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CUSTOMER LOYALTY BASED ON MOBILE BANKING USABILITY

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ABSTRACT

The research purpose is to examine customer loyalty from the variable of mobile banking usability mediated by customer satisfaction. Data were collected in a survey of M-Banking customers conducted from February to August 2020 via a questionnaire involving 105 respondents. The results showed that the ease of using M-Banking lead to customer satisfaction and also lead to bank loyalty, respectively. Considering the change in customer consumption patterns to using technology-based services, banks as service providers need to deliver service in easily, safely, and fast ways, such as internet banking and M-Banking. The research originality examines the direct effect of usability on customer loyalty, especially in conventional banks in Jakarta Province.

INTRODUCTION

Digital business development has changed human life and business patterns via digital services provided by companies, including banks. Technology development, which is currently fast, has spread to almost all sectors and is felt in almost all levels of society (Hanudin & Baba, 2007). Mobile Banking (M-Banking) is a form of change in technology-based banking services (Dasgupta et al., 2011; Shaikh & Karjaluoto, 2016). It provides service-convenient features through General Packet Radio Service (GPRS) technology using mobile phones (Shaikh & Karjaluoto, 2016), which are a mediation tool for M-Banking services in business operations and financial transactions (Püschel et al., 2010).

The service M-Banking provided is 24/7, meaning that the bank offers a seven-day service for twenty-four hours. It is called M-Banking and provides easy service without any time limitation (Kumar & Sharma, 2020). This technology is perceived as a solution in financial transactions, although some customers still face obstacles in accessing services, which consequently leads to complaints. Seemingly, the majority of customer complaints regarding transaction failures are about e-commerce transactions (Püschel et al., 2010).

Complaints about customer service can hinder trust and satisfaction, affecting customer loyalty to M-Banking (Malaquias & Hwang, 2016). Therefore, application usability is constructed with equal consideration and user-centered problems to achieve good interaction and customer satisfaction. Usability is an indispensable feature of quality applications and customer satisfaction because it has a beneficial impact on the perception of M-Banking users of products and services (Hussain et al., 2015).

Past several studies, related to M-Banking usability to satisfaction (Lowry et al., 2006; Flavián et al., 2006), customer satisfaction to loyalty (Sagib & Zapan, 2014), and the impact of this technology on

customer satisfaction and loyalty (Baek & Yoo, 2018; T. H. Lee & Jaafar, 2011). However, direct research on the influence of M-Banking usability on customer loyalty in conventional banking in Jakarta is lacking. Therefore, this study presents several main contributions, such as the ability of M-Banking usability to create loyalty through the role of customer satisfaction as a mediating variable.

LITERATURE REVIEW

Mobile Banking (M-Banking)

M-Banking is a service system that provides convenience and speed of financial services to customers in real-time (De Oliveira et al., 2012). Although this banking service system is dynamic because of cellphones (Simplice, 2015), one of the service exceptions is cash withdrawal. Customers can easily and quickly complete their financial transactions, as they do not have to come to offices or banks, thereby saving time and money (Dermish & Kneiding, 2012). Also, M-Banking can be accessed without the time and place limitations.

Usability towards Customer Satisfaction

This technology can assist customers in making financial transactions. Hence, the trust in technology-based banking services is in the ease of utilizing the provided features (Zhou, 2012). Satisfaction, which occurs as long as the customer feels M-Banking is beneficial, can be realized from the ease of accessing and making transactions without difficulties or disruptions. Casaló et al. (2008) explained that the perceived ease of use can bring benefits to its users. According to Harrison et al. (2013), usability is the ability of an application to be utilized easily and the desired or intended role obtained by the user.

Technology applications devised as service features that are easily accessible by users indicate favorable reception (Sanchez Torres & Arroyo-Cañada, 2017). However, customer dissatisfaction can occur if the features are difficult to implement or when transaction failures occur (Marcu & Meghisan, 2013). Customers work better when using the M-Banking service system than when performing direct services at the office, known as traditional banking (Chung & Kwon, 2009). Amin (2016), Casaló et al. (2008) Picón et al. (2014), and Lowry et al. (2006) proved that usability impacts customer satisfaction. Understanding usability can be concluded as an easy implementation of a service system's features accessed by its users (Saleem & Rashid, 2011).

