The Impact of Financial Technology on Banking Profitability

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ABSTRACT

This study aims to explain the impact of financial technology (Fintech) on banking profitability and examine differences in banking profitability along with the growth of Fintech. The test is carried out using an event study, while Profitability is measured using financial ratios, namely ROA, ROE, and BOPO. The data used in this study is 2012-2017 in state-owned banks with the highest total assets that have fintech services (Bank Mandiri, BRI, BNI, BCA, DANAMON, CIMB, OCBC, BTPN, BUKOPIN, and Bank PERMATA). The methodology used is a descriptive quantitative approach by conducting different tests and to explain the relationship between these variables, multiple linear r egression tests are used. Different tests are carried out to see whether banking profitability is disrupted by the fintech phenomenon or not. Quantitative analysis is carried out by examining related problems. The conclusion that can be drawn is that innovations that occur in banking through the fintech phenomenon are not as a distraction but as an opportunity to develop fintech services and increase banking profitability.

Keywords ; financial technology; Profitability; ROE; ROA; BOPO

A. INTRODUCTION

In today's modern era, the development of science and technology in Indonesia is no longer something strange to the people of Indonesia. The very rapid growth of technology in today's digital era can influence humans to access the latest information and make it easier for people to complete their work effectively and efficiently with various electronic service features. One of the technological developments trending in Indonesia is Financial Technology (FinTech) in financial institutions. According to the National Digital Research Center (NDRC), Financial Technology is a term used to refer to innovation in the field of financial services where the term comes from the words "financial" and "technology" (FinTech), which refers to financial innovation with through modern technology. (Sukma, nd)

FinTech or Financial Technology is a term used to denote companies that offer modern technology in the financial sector. These companies have been around since 2010. FinTech companies are mostly micro, small or medium-sized companies that do not have much equity but have a clear idea of introducing innovations or improving existing services in the financial services market (Svetlana Saksonova & Iriana Kuzmina-Merlino, 2017). The Indonesian Internet Service Providers Association (APJII) survey states that the number of internet users is increasing from year to year.

The very rapid development of FinTech is the evidence of the development of FinTech in various sectors ranging from Startup payments, lending (Lending), financial planning (Personal Finance), retail investment, financing (Crowdfunding), remittances, financial research, and others. The FinTech concept adapts technological developments combined with the financial sector in banking institutions so that it is expected to facilitate a more practical, modern financial transaction process, including digital-based financial services that are currently developing in Indonesia, namely payment channel systems, digital banking, online digital insurance, peer to peer (P2P) lending, and crowd funding (Siregar, nd). The application of Financial Technology is to improve the efficiency of operational activities and the quality of bank services to its customers, because the use of Financial Technology is in line with the growing public need for online-based financial services and the use of internet media to access digital data.

To clarify the scope of the problem, this research only focused on the effect of FinTech on profitability before and after banks adopted FinTech and collaborated with Fintech at Bank

Mandiri, BRI, BNI, BCA, DANAMON, CIMB, OCBC, BTPN, BUKOPIN, and Bank PERMATA for the period 2012-2017 where the profitability ratios used are Return On Assets (ROA), Return On Equity (ROE) and Operating Expenses to Operating Income (BOPO).

At this time, FinTech already has a legal basis, the Financial Services Authority Regulation (POJK) number 13/POJK.02/2018 concerning Digital Financial Innovation in the Financial Services Sector has been issued as a legal basis provision for supervision and regulation of the Financial Technology (FinTech) industry. The regulation was issued to direct FinTech to produce digital financial innovations that are responsible, safe, prioritize consumer protection and have well-managed risks. The regulation was also published as an effort to support innovative, fast, cheap, easy and broad financial services and to increase financial inclusion, investment, financing and other financial services (Financial Services Authority Regulation (POJK) No. 13/POJK.02 /2018), 2018).
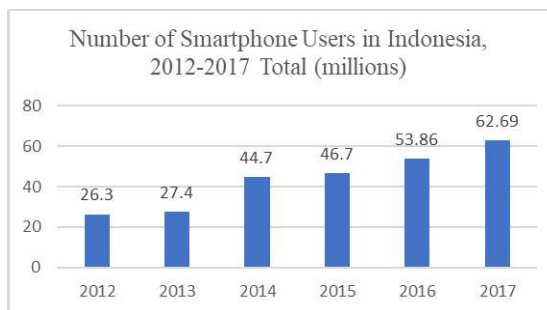
Figure 1
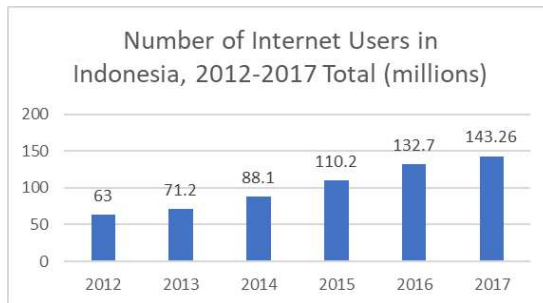
Source: Statista

