



## CUSTOMER RETENTION STUDY FROM MOBILE BANKING SERVICES AND CUSTOMER TRUST

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### Abstraksi.

BTPN Syariah merupakan salah satu bank yang berdedikasi untuk memenuhi kebutuhan nasabah dan berupaya meningkatkan kualitas layanannya. Permasalahan dalam penelitian ini adanya mengalami penurunan retensi nasabah, yang ditunjukkan dengan meningkatnya jumlah rekening tabungan yang tidak bertransaksi terakhir lebih dari 6 bulan pada periode 2023 – 2024, hal ini menunjukkan adanya penurunan kepercayaan nasabah atas layanan perbankan yang diberikan BTPN Syariah, dimana penurunan kepercayaan nasabah dapat menurunkan retensi nasabah. Tujuan dari penelitian ini adalah menguji dan menganalisis pengaruh layanan mobile banking dan kepercayaan nasabah terhadap retensi nasabah.

Populasi dalam penelitian ini adalah nasabah BTPN Syariah KC Berau yang berjumlah 97 orang. Teknik pengambilan sampel dalam penelitian ini menggunakan random sampling. Alat analisis dalam penelitian ini meliputi uji instrumen (uji validitas, uji reliabilitas), uji asumsi klasik (uji normalitas, uji multikolinearitas, uji heteroskedastisitas), regresi linier berganda, uji hipotesis melalui uji t, uji F, dan uji koefisien determinasi.

Hasil penelitian ini membuktikan bahwa variabel layanan mobile banking mempunyai pengaruh signifikan terhadap retensi nasabah. Hal ini menunjukkan dengan nilai koefisien regresi sebesar 0,259. Sedangkan untuk nilai  $t_{hitung} (2,640) > t_{tabel} (1,661)$  dan  $sign (0,010) < sign a (0,05)$ . Hasil penelitian ini menunjukkan bahwa variabel kepercayaan nasabah mempunyai pengaruh signifikan terhadap retensi nasabah. Hal ini menunjukkan dengan nilai koefisien regresi sebesar 0,292. Sedangkan untuk nilai  $t_{hitung} (2,723) > t_{tabel} (1,661)$  dan  $sign (0,008) > sign a (0,05)$ .

Kesimpulan penelitian ini adalah layanan mobile banking berpengaruh positif terhadap retensi nasabah. Arah koefisien regresi positif menunjukkan adanya pengaruh

**Kata Kunci :**

layanan mobile banking,  
kepercayaan nasabah,  
retensi nasabah

*positif layanan mobile banking terhadap retensi nasabah, sehingga hipotesis 1 diterima. Kepercayaan nasabah berpengaruh terhadap retensi nasabah. Arah koefisien regresi positif menunjukkan adanya pengaruh positif kepercayaan nasabah terhadap retensi nasabah, sehingga hipotesis 2 diterima. Bagi Peneliti Selanjutnya, agar dapat menambahkan variabel lain untuk memahami lebih dalam mekanisme yang terlibat dalam pengaruh layanan mobile banking dan kepercayaan nasabah terhadap retensi nasabah. Variabel yang disarankan adalah: persepsi halal, influencer.*

**Abstract.**

BTPN Syariah is a dedicated bank for fulfilling customer needs and making an effort to increase the quality of its services. The problem in this study is that there has been a decline in customer retention, which is indicated by the increasing number of savings accounts that have not had the last transaction for more than 6 months in the period 2023 - 2024, this indicates a decline in customer trust in banking services provided by BTPN Syariah, where a decline in customer trust can reduce customer retention. The purpose of this study is to test and analyze the influence of mobile banking services and customer trust in customer retention

Population in study This is BTPN Syariah KC Berau customers totaling 97 people. Engineering sampling in study This uses random sampling. Tool analysis in this study covers test instrument (test validity, test reliability), test assumption classic (test normality, test multicollinearity, test heteroscedasticity), multiple linear regression, test hypothesis through test t, test F, and test coefficient determination.

