

The Effect of the Growth of Financial Technology Companies Peer To Peer Lending on the Performance of Banking in Indonesia

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Abstract

The technological developments in the financial world that being discussed are financial technology companies. The companies provide financial services like banking with the use of technology. Financial technology companies consist of various types, one of which is Peer To Peer Lending, which provides loans directly from lenders to borrowers of several types. However, the development of Peer To Peer Lending is considered to threaten banks in Indonesia because they provide the same banking services but more simpler and competitive. This study investigates the relationship between the growth of financial firms and banking performance in Indonesia. Researcher used data from 109 banks registered with the Financial Services Authority (OJK) and financial company data from 2015 to 2019. Researcher found that the growth of financial technology companies was seen from the number of companies, number of lender accounts, number of borrower accounts, number of transactions. the borrower, and the number of transactions of the lender have a negative effect on banking performance as measured by various kinds of profitability ratios. This research has implications for banking management to pay more attention to the growth of financial technology companies that have an influence on banking performance, so that in making future policies it can maintain the balance of developing markets in Indonesia.

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1. Introduction

A competitive environment in the business world is common, every company is always continue to innovate, including in the world of finance, namely banking. A bank is a business entity that carries out its duties in the financial services sector, which functions to store, distribute and provide financial services to the entire community. In Republic of Indonesia Law UU No. 10 of 1998, banking in Indonesia has two types, namely Commercial Banks and Rural Banks (BPR). Commercial banks can collect funds and all payment traffic transactions such as demand deposits, time deposits, savings, credit distribution and others, while Rural Banks (BPR) have activities that resemble commercial banks but cannot make payment traffic or transfer transactions and current accounts. . Competition that occurs in the financial world, namely banking, cannot be avoided from the factors of the development of science and technology. The rapid growth of technology makes it easier for people to access various information, so that people are now accustomed to practicality, such as banking issuing online features to make it easier for their customers and what is currently being discussed is financial technology (FinTech).

FinTech is a term to denote modern technology in finance. Financial technology companies are usually micro and medium enterprises and have been around since 2010 with services that resemble banking. The emergence of FinTech is an innovation that can change an existing market by bringing efficiency, convenience, flexibility or ease of access to services and economical costs. This situation is commonly known as disruptive innovation, (creating new markets or replacing existing technology) innovations that are not expected by the market (Bower & Christensa, 1995) and (Mateo & Serrano, 2011). The development of FinTech in developing countries occurs because of the human need for development and the desire for effectiveness whereas this is not found in the financial world in developing countries, at the same time the emergence of new technologies, especially cellular communication, brings all financial innovations (Asaba, Aiba, Hrono, 2016). FinTech growth began to explode in 2015 and continued to grow rapidly in the following year, namely 2016. FinTech companies continued to increase in number in Indonesia until in 2016 it reached around 142 companies with transaction values reaching Rp. 199 Trillion. This FinTech growth continues to increase until January 27, 2020 to 161 (Oetomo Budi Suttedjo Dharma, 2001).

The rapid growth of FinTech is of particular concern to Bank Indonesia (BI) and the Financial Services Authority (OJK), thus issuing policies related to Financial Technology in the field of Peer to Peer (P2P) Lending services, namely the limit of loans that can be distributed to the public, a maximum of up to Rp. 2 billion in

rupiah currency per debtor. Another regulation, namely number 13 / POJK.02 / 2018 concerning Digital Financial Innovation in the Financial Services Sector, is to encourage FinTech to be able to produce digital financial innovations that can be responsible, guaranteed security, and well managed. The policy is expected to minimize defaults and guarantee user security, as well as increase financial inclusion and investment. The ease of FinTech Lending in providing services can pose a threat to banks in Indonesia because the lending process at banks has special provisions on administrative processes that seem complicated and time-consuming, thus making the public more interested in FinTech. This threat makes banks have to start implementing banking digitization, because the impact of banking digitization can reduce margins so that it can affect bank profitability (Yanuar, 2019).

Previous researchers stated that the negative influence of FinTech was significant on banking performance, which means that in 2019 high FinTech growth in Indonesia will have an impact on decreasing banking performance or vice versa if the growth in the number of FinTech decreases, banking performance will be fine. Based on the background discussion above, the variables are very interesting to be studied further. This study will conduct tests using data on banking performance in Indonesia, because it assumes that Indonesia is a developing country where the use of technology is beginning to be exploited. This study entitled "The Influence of Online Loan Financial Technology Company Growth on Banking Performance in Indonesia". It is hoped that this topic can be used as input in measuring banking performance by looking at external factors and used as a reference for conducting research related to Financial Technology.

2. Literatur Review

Banking in Indonesia

According to Law No.10 of 1998 states that the duty of a bank is to collect funds from customers in the form of savings and then channel it back to customers in the form of a loan or credit so that it can encourage Indonesia's economic growth. Banks have several kinds of definitions, as a credit recipient, in the form of deposits, time deposits, savings in accounts or current accounts, bilyet giro, as a lender, and Mac Leod stated that, "bank is a shop for the sale of credit", meaning that a bank is the place where the credit provider is and is not in question originating from the customer's savings or deposits. The function of a bank is to form a trust department which consists of three definitions, Agent of Trust (trust), Agent of Development (development) and Agent of Services (services or services) (Suyatno, 1988: 2). Banking has several types of BUKU, in Bank Indonesia (BI) regulation No. 14/26 / PBI / 2012 concerning business activities and company networks based on bank core capital, which was

then updated by the Financial Services Authority (OJK) No. 6 / POJK.03 / 2016 which establish a BUKU 1 Bank, namely with a core capital of <IDR 1 trillion, a BUKU 2 Bank with a core capital of IDR 1 trillion to 5 trillion, a BUKU 3 Bank with a core capital of IDR 5 trillion to IDR 30 trillion, and a capital of more than IDR 30 trillion. in BUKU Bank 4. Banks that are included in BUKU 3 and 4 are always considered to be large banks and have good performance so that they can reach BUKU 3 or 4. According to Law No.10 of 1998 also states that a bank is a business entity that has a role It is important in supporting the implementation of national development and the growth of banks in a country to be used as a measure of economic growth and national stability so that the welfare of the Indonesian people is realized. The importance of banking for the economy in Indonesia requires that banks always perform well.

