Original Article

The Effect Of Credit Risk, Operational Efficiency, And Capital Structure On Profitability (Empirical Study On The Banking Industry Listed On The Idx)

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Abstract

This study aims to determine the effect of credit risk, operational efficiency, and capital structure on profitability. This research was conducted using a quantitative approach to banks listed on the Indonesia Stock Exchange from 2016-2020. The purposive sampling method was used in this study to take samples, where the number of observations used was 210, namely 42 banks with a coverage of 5 years. This study was analyzed using multiple regression models and processed with Stata 15 software. The results showed that credit risk had a negative effect on profitability. In addition to credit risk, operational efficiency also has a negative impact on profitability. Meanwhile, the capital structure does not have a positive effect on profitability.

Keywords: Credit Risk, Operational Efficiency, Capital Structure, Profitability

INTRODUCTION

Banking is a service industry that provides financial or financial services to its customers, which we commonly call customers. One of the services offered by banks to their customers is credit services. Credit services themselves are services provided by banks through lending funds to customers or customers for various purposes. Usually, customers ask for credit from banks for multiple purposes such as investment, business capital, personal needs, etc. Giving credit must be careful because the credit disbursed will save the risk, which is called credit risk.

In providing credit to customers, the bank will conduct an analysis first before the credit application is accepted. In addition, the bank must have confidence before the credit is given. Despite this belief, risks can still occur due to the customer's failure to repay the loan. This risk is known as credit risk, which is caused by non-performing loans, namely the risk due to loans that banks cannot collect from customers. Bank Indonesia Regulation (PBI) no. 5/8/PBI/2003 concerning the Implementation of Risk Management for Commercial Banks, which has been revised. 25/11/2009, there are seven risks contained in banking liquidity risk, credit risk, market risk, operational risk, strategic risk, legal risk, and reputation risk.

Research related to profitability is increasingly relevant and needed by current and future decision-makers. This is triggered by the era of competition and the business environment influenced by VUCA factors (Volatility, Uncertainty, Complexity, and Ambiguity) in the digital age of industry 4.0. Therefore, more companies, including the banking industry, will find it increasingly difficult to increase their profitability now and in the future. Not now, not a few companies have lost money, especially during the Covid-19 period. It should be grateful that several studies on the influence of credit risk, interest rates, and liquidity on bank profitability have been carried out by several previous researchers. For example, Sari et al. (2021) found that credit risk affects profitability. However, finding the interest rate and liquidity variables does not affect profitability. Another researcher, Agnitama et al. (2021), found that firm size had a negative effect on profitability. In addition, Arief and Annes (2012) examined liquidity risk on profitability, finding that bank liquidity risk negatively impacted bank profitability in Pakistan. Furthermore, other researchers, Dian (2009) and Ahmad (2009) examined the liquidity variable on profitability, finding that liquidity positively affects banking profitability in Indonesia.

To increase their profitability, banks can perform operational efficiency by reducing inputs and increasing outputs. In addition to these two things, operational efficiency can also be done by assessing how the bank's operational activities can achieve predetermined profit targets. The ratio that can measure a bank's efficiency is the Operating Cost of Operating Income. According to Yudistira and Adiputra (2020), the low BOPO ratio indicates that the bank's efficiency has begun to increase in its operational activities.

According to Kasmir (2008), for a company to carry out its operational activities, business capital is needed. The capital structure in banking consists of own money and debt from third parties. This debt from third parties comes from funds deposited by customers, which can be in savings, deposits, and so on. Setiawan et al. (2020) argue that a sound capital structure in a bank is helpful for expansion related to its business activities, such as developing information technology systems, increasing knowledge and skills of the workforce, and so on.

Based on the results of previous studies whose results have not been consistent, it is necessary to continue with this research. The novelty of this research is that the data used is more recent, namely data from 2016-2020. Then, suppose previous studies have examined credit risk, interest rates, and firm size on profitability. In that case, this research develops by examining the effect of credit risk, operational efficiency, and capital structure on profitability in the banking industry. Plus the control variables, namely the age of the company and liquidity.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Profitability

Profitability, in general can be explained as a measure of the company's capacity to earn profits in a period. Sartono and Fatmawati (2017) define profitability as the company's ability to make profits related to sales, total assets, and capital. The commonly used profitability ratio is Return on Assets ROA. This ratio calculates the company's profits from using its assets. When the profitability ratio increases, the company's condition also increases. Conversely, the company's condition also declines when the situation ratio decreases.