Based on figure 1.1, internet users are increasing every year. In 2017 internet users in Indonesia reached 143.26 million people, which increased drastically from previously in 2012 it only touched 63 million people. Figure 1.1 proves that the awareness of Indonesian people in using technology in the form of the internet is increasing. The increasing number of internet users can make Financial Technology develop in this modern era.

Figure 1.2

Source:Statista

From figure 1.2, we can also see how the increasing use of smartphones in Indonesia, with the growing use of Smarthphone technology, will be very helpful for fintech companies in developing their industry.

The emergence of Fintech will certainly increase the existence of banks to be more competitive in the financial market and help accelerate the process of financing at banks with easier, more efficient and effective applications with wider access by customers and banks. With FinTech, the financing process can be faster and more scalable. Based on the statement above, banking attention to the opportunities obtained from FinTech is very important to expand the banking market that can meet the needs of the community.

Because of the convenience of Financial Technology, it can also pose a threat to the banking industry. In the process of borrowing, banks provide special provisions for their customers. The banking administration process is rigid and convoluted, making people more interested in Financial Technology. The impact of digital banking will cut margins which can affect bank profitability (Yanuar Riezqi Yovanda, nd). Therefore, banks are expected to make developments in technology as agencies in the service sector that serve their customers. However, banks must be able to increase their financing portfolio as a source of income for banks. Increasing the financing portfolio will increase the profit for the bank. The increase in profit will expand the opportunity for banks to have long-term investments, namely by using FinTech in their service process.

When the bank invests in Fintech, the thought of fintech killing banking is no longer relevant, whether we believe it. Because the investments that flooded the emerging technology companies have demonstrated a change in the financial services sector, these startup companies are changing financial services faster than 7 banking responses. These new players continue to gain greater access to external funding, seeking to make future sustainable disruptions to the banking sector.

B. LITERATURE REVIEW

B.1. Theoritical Basis

Theory Signal is one of the pillar theories in understanding financial management (Irham Fahmi, 2014), the signal theory emphasizes the importance of information released by the company on the investment decisions of outsiders. The signal theory implies that management always discloses information desired by investors, especially if the information is good news. Information about the company is a signal for investors in making investment decisions.(Hassan, 2008)

The purpose of signal theory is to increase the value of a company when selling shares. For the signal to be effective, it must be responded to by the market, perceived well, and not easily imitated by other companies. Good quality companies will intentionally signal to the market, so the market is expected to distinguish between good and bad quality.

Technology and Effectiveness, Maria Widyarini (2001), states that productivity and quality are the keys to a company's success. One alternative that can be taken to increase productivity and quality is to adopt new technology with the premise that the company will operate as effectively and efficiently as possible with the latest technology. However, new technology is not the only solution to productivity and quality problems. However, it must be viewed as an integrated tool for other factors in accordance with the programmed targets.

According to Maria, several notions of technology are expressed in various forms and the underlying components, but most have the same meaning. The definition of technology in question is:

1. All forms of business related to improving human welfare involve physical, informational, and socio-economic components to create something new or new.
2. Systematic knowledge for the manufacture of a product, application of a process or service of service, including any managerial and marketing techniques that are integrally related (science, engineering, and management are explicitly included).

By having the belief that technology is the basis for increasing the company's competitive power, it is expected that companies as technology users are able to:

1. Increasing the profit-to-cost ratio for consumers by producing innovations that can increase the value of a new product, system, or service or tie the function value to the product. In this research, service technology is improved, which makes it easier for Mandiri, BNI and BRI customers to withdraw cash (ATM Link) and also the other banks with the same methods, so that it is higher than the production of competing companies. This improvement means that the company has succeeded in increasing the use value of the product so that consumer satisfaction will increase even though the selling price of the product may not decrease.
2. Offering products and services that can promise a profit ratio after being divided equally by all consumers, accompanied by the company's success in reducing total costs throughout the product's life cycle. This cycle means that although the use-value of the

product for consumers does not increase, because the company can use technology effectively, it can reduce its production costs, increasing its profit margin.

