The Effect of Credit Risk, Capital Adequacy and Operational Efficiency on Banking Financial Performance with a Profitability Approach

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Abstract

Good bank performance can be seen from the value of profitability. To produce good performance, the bank does not escape the risks that will occur, capital adequacy, and operational efficiency. Credit risk occurs due to the customer's failure to fulfill its obligations. Capital adequacy is a policy or regulation of a company or bank in handling its capital. Operational efficiency is a smaller cost incurred to generate profits than the profits derived from the use of these assets. The data analysis used is panel data regression. The population is banking from 2019 to 2021. The results show that operational efficiency as proxied by BOPO has a significant effect on banking financial performance as proxied by ROA. Meanwhile, credit risk as proxied by NPL and capital adequacy as proxied by CAR have an effect but not significant to ROA

1. Introduction

The banking sector is one of the sectors driving the economic growth of a country because the bank is something that is considered important by most people and the government. This is because the bank has a function as a financial intermediary, namely as a financial institution that collects funds in the form of deposits and distributes them back to the public in the form of credit or into the real sector. Therefore, banks need to be able to maintain stable performance to become banks so that banks can their function properly to maintenance in public trust, help smooth the payment system, and can be used by the government to implement policies, especially monetary policy.

Good bank performance will encourage people to make credit or make deposits in the form of savings or time deposits. Conversely, if the performance of a bank is not healthy, then the public will not entrust their funds to the bank. To see the performance of a bank can be seen in the bank's published financial statements. Good bank performance can be seen from the profitability value obtained by the bank.

Figure 1. Infographics of Indonesian Banking Statistics for December 2020
Sources: ojk.go.id/Statistik-perbankan-Indonesia

According to the above data obtained, the development of credit and NPL for commercial banks in Indonesia in 2020 showed an increasing trend from January to December 2020 with an average increase of 3%. The credit value and NPL of Commercial Banks to Non-Bank Third Parties in December 2020 amounted to 5,481,560 which is divided into credit composition by type of use such as working capital, investment, and consumption.

Figure 2. Performance of Conventional Commercial Banks for December 2020
Sources: ojk.go.id/Statistik-perbankan-Indonesia

The performance indicators of Conventional Commercial Banks in the data above for 2020 show that the rate of return on assets is 1.59%, which means that it is included in the healthy category according to BI Circular Letter No. 13/24/DPNP On October 25, 2011. The CAR value of 23.89% is included in the healthy category which exceeds the minimum value of 8%. The BOPO value is 86.58%, which means it is still relatively healthy and safe for operating costs on operating income.
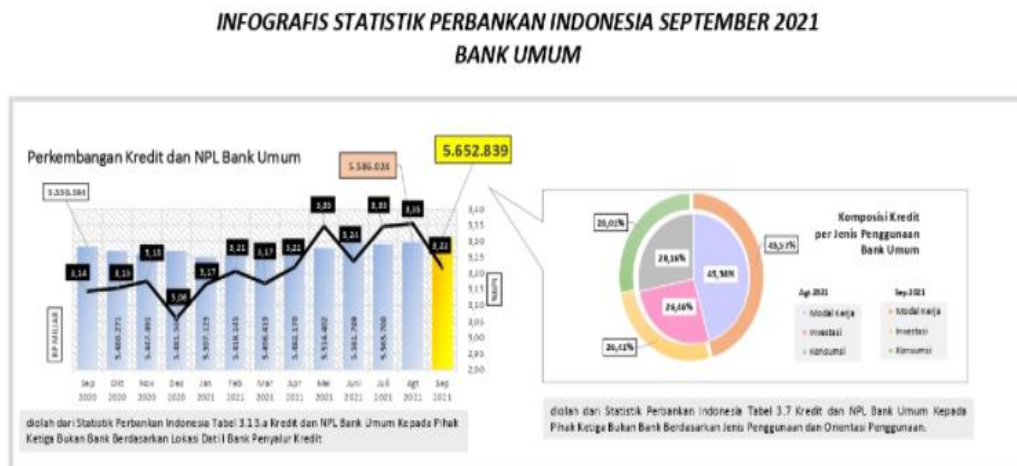
Figure 3. Infographics of Indonesian Banking Statistics for September 2021
Sources: ojk.go.id/Statistik-perbankan-Indonesia

After comparing the data for 2020, it turns out that there is a development or increase in the credit value and NPL of Commercial Banks from the previous year, although on average in 2021 it fluctuates but is not significant. In the third quarter, it tends to decrease even though it is still at 3%.