Credit Risk

Credit risk can be interpreted as the risk that occurs when the borrower fails or cannot pay off his debt to the bank as a borrower when the payment is due. Mulyawan (2015) argues that credit risk is the risk of loss due to the borrower's negligence or credit quality. According to Kutum (2017), credit risk is one of the risks that banks pay the most attention to because the bank's health is assessed through its credit risk. According to the Indonesian Bankers Association (2016), credit risk can occur in all bank activities related to other parties, including the counterparty or counterparty, issuer or issuer, or the performance of the debtor or borrower. Thus, credit risk can also be said to occur due to bank errors and errors caused by other parties related to bank activities. Credit risk generally can be demonstrated through collectability, which consists of five categories. Of the five credit categories, credit quality is classified into two: current credit (consisting of number 1 – Current and number 2 – category Under Special Mention) and non-performing loans (consisting of number 3 – Substandard, number 4 – Doubtful, and number 5 – Jam). The Non-Performing Loan or NPL ratio can be used to calculate the amount of credit risk. Bank Indonesia regulates the fairness of the NPL ratio value to be less than 5% of the total credit. If the value of the bank's NPL ratio exceeds this limit, the related bank can be considered unhealthy.

Operational Efficiency

Efficiency happens when the input is more minor than the output obtained. Abdul and Muhammad (2019) argue that efficiency is a ratio that compares the input used with the output produced. Operational efficiency needs to be carried out in every company, including banks. The goal is to maximize the services provided to customers, which in the bank itself is called a customer, and increase the profits that can be obtained. When the bank runs its operations efficiently (for example, by reducing expenses or expenses that are less necessary for the operational activities of the bank), it can increase the profit or profit of the bank itself. The ratio of Operating Costs to Operating Income can determine the bank's operational efficiency level. The value of this ratio reflects the bank's efficiency level, where the smaller the value of the BOPO ratio, the more efficient the bank's operational activities. On the other hand, when the BOPO ratio is bigger, it shows that the bank's operational activities are increasingly inefficient.

Capital Structure

Capital structure can be interpreted as a comparison of the capital contained in the company. According to Mulyani (2017), capital structure is the proportion of own capital and debt used for company needs related to funds. In the capital structure itself, there are two sources of financing. The first source is foreign capital, which can be in the form of debt, whether short- or long-term. The second source is own capital which consists of retained earnings or ownership participation. In the bank itself, the capital structure also consists of two sources. The first source is own capital, which consists of paid-in capital, various reserves, and retained earnings. Meanwhile, the second source comes from third-party capital, which comes from funds deposited by the public or commonly referred to as customers, which can be in the form of demand deposits, savings, and time deposits. Chalise (2019) argues that banks' capital structure is a buffer gate. This is because the capital structure plays a vital role in maintaining bank security and can prevent risks or losses that can occur in banks. To assess the capital structure itself, the Capital Adequacy Ratio can be used by comparing core capital or referred to as tier I, and complementary capital, or referred to as tier II, against risk-weighted assets. The provisions of Bank Indonesia contained in BI Regulation Number 3/21/PBI/2001 itself stipulates that the CAR value of banks in Indonesia must reach a minimum of 8%.

Hypothesis Development

If the bank has many problems with credit and a high NPL ratio, then the bank's performance will be disrupted. This is because the bank cannot benefit from the credit provided. In the end, the decline in the profits and performance of this bank will result in a decrease in the profitability of the bank itself. There are several different research results related to the effect of credit risk on profitability. Kutum's research (2017) shows that credit risk significantly affects profitability. Meanwhile, Dewi & Srihandoko (2018) study has different results. Their analysis shows that credit risk, through the NPL ratio, does not affect ROA as a proxy for profitability. The results of their research are also different from the study by Ekinci & Poyraz (2019). Their results show that NPL is significantly negatively related to profitability as proxied by

ROA. Based on the results of several studies that are still inconsistent, in this study, the researchers developed the following hypothesis:

H1: Credit risk has a negative effect on bank profitability.