Banking Performance Measurement

Performance is the result of a company's activities that have been carried out within a certain period of time and processed in a note in the form of the company's financial statements (Bastian & Suhardjono, 2006). Banking financial reports issued annually are used to determine the achievement of bank health assessments. The procedure for assessing the soundness of banking is regulated in Circular Letter no. 14/26 / DKBU dated 19 September 2011, namely that the five criteria can be seen from capital, assets, management, earnings which are abbreviated as CAMEL (Mohieldin & Nasr, 2007). Measurement of the profitability ratio in banking can be known by calculating ROA which is influenced by CAR (Capital Adequacy Ratio), besides that, you must consider NIM and ROE, because according to Bank Indonesia, in measuring bank profitability, it can be seen in the handling of assets obtained from public savings. become a customer at the bank (Dendawijaya, 2005).

1. Return On Asset (ROA) is a ratio used in estimating bank performance or banking management competence in obtaining overall profit, the higher the profit or profit that can mean the better the management or use of bank assets (Dendawijaya in Martin et al, 2014). The ROA usually uses total assets consisting of various assets such as productive assets, securities, various stock placements in other companies, and various collateral in the form of credit (Dendawijaya in Martin et al, 2014). Bank Indonesia sets the ROA standard for banking at 5.98%.
2. Return on Equity (ROE) is the ratio used to estimate the performance or competence of bank management in obtaining capital management benefits. The greater the ratio value obtained, the better the bank management is in managing and using its capital. Capital in a bank can be obtained from the bank's own capital, current accounts, savings deposits, time deposits and others. Bank Indonesia sets the ROE

- standard for banking at 8.32%, meaning that if a bank achieves an ROE value of 8.32% it can be said to be performing well.
3. Net Interest Margin (NIM) is the ratio to estimate the competence of bank management or its productivity to generate net interest income. This ratio shows the bank's ability in terms of extending credit. Bank income is obtained from the interest received from the proceeds from providing loans or credit to customers, then deducted by interest. So if you want to increase the NIM ratio in the bank, what banking management must do is to reduce funding costs. This funding cost will determine how much interest will be given in lending to customers. The greater the NIM ratio means that the increase in interest income from bank production activities is in good condition. And what really determines the amount of NIM is the interest rate. Bank Indonesia has set the standard NIM ratio at 6%.
4. Bank Size (Firm Size) is used to see the size of a bank which can be seen from the total assets owned. The greater the total value of assets owned, it means that the company or bank is also bigger. The size of the company (bank) is a proxy or control that should achieve smooth operations and inventory control (Mukhlisin, in Purwitasari and Aditya, 2013).

Banking performance can decrease or increase due to risks and negative factors in banking, so to assist in seeing the risk is by calculating the CAR, LDR and NPL ratios. Every company must know the risks it will face and always implement operational activities based on the principle of prudence.

1. Capital Adequacy Ratio (CAR), is the ratio used to measure the amount of capital owned by a bank, in Bank Indonesia regulation no. 14/18 / PBI 2012 concerning Procedures for Assessing the Soundness of banking, which states that banks are required to provide a Minimum Capital Adequacy Requirement (KPM) of 8% to measure CAR. The bigger the CAR will have an impact on the increase in idle funds and if the CAR is getting smaller it will result in reduced customer confidence and manifested by the existence of a run on bank. So bank management must be able to efficiently manage the capital used in operational activities, so as to reduce the risk of banking performance.
2. Loan to Deposit Ratio (LDR) is a ratio used to estimate a bank's ability to finance liabilities to customers who have invested funds. The funds are rotated by the bank in the form of credits which are a source of liquidity (Dendawijaya, 2005: 116). Then the higher the LDR sign that the bank is in bad condition because of the low ability of the bank to pay its obligations or the low bank liquidity. So that this ratio can see whether the bank still needs a loan, namely for expansion or limited loans. Bank

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Indonesia sets the standard value for LDR at 110%.

3. Non-Performing Loan (NPL) is the ratio used to estimate bank risk because it can determine the high credit level of a bank which is reflected in this ratio. The NPL ratio can determine the bank's risk of bad credit or the risk of default. This credit risk occurs because of various non-performing loans. Bank management must be seen in the activity or quality of productive assets owned by the bank because this is a factor in assessing the soundness of the bank (Seryawan in Triasdini, 2010: 46). Loans classified in the NPL category are loans that are substandard, loss or doubt. The more the number of NPLs, the worse the condition of the bank and also the lower the soundness of the bank. Bank management must pay attention to this so that credit risk can be avoided by trying to be at a reasonable level between 3% -5% of total credit.

Financial Technology

The National Digital Research Center (NDRC) defines financial technology as an innovation from the financial services sector with the help of modern technology, giving rise to the terms finance and technology (Prestama et al., 2019). According to Pribadiono (2016), states that FinTech is a combination of financial and technological features, namely innovation in the financial sector due to a touch of technology, whereas according to Dorfleitner (2017) FinTech is an industry that is growing very rapidly and changing which is a lot of it. different business models in it.

FinTech began to be classified by Professor Douglas W. Arner from Hong Kong University into four eras. Financial Technology 1.0, namely in 1866 - 1967 which is related to infrastructure development. Financial Technology 2.0 in 1967 - 2008 started the growth of the internet and various digital finance, Financial Technology 3.0 and 3.5 took place in 2008 - 2018 which began with the emergence of various digital or technology businesses in finance, the use of smartphones and innovation from an existing technological opportunity (Mawarni, 2018), and in 2019 it is known as FinTech 4.0 which is also called industry 4.0 with economic activities or technology-based industries. Financial technology as an initiative in both startups and established companies, all seeks to connect investors and borrowers through digital platforms. The majority of financial technology companies are small and medium-sized companies that lack a lot of equity, but this financial technology company was born from a lot of very clear ideas about how to improve and manage existing services in finance according to market demands. The concept of crowdfunding and venture in FinTech is a funding activity that comes from a variety of contributions and a variety of different backgrounds with the aim of

helping others meet their needs (Beaulieu et al., 2015).

Hypothesis Development

Financial technology companies are the result of technological developments in digital finance, which have a market share similar to banking. P2P lending platforms provide direct loan facilities from surplus expenditure units to online-based deficit spending units (Milne & Parboteeah, 2016). This system can eliminate the intermediary processes that are usually present in the banking system in Indonesia, because of the benefits of information processing and internet-based services so that it is faster and more effective. The drawback of P2P is a higher level of bad credit risk than traditional banks. OJK explained in regulation Number 77 / POJK.01 / 2016 that FinTech, namely P2P Lending, is not allowed to print debt securities or debt agreements in any form, therefore financial technology companies will not threaten other financial industries, and emphasize the role of P2P Lending is only a channel between investors and capital seekers. OJK's explanation is still in doubt because financial technology companies are not only P2P Lending, so it is still possible to become a threat to banks in Indonesia. This is evidenced by previous research by (Phan et al., 2020), in this study explaining the influence of the growth of technology companies on banking performance in Indonesia, which is a developing country by using calculations of various profitability ratios, banking risk ratios, and macroeconomic factors. The results in this study state that the growth of technology companies has a negative effect on bank performance in 2019 in Indonesia. This study also compares the influence of FinTech between private banks and state-owned banks and the result is that state-owned banks as a whole have a more negative effect than the results of private banks, because state-owned banks are considered slow in innovating compared to private banks.