Results of this study prove that variable mobile banking services have a significant influence on customer retention. This is shown with mark coefficient regression as big as 0.259. Whereas For mark count (2, 640) > table (1,661) And sign (0.010) < sign a (0,05). The results of this study show that customer trust variables have a significant influence on customer retention. This is shown with mark coefficient regression of 0.292. While For mark tcount (2, 723) > table (1,661) And sign (0.008) > sign a (0,05).

Conclusion study This is mobile banking services have a positive influence on customer retention. Direction coefficient regression positive shows existence positive influence mobile banking services to customer retention, so

**Keywords:**

*mobile banking services,  
customer trust, and customer  
retention*

that Hypothesis 1 is accepted. Customer Trust influences Customer retention. Direction coefficient regression positive shows existence influence positive customer trust to customer retention, so that hypothesis 2 is accepted. Share Researcher Furthermore, in order to be able to add another variable To understand more in mechanisms involved in influencing mobile banking services and customer trust to retain customers. Suggested variables are: halal perception, influencers

## **INTRODUCTION**

In order to increase interest in increasing savings after the Covid-19 pandemic, BTPN Syariah needs to provide mobile banking services that can reach all groups anytime, anywhere, and anywhere. Of course, this is much better than traditional marketing which is limited by time, location, and user reach. Then BTPN Syariah uses an application that can be downloaded on the Google Playstore as a transaction media that is preferred by the public. This digitalization product can now be carried out by non-institutionalized parties. This means that now everyone can freely disseminate information without going through a gatekeeper. It must be admitted that the mobile banking application also functions as an electronic wallet (e-wallet) through the QRIS (Quick Response Code Indonesian Standard) menu which currently has quite high control to influence the public, because social media has enough power to influence the public, and sometimes organizations cannot do this (Tiffany et al., 2018).

From the background and business phenomena above, the problem that is the basis of this research is the research gap between mobile banking services, Mobile banking services are one of the factors that influence customer retention. The research gap that emerged was a study conducted by Ezechirinum et al, (2020) which showed that mobile banking services would again affect customer retention. However, this contradicts the research conducted by Reddy (2016) which stated that mobile banking services would not affect customer retention. The existence of this gap encouraged researchers to conduct this study to prove the extent to which mobile banking services renew customer retention.

The problem in this study is that there has been a decline in customer retention, as indicated by the increasing number of savings accounts that have not had the last transaction for more than 6 months in the period 2023-2024, this indicates a decline in customer trust in the banking services provided by BTPN Syariah, where a decline in customer trust can

reduce customer retention. The attention of managers is currently prioritized on understanding the impact of service quality. In the context of intense competition, customer trust must be prioritized so that the company can survive, compete and dominate market share (Misbach et al., 2013). The current trend is that marketing campaigns no longer target one-time exchanges or transactions, but are starting to lead to ongoing exchanges. This is because service quality can increase customer satisfaction, market share, and profitability (Lestari & Ellyawati, 2019).

## **LITERATURE REVIEW**

The level of trust and retention of service users is influenced by the use of technology from service providers that are able to provide convenience in service user activities. Interest in adopting information technology shows individual preferences in deciding whether or not to use technology in completing tasks or work. According to the Technology Acceptance Model (TAM) (Rammile and Nel, 2012), the use of a system is influenced by the interest in using (intention to use). Interest in using is influenced by the trust of service users. The measure of the use of a technology is how much the user chooses and utilizes the features available in the system to help with tasks and work. The concept of utilization is an individual's voluntary choice of the features of a new technology used. Basically, the proportion of the usefulness of technology is difficult to measure, so in the literature the measurement is done by asking how much the user depends on a new technology. Ezechirinum et al, (2020) showed that mobile e-banking services have a positive effect on customer retention, while Morawczynski and Miscione, (2021) showed that mobile e-banking services have a positive effect on customer trust.