Operational efficiency can show the performance of the bank. This is because the bank's profitability will be affected when its efficiency level increases and profits or profits will tend to increase when it runs its operational activities efficiently. On the other hand, when a bank does not carry out its operational activities efficiently, it decreases profit or even a loss. There are several different research results related to the effect of operational efficiency on bank profitability. The results of research by Ali & Laksono (2017) show that operational efficiency (through BOPO) positively affects profitability. Meanwhile, research from Al Parisi (2017) shows the opposite result, where operational efficiency (through BOPO) has no significant impact on profitability. Different results are also shown in research conducted by Antwi (2019), where research shows that BOPO negatively affects ROA from banks. Based on the results of several studies that are still inconsistent, in this study, the researchers developed the following hypothesis:

H2: Operational efficiency has a negative effect on bank profitability.

In the capital structure, when the company, in this case, the bank, has a composition of third-party capital that is more than its capital, of course, it will result in more obligations to be paid. The number of commitments that must be paid certainly shows that the cost of capital is getting bigger. In the end, the increase in the price of capital will reduce the bank's profitability. There are several different research results related to the effect of capital structure on banks' profitability. The results of Al Parisi's research (2018) show that capital structure through CAR positively affects bank profitability. The results of the research by Shabani et al. (2019) also show similar results, where the capital structure through CAR positively affects bank profitability. Meanwhile, the results of research by Alnajjar & Othman (2021) have different results, where they find that there is a negative and significant relationship between CAR and ROA. Meanwhile, the results of research conducted by Al Zaidanin & Al Zaidanin (2021) show that capital structure (through CAR) does not have a significant effect on ROA. Based on the results of several studies that are still inconsistent, in this study, the researchers developed the following hypothesis:

H3: Capital structure has a positive effect on bank profitability.

RESEARCH METHODS

Population and Sample

This study used the population in the form of banks listed on the Indonesia Stock Exchange in the 2016-2020 period. To determine the sample in this study, using the purposive sampling method. The following is a consideration of the criteria that the sample must meet:

1) Companies that must be in the banking sector.
2) Companies listed on the IDX in the year included in the study, namely before 2016 and during 2016-2020.
3) Companies that publish their financial reports on the company's official website or related websites during the year 2016-2020.
4) Companies that submit complete data in financial reports published in 2016-2020.

Definition of Operational Variables

Profitability is used as the dependent variable in this study. Profitability is the banks' ability to earn profits related to income, assets, and equity. To calculate profitability, the following Return on Assets ratio is used:

$$ROA = (\text{Net Income})/\text{Sales} \times \text{Sales}/(\text{Total Assets}) \quad \ldots\ldots\ldots\ldots\ldots\ldots (1)$$

The value of the ROA ratio reflects the amount of profit received by the company from the total amount of its own assets.

This study uses independent variables in credit risk, operational efficiency, and capital structure. Credit risk is the risk of losses in banks due to the negligence or credit quality of borrowers or customers. To calculate credit risk, the following Non-Performing Loan ratio is used:

$$NPL = (\text{Non-Performing Loans})/(\text{Total Loans}) \times 100 \quad \ldots\ldots\ldots\ldots (2)$$

The value of the NPL ratio shows the number of loans that have problems compared to the total credit that the bank provides to third parties.

Operational efficiency is the ratio of the bank's operating expenses to the bank's income in one period. To calculate operational efficiency, the following ratio of Operating Expenses to Operating Income is used:

$$BOPO = (\text{Operating Costs})/ (\text{Operating Income}) \times 100\% \quad \ldots..(3)$$

The value of the BOPO ratio compares the total expenses incurred by the bank related to operational activities with its operating income.

The capital structure consists of using own capital and customer funds to meet the bank's needs related to funds. To calculate the capital structure, the following Capital Adequacy Ratio can be used:

$$CAR = ((\text{Tier 1 Capital}+\text{Tier2 Capital}))/(\text{Risk Weighted Assets}) \text{ X } 100\%. \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots..(4)$$

The value of the CAR ratio shows the comparison between core capital or tier I and additional capital or tier II to risk-weighted assets.