Other studies have found that P2P Lending has a competitive and negative effect on bank loans. P2P has a wider market expansion than traditional banks. This study uses loan balance variables, loan interest rates, and others regarding loans in measuring banking performance (Zhang et al., 2019). FinTech can serve a market which cannot be penetrated by traditional banking, which means that technology companies are superior to dominating the market compared to traditional banking, thus affecting the decline in banking performance (Jagtiani & Lemieux, 2018). Based on existing studies and literacy, the author assumes that if the development of financial technology companies is high, the performance of banking in Indonesia will decline, then the hypothesis in this study can be conceptualized :

H1: The development of peer to peer financial technology companies has a negative effect on banking performance in Indonesia.

3. Methodology

Types and Source of Data

This study aims to test the hypothesis that explains the influence of the growth of financial technology companies (FinTech) on banking performance in Indonesia. This research is a secondary data survey, namely the collection of data obtained from the annual financial reports of banks registered with the Financial Services Authority (OJK), and for additional data the authors use data available in Bank Indonesia. In this study, using annual banking financial data for 2015-2019, as well as data on FinTech companies in 2015-2019.

Sampling Technique

Sampling in this study using purposive sampling technique, namely the method of selecting samples with certain predetermined indicators, so as to provide samples that match the information needed in the study. The sample selection indicators in this study are banking companies that have been registered with the Financial Services Authority in Indonesia, with annual financial reports for 2015 - 2019, and FinTech company data from 2015 - 2019.

Research Variables and Operational Definitions

The dependent variable is influenced by the independent variable. The dependent variable is used as material for investigations so that the answer to a problem can be found. This study uses the dependent variable of banking performance which will be measured by calculating the profitability ratio, namely the ratio of ROA, ROE, and NIM. according to (Phan et al., 2020).

The independent variable has an influence on the dependent variable, both negative and positive. In this study, using an independent variable in the form of the growth of financial technology companies as measured by the number of FinTech Lending companies in accordance with (Phan et al., 2020), however, there is an increase in the number of lender accounts, number of borrower accounts, borrower transactions, and lender transactions.

Control variables act as controllers or eliminating certain influences that arise in a research model. The selected control variables are Firm size, CAR, LDR Ratio, and NPL Ratio to avoid bias in measuring bank performance. Almost several studies have found a positive effect of FinTech on banking performance (Giunta & Trivieri, 2007). Therefore, the size of the bank is included in this study, which is calculated using the natural logarithm of total assets. CAR is a control variable that affects non-performing

loans by calculating it, namely capital divided by assets multiplied by 100 percent (Natsir et al., 2019), so this CAR greatly affects ROA in determining banking performance. LDR (Loan to Deposit Ratio) is bank liquidity or the same as credit expansion represented by the loan to deposit ratio, LDR has a significant impact on the efficiency of bank costs in Indonesia (Firmansyah & Anwar, 2019). NPL (Non-Performing Loan) is the ratio of capital or non-performing loans that represents bank risk (Firmansyah & Anwar, 2019).

Data Analysis Technique

Descriptive Statistical Analysis

Descriptive statistical analysis is a test to provide an explanation of the description in a data in terms of several things, such as the average value (mean), standard deviation, maximum and minimum value of data.

Panel Regression Test

Panel regression test is used to determine the relationship between the variables studied, namely the dependent variable on banking performance and the independent variable on the growth of financial technology companies with control variables, namely size, CAR, LDR, and NPL. The aim is to compute time-series and cross-section data simultaneously by estimating the error term, which has a relationship with individual dimensions and time. The regression model :

$$\text{Banking Performance (ROA)} = \alpha + \beta_1 \text{ FinTech} + \beta_2 \text{ Lender} + \beta_3 \text{ Borrower} + \beta_4 \text{ Borrower Transaction} + \beta_5 \text{ Lender Transaction} + \beta_6 \text{ Size} + \beta_7 \text{ CAR} + \beta_8 \text{ LDR} + \beta_9 \text{ NPL} + \varepsilon$$

$$\text{Banking Performance (ROE)} = \alpha + \beta_1 \text{ FinTech} + \beta_2 \text{ Lender} + \beta_3 \text{ Borrower} + \beta_4 \text{ Borrower Transaction} + \beta_5 \text{ Lender Transaction} + \beta_6 \text{ Size} + \beta_7 \text{ CAR} + \beta_8 \text{ LDR} + \beta_9 \text{ NPL} + \varepsilon$$

$$\text{Banking Performance (NIM)} = \alpha + \beta_1 \text{ FinTech} + \beta_2 \text{ Lender} + \beta_3 \text{ Borrower} + \beta_4 \text{ Borrower Transaction} + \beta_5 \text{ Lender Transaction} + \beta_6 \text{ Size} + \beta_7 \text{ CAR} + \beta_8 \text{ LDR} + \beta_9 \text{ NPL} + \varepsilon$$

Classic Assumption Test

In processing good statistical data so as to avoid bias it is necessary to test classical assumptions (Gujarati, 2003), among others, the first normality test is the skewness-kurtosis statistical test. The method used is the One Sample Kolmogorov-Smirnov test method, with a normally distributed residual if the significant value is more than 0.05 (Priyatno, 2014: 94). The two multicollinearity tests are seen from the Tolerance Value (TOL) and Variance Inflation Factor (VIF). Multicollinearity does

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not occur if $VIF < 10$ and the Tolerance value > 0.10 , because the maximum limit of VIF used to test for collinearity is 10 and the Tolerance value is less than 0.10 so that if $VIF > 10$ and the Tolerance value < 0.10 , multicollinearity occurs. . The three heteroscedasticity tests are seen at a significant level, if the $p \text{ value} \leq \alpha = 0.05$ then the data experiences heteroscedasticity, if $p \geq \alpha = 0.05$ then the data experiences homoscedasticity.

Hypothesis Testing

Wald test or F statistical test is used to see how the effect of the independent variable on the dependent variable. This can be known by looking at the level of significance. If the level of significance is less than 1%, 5%, or 10%. then the hypothesis is accepted, namely H_0 is rejected and H_1 is accepted, which means that the independent variables together have a significant influence on the dependent variable, and vice versa, the hypothesis is rejected if the level of significance is greater than 1%, 5%, or 10%.