Based on the description, the following hypothesis can be formulated:

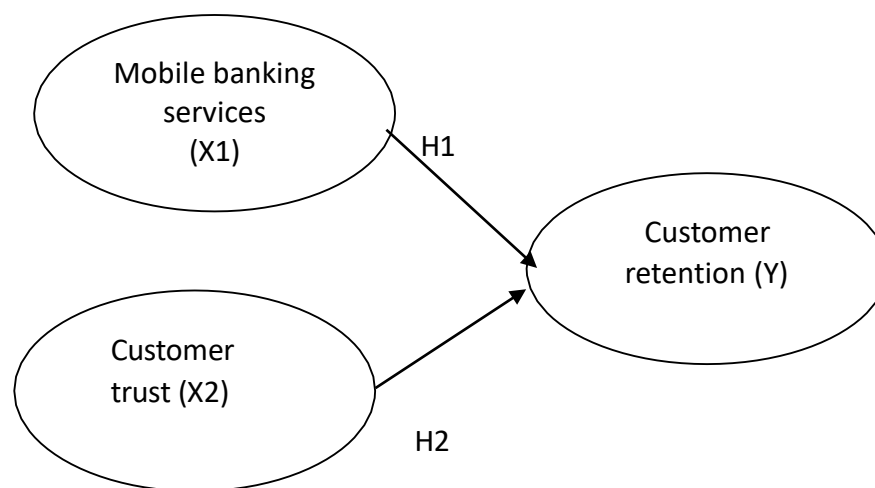
*H1: Mobile banking services have a positive effect on customer retention.*

*Trustor* trust in strategic cooperation can be defined as the expectations or assessments given to other parties who will be invited to cooperate in their business (Morawczynski and Miscione, 2021). Sarwar et al., (2012) showed that customer trust has a positive effect on customer retention.

Based on the description, the following hypothesis can be formulated:

*H2: Customer trust has a positive effect on customer retention.*

Based on the literature review and the hypothesis proposed in this study, an empirical model was developed as a model in this study, so the research model developed is presented below:



**Figure 1.1**  
**Theoretical Framework**

## RESEARCH METHODS

Population is an unknown number (Sugiyono, 2017). The entire population of the study were customers of BTPN Syariah KC Berau whose number was unknown, but for the period October-December 2024 there were 1,267 customers. The sample is part of the number and characteristics possessed by the population (Sugiyono, 2017). The number of samples taken in this study used the Lemeshow formula, this is because the population is very large, so purposive sampling is used where researchers select samples based on certain characteristics that are considered relevant to the study. This is useful when researchers have in-depth knowledge of the population. The following is the formula proposed by Lemeshow, et.al, (2014):

$$n = \frac{Z_{1-\alpha/2} \sqrt{P(1-P)}}{d^2}$$

Information:

n = NumberSample

Z = z score at 95% confidence = 1.96

P = Maximum estimate = 0.5

d = Alpha (0.10) or sampling error 10%

Using the formula above, the number of samples to be taken is:

$$n = \frac{Z_{1-\alpha/2}^2 P(1-P)}{d^2}$$

$$n = \frac{1,952 \cdot 0.5 (1 - 0.5)}{0.12}$$

$$n = 3.8416 \cdot 0.25 / 0.12$$

$$n = 96.04 \text{ rounded to } 97$$

If based on the formula then the resulting n is 96.04, rounded to 97 people, so that in this study using a sample of 97 people. While for the Operational Definition of Variables can be reviewed in the following table:

**Table 3.1**  
**Operational Definition of Variables**

No	Variables	Operational Definition	Indicator
1	Mobile banking services (X1)	Electronic services owned by BTPN Syariah KC Berau which refer to an accurate internet website, easy to access e-banking, easy to use e-banking, and minimal errors during transactions that can be accessed via the internet via an application on a cellphone. <b>Ezechirinum et al, (2020)</b>	1. Accurate internet website 2. E banking is easy to access 3. E banking is easy to use 4. Minimal errors during transactions
2	Customer Trust (X2)	The customer's expectations regarding the promises made by BTPN Syariah KC Berau both verbally and in writing and the company must fulfill these promises. <b>Sarwar et al., (2012)</b>	1. Goodwill 2. Integrity 3. Competence 4. Willingness to depend 5. Subjective willingness
3	Customer Retention (Y)	Customer perception/assessment of banking services provided by BTPN Syariah KC Berau so that customers always remember, often talk about, willing to recommend and increase savings. <b>Morawczynski and Miscione, (2021)</b>	1. Always remember 2. Often talked about 3. Willing to recommend 4. Increase savings

## RESULTS AND DISCUSSION

### Multiple Linear Regression Analysis

Basically, regression analysis is a study of the dependence of dependent variables on independent variables with the aim of predicting the population average or the average value of the dependent variable based on the known variable values (Ghozali, 2019). The following are the results of multiple linear regression tests in this study.