In this study, firm age and liquidity are used as control variables. The age of the bank is the year since the bank was established until it can carry out its operational activities. Meanwhile, liquidity is the capacity of banks to pay off their debts through the disbursement of their assets.
This study uses multiple linear regression analysis. The empirical model used in this study will be described in the following formula:

$$ROA=a+b1NPL+b2BOPO+b3CAR+b4AGE+b5LDR+ e \ldots\ldots..(5)$$

Information:
ROA = Return on Assets (Profitability)
a = Constant
b = Regression coefficient
NPL = Non-Performing Loan (Credit Risk)
BOPO = Operating Expenses Operating Income (Operational Efficiency)
CAR = Capital Adequacy Ratio (Capital Structure)
AGE = Age of the company
LDR = Loan to Deposit Ratio (Liquidity)
e = Error

RESULTS AND DISCUSSION

Description of Research Object

The researcher uses the research object of companies engaged in the banking sector and listed on the Indonesia Stock Exchange in the 2016-2020 period to be investigated in this study. Through the criteria set, the banks used in this study amounted to 42. Namely, two banks did not have complete data in their financial statements, and one other bank was an outlier. Meanwhile, the number of research years is five years. Thus, the number of observations used is 210.

Table 2 Descriptive Analysis All Figures Are In Percent Except AGE Which Is In Years

Variable	Obs	Mean	Std. Dev.	Min	Max
ROA	210	0.9634762	3.184188	-15.89	13.58
NPL	210	2.011286	1.479456	0	9.92
BOPO	210	93.87081	29.6125	53.5	261.1
CAR	210	25.58357	15.84137	9.01	148.28
AGE	210	48.02381	23.93921	18	125
LDR	210	90.15943	35.1178	39.33	390.12

Source: Secondary data from IDX processed with Stata 15 software (2021)

In the profitability variable that uses Return on Assets as a proxy, the number of observations is 210, with an average of 0.9634762 percent and a standard deviation of 3.184188. The lowest value on ROA is owned by Bank Jago Tbk. in 2019, with a value of -15.89 percent. Meanwhile, the highest value on ROA is owned by Bank BTPN Syariah Tbk. in 2019, with a value of 13.58 percent.
In the credit risk variable that uses a Non-Performing Loan as a proxy, the number of observations is 210, with an average of 2.011286 percent and a standard deviation of 1.479456. Bank Jago Tbk owns the lowest value in NPL. in 2020 and Bank Capital Indonesia Tbk. in 2020, with a value of 0 percent. Meanwhile, the highest value in NPL is owned by Bank Neo Commerce Tbk. in 2018, with a value of 9.92 percent.
In the operational efficiency variable that uses Operating Expenses for Operating Income as a proxy, the number of observations is 215, with an average of 93,87081 percent and a standard deviation of 29,6125. The lowest score on the BOPO is owned by Bank Bisnis Internasional Tbk. in 2020, with a value of 53.5 percent. Meanwhile, the highest value in BOPO is owned by Bank Jago Tbk. in 2020, with a value of 261.1 percent.
In the capital structure variable that uses the Capital Adequacy Ratio as a proxy, the number of observations is 210, with an average of 25.58357 percent and a standard deviation of 15.84137. The Regional Development Bank Banten Tbk owns the lowest value on the CAR. with the BEKS stock code in 2019 with a value of 9.01 percent. Meanwhile, the highest value in CAR is owned by Bank Jago Tbk. with the stock code ARTO in 2019 with a value of 148.28 percent.
In the age variable of the company, the number of observations is 210, with an average of 48,02381 years and a standard deviation of 23,93921. The lowest value at the age of the company is owned by Bank Mandiri (Persero) Tbk. in 2016 with a value of 18 years. Meanwhile, the highest value for the company's age is owned by Bank Rakyat Indonesia (Persero) Tbk. in 2020 with a value of 125 years.
In the liquidity variable that uses the Loan to Deposit Ratio as a proxy, the number of observations is 210, with an average of 90,15943 percent and a standard deviation of 35,1178. The lowest value on the LDR is owned by Bank Capital Indonesia Tbk. in 2019, with a value of 39.33 percent. Meanwhile, the highest value in LDR is owned by Bank Oke Indonesia Tbk. in 2016, with a value of 390.12 percent.