The determination coefficient test, Gujarati (2003), states that the coefficient of determination is an indicator that shows the suitability of an econometric model used in regression testing. This coefficient shows how the proportion of a variance that occurs in the dependent variable can be explained by the independent variable. If the value of R^2

approaches the number 1, it can be stated that the variables used in the study are all in accordance with the information needed to explain the variation of the dependent variable, whereas if the R^2 value approaches the number 0, it can be stated that the relationship between variables is getting weaker because of the ability of the variables used in research provides little or limited information needed to explain the variation of the dependent variable.

4. Result

Data analysis

This study uses secondary data obtained from all banks that have been registered with the Financial Services Authority (OJK) from 2015 to 2019. Banking data is obtained from the Financial Services Authority website and the Annual Report on the website of each bank. Financial technology company report data were obtained from the Financial Services Authority website from 2015 to 2019. In data collection for this study, a population of 573 banks was obtained. Sampling was done by using purposive sampling method technique so that the data obtained is the final data that the researcher will use as observation material. These criteria are presented in the following table:

Table 1. Number of Sample Banks for Research Observation

Years	Banks					TOTAL
	Islamic Bank	Persero Bank	Local Bank	Bank Foreign	Private Bank	
2015	12	4	25	10	67	118
2016	12	4	26	10	64	116
2017	12	4	26	9	64	115
2018	12	4	24	9	64	115
2019	12	4	24	8	59	109

Regression Test

The table above is data on the number of banks that will be used as observational data, and the latest data that will be used is the latest data of 109 banks in 2019 because annual financial report data continues and banks that are still surviving are 109 banks from 2015 to 2019 with 5 reports. annual data so that the data obtained is 545 data. The amount of data is used in the research

observations described in the previous chapter.

Descriptive Statistics

Descriptive statistical test is used to determine how the data distribution in the study, namely each variable is seen from the mean, standard deviation, minimum value, and maximum value. The data distribution is summarized in the following table:

Table 2. Descriptive Statistics

Variable	Obs	Mean	Std. Dev	Min	Max
ROA	545	0,016015	0,010978	0,0002	0,0325
ROE	545	0,077522	0,095305	-0,1543	0,2351
NIM	545	0,050626	0,021806	0,0071	0,0919
FINTECH	545	93	50,9388	27	164
LogLender	436	11,66305	1,366662	9,57248	13,31453
LogBRW	436	13,76	2,410306	10,5481	16,73701
LogTBRW	218	17,34934	0,873381	16,47797	18,22072
LogTLender	218	16,95304	0,965981	15,98927	17,9168
Firm Size	545	30,51585	1,330744	28,24998	32,99485
NPL	545	0,031905	0,03362	0	0,4399
LDR	545	0,933262	0,198237	0,6723	1,4161
CAR	545	0,243771	0,097117	0,1437	0,5324

Based on table 2, it can be seen that the dependent variable of banking performance from the ROA variable shows an average value of 0.016015 or 1.6015%, which means that the average bank in the ROA ratio has financial performance still above BI standards, namely 1.5%. with a standard deviation of 0.010978 and a minimum value of 0.0002 and a maximum value of 0.0325.

The dependent variable of banking performance as seen from the ROE ratio variable has an average value of 0.0775224 or 7.76%, which means that the bank's performance in general when viewed from the ROE ratio with BI standards of 8.32% is still below standard and also shows the rate of return. on equity 7.76% in 2015-2019, this ROE ratio has a standard deviation of 0.0953051 and a minimum value of -0.1543 with a maximum value of 0.2351. Meanwhile, banking performance when viewed from the NIM variable has an average value of 0.0506262 or 5.06%, which means that the value of the NIM ratio of banks in general is still below the standard value of Bank Indonesia (BI), which is 6%.

The independent variable, namely the number of financial technology companies, has an average value of 93 with a standard deviation of 50.9388 and a minimum value of 27 and a maximum value of 164 companies. The variable number of Lender accounts (LogLENDER), which has an average value of 11.66305, which means that the lender account in 2015-2019 is 1166.31% and this can be said to be a large number. The standard deviation of this variable is 1.366662 and the minimum value is 9.57248 and the maximum value is 13.31453.

The variable number of Borrower accounts (LogBRW) has an average value of 13.76 or 1376%, meaning that the number of borrower

accounts for 2015-2019 is very high with a standard deviation of 2.410306 and a minimum value of 10.5481 and a maximum value of 16.737301. For the variable number of borrower transactions (LogTBRW), it has an average value of 17.34934 with a standard deviation of 0.8733806 and a minimum value of 16.47797 and a maximum value of 18.22072. The next independent variable is the number of Lender transaction accounts (LogTLENDER) which has an average value of 16.95304 with a standard deviation of 0.9659813 and a minimum value of 15.98927 and a maximum value of 17.9168.

The results of the descriptive statistical test of the control variable consisting of four variables, namely the Firm size (LogSIZE) variable, the NPL ratio variable, the LDR ratio variable, and the CAR ratio variable. First, the Firm size (LogSIZE) variable has an average value of 30.515185 with a standard deviation of 1.330744 and a minimum value of 28.24998 and a maximum value of 32.99485. Second, the NPL variable has an average value of 0.0319051 or 3.19%, which means that the value of the bank's NPL ratio in general is below the BI standard of 5%, this is good because the smaller the NPL ratio the better the bank's credit condition, the NPL ratio has standard deviation of 0.0336198 and a minimum value of 0 and a maximum value of 0.4399. The three LDR ratio variables have an average of 0.9332624 or 93.33%, which means that the value of the bank's LDR ratio in general is still below Bank Indonesia (BI) standards, namely 110% with a standard deviation of 0.1782367 and a minimum value of 0.6723 and the maximum value is 1.4161. For the last control variable, namely the CAR ratio, it has an average value of 0.2437712 or 24.38%, which means that the value of the bank's CAR ratio is generally above the standard value of Bank Indonesia (BI) of 8%.

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Correlation Matrix

The correlation matrix of this study will show the relationship between the independent variables and the control variables. If there is a high correlation between the independent variable and the control variable it will bias the results of

the regression test. In this correlation test, it is known that all independent variables have a high correlation so that when the regression test has to be separated because it is worth $1.00 > 0.6$.