**Table 4.8**  
**Results of Multiple Regression Analysis**  
**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1,937	,431		4,494	,000
LMB	,215	,081	,259	2,640	,010
KN	,292	,107	,267	2,723	,008

a. Dependent Variable: RN

Source: SPSS Data Processing Results, (2024)

From the results of the analysis with the SPSS version 22.5 program, the regression equation of this study can be known. The linear regression equation formed is:

$$RN = 1.937 + 0.215 LMB + 0.292 KN + e$$

From the multiple linear regression equation above, it shows that:

1. Based on the regression equation, customer retention has a constant value of 1.937, meaning that without being influenced by mobile banking services and customer trust, customer retention has a value of 1.937.
2. The regression coefficient of mobile banking services is 0.215. The coefficient is positive, meaning that every increase in mobile banking services by one unit will be followed by an increase in customer retention of 0.215 assuming other variables remain constant (*ceteris paribus*).
3. The regression coefficient of customer trust is 0.292. The coefficient is positive, meaning that every increase in customer trust by one unit will be followed by an increase in customer retention of 0.292 assuming other variables remain constant (*ceteris paribus*).

### Hypothesis Testing

To test the hypothesis in this study, individual parameter significance tests (partial T test), significance, determination tests, and multiple regression analysis were used.

### Partial Test (t-Test)

This t-test aims to test the hypothesis H1, it is suspected that the influence of customer retention in the form of mobile banking services (X1), and customer trust (X2), partially has a significant effect on customer retention (Y). The results of this test on the SPSS output can be seen in the Coefficient table as shown in table 4.9 below.

**Table 4.9**  
**T-test Hypothesis Test Results**  
**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	1,937	,431		4,494	,000
LMB	,215	,081	,259	2,640	,010
KN	,292	,107	,267	2,723	,008

a. Dependent Variable: RN

Source: SPSS Data Processing Results, (2024)

- a. Hypothesis testing of the mobile banking service variable on customer retention obtained a t count value = 2.640. While the t table ( $\alpha = 0.05$ ,  $dk = n - k - 1$ ,  $dk = 97 - 2 - 1 = 94$ ) is 1.661.  $t \text{ count } (2.640) > t \text{ table } (1.661)$ . Significance number =  $0.010 < \alpha = 0.05$ . Based on the criteria above, it can be seen that at a significance level of 0.05. The mobile banking service variable has a significant influence on the customer retention variable. The results of this study indicate that the better the mobile banking service owned by BTPN Syariah KC Berau will increase customer retention. This means that the first hypothesis in this study is accepted.
- b. Hypothesis testing of the customer trust variable on customer retention obtained a t count value = 2.723. While the t table ( $\alpha = 0.05$ ,  $dk = n - k - 1$ ,  $dk = 94 - 2 - 1 = 94$ ) is 1.661.  $t \text{ count } (2.723) > t \text{ table } (1.661)$ . Significance number =  $0.008 < \alpha = 0.05$ . Based on the criteria above, it can be seen that at a significance level of 0.05, the customer trust variable has a significant influence on the customer retention variable. The results of



this study indicate that customer trust owned by BTPN Syariah KC Berau affects customer retention. This means that the second hypothesis in this study is accepted.

#### Model Feasibility Test (F Test)

Overall regression testing was carried out using the F test. This test was carried out using a significance level of 5%.

**Table 4.10**  
**Model Feasibility Test Results**  
**ANOVA**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	6,301	2	3,150	10,372	,000b
Residual	28,553	94	,304		
Total	34,854	96			

a. Dependent Variable: RN

b. Predictors: (Constant), KN, LMB

Source: SPSS Data Processing Results, (2024)

The results of the F-test which show the feasibility of the model have an F estimate of 10.166 with a significance of 0.000, meaning that if the calculated F value of 10.372 is greater than the F table (1.96) and the significance value is smaller than 0.05, namely 0.000, then it indicates that the model is worthy of being studied.