After conducting descriptive analysis , three test methods were carried out in the next stage to determine the estimation model: the Chow Test, Lagrange Multiplier Test, and Hausman Test. Based on the three test methods, the most appropriate estimation model used is the Random Effect Model.

Table 3 Test Results For Variance Inflation Factor Classic Assumption Test Results

Variable	VIF	1/VIF
BOPO	9.28	0.11
LDR	7.79	0.13
CAR	5.1	0.19
Age	3.91	0.25
NPL	3.62	0.27

Source: Secondary data from IDX processed with Stata 15 software (2021)

Based on the Variance Inflation Factor test to determine the presence or absence of multicollinearity symptoms, the VIF value of each variable is known to be entirely lower than 10. In addition, the value of 1/VIF or tolerance is more significant than 0.1. Thus, it is known that there is no symptom of multicollinearity in the research model.
According to Gujarati and Porter (2009), the estimation of the Random Effect Model has used the Generalized Least Square model. In the Random Effect Model, the heteroscedasticity test does not need to be carried out because the advantage of the Random Effect Model estimation is that it automatically eliminates the presence of heteroscedasticity. In addition, in the analysis of the Random Effect Model, the autocorrelation test also does not need to be carried out. Generalized Least Square itself is one method that is generally used if there is an autocorrelation problem in the regression model.

Table 4 Shapiro Wilk Test Results

Variable	Obs	W	V	z	Prob>z
ROA	210	0.80126	30.937	7.916	0.00000
NPL	210	0.90837	14.263	6.130	0.00000
BOPO	210	0.70111	46.527	8.857	0.00000
CAR	210	0.62871	57.797	9.357	0.00000
AGE	210	0.84592	23.985	7.329	0.00000
LDR	210	0.53175	72.891	9.893	0.00000

Source: Secondary data from IDX processed with Stata 15 software (2021)

In the results of the Shapiro Wilk test, the value (Prob > z) on the dependent variable: probability (ROA), independent variable: credit risk (NPL), operational efficiency (BOPO), capital structure (CAR), and control variables: firm age (AGE) and liquidity (LDR) all are 0.00.

Table 5 Test Results: Shapiro Francia.

Variable	Obs	W*	V*	z	Prob>z
ROA	210	0.79258	35.209	7.387	0.00001
NPL	210	0.90690	15.803	5.725	0.00001
BOPO	210	0.69648	51.520	8.177	0.00001
CAR	210	0.62115	64.307	8.636	0.00001
AGE	210	0.84756	25.876	6.748	0.00001
LDR	210	0.52148	81.226	9.121	0.00001

Source: Secondary data from IDX processed with Stata 15 software (2021)

In the results of the Shapiro Francia test, the value (Prob > z) on the dependent variable: probability (ROA), independent variable: credit risk (NPL), operational efficiency (BOPO), capital structure (CAR), and control variable: firm age (AGE), the total liquidity (LDR) is 0.00001.
Based on the test results of Shapiro Wilk and Shapiro Francia, all variables, whether the dependent variable, independent variable, or control variable, show a value (Prob > z) below 5% or 0.05, so it can be concluded that the data is not normally distributed.

Multiple Linear Regression Analysis

Based on the table of results of multiple linear regression analysis, the regression equation generated through this study is as follows:

$$ROA=9.9975+(-0.1800)\ NPL+(-0.8739)\ BOPO+(-0.0056)\ CAR+(-0.0091)\ AGE+(0.0012)\ LDR+e$$

Coefficient of Determination Test Results

Based on the results of testing the coefficient of determination, it is known that R^2 is 0.8171. These results reflect that there is a strong correlation between the independent variable and the dependent variable. The value of R^2, which is 0.8171 indicates that credit risk, operational efficiency, and capital structure as independent variables affect profitability as the dependent variable of 0.8171 or 81.71%. Meanwhile, the influence of other variables that are not included in the research model has an effect of 0.1829 or 18.29%.

Statistical F Test Results

The results of the F statistical test show that all independent variables simultaneously affect profitability as the dependent variable. it can be seen that the value (Prob > Chi2) is 0.0000 and is below 5% or 0.05. These results indicate that at a significance level of 5% or 0.05 all independent variables simultaneously affect the dependent variable.