Table 4. Correlation Matrix

	FINTEC H	Lender	Borrower	Tran Borrower	Tran Lender	Firm Size	NPL	LDR	CAR
FINTEC H	1,000								
Lender	1,000	1,000							
Borrower	1,000	1,000	1,000						
Tran Borrower	1,000	1,000	1,000	1,000					
Tran Lender	1,000	1,000	1,000	1,000	1,000				
Firm Size	0.035	0.035	0.035	0.035	0.035	1,000			
NPL	0.0364	0.0364	0.0364	0.0364	0.0364	-0.166	1,000		
LDR	-0.0688	-0.069	-0.0688	-0.069	-0.069	0.056	-0.29	1,000	
CAR	0.0189	0.0189	0.0189	0.0189	0.0189	-0.27	-0.26	0.2307	1,000

Regression Test

This study seeks to determine the dependence or relationship between the growth of financial technology companies (FinTech) on banking performance. By using the panel data regression test, namely the robust regression test, it allows the data to be tested in a cross-sectional and time-series manner together in one test. Robust regression test that can avoid regression test results to bias, and can ignore classic assumption tests for normality, heteroscedasticity, and autocorrelation. Robust regression was introduced by Andrews (1972). According to Olive (2005) Robust regression is a

regression method used when the distribution of the error is not normal and there are outliers that affect the model. This study uses a robust standard error to test its significance and coefficient.

The following is table 3 of the regression test for independent variables on the dependent variable. This test also involves control variables that have an influence on the dependent variable, so that it can be seen the significance of the coefficient of each variable in the study, whether it is different from previous research or the same.

Table 4. Results of the Independent Variable Robust Regression on the ROA Variable

	(1)	(2)	(3)	(4)	(5)
	ROA	ROA	ROA	ROA	ROA
FINTECH	-0,0000077**				
	-2,25				
Log LENDER		-0,000799***			
		-3,58			
Log BRW			-0,0005***		
			-3,84		
Log TBRW				-0,00082**	
				-2,31	
Log TLENDER					-0,00074**
					-2,31
Log Size	0,00190***	0,00238***	0,00240***	0,00285***	0,00285***
	3,42	4,32	4,41	5,08	5,08
NPL	-0,0633***	-0,0649***	-0,0650***	-0,121***	-0,121***
	-4,85	-4,82	-4,86	-4,02	-4,02
LDR	0,00174	0,00118	0,00155	-0,00156	-0,00156
	0,74	0,41	0,52	-0,39	-0,39
CAR	0,00697	0,00932*	0,00926*	0,0194**	0,0194**
	1,42	1,68	1,7	2,37	2,37
_cons	-0,0426**	-0,0485***	-0,0523**	-0,0575***	-0,0592***
	-2,51	-2,91	-3,16	-3,08	-3,20
R-square	0,2020	0,2214	0,2227	0,3217	0,3217
Wald chi-square	48,36**	80,47***	89,33***	87,27**	89,27**
N	545	436	436	218	218

Robust standard errors in parentheses, significance level at *** p<0,01, **p<0,05, * p<0.1 c

Regression Test

This study seeks to determine the dependence or relationship between the growth of financial technology companies (FinTech) on banking performance. By using the panel data regression test, namely the robust regression test, it allows the data to be tested in a cross-sectional and time-series manner together in one test. Robust regression test that can avoid regression test results to bias, and can ignore classic assumption tests for normality, heteroscedasticity, and autocorrelation. Robust regression was introduced by Andrews (1972). According to Olive (2005) Robust regression is a regression method used when the distribution of the error is not normal and there are outliers that affect the model. This study uses a robust standard error to test its significance and coefficient.

The following is table 3 of the regression test for independent variables on the dependent variable. This test also involves control variables that have an influence on the dependent variable,

so that it can be seen the significance of the coefficient of each variable in the study,

The regression test results in table 4 show that the variables of the number of FinTech companies, the number of lender accounts, the number of borrower accounts, borrower transactions, and lender transactions both have negative and significant values, on the bank performance variable, namely the ROA ratio, which means that the growth of financial technology companies (FinTech) has an inverse relationship, namely the greater the growth of FinTech companies, the smaller the ROA ratio which indicates that banking performance is getting weaker, for example with the coefficient value of the variable number of Fintech companies -7.73e-06, with a z value of -2.25 and significant at 5%.

For the control variable company size has a coefficient value of -0.0019019 and a z value of 3.42 and a p value of 0.001, this means that the SIZE control variable affects the dependent variable of banking performance by looking at the

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ROA ratio, which means that if the size of the bank is large it will improve banking performance in the ratio. ROA. The second control variable NPL ratio has a coefficient value of -0.0632941 and a z value of -4.85 and a p value of 0.000, this means that the NPL ratio control variable has a negative effect on the dependent variable of banking performance by looking at the ROA ratio. So that the smaller the credit risk, namely the NPL will improve banking performance. The third control variable, namely the LDR ratio, has a coefficient value of 0.0017397 and a z-value of -0.74 and a p value of 0.460, this means that the LDR ratio control variable has no effect on the dependent variable

of banking performance by looking at the ROA ratio. And the last control variable, namely the CAR ratio, has a coefficient value of 0.0069709 and a z value of 1.42 and a p value of 0.156, this means that the CAR ratio control variable has no effect on the dependent variable of banking performance, but the calculation of other CAR variables has a negative and significant value. which means that if the CAR ratio decreases, it will be good for banking performance by looking at the ROA ratio. Furthermore, to determine the relationship between the independent variable and the control variable with the ROE ratio will be presented in the table below

Table 5. Results of the Independent Variable Robust Regression on the ROE Variable

	(1)	(2)	(3)	(4)	(5)
	ROE	ROE	ROE	ROE	ROE
FINTECH	-0,0000644*				
	-1,96				
Log LENDER		-0,00478**			
		-2,38			
Log BRW			-0,00282**		
			-2,47		
Log TBRW				-0,01176**	
				-2,57)	
Log TLENDER					-0,0118***
					-2,97
Log SIZE	0,00142***	0,0169***	0,01696***	0,00266	0,002525
	2,97	3,43	3,43	0,63	0,61
NPL	-0,906***	-0,932***	-0,933***	-0,8593	-0,87876
	-3,09	-3,04	-3,03	-1,22	-1,20
LDR	0,00934	0,00330	0,00546	-0,00911	-0,00812
	0,49	0,17	0,28	-0,66	-0,49
CAR	-0,112**	-0,0731	-0,0734	-0,168	-0,1714
	-2,42	-1,36	-1,37	-1,04	-1,08
_cons	-0,301**	-0,340**	-0,361**	0,3688***	0,3683***
	-2,01	-2,18	-2,29	3,39	3,32
R-square	0,2655	0,2831	0,2835	0,3822	0,3822
Wald chi-square	30,87*	34,86**	34,77**	109,26**	109,26***
N	545	436	436	218	218

Robust standard errors in parentheses, significance level at *** p<0,01, **p<0,05, * p<0.1

The results in table 5 also show that the variables of the number of FinTech companies, the number of lender accounts, the number of borrower accounts, borrower transactions, and lender transactions both have negative and significant values on the financial performance

variable as indicated by the ROE ratio. This means that the higher the growth of financial technology companies (FinTech), the lower the ROE ratio which explains the weaker banking performance, for example the variable coefficient value of the number of Fintech companies is - 0.0000644 with a z-value of -1.96 and a significant p-value of 0.050 at 1 %.