H_1: Usability can increase customer satisfaction

Customer Satisfaction towards Customer Loyalty

Customers that are satisfied with M-Banking will always use it during every financial transaction, and the ease of service access with simple features avoids problems. The use of M-Banking is strongly affected by the network used or the internet (Avornyo et al., 2019). Transaction failure is one of the disturbing factors and results in loss of customer trust. However, each bank provides service features that can be understood easily by customers, and the level of satisfaction creates loyalty to M-Banking, which they will subsequently recommend to others.

Previous research by Picón et al. (2014), Yu & Dean (2001), Chandrashekaran et al. (2007), Ramadhaniati et al. (2020), and Amin (2016) supports this hypothesis. Therefore, this research provides empirical evidence to support the statement that customer satisfaction has a positive relationship with loyalty.

H_2: Customer satisfaction increases customer loyalty

Usability towards Customer Loyalty

Flavián et al. (2006) discovered that usability affects customer loyalty. The ease of implementing M-Banking and its advantages in facilitating activities related to financial transactions fosters customer loyalty to the service. Therefore, satisfaction occurs if customer expectations exceed their experience (Parasuraman et al., 1994). It can also be said that the user experience is greater than the unused benefits. Consequently, customers will be loyal to utilizing the service for every transaction, and will possibly use additional products, and even recommend them to others (Marcu & Meghisan, 2013). Baek & Yoo's research (2018) on the courses offered in the USA regarding advertisement, found that usability affects loyalty; which had the same result as the similar study conducted by D. Lee et al. (2015) on mobile phone users in South Korea.

H_3: Usability increases customer loyalty

The effect of usability on customer satisfaction and loyalty

Hussien & El Aziz (2013) researched the effect of satisfaction on customers' acceptance of internet banking. The research subject focused on Egypt, where the samples taken were banking customers using internet technology. Subsequently, the results indicated that usability affects customer loyalty, and this research was strengthened by Casaló et al. (2008), which stated that the usability variable indirectly influences loyalty after being mediated by customer satisfaction.

H_4: Usability affects customer satisfaction and loyalty

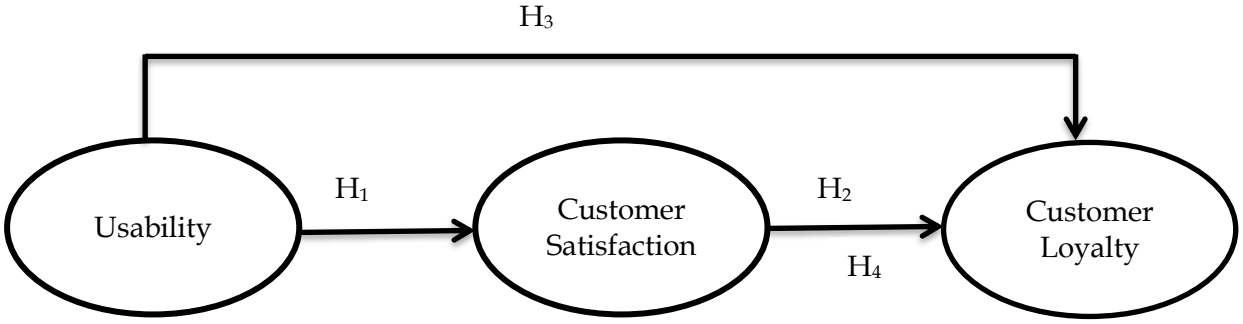

Figure 1: Conceptual Model

METHOD

This research was conducted from February till August 2020, and the data were obtained through a survey targeting 150 customers, with an error rate of 5%. The number of samples was 105 M Banking users as respondents, and the questionnaire was distributed directly to the customers of the Bank BCA Branch office at Mangga Dua Square, Jakarta. Meanwhile, the data was processed through Structural Equation Modeling (SEM), AMOS Version 24 Program. The research variables were measured using the Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlet's test of Sphericity to determine the relationship was also conducted. The expected Measure of Sampling Adequacy (MSA) value was a minimum of 0.50 (Malhotra, 2019). Although there were twenty (20) operational workloads, seven were invalid and were not included in further calculations, while thirteen were valid and used. The usability scale, measured using six indicators from Harrison et al. (2013), with only four valid indicators. Also, satisfaction was measured using six indicators from Kotler & Lane (2012), but only three were valid; whereas, only six indicators out of eight were valid for loyalty, adopted from Amin (2016). The table below explains the instrument dimensions or indicators for each variable.