Table 6 T-Statistic Test Results Statistical Results: T Test

ROA	Coef.	Std.Err.	z	P>z
NPL	-0.18	0.05	-3.37	0.001
BOPO	-0.08	0	-33.72	0
CAR	-0.01	0.01	-1.02	0.308
Age	-0.01	0.01	-1.13	0.258
LDR	0	0	0.59	0.553
Cons	9.99	0.55	18.27	0

Source: Secondary data from IDX processed with Stata 15 software (2021)

Based on the table of t statistical test results, the conclusions from the results of hypothesis testing in this study can be described as follows:

H1: Credit risk has a negative effect on bank profitability

P value > | z | the independent variable credit risk (NPL) in the table of t statistical test results above shows a value of 0.001. H1 is accepted because the value of 0.001 is below 5% or 0.05. Thus, it can be concluded that credit risk has a negative effect on bank profitability.

H2: Operational efficiency has a negative effect on bank profitability

P value > | z | the independent variable operational efficiency (BOPO) in the table of t statistical test results above shows a value of 0.000. H2 is accepted because the value of 0.000 is below 5% or 0.05. Thus, it can be concluded that operational efficiency has a negative effect on banking profitability.

H3: Capital structure has a positive effect on bank profitability

P value > | z | the independent variable capital structure (CAR) in the table of t statistical test results above shows a value of 0.308. H3 is rejected because the value of 0.308 is above 5% or 0.05. Thus, it can be concluded that the capital structure has no effect on bank profitability.

Credit Risk has a Negative Effect on Banking Profitability (H1)

In this study, the results obtained are in accordance with the first hypothesis that has been formulated previously, namely credit risk has a negative effect on the profitability of banks. The results of this study are consistent with the results obtained from previous studies, including those from Ekinci & Poyraz (2019) and Dewi & Srihandoko (2018). The results of previous studies found that an increase in credit risk will cause the profitability of the bank to decrease. This is because banks have to cover losses due to credit risk, one of which is through a reserve allocated for that risk.

The Non-Performing Loan ratio determines the credit quality of the bank. Poor credit quality can be caused by various reasons, for example, an increase in the quantity of credit that banks provide, poor quality screening of borrowers, and lack of monitoring of credit that has been extended to borrowers. When the ratio of Non-Performing Loan owned by a bank is higher, the risk that must be borne by the bank will be even greater. With the increasing risk, the bank must provide reserves to cover losses that must be faced in the event of bad credit and cannot be collected. As a result, the amount of money that must be issued by the bank to be set aside will increase and cause the profitability of the bank to decrease.

Operational Efficiency has a Negative Effect on Banking Profitability (H2)

In this study, the results obtained are in accordance with the second hypothesis that has been formulated previously, namely operational efficiency has a negative effect on the profitability of banks. The results of this study are consistent with the results obtained from previous studies, including those from Antwi (2019) and Al Parisi (2017). The results of previous studies found that operational efficiency using the ratio of Operating Expenses to Operating Income has a negative relationship with the profitability of the bank. This shows that when a bank cannot manage its efficiency properly and causes the ratio of Operating Expenses to Operating Income to increase, its profitability will decrease.

Operating Expenses Ratio Operating income has an element of expense in it. This shows that when this ratio increases, there will be an increase in expenses in operational activities from banks, for example, related to financing. When there is an increase in bank operating expenses, it will cause the profit of the bank to decrease and ultimately cause the profitability of the bank to decrease. In addition, the value of the BOPO ratio itself also shows a comparison between expenses and bank operating income, where if this ratio is higher, the operating expenses owned by the bank will also be higher than its operating income. On the other hand, when the ratio of Operating Expenses to Operating Income is getting smaller, it can be an indicator of more efficient bank management in carrying out operational activities.

Capital Structure Positively Affects Banking Profitability (H3)

In this study, the results obtained are not in accordance with the third hypothesis that has been formulated previously, namely that capital structure has a positive effect on profitability. The results of this study found that capital structure had

no significant effect on profitability, whereas when the capital structure through the CAR ratio decreased, the effect on profitability was not statistically significant. This finding is inversely proportional to the results of previous studies, such as the results of research obtained by Al Parisi (2017) and Shabani et al (2019), but supports the results of the research found by Zaidanin & Zaidanin (2021).