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For the control variable company size has a coefficient value of 0.0141517 and a z value of 2.97 and a p value of 0.003, this means that the SIZE control variable has a positive effect on the dependent variable of banking performance by looking at the ROE ratio, meaning that the bigger the bank the better the banking performance is seen from ROE ratio. The second control variable NPL ratio has a coefficient value of -0.9064603 and a z value of -3.09 and a p value of 0.002, this means that the NPL ratio control variable has a negative effect on the dependent variable of banking performance, meaning that the higher the value of the NPL ratio, the lower the ratio value. ROE resulting in weakening of banking performance. The third control variable, namely the LDR ratio, has a coefficient value of 0.0093399 and a z value of 0.49 and a p value of 0.625, this means that the LDR ratio control variable has no effect on the dependent variable

of banking performance by looking at the ROE ratio. The last control variable, namely the CAR ratio, has a coefficient value of -0.1115447 and a z-value of -2.46 and a p value of 0.014, this means that the CAR ratio control variable has a negative effect on the dependent variable of banking performance by looking at the ROE ratio, meaning that if the CAR ratio increases, the performance banking will go down.

Next are the results of the Robust regression test between the independent Fintech variable, the Lender account variable, the Borrower account variable, the borrower transaction variable and the lender transaction variable on the dependent variable, namely the ratio of ROA, ROE, and NIM, taking into account the control variable company size, NPL ratio, ratio. LDR, and CAR ratio. The results of the regression test are presented in the table below.

Table 6. Results of the Independent Variable Robust Regression on the NIM Variable

	(1)	(2)	(3)	(4)	(5)
	NIM	NIM	NIM	NIM	NIM
FINTECH	-0,000016***				
	-2,89				
Log LENDER		-0,0021***			
		-6,55			
Log BRW			-0,0012***		
			-6,36		
Log TBRW				-0,00195***	
				-3,95	
Log TLENDER					-0,00176***
					-3,95
Log SIZE	-0,00196	0,00114	0,00101	0,00114	0,00114
	-1,48	1,02	0,9	0,84	0,84
NPL	-0,0133	-0,0237**	-0,0236**	-0,0566	-0,0566
	-1,48	-2,55	-2,42	-1,13	-1,13
LDR	0,00465	0,00278	0,00393	-0,00198	-0,00198
	1,16	0,63	0,88	-0,23	-0,23
CAR	-0,00301	-0,00114	-0,00145	-0,0223	-0,0223
	-0,25	-0,08	-0,10	-1,28	-1,28
_cons	0,109***	0,0384	0,0326	0,056	0,0521
	2,67	1,11	0,93	1,34	1,25
R-square	0,0019	0,0381	0,0363	0,0096	0,0096
Wald chi-square	15,66***	48,43***	45,21***	21,54***	21,54***
N	545	436	436	218	218

Robust standard errors in parentheses, significance level at *** p<0,01, **p<0,05, * p<0.1

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The results in table 6 also show that the variables of the number of FinTech companies, the number of lender accounts, the number of borrower accounts, borrower transactions, and lender transactions both have a negative and significant value on the financial performance variable as indicated by the NIM ratio. This means that the growth of technology companies (FinTech) has an effect on the smaller NIM ratio which explains the weaker banking performance, for example the FinTech variable has a coefficient value of -0.0000158, with a z-value of -2.89 and a p-value of 0.005 which means less than 0.05. .

For the control variable company size has a coefficient value of -0.0019559 and a z value of -1.48 and a p value of 0.138. This means that the SIZE control variable has no effect on the dependent variable of banking performance by looking at the NIM ratio. The second control variable, the NPL ratio, has a coefficient value of -0.0133415 and a z value of -1.48 and a p value of 0.139, this means that the NPL ratio control variable also has no effect on the dependent variable of banking performance by looking at the NIM ratio, but in other calculations the NPL has a negative and significant effect on the NIM ratio, which means that the higher the risk of default, namely the NPL, the lower the banking performance. The third control variable, namely the LDR ratio, has a coefficient value of 0.0046468 and a z value of 1.16 and a p value of 0.246, this means that the LDR ratio control

variable also has no effect on the dependent variable of banking performance. The last control variable, namely the CAR ratio, has a coefficient value of -0.0030111 and a z-value of -0.25 and a p value of 0.805, this means that the CAR ratio control variable has no effect on the dependent variable of banking performance by looking at the NIM ratio.

Classic Assumption Testing

Data Normality

From the results of the normality test, it can be seen that the p value for all variables except the borrower transaction variable and the lender transaction variable is below the adjusted chi-square so that only the two variables are normally distributed and other variables such as the dependent variable ROA, ROE, and NIM, the value of $p \leq \alpha = 0.05$ is not normally distributed. The independent variable the number of FinTech companies also has a p value $\leq \alpha = 0.05$ so that it is not normally distributed. Data that are not normally distributed are also experienced by all control variables, namely the variable company size, NPL ratio, LDR ratio, and CAR ratio because it has a p value $\leq \alpha = 0.05$. However, because this study uses regression with the Robust Standard Error so that the problem of data normality can be ignored, the following is the normality test result data:

Table 7. Normality Test Result

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj chi2(2)	Prob>chi2
ROA	545	0,96636	12,232	6,043	0,00000
ROE	545	0,95551	16,174	6,717	0,00000
NIM	545	0,99357	2,338	2,049	0,02023
FINTECH	545	0,97099	10,549	5,685	0,00000
LogLENDER	436	0,96777	9,586	5,400	0,00000
LogBRW	436	0,97279	8,092	4,995	0,00000
LogTBRW	218	0,99961	0,062	-6,426	1,00000
LogTLENDER	218	0,99961	0,062	-6,426	1,00000
LogSIZE	545	0,98432	5,700	4,200	0,00000
NPL	545	0,60362	144,117	11,995	0,00000
LDR	545	0,90373	35,003	8,580	0,00000
CAR	545	0,80244	71,827	10,314	0,00000