Banking, According to Article 1 paragraph (1) of Law Number 10 of 1998 concerning Amendments to Law No. 7 of 1992 concerning Banking, banking is everything related to banks, including institutional, business activities, and methods and process in carrying out its business activities.

Meanwhile, according to Abdurrachman, banking, in general, is an activity of buying and selling currency, securities and other instruments that can be traded. Acceptance of deposits to facilitate storage or earn interest, and actions, granting loans with or without dependents, using money placed or submitted for storage. Purchasing, selling, exchanging, assigning, or holding payment instruments, tradable instruments, or other objects with direct monetary value is an orderly activity.

Fintech, Financial Technology is a technology that refers to new solutions that demonstrate innovation in the development of applications, products, or business models in the financial services industry that use technology.

Bank Indonesia defines Financial Technology (FinTech) as the result of a combination of financial services and technology which ultimately changes the business model from conventional to moderate, which initially pays face-to-face and brings cash, now can make transactions by making payments that can be made.

Based on the World Bank, the Financial Technology (FinTech) industry consists of companies that use technology to make the financial system and delivery of financial services more efficient.

Profitability, According to Pirmatua Sirait (2017:139) the definition of Profitability is company profitability to obtain comprehensive profits, convert sales into profits and cash flow."

Irham Fahmi (2014:81) states that Profitability is used to measure the effectiveness of overall management which is indicated by the size of the level of profit obtained in relation to sales and investment. Meanwhile, according to Sutrisno (2012:16) Profitability is he company's ability to generate profits with all the capital that works in it".

From the understanding that has been described, it can be said that profitability is the company's ability to earn profits in relation to sales and investment.
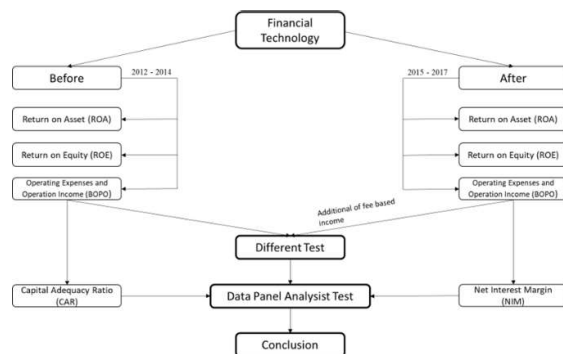
The profitability ratio used in this research :
1. Return On Assets (ROA)
2. Return On Equity (ROE)
3. Operating Expenses and Operating Income (BOPO)

B.2. Theoritical Framework

Figure 3 Theoretical Framework

B.3 Hypothesis

In this study, the hypothesis is applied based on the formulation of the problem, namely to test whether Financial Technology (FinTech) influences Banking Profitability. Thus, the hypothesis in this study are:

H1: There is a significant difference in Return On Assets (ROA) before and after collaboration with FinTech and have a positive relation between ROA and FinTech.

H2: There is a significant difference in Return On Equity (ROE) before and after collaboration with FinTech and have a positive relation between ROE and FinTech.

H3: There is a significant difference in Operational Costs and Operating Income (BOPO) before and after collaboration with FinTech and have a positive relation between BOPO and FinTech.

H4: There is a significant impact and positive relation of CAR and NIM on ROA, ROE, and BOPO after collaboration with FinTech.

C. METHODOLOGY

In this study, the researchers used a quantitative research approach. As explained by (Moleong, 2007), the Quantitative method is a research method that can be interpreted as a method that presents data in the form of numbers that at a glance, are easier to know or compare with one another to test the established hypothesis.

The data used is secondary data. According to (Arikunto, 2005), Secondary data is primary data that has been further processed and presented by the primary data collector or other

parties. The secondary data is data obtained from records and magazines in financial reports for company publications, government reports, articles, books as theory, and magazines.

