 0.211. This shows that the Service Quality variable has a positive effect on User Satisfaction. This means that if the Service Quality variable increases, then Mobile Banking User Satisfaction at Bank NTT will tend to increase by 0.211 assuming the other variables are constant.

**Partial Significance Test (t Test)**

Table 6. Partial Significance Test Results (t Test)

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2,037	2,423		-,821	,418
	Information Quality	,278	,114	,242	2,211	,018
	System Information Quality	,570	,126	,455	4,083	,001
	Service Quality	,211	,128	,129	1,436	,130

a Dependent Variable: User Satisfaction

Based on the table above, the results of hypothesis testing are as follows:

- 1) From the results of partial testing of the influence of Information Quality on User Satisfaction Mobile Banking at Bank NTT, a regression coefficient value of 0.278 was obtained and a calculated t value of 2.211 > t table of 1.98677 with a significance value of 0.018 < 0.05. Based on the decision-making criteria, it can be concluded that H0 is rejected and Ha is accepted, which means that Information Quality partially has a positive and significant effect on Mobile Banking User Satisfaction at Bank NTT.

- 2) From the results of partial testing of the influence of System Information Quality on Mobile Banking User Satisfaction at Bank NTT, a regression coefficient value of 0.570 was obtained and a calculated t value of 4.083 > t table of 1.98677 with a significance value of 0.001 < 0.05. Based on the decision-making criteria, it can be concluded that H<sub>0</sub> is rejected and H<sub>a</sub> is accepted, which means that System Information Quality partially has a positive and significant effect on Mobile Banking User Satisfaction at Bank NTT.
- 3) From the results of partial testing of the influence of Service Quality on Mobile Banking User Satisfaction at Bank NTT, a regression coefficient value of 0.211 was obtained and a calculated t value of 1.436 < t table of 1.98677 with a significance value of 0.130 > 0.05. Based on the decision-making criteria, it can be concluded that H<sub>0</sub> is accepted and H<sub>a</sub> is rejected, which means that Service Quality partially has a positive and insignificant effect on Mobile Banking User Satisfaction at Bank NTT.

#### Coefficient of Determination Test (R<sup>2</sup>)

Table 7. Coefficient of Determination Test Result (R<sup>2</sup>)

Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,766 <sup>a</sup>	,552	,516	2,227

a. Predictors: (Constant), Information Quality, System Information Quality, Service Quality

b. Dependent Variable: User Satisfaction

Based on the table above, it can be seen that the R Square value of 0.552 indicates that 55.2% of the dependent variable, namely Mobile Banking User Satisfaction, can be explained by the independent variables, namely Information Quality, System Information Quality, Service Quality. Meanwhile, the remaining 44.8% is explained by other variables outside the regression model in this study.

## DISCUSSION

### The Influences of Information Quality on User Satisfaction

Information Quality partially has a positive and significant effect on Mobile Banking User Satisfaction at Bank NTT. This result means that the higher the level of information quality, the greater the satisfaction of mobile banking users at Bank NTT. The results of this research are in line with research conducted by Asyifa (2020) and Husein et al (2022).

Information quality is the extent to which information can consistently meet the requirements and expectations of all people who need that information to carry out their processes (Oktariyana et al, 2019). The information provided by Mobile Banking provides relevant, accurate, timely and reliable data to its users.

### **The Influences of System Information Quality on User Satisfaction**

System Information Quality partially has a positive and significant effect on Mobile Banking User Satisfaction at Bank NTT. These results mean that the higher the level of information system quality, the more satisfaction mobile banking users will have at Bank NTT. The results of this research are in line with research conducted by Asyifa (2020) and Husein et al (2022).

System quality is a measurement of information system processes that focuses on the results of interactions between users and the system. System quality has attributes such as flexibility, ease of use, and system reliability which are determining factors why an information system is used or not used. If these determining factors are met, the system implemented will increase user satisfaction in using the system regularly.

### **The Influences of Service Quality on User Satisfaction**

Service Quality partially has a positive and insignificant effect on Mobile Banking User Satisfaction at Bank NTT. This result means that the higher the level of Service Quality, the satisfaction of mobile banking users at Bank NTT will increase. The results of this research are in line with research conducted by Supriyono (2017); Marselia et al (2018).

The concept of service quality meets expectations if the expected service is the same as what is felt, meaning that users are satisfied with the quality of service provided by the information system software application provider. The quality of the service consists of responsiveness, guarantee, physical evidence, empathy and

reliability. This insignificance occurred due to anxiety due to the system not yet having a permit even though the mobile banking owned by NTT Bank was capable of the services provided.

## CONCLUSION

Based on the research results as described in the previous chapter, conclusions can be drawn, namely:

- 1) Information Quality partially has a positive and significant effect on Mobile Banking User Satisfaction at Bank NTT.
- 2) System Information Quality partially has a positive and significant effect on Mobile Banking User Satisfaction at Bank NTT.
- 3) Service Quality partially has a positive and insignificant effect on Mobile Banking User Satisfaction at Bank NTT.

This research has limitations in that the Service Quality variable does not significantly influence Mobile Banking User Satisfaction at Bank NTT. Future researchers can use the Hot Fit research construct which combines system quality factors and behavior in the Net Benefit of a system.

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