Multicollinearity of Data

The multicollinearity test on the independent FinTech variable has a VIF value of 1.00, a value of not more than 10 and a TOL value of 0.995199 above 0.1, which means that there is no multicollinearity in the variable number of Fintech companies on banking performance. The independent variables of the two lender accounts

have a VIF value of 1.01, a value of not more than 10 and a TOL value of 0.988201 above 0.1, which means that there is no multicollinearity in the lender account variable on the banking performance variable. The third independent variable, the borrower account, has a VIF value of 1.01, with a value of not more than 10 and a TOL value of 0.989303 above 0.1, which means that there is no multicollinearity in the borrower

account variable on the banking performance variable. The fourth independent variable of borrower transactions has a VIF value of 1.01, with a value of not more than 10 and a TOL value of 0.989910 above 0.1, which means that there is

no multicollinearity in the variable borrower transaction account on the banking performance variable. And all control variables also did not occur multicollinerias between variables, here is a table of multicollineral test results:

Table 8. Multicollinearity Test Results

Variable	VIF	1/VIF
FINTECH	1,00	0,995199
Lender	1,01	0,988201
Borrower	1,01	0,989303
Tran Borrower	1,01	0,989910
Tran Lender	1,01	0,989910
Firm Size	1,12	0,892208
NPL	1,03	0,966397
LDR	1,07	0,930872
CAR	1,17	0,856716

Heteroscedasticity of Data

The results of the heteroscedasticity test proved that the p value $\geq \alpha = 0.05$, the data experienced homoscedasticity and heteroscedasticity did not occur. So that there is a similarity of variants from the residuals in

one observation to another in the regression model. And according to Hill et al (2011), because the data uses panel data with Robust Standard Error testing, it can anticipate the possibility of specification errors and variant functions and the possibility of heteroscedasticity.

Table 9. Heteroscedasticity Test Results

Chi2(20) = 79.96	Prob > chi2 = 0.0000	Heterosadasticity does not occur
Chi2(19) = 38.25	Prob > chi2 = 0.0055	Heterosadasticity does not occur
Chi2(20) = 95.21	Prob > chi2 = 0.0000	Heterosadasticity does not occur
Chi2(20) = 92.25	Prob > chi2 = 0.0000	Heterosadasticity does not occur
Chi2(19) = 46.58	Prob > chi2 = 0.0004	Heterosadasticity does not occur

Simultaneous Hypothesis Testing

The results of the heteroscedasticity test proved that the p value $\geq \alpha = 0.05$, the data experienced homoscedasticity and heteroscedasticity did not occur. So that there is a similarity of variants from the residuals in one observation to another in the regression model. And according to Hill et al (2011), because the data uses panel data with Robust Standard Error testing, it can anticipate the possibility of specification errors and variant functions and the possibility of heteroscedasticity.

Simultaneous hypothesis testing is used to determine the significant influence between the independent variables of the study simultaneously on the dependent variable by using the Wald test (Wald Test). The regression results test in tables 4.5 and 6

shows that the variables of the number of FinTech companies, the number of lender accounts, the number of borrower accounts, borrower transactions, and lender transactions have a simultaneous effect at the level of 1%, 5% and 10% with a value p-value average less than 0.01 level of significance, then H0 is rejected while H1 is accepted. This means that the independent variables together have a significant effect on the dependent variable.

Hypothesis Results

H1: The development of peer to peer financial technology companies has a negative effect on banking performance in Indonesia.

The regression results in tables 4, 5 and 6 show that the variable number of FinTech companies, number of lender accounts,

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number of borrower accounts, borrower transactions, and lender transactions has a negative and significant effect on banking performance. This can be proven by the negative coefficient value of -0.000077 , and p value of $0.024 < 0.05$ and the simultaneous Wald chi-square of 48.36 at 5% for the number of FinTech companies on the ROA banking performance variable. The negative coefficient value is -0.0007993 , with a p value of $0.000 < 0.01$ and the simultaneous Wald chi-square of 80.47 at 1% for the number of accounts of FinTech companies' lenders on the ROA banking performance variable. The coefficient value of the number of borrower accounts on the ROA banking performance variable has a negative coefficient value of -0.0004759 , with a p value of $0.000 < 0.01$ and a simultaneous wald chi-square of 89.33 significance at 1% . The coefficient value of the number of borrower transactions on the ROA banking performance variable has a negative coefficient value of -0.000816 with a p value of $0.021 < 0.05$ and a simultaneous wald chi-square of 87.27 with a significance value of 5% . The value of the lender transaction coefficient on the banking performance variable ROA negative coefficient value -0.0007377 , with a p value of $0.021 < 0.05$ and a simultaneous Wald chi-square of 89.27 with a significance of 5% .

The calculation of the growth of online loan financial technology companies on banking performance by looking at the ROE and NIM ratios consistently has a negative and significant effect. This means that significantly the greater the growth of financial technology companies, the lower the performance of banking in Indonesia.

Based on the description above, Hypothesis 1 (H1) is accepted.

Hypothesis Discussion.

The relationship between the addition of technology companies or FinTech companies to banking performance is seen from the ratio of net income to total assets (ROA), the ratio of net income to total equity (ROE), and the ratio of net interest income to total assets has a significant negative effect. This means that if FinTech companies continue to grow, the bank's performance will decline. The impact can threaten the existence of banks. Because if banks are unable to manage their assets for profit, this will interfere with banking performance (Zhang et al., 2019). The banking assets come partly from savings and interest earned from customers. If bank customers decrease and

move to FinTech, because of the increase in FinTech, banking assets will decrease and the resulting profit will also decrease, meaning that banking performance will decline. The ratio of net income to total equity is used to measure the success of the company in earning earnings for shareholders (Mardiyato, 2009). Profits will be obtained if the bank's income is greater than the expenses incurred, and the largest bank income is in credit or credit interest. The main feature of FinTech is applying innovative technology to perform services provided by banks such as loans, payments, or investments. (Chishti & Barberis, 2016) and (Puschmann, 2017). So that if FinTech P2P continues to grow without being balanced by digital banking, it is likely that banking performance will decline, this is also in accordance with research (Prastika 2019) that FinTech has a significant effect on ROA and ROE, before and after collaborating with Fintech Start-Ups.

The addition of FinTech also has a negative and significant effect on the NIM ratio. The NIM ratio is used to measure progress in ensuring that banks manage their productive assets so that they earn net interest income. This result is in line with previous research which states that FinTech has a negative and significant effect on banking performance using four calculations, namely the ROA ratio, ROE ratio, NIM ratio, and YEA ratio (Phan et al., 2020). Other research also explains that NIM has a significant effect before and after collaborating with Fintech Start-Ups (Prastika, 2019). This means that FinTech has a relationship in increasing and decreasing banking profitability. Automatically, if the number of FinTech companies increases, FinTech users will also increase, namely the number of lender and borrower accounts, and this increase in accounts also has an impact on increasing borrower transactions and lender transactions. This study also proves that the number of lender accounts, borrower accounts, number of borrower transactions, and number of lender transactions simultaneously have a negative and significant effect on banking performance. According to (Ridwan Muchils in Prastika, 2019), if FinTech and banking collaborate, it will be easier to increase profitability.