#### R2 Test (Coefficient of Determination)

The coefficient of determination is an indicator of the magnitude of the influence of the independent variable on the dependent variable. The value of the coefficient of determination is indicated by the adjusted R2 value.

**Table 4.11**  
**Measurement Model**  
**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,425a	,181	,163	,551	1,769

a. Predictors: (Constant), KN, LMB

b. Dependent Variable: RN

Source: SPSS Data Processing Results, (2024)

The coefficient of determination is an indicator of the magnitude of the influence of the independent variable on the dependent variable. The value of the coefficient of

determination is indicated by the adjusted R<sup>2</sup> value. The results of this study provide an adjusted R<sup>2</sup> value of 0.163. This indicates that 16.3% of customer retention can be explained by mobile banking services and customer trust, while the remaining 83.7% of customer retention is influenced by other variables not included in this model. This indicates that customer retention is not only influenced by mobile banking services and customer trust, but there are other variables that influence customer retention.

## **Discussion**

Based on the results of SPSS data processing of mobile banking service variables, customer trust variables, and customer retention variables, the following discussion is obtained. Among others are:

### **The Influence of Mobile Banking Service Variables on Customer Retention**

The results of this study indicate that the mobile banking service variable has a significant influence on customer retention. This is indicated by the regression coefficient value of 0.259. While for the t count value (2.640) > t table (1.661) and sign (0.010) < sign a (0.05).

From table 4.3. the average mobile banking service is 3.7989. This figure, when viewed from the range of the index scale 1 - 5, means that the influence of mobile banking services on customer retention of BTPN Syariah KC Berau is high.

The results of this study indicate that the better the mobile banking services owned by BTPN Syariah KC Berau will increase customer retention. This is supported by research by Ezechirinum et al, (2020) and Morawczynski and Miscione, (2021) which explain that mobile banking services have a significant effect on customer retention.

### **The Influence of Customer Trust Variables on Customer Retention**

The results of this study indicate that the customer trust variable has a significant influence on customer retention. This is indicated by the regression coefficient value of 0.292. While for the t-count value (2.723) > t-table (1.661) and sign (0.008) > sign a (0.05). From table 4.4. the average customer trust is 3.8394. This figure, when viewed from the range of the index scale 1 - 5, means that the influence of customer trust on customer retention of BTPN Syariah KC Berau is high.

The results of this study indicate that the better customer trust that BTPN Syariah KC Berau has, the more it can increase customer retention. This is supported by research by

Morawczynski and Miscione, (2021) and Sarwar et al., (2012) which explains that customer trust has a significant effect on customer retention.

## **CONCLUSION**

From this study, it is stated that the customer trust variable has a greater influence on customer retention compared to mobile banking services. After testing all the hypotheses proposed in this study, conclusions can be drawn from these hypotheses. The following are the conclusions of the two hypotheses: (1) Mobile banking services have a positive effect on customer retention. The direction of the positive regression coefficient indicates a positive effect of mobile banking services on customer retention, so that hypothesis 1 is accepted, and (2) Customer trust affects customer retention. The direction of the positive regression coefficient indicates a positive effect of customer trust on customer retention, so that hypothesis 2 is accepted.

Some suggestions that can be given related to the research results are as follows: (1) The management of BTPN Syariah KC Berau should improve its mobile banking services by making improvements and maintaining the accurate BTP Syariah KC Berau internet website, BTP Syariah KC Berau e-banking is easy to access, BTP Syariah KC Berau e-banking is easy to use, and minimizes errors during transactions, this needs to be done to increase customer retention, (2) The management of BTPN Syariah KC Berau should increase customer trust, which increases and maintains the good intentions of BTPN Syariah KC Berau in serving customers, the integrity and competence of BTPN Syariah KC Berau, the willingness of dependence and subjective willingness, this needs to be done to increase customer retention, and (3) For further researchers, in order to add other variables to understand more deeply the mechanisms involved in the influence of mobile banking services and customer trust on customer retention. The suggested variables are: halal perception, influencer.

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