Table 1: Research Instrument

No.	Variables	Definitions	Instruments
1.	**Usability** (Harrison *et al*., 2013)	The ease of an application to be used and its benefits, according to customer needs and desires	**1. Functional Features** a. BCA M-Banking application is easy to access or find (***x1***) b. The features in the BCA M-Banking application are easy to understand or use (***x2***) **2. Security** a. BCA M-Banking application guarantees the safety of customer funds (***x3***) b. BCA M-Banking application is equipped with a reliable security system and data accuracy (***x4***) **3. Application Quality** a. The information needed is very easy to find with M-Banking (***x5***) b. Speed and ease of accessing the M-Banking application provides convenience (***x6***)
2.	**Customer Satisfaction** (Kotler & Armstrong, 2014)	The results experienced in using the M-Banking application exceeds the expectation	**1. Expectation Conformity** a. I feel that I have made the right decision to use the BCA M-Banking application (***y1***) b. My experience using the BCA M-Banking application is satisfactory because the products or features are as expected (***y2***) **2. Interests of Reusing** a. I am interested in reusing BCA M-Banking for transactions and will use it regularly (***y3***) b. I am satisfied with the service received when using BCA M-Banking (***y4***) **3. Willingness To Recommend** a. I am willing to recommend the BCA M-Banking application product to relatives (***y5***) b. I have no objection to advising others to become a bank BCA customer (***y6***)
3.	**Customer Loyalty** (Amin, 2016)	The customer's tendency to continue making transactions and visiting the website with high intensity.	**1. Repurchases/repeat transactions** a. I always want to use the M-Banking service (***z1***) b. Based on experience, it is possible to use the BCA M-Banking in the long term (***z2***) **2. Using/purchasing interline products** a. It is possible to purchase or use other BCA products (***z3***) b. I am interested in the other BCA banking products offered (***z4***) **3. Referencing Products** a. I am willing to help explain to relatives who want to use the BCA M-Banking application (***z5***) b. I will give positive feedback to relatives that want to use the BCA M-Banking application (***z6***) **4. Immune to Competitors** a. I have a positive attitude towards the BCA M-Banking application, even though some are criticizing it. (***z7***) b. I am not interested in trying other banking products (***z8***)

Source: *Processed data, 2021*

RESULT AND DISCUSSION

Respondents' Characteristics

Descriptive statistical analysis was used to determine the respondents' characteristics:

Table 2: Respondents' Characteristics

No.	Description	Total (person)	Percentage (%)
1.	Gender:		
	a. Male	49	46.7
	b. Female	56	53.3
2.	Age		
	>40 years	33	31.4
	35-40 years	12	11.4
	29-34 years	8	7.6
	23-28 years	32	30.5
	17-22 years	20	19
3.	Profession:		
	Private employee	85	81
	Entrepreneur	9	8.6
	Student	11	10.5
4.	Income		
	>Rp. 7.000.000,-	32	30.5
	>Rp. 5.000.000-Rp.7.000.000,-	45	42.9
	Rp. 3.000.000,--Rp.5.000.000,-	28	26.7

Source: *Processed data, 2021*

The table above shows that the respondents' characteristics were dominated by income levels above Rp. 5,000,000, and females working as private employees.

Analysis of Structural Equation Modeling (SEM) Test

SEM is a combination of factor and regression analysis, which aims to examine the relationship between variables in a research model. It tests two main parts, namely the validity of the measurement and structural models. Meanwhile, AMOS version 24 software is used.