Secondary data was used in the form of financial ratios of each bank obtained from the annual published financial statements published by banks on the official website of Bank Indonesia or the official websites of Bank Mandiri, BRI, BNI, BCA, DANAMON, CIMB, OCBC, BTPN, BUKOPIN, and Bank PERMATA. The data period taken is six years, from 2012 to 2017 and the year that made the difference was 2015, in which the three banks, namely Mandiri, BRI, BNI, BCA, DANAMON, CIMB, OCBC, BTPN, BUKOPIN, and Bank PERMATA, collaborated with fintech companies (LINKs) that provided services in the form of convenience in withdrawing cash at ATMs. This period is considered sufficient to cover the development of banking profitability influenced by Financial Technology, which continues to develop in Indonesia three years before and after collaboration with financial technology companies.

C.1. Population

The technique aims to obtain a population in accordance with research needs. So the population in this study are Bank Mandiri, BRI, BNI, BCA, DANAMON, CIMB, OCBC, BTPN, BUKOPIN, and Bank PERMATA for the 2012-2017 period which have been published.

C.2. Research Variables

Independent variable is a variable whose value does not depend on changes in other variables. The Independent variable affects or the cause of the change or emergence of the dependent variable. (Sugiyono, 2013). The independent variable in this study are Fintech as X1, using a dummy variable, 0 is for the year in which the bank has not collaborated with fintech, and the number 1 is for the year in which the bank has collaborated with fintech, Capital Adequacy Ratio (CAR) as X2, and Net Interest Margin (NIM) as X3.

Dependent variable is a variable whose value depends on changes in other variables. These variables are called output variables, criteria, and consequences. The dependent variable is the affected variable that becomes the result of the independent variable. (Sugiyono, 2013). The dependent variable in this study is Profitability ratios (Y), ROA as Y1, ROE as Y2 and BOPO as Y3.

C.3. Mupltiple regression model

- ROA = $\beta 0 + \beta 1$ CAR + $\beta 2$ NIM + e
- ROE = $\beta 0 + \beta 1$ CAR + $\beta 2$ NIM + e
- BOPO = $\beta 0 + \beta 1$ CAR + $\beta 2$ NIM + e

Information :
ROA : Return of Assets
ROE : Return of Equity
BOPO : Operating Expenses and Operating Income
$\beta 0$: Constant
$\beta 1 - \beta 2$: Multiple regression coefficients
CAR : Capital Adecuacy Ratio
NIM : Net Interest Margin

D. Result and Discussion

D.1. Normality Test

Ghozali (2018:161) stated that the normality test aims to test whether the confounding or residual variables have a normal distribution in the regression model. As it is known that the t-test and f-test assume that the residual value follows a normal distribution or not by graphical analysis and statistical tests. According to Ghozali (2018), Alpha (α) is a maximum error limit used as a benchmark by researchers. For example, conducting a study, the researcher sets an alpha of 5% or 0.05 with a decision rule that if it is significantly more than = 0.05, then it can be said that the data is normally distributed.

From the test using SPSS 25.0 the data shows that the significance level on the ROA, ROE, NIM, BOPO, and CAR before Collaborating with fintech and after collaborating with fintech are greater than the probability value of 0.05 which is 0.2, then H0 is accepted, or it can be interpreted that the data is normally distributed.

D.2. Autocorrelation Test

The autocorrelation test aims to test whether there is a correlation between confounding errors in the t-1 period (previous) in a linear regression model. If there is a correlation, it is called an autocorrelation problem. The autocorrelation test can be seen from the Durbin Watson value. If the Durbin Watson value is between -2 to 2, it can be concluded that the regression model does not contain Autocorrelation.

Based on the results of the autocorrelation test using SPSS 25.0, the durbin-watsnon stat value is **1.469**. This means that the Durbin-Watson value is between -2 to 2, so it can be concluded that the model does not contain Autocorrelation.

D.3. Multicollinearity Test

The multicollinearity test aims to determine whether an independent variable has a correlation between other independent variables in one model. A good regression model should not have a correlation between the independent variables. One way to determine multicollinearity in a model is to look at the value of Variance Inflation Factors (VIF). If the VIF value is < 10, then there is no multicollinearity among the independent variables, and conversely, if the VIF value is > 10, the assumption of the45 model contains a multicollinearity problem.

Based on the test of the Variance Inflation Factors (VIF) value on result using SPSS 25.0, each variable has a VIF value < 10. It can be concluded that the model does not experience multicollinearity problems. Namely there is no multicollinearity between independent variables in the model.