Relationship between Firm Size and Banking Performance. The result is that the firm size variable has a significant positive effect on the ROA ratio and ROE ratio. This is in line with research (Opler et al., 2001) that company size can be determined by a number of things, including total sales, total

assets and market capacity, where these three variables are used to determine the size of the company and the result is that company size has a positive effect and significant to ROA or ROE (Prasanjaya et al., 2013) and (Dietrich, et al, 2009). Banks that have a large size will reduce the level of risk by diversifying products that contribute to operational efficiency that can increase profitability (Djalilov & Piesse, 2016). However, in this study, company size has no effect on the NIM variable in determining banking performance and this is in accordance with the research results (Phan et al., 2020) in table 3 and table 4. That company size has no effect on banking performance, namely NIM.

Relationship between LDR Ratio and Banking Performance. The LDR ratio in this study does not have a significant effect on the ROA, ROE and NIM variables, which should have a positive effect because it is in accordance with research (Ponco, 2008) that the LDR ratio has a positive and significant effect on the profitability of companies or banks. However, because of this the control variable can be ignored in the study. Even so, previous research conducted (Phan et al., 2020) in table 3,4, table 5 has the result that LDR is not significant to banking performance variables, namely ROA, ROE and NIM.

Relationship between NPL Ratio and Banking Performance. The result shows that the NPL ratio of 15 regression tests 8 of which states that the NPL variable has a negative and significant effect on the ROA, ROE and NIM variables which measure banking performance. This is in line with previous research that NPLs have a simultaneous effect on bank profitability (Phan et al., 2020) and (Prastika, 2019).

Relationship between CAR Ratio and Banking Performance. The CAR variable has a negative and significant relationship to the ROA and ROE variables in measuring banking performance. This result is in accordance with previous research that CAR shows the ability of a bank to manage its assets to develop the company and bear all the burdens of bank operations (Alpen & Anbar, 2011). Banks with high capital tend to show high profitability (Naceur & Goaid, 2011). And research (Prasanjaya et al., 2013) also states that CAR has a significant effect on ROA. According to (Phan et al., 2020) explaining that CAR has a significant effect on banking performance, namely the ROA ratio and ROE ratio, however in this study the NIM variable has no effect in measuring banking performance. This is also produced in research (Phan et al., 2020) in tables 3,4

and 5 that the CAR variable does not have a significant effect on banking performance, namely the NIM ratio.

CONCLUSIONS AND SUGGESTIONS

Conclusions

This study aims to determine the effect of growth in financial technology companies as measured by the number of FinTech companies, the number of lender accounts, the number of borrower accounts, the number of borrower transactions, and the number of lender transactions on banking performance as measured by the ROA ratio, ROE ratio, and NIM ratio. FinTech and banking companies used in this study are companies that have been registered with the Financial Services Authority (OJK), namely in the period 2015 to 2019, from the empirical results in the previous chapter, the following conclusions can be drawn:

1. Panel data regression test results show that the growth of financial technology companies is measured by the number of financial technology companies, lender accounts, borrower accounts, borrower transactions, and lender transactions have a negative and significant effect on banking performance in Indonesia as measured by the ratio of ROA, ROE, and NIM, meaning that the H1 hypothesis is accepted.
2. For the relationship between control variables and the influence of the growth of financial technology companies on banking performance, namely Firm Size, NPL ratio, LDR ratio, and CAR ratio, the result is that Firm Size has a positive and significant relationship to banking performance, namely the ROA and ROE ratios, but not related to or affect the financial performance variable, namely the NIM ratio. In general, the NPL ratio variable has a negative and significant effect on banking performance, namely the ROA, ROE, and NIM ratios. In the LDR ratio control variable, all regression results indicate that there is no effect on the banking performance of ROA, ROE, and NIM. And for the last control variable, namely the CAR ratio, it shows a negative and significant relationship with banking performance, namely ROA and ROE, but there is no relationship to the NIM variable.
3. The classical assumption test resulted that the data were not normally distributed, but there was no multicollinearity and no heteroscedasticity. This study did not

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conduct autocorrelation testing because it is a financial panel data. In addition, even though it does not pass the normality test because the regression test uses a robust panel regression test, all that is needed is the data that passes the Multicollinearity test, because the panel data and the Robust regression test can minimize the normality error and heteroscedasticity.

Limitations

This research was conducted in 2015 to 2019 in which data for financial technology companies in 2015, 2016, 2017 for the number of transactions was very difficult to obtain, but this study assumes that you want to do research from the beginning of the emergence of financial technology companies, namely 2015 and the company's heyday. financial technology, namely in 2019. And if using 2020, banking data for 2020 had not been published at the time the research was conducted either. There are differences in the hypothesis and form of regression test conducted in this study from previous studies, namely without including the market value variable, company age, differentiating state-owned banks and private banks, but in this study including all types of banks, even Islamic banks. This study also only involved the company's internal factors because external factors, namely inflation and GDP, had a high correlation between other independent variables so that they were excluded in the study.

Suggestion

Based on the limitations previously described, the suggestion for further research is that research is expected to be carried out with a longer period of time, so that data limitations in 2015 can be overcome with data from other years. Can compare the influence of Fintech on the types of banking in Indonesia, so that the data results will be more focused. There are additional external variables such as market value, inflation, and GDP, but still make sure that the data is not correlated with other variable data. Further research can conduct research with other banking performance proxies or other control variables so that the research model will be better and can explain the dependent variable.

Implications

This research can be implemented or applied by interested parties, namely for financial and banking technology companies that in making plans and strategies for the

company's progress, it is best to look at external factors that can threaten the company's performance, because if you are engaged in the same field, cooperation can usually be a solution in making the company's progress. business competition. So it is not impossible that FinTech and banking will work together to increase profitability, because in the field of technology, FinTech companies are indeed superior and innovative compared to banking. If banks do not innovate in the digital field in the future, banks may no longer be desirable as financial companies in Indonesia. Due to the fact that FinTech companies are increasing every year, this is what banking management in Indonesia needs to pay attention to.

This study provides additional knowledge to academics and further researchers that the addition of FinTech companies and the use of FinTech has an impact on the decline in banking performance in Indonesia. The increasing growth of FinTech means that this FinTech has many users or is in demand, this can be seen also from the value of lender transactions and the value of borrower transactions that continues to increase.

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