Test Measurement Model

The measurement model was SEM modeling, which comprised several manifest variables or indicators that supported the strengthening of the latent variables or constructs. Meanwhile, the purpose of this test was to observe precisely how these indicators describe the existing latent variables. This validity evaluation of the measurement model generally used the Confirmatory Factor Analysis. The model to be measured had good accuracy if each manifest variable or indicator of the latent variable or construct had a low error value and a high component factor loading score. The following is the form of research for each latent construct:

Table 3: Results of Variable Validity

			Estimate	S.E.	C.R.	P	Label
Satisfaction	<---	Usability	.587	.123	4.447	***	Significant
Loyalty	<---	Usability	.446	.103	2.891	.004	Significant
Loyalty	<---	Satisfaction	.378	.099	2.729	.006	Significant
U3#1	<---	Usability	.683	.159	5.802	***	Significant
U2#2	<---	Usability	.713	.159	5.989	***	Significant
U2#1	<---	Usability	.634	.152	5.461	***	Significant
U1#2	<---	Usability	.696				
K2#2	<---	Satisfaction	.774				
K3#1	<---	Satisfaction	.891	.127	8.961	***	Significant
K3#2	<---	Satisfaction	.795	.129	8.260	***	Significant
L1#1	<---	Loyalty	.531				
L2#2	<---	Loyalty	.697	.245	4.936	***	Significant
L3#1	<---	Loyalty	.687	.261	4.899	***	Significant
L3#2	<---	Loyalty	.805	.265	5.300	***	Significant
L4#1	<---	Loyalty	.725	.255	5.043	***	Significant
L4#2	<---	Loyalty	.569	.220	4.371	***	Significant

Source: *AMOS Processing Results. 2021*

From the results of the CFA analysis using AMOS, as shown in Table 3, the significance and validity tests of the variables had the required values. These values were the critical ratio (CR) > 1.96 and a significant score of p = 0.001, indicated by the sign ***, which met the requirements, where the probability value (p) was <0.05. One variable was not significant because the (p) value was > 0.05. The estimated value or the factor loading standard also showed a valid value for each manifest variable because it was > 0.50.

Model Fit

The fitness of the model was measured by the criteria for the Goodness of Fit (GoF) value as follows:

Table 4: Goodness of Fit Index (GoF)

GoF	Cut-off Value	Result
Chi-Square	Expected small	77.14
Significance Probability	≥ 0.05	0.90
RMSEA	≤ 0.08	0.04
GFI	≥ 0.90	0.90
AGFI	≥ 0.90	0.86
CMIN/DF	≤ 2.00	1.24
TLI	≥ 0.95	0.96
CFI	≥ 0.95	0.97

Source: *AMOS processing data, 2021*

Based on the table above, it can be concluded that the obtained results fulfilled the Goodness-of-Fit (GoF) Index criteria, meaning that the model was declared fit or good.