D.4. Heteroscedasticity Test

Heteroscedasticity testing is carried out to see whether there is an inequality of variance from one residual to another observation.

Heteroscedasticity testing in this study was carried out using the Glejser test, the same as other tests in detecting heteroscedasticity, which is seen from the probability value of the F-Statistic. If the probability value is greater than the level of = 5% (prob > 5%), then there is no heteroscedasticity problem. The results of the heteroscedasticity test from the SPSS program show that the value of Sig. is greater than the level of 5%. Thus it can be concluded that the regression model is free from heteroscedasticity problems.

D.5. Different Test

1. Testing of Return On Assets (ROA)

The following are the results of testing data on the ROA variable:

The results of hypothesis testing on the ROA ratio variable on Bank Mandiri, BNI, BCA, DANAMON, CIMB, OCBC, BUKOPIN, and Bank PERMATA show the value of sig (2-tailed) is greater than the study limit of 0.05. So the hypothesis is that H0 is not rejected, or there is no significant difference to the Return On Assets ratio before and after collaborating with FinTech Start-Ups. The results interpret that Fintech does not provide a significant change to ROA.

The results of hypothesis testing on the ROA ratio variable on BRI and BTPN show the value of sig (2-tailed) is smaller than the research limit of 0.05. So the hypothesis is that H0 is rejected, or there is a significant difference in the

ROA ratio before and after collaborating with FinTech Start-Ups. The results interpret that Fintech provide a significant change to ROA.

2. Testing of Return On Equity (ROE)

The following are the results of testing data on the ROE variable:

The results of hypothesis testing on the ROE ratio variable on Bank Mandiri, BNI, DANAMON, CIMB, OCBC, and Bank PERMATA show the value of sig (2-tailed) is greater than the study limit of 0.05. So the hypothesis is that H0 is not rejected, or there is no significant difference to the Return On Equity ratio before and after collaborating with FinTech Start-Ups. The results interpret that Fintech does not provide a significant change to ROE.

The results of hypothesis testing on the ROE ratio variable on BRI, BCA, BTPN, and BUKOPIN show the value of sig (2-tailed) is smaller than the research limit of 0.05. So the hypothesis is that H0 is rejected, or there is a significant difference in the ROE ratio before and after collaborating with FinTech Start-Ups. The results interpret that Fintech provide a significant change to ROE.

3. Testing of Operational Expenses Operational Income (BOPO)

The following are the results of testing data on the BOPO variable:

The results of hypothesis testing on the BOPO ratio variable on Bank Mandiri, BCA, DANAMON, CIMB, OCBC, and Bank PERMATA show the value of sig (2-tailed) is greater than the study limit of 0.05. So the hypothesis is that H0 is not rejected, or there is no significant difference to the BOPO ratio before and after collaborating with FinTech Start-Ups. The results interpret that Fintech does not provide a significant change to BOPO.

The results of hypothesis testing on the BOPO ratio variable on BRI, BNI, BTPN, and BUKOPIN show the value of sig (2-tailed) is smaller than the research limit of 0.05. So the hypothesis is that H0 is rejected, or there is a significant difference in the ROE ratio before and after collaborating with FinTech Start-Ups. The results interpret that Fintech provide a significant change to BUKOPIN.

D.6. Multiple Linier Regression Test

Multiple Linear Regression test is a study of the relationship between one variable or more variables. The results of the regression using SPSS 25.0 can be elaborate to the model.

ROA

$$Y1 = 0.016 - 0.137X1 + 0.675X2 \; e$$

$$Y = a + \beta X1 + \beta X2 + e$$

a = constant number of unstandardized coefficients. In this case, the value is 0.016. This number is a constant number, meaning that if there are no independent variables (Fintech, CAR, NIM), then the ROA (Y1) value is 0.016.

$\beta1$ = regression coefficient number. The value is -0.002. This number means that for every additional 1 Fintech value (X1), the ROA (Y1) value will increase by -0.002. Note: negative values in $\beta1$ mean decrease.

$\beta2$ = regression coefficient number. The value is -0.137. This figure means that for every addition of 1 CAR value (X2), the ROA (Y1) value will increase by -0.137. Note: negative values in $\beta2$ mean decrease.

$\beta3$ = regression coefficient number. The value is 0.675. This number means that for every additional 1 NIM value (X3), the ROA (Y1) value will increase by 0.675.