The results of this study indicate that changes that occur in the capital structure through the Capital Adequacy Ratio, either up or down, do not affect profitability. In other words, when there is an increase in the Capital Adequacy Ratio, bank profitability through Return on Assets does not get better. There is no significant effect of capital structure on profitability in this study due to the minimum CAR requirement set by Bank Indonesia, where banks must meet the minimum requirement of 8%. Therefore, the bank will continue to maintain its CAR ratio above the lower limit. As a result, the increase or decrease in the CAR ratio will not affect profitability. In addition, through this research, it is also known that the CAR ratio cannot be a predictor variable for profitability.

Although there is an obligation to meet the minimum CAR requirement of 8% from Bank Indonesia, if the CAR ratio owned by the bank is too high, then this can negatively affect the profitability of the bank. Research by Alnajjar & Othman (2021) found this. A CAR ratio that is too high indicates that the bank is unable to manage its funds. When there is a too high increase in bank capital, it will cause a lot of idle funds. As a result, the profitability of the bank to be down.

CONCLUSIONS, IMPLICATIONS, AND LIMITATIONS

Conclusion

This study was conducted with the aim of examining the effect of credit risk, operational efficiency, and capital structure on the profitability of banks listed on the Indonesia Stock Exchange in the 2016-2020 period. Through the tests that have been carried out, the results obtained in this study are as follows:

1. Credit risk has a negative effect on the profitability of banks. This finding is consistent with the findings of Ekinci & Poyraz (2019) and Dewi & Srihandoko (2018). The negative relationship occurs because banks must provide reserves to cover losses in the event of an increase in credit risk, namely reserves for the potential for bad or uncollectible loans. As a result of this allocation, the amount of money that must be set aside by the bank increases and ultimately causes the profitability of the bank to decrease.
2. Operational efficiency has a negative effect on the profitability of banks. This finding is consistent with the findings of Antwi (2019) and Al Parisi (2017). The negative relationship occurs because operational efficiency itself is an indicator of how management manages the bank. Banks must carry out their operational activities efficiently. When a bank cannot manage its operational activities properly and efficiently and causes the ratio of Operating Expenses to Operating Income to rise, its profitability will decrease.
3. Capital structure does not affect the profitability of banks. This finding is inversely proportional to the findings of Al Parisi (2017) and Shabani et al. (2019) but supports the results of Zaidanin & Zaidanin (2021). Capital structure on bank profitability does not have a significant effect. This is most likely because the bank continues to maintain its level of Capital Adequacy Ratio in order to meet the standards of Bank Indonesia, which is 8%. This makes the increase in CAR has no effect on bank profitability. In addition, in this study, it is also known that the CAR ratio cannot be a predictor variable for profitability.

Practical Implications

The practical implications contained in this research itself can be described as follows:

1. Regarding credit risk, in order to increase the profitability of banks, managers or related parties can reduce the potential for bad loans or defaults to occur. Ways that can be done, for example, are conducting strict screening of the borrower and conducting regular monitoring of the credit that has been given to the borrower.
2. With regard to operational efficiency, to increase the profitability of banks, managers or related parties can take several ways to improve operational efficiency. To improve operational efficiency, one way that can be done is to reduce expenses that are less needed or less related to the operational activities of the bank.
3. Regarding the capital structure, in order to increase the profitability of banks, managers or related parties can manage bank capital. Banks must meet the minimum requirements of the Capital Adequacy Ratio, which is 8%. Even so, the CAR value owned by the bank must be managed properly so that it is not too high. If the value is too high, then there are idle funds and in the end, it will reduce the profitability of the bank.

Limitations

This research was conducted only for the banking industry so it cannot be generalized to other industries. In addition, the results of the study found that capital structure has no effect on bank profitability. This is influenced by the factors of Bank Indonesia regulations which regulate banking capital very strictly in accordance with the precautionary principle.

Suggestion

Based on the interpretation of the results and conclusions obtained, it is recommended for further research to examine the effect of other risks on bank profitability, for example by including liquidity risk variables. In addition, there is an opportunity to include the effect of deposit interest on banking profitability in Indonesia.

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