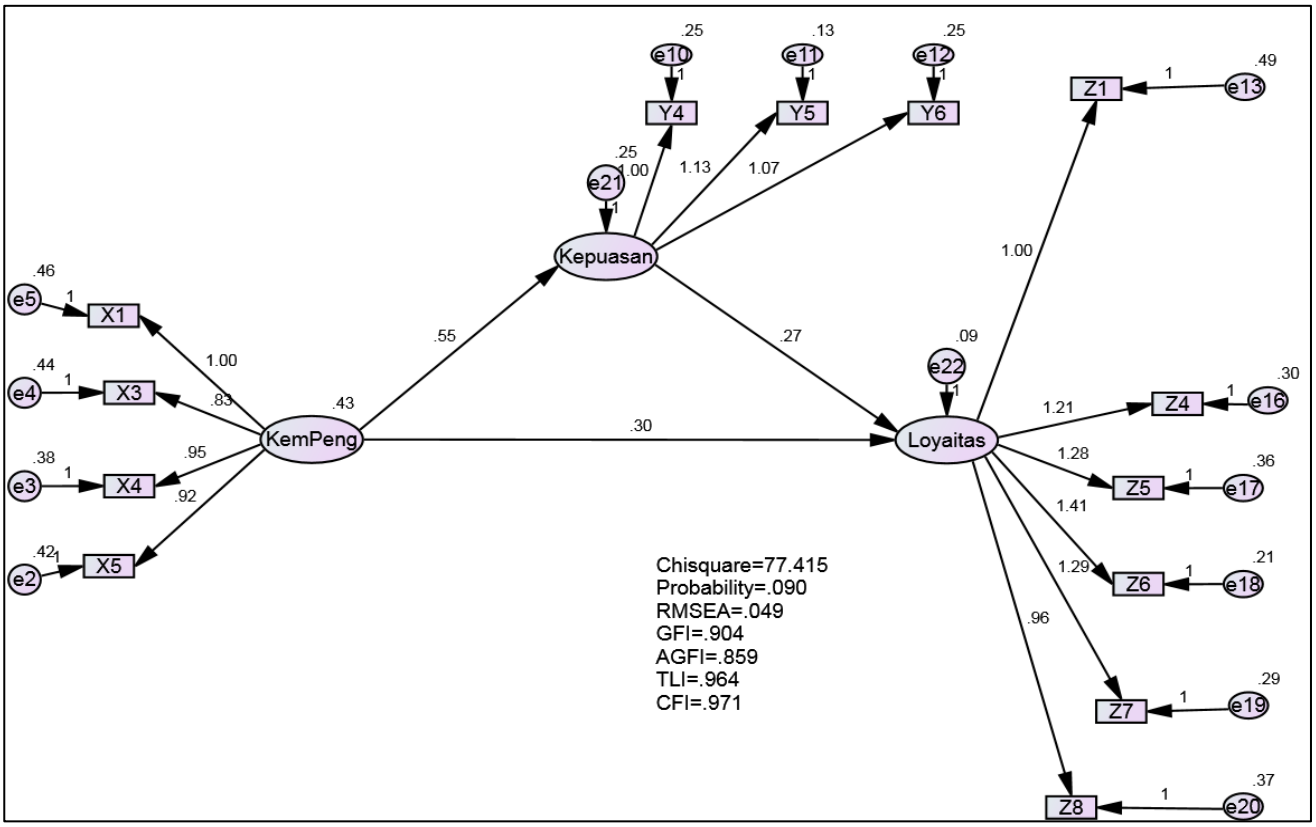

Figure 2: Structural Model

Hypothesis test

After processing the data using AMOS, the following are the results of hypothesis testing for this study:

Table 5: Results of Hypothesis Testing for Research Models

Hypothesis	Statement	P-value	Description
H_1	Usability toward Satisfaction	***	Hypothesis accepted
H_2	Satisfaction toward Loyalty	.004	Hypothesis accepted
H_3	Usability toward Loyalty	.006	Hypothesis accepted
H_4	Usability toward Loyalty with Satisfaction as a Mediation Variable	0.04	Hypothesis accepted

The results showed that all the four hypotheses were accepted, meaning that each variable had a direct or indirect effect on mobile banking usability towards satisfaction (Lowry et al., 2006; De Oliveira et al., 2012). It also showed a relationship between satisfaction (Sagib & Zapan, 2014; Picón et al., 2014) and usability towards customer loyalty, with satisfaction as a mediating variable (Casaló et al., 2008; Lee et al., 2015; Flavián et al., 2006). Although previous studies also displayed a partial effect, research on the direct effect of usability toward loyalty regarding conventional banking services had rarely been performed. Therefore, the results discovered that M-Banking usability can create customer loyalty.

This study's contribution is to expand the previous findings regarding M-Banking usability. As long as a bank can provide services with technology, an easy and practicable system can increase customer satisfaction and ultimately create loyalty. Good education and socialization of M-Banking services to customers will facilitate the use of M-Banking. Furthermore, customers can perform financial transactions effectively and efficiently, and those that feel the M-Banking service exceeds expectations will be satisfied.

CONCLUSION

This study provides empirical evidence that M-Banking usability can create customer satisfaction and loyalty in a bank. Apart from speed and easy-to-understand service features, transaction security is a factor that needs to be considered in using this system. Consequently, customers will feel satisfied and loyal based on their perspective on mobile banking use because they do not spend their time making transactions at the service office.

The weakness of this study is the general association of satisfaction to loyalty. However, it examines the direct effect of the usability variable on customer loyalty, as previous studies have only had a direct relationship with conventional banking in Jakarta. Therefore, it can be used as a novelty.

Further research can examine risk factors and customer trust in the use of mobile banking applications. Meanwhile, banks as service providers, need to understand changes in customer needs in using technology-based services, they need to provide easy, safe, and fast applications, such as internet banking and M-Banking.

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