ROE

$$Y2 = 0.249 - 2.016X2 + 5.296X3 \; e$$

$$Y = a + \beta X1 + \beta X2 + e$$

a = constant number of unstandardized coefficients. In this case, the value is 0.249. This number is a constant number, meaning that if there are no independent variables (Fintech, CAR, NIM), then the ROE (Y2) value is 0.249.

$\beta1$ = regression coefficient number. The value is 0.003. This number means that for every additional 1 Fintech value (X1), the ROE (Y2) value will increase by 0.003.

$\beta2$ = regression coefficient number. The value is -2.016. This figure means that for every addition of 1 CAR value (X2), the ROE (Y2) value will increase by -2.016. Note: negative values in $\beta2$ mean decrease.

$\beta3$ = regression coefficient number. The value is 5.296. This number means that for every additional 1 NIM value (X3), the ROE (Y2) value will increase by 5.296.

BOPO

$$Y3 = 0.635 + 1.079X2 - 2.402X3 \; e$$

$$Y = a + \beta X1 + \beta X2 + e$$

a = constant number of unstandardized coefficients. In this case, the value is 0.635. This number is a constant number, meaning that if there are no independent variables (Fintech, CAR, NIM), then the BOPO (Y3) value is 0.635.

$\beta1$ = regression coefficient number. The value is 0.024. This number means that for every additional 1 Fintech value (X1), the BOPO (Y3) value will increase by 0.024.

$\beta2$ = regression coefficient number. The value is 1.079. This figure means that for every addition of 1 CAR value (X2), the BOPO (Y3) value will increase by 1.079. Note: negative values in $\beta2$ mean decrease.

$\beta3$ = regression coefficient number. The value is -2.402. This number means that for every additional 1 NIM value (X3), the BOPO (Y3) value will increase by 2.402. Note: negative values in $\beta2$ mean decrease.

E. CONCLUSION

Based on the test results and discussion, it can be concluded that:

1. The average period before and after collaborating with fintech, the Return On Asset (ROA) variable at Bank Mandiri, BRI, BNI, BCA, DANAMON, CIMB, OCBC, BTPN, BUKOPIN, and Bank PERMATA shows no significant difference and has a negative effect, which means that after the bank cooperated with fintech, the bank experienced a decrease in net income, meaning that hypothesis 1 is rejected.

2. The average period before and after collaborating with fintech, the Return On Equity (ROE) variable at Bank Mandiri, BRI, BNI, BCA, DANAMON, CIMB, OCBC, BTPN, BUKOPIN, and Bank PERMATA shows no significant difference and has a negative effect, which means that after the bank collaborated with fintech start-ups, the bank experienced an insignificant decrease in bank activities maximizing their capital in generating net profit and not satisfying the interests of investors, meaning that hypothesis 2 is rejected.

3. The average period before and after collaborating with fintech, variables Operating Expenses to Operating Income (BOPO) at Bank Mandiri, BRI, BNI, BCA, DANAMON, CIMB, OCBC, BTPN, BUKOPIN, and Bank PERMATA showed no significant difference and has a negative effect,

which means that after the bank cooperates with fintech, and the bank experiences a decrease in the efficiency and ability of the bank in its operational activities, meaning that hypothesis 3 is rejected.

4. The impact of CAR and NIM on bank profitability (ROA,ROE,BOPO) in the period before and after bank collaborating with fintech showed a significant effect of the variables (Fintech, CAR, NIM) simultaneously or together on the bank profitability variable, meaning that hypothesis 4 is not rejected.

Suggestions

There are several suggestions that the author will convey related to the results of this research, such as:

1. For Bank Mandiri it is expected to continue to maintain or further improve the collaboration between Fintech to attract customers to use the services available at the bank. Bank Negara Indonesia (BNI) is expected to improve its cooperation with Fintech and promote the products and services that BNI has to attract more customers to use the services provided by Bank Negara Indonesia (BNI). For Bank BRI , it is recommended to be more active in promoting its products to remote villages so that people can find out about products and services that can make it easier for people to meet their needs and be able to better collaborate with Fintech where we already know that many Fintech have sprung up, which offers a variety of services that make it easier for people to meet their needs without having to leave the house, where the number of Start-Ups that have sprung up can affect the profitability of Banking.

2. For further research, it is expected to use different research subjects and research variables. And the research period is longer than this study in order to obtain more accurate and better results than previous studies.

3. For academics and banking practitioners, this research can be used as a reference or reference source related to technology financial services to attract customers so as to improve financial management and financing management of banking.

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APENDIX

No	Sektor Bank	Tahun	Fintech(X1)	Profitabilitas			Variabel Interventif	
				ROA	ROE	BOPO	CAR (X2)	NIM (X3)
1	MANDIRI	2012	0	3.55	27.23	63.93	15.48	5.58
		2013	0	3.66	27.31	62.41	14.93	5.68
		2014	0	3.57	25.81	64.98	16.6	5.94
		2015	1	3.15	23.03	69.67	18.6	5.9
		2016	1	1.95	11.12	80.94	21.36	6.29
		2017	1	2.72	14.53	71.78	21.64	5.63
2	BNI	2012	0	2.9	20	71	16.7	5.9
		2013	0	3.4	22.5	67.1	15.1	6.2
		2014	0	3.5	23.6	68	16.2	6.3
		2015	1	2.6	17.2	75.5	19.5	6.4
		2016	1	2.7	15.5	73.6	19.4	6.2
		2017	1	2.7	15.6	71	18.5	5.5
3	BRI	2012	0	5.15	38.66	59.93	16.95	8.42
		2013	0	5.03	34.11	60.58	16.99	8.55
		2014	0	4.73	31.19	65.42	18.31	8.51
		2015	1	4.19	29.89	67.96	20.59	8.13
		2016	1	3.84	23.08	68.93	22.91	8
		2017	1	3.69	20.03	69.14	22.96	7.93
4	BCA	2012	0	3.6	30.4	62.4	14.2	5.6
		2013	0	3.8	28.2	61.5	15.7	6.2
		2014	0	3.9	25.5	62.4	16.9	6.5
		2015	1	3.8	21.9	63.2	18.7	6.7
		2016	1	4.0	20.5	60.4	21.9	6.8
		2017	1	3.9	19.2	58.6	23.1	6.2
5	DANAMON	2012	0	2.70	16.20	75.00	18.90	10.10
		2013	0	2.50	14.50	82.86	17.90	9.60
		2014	0	1.40	8.60	76.61	17.80	8.40
		2015	1	1.20	7.40	85.56	19.70	8.20
		2016	1	2.50	8.00	77.30	20.90	8.90
		2017	1	3.10	10.50	72.10	22.10	9.30
6	CIMB	2012	0	3.18	20.88	71.70	15.16	5.87
		2013	0	2.76	17.74	73.79	15.36	5.34
		2014	0	1.33	7.66	87.86	15.58	5.36
		2015	1	0.47	2.99	97.38	16.28	5.21
		2016	1	1.09	5.81	90.07	17.96	5.64
		2017	1	1.70	8.34	83.48	18.60	5.60
7	OCBC	2012	0	1.79	12.20	78.90	16.50	4.17
		2013	0	1.81	11.80	78.03	19.28	4.11
		2014	0	1.79	9.68	79.46	18.74	4.15
		2015	1	1.68	9.60	80.14	17.32	4.07
		2016	1	1.85	9.85	79.84	18.28	4.62
		2017	1	1.96	10.66	77.07	17.51	4.47
8	BTPN	2012	0	4.70	26.50	74.00	21.50	13.10
		2013	0	4.50	26.20	75.00	23.10	12.70
		2014	0	3.60	18.60	80.00	23.20	11.40
		2015	1	3.10	14.10	82.00	23.80	11.30
		2016	1	3.10	12.60	82.00	25.00	12.00
		2017	1	2.10	8.20	86.50	24.60	11.60
9	BUKOPIN	2012	0	1.83	19.47	81.42	16.34	4.56
		2013	0	1.78	19.44	82.38	15.1	3.82
		2014	0	1.23	11.53	89.21	14.2	3.7
		2015	1	1.39	8.6	93.1	11.15	3.53
		2016	1	0.54	4.56	94.36	11.62	3.93
		2017	1	0.09	1.85	99.04	10.52	2.89
10	PERMATA	2012	0	1.7	17.54	83.1	15.86	5.03
		2013	0	1.55	15.68	84.9	14.28	4.22
		2014	0	1.16	12.17	89.8	13.58	3.63
		2015	1	0.2	1.8	98.9	15	4
		2016	1	4.9	38.3	150.8	15.6	3.9
		2017	1	0.6	4.8	94.8	18.1	4