In assessing the financial performance of the bank, of course, one must also pay attention to the quality of the bank's health. As BI Circular No. 9/24/DPbs stated that the bank's soundness quality rating is influenced by the CAMELS factor which consists of Capital, Asset Quality, Operational Efficiency, Liquidity and Sensitivity to Market Risk. So it can be interpreted that if a bank has a high ratio of capital to assets, it can be interpreted as an indicator of low profitability (Ariani & Prinoya, 2021). Bank performance is important to assess because good bank performance can support business growth where banks provide investment funds and working capital for business units in carrying out their functions (Ningsih & Dewi, 2020). Riyadi (2006) suggests that in measuring the profitability ratio of banks usually use two ratios, namely ROE (Return On Equity), which is a ratio that describes the amount of return on capital to generate profits, and ROA (Return On Assets), which is a ratio that shows the ability of all existing assets and is used to generate profits. In this study, banking performance is measured by the profitability approach, namely ROA. The reason for choosing Return On Asset (ROA) as a performance measure is because ROA is used to measure the company's effectiveness in generating profits by utilizing its assets. If ROA has a high value, then the company's performance in managing assets to become a profit for the company is very good.

Banking is one of the business sectors that implement risk management. Banking risk can threaten the survival of bank, therefore, banks are required to implement effective banking risk management. Banking risk management is a method used by companies to control risk to minimize losses (BaMosey, Tommy, & Untu, 2018). In terms of credit, of course, is the main activity of some big banks. This is because placements in the form of lending can contribute in the form of profits. A large amount of credit given is expected to provide large profits/profitability. Credit carried out will contain risk, namely credit risk. The credit risk will

have an impact on the smoothness and ability of the bank to obtain profits/profitability so such conditions also cause the bank to suffer losses because the profit should have increased on the contrary. This can happen because the NPL actualizes, then this condition will cause losses to the bank.

According to Kasmir (2010: 103), Non Performing Loan (NPL) or credit risk is the risk of possible bank losses as a result of non-payment of credit provided by banks to debtors. A bank is said to have a high NPL if the number of non-performing loans is greater than the number of loans given to debtors. If a bank has a high NPL, it will increase costs, both the cost of provisioning for productive assets and other costs, in other words, the higher the NPL of a bank, it will interfere with the bank's performance (Prayoga et al., 2022)

Capital Adequacy is considered as capital that can effectively prevent the failure of the banking industry by absorbing losses (Aruwa & Naburagi 2014) in (Buchdadi, Nguyen, Putra, & Dalimunthe, 2020). Capital is a very important factor for the development of bank progress and maintaining public trust. The use of bank capital is intended to meet all the needs that support its operational activities, the operation will be said to be good if the bank has good capital adequacy. One way to measure the fulfillment of capital obligations can be measured using the Capital Adequacy Ratio (CAR) (Carindri & Untara, 2019). CAR is used to see the minimum capital requirement of a bank when operating a banking business (Setyaningsih & Utami, 2013). Regarding capital, it has been regulated in the Financial Services Authority Regulation No. 11/POJK.03/2016 concerning the Minimum Capital Adequacy Requirement for Commercial Banks which stipulates the Capital Adequacy Ratio (CAR), namely the minimum capital adequacy requirement that must be maintained by each bank as a certain proportion of the total Risk Weighted Assets (RWA) of 8% (Antika & Novyarni, 2020)

In operational efficiency, ratio assessment is used, namely Operational Costs and Operating Income or BOPO by calculating the accuracy of the use of funds for the costs incurred in operating these funds (Aini, 2013). The lower the percentage of the operating expense ratio shows the better profitability of the bank because the bank can cover operational costs with its operating income (Setyaningsih & Utami, 2013). The BOPO ratio is used to measure the level of efficiency and ability of banks in carrying out their operations. Bank Indonesia Regulation No. 15/12/PBI/2014 explains that the maximum is 70%, if it is more than 70% then the bank will be under supervision. The higher the BOPO level indicates that banks are less effective in managing the company's financial performance, otherwise if the BOPO level is low, it indicates that banks are able to manage their financial performance effectively. (Prayoga et al., 2022)

In addition to the phenomena previously described, there are still research gaps regarding credit risk, capital adequacy and operational efficiency on banking financial performance, among others, Saputra & Budiasih (2016); Ariani & Prinoya (2021) state that CAR has a positive effect on bank profitability while NPL and (BOPO) have a negative effect on Bank Profitability. Dewi & Srihandoko (2018); Riyanto & Surjandari (2018) state that NPL and CAR have a significant effect on profitability. Meanwhile, according to Pracoyo & Imani, (2018); BaMosey et al., (2018); Yanti (2020) CAR has no significant effect on profitability.

Based on the description of the background of the problem and the research gap that occurred, it is necessary to review the Effect of Credit Risk, Capital Adequacy and Operational Efficiency on Banking Financial Performance Using a Profitability Approach

2. Literature Review

2.1 Agency Theory

Agency theory explains that agency relationships arise when one or more people (principals) hire another person (agent) to carry out an activity and then delegate the decision-making authority to the agent (Jensen & Meckling, 1976). The relationship between principals (society) and agents (banking management) in banking companies is influenced by the presence of a regulator, namely the government through Bank Indonesia (BI). Given the complex capital structure in banking, there are at least three agency relationships that can lead to information asymmetry, namely: (1) the relationship between depositors, banks and regulators, (2) the relationship between owners, managers and regulators, (3) the relationship between borrower managers and regulators.

Agency theory is used in this study to find out how banks act as agents in managing public funds to be channeled back to the public in the form of credit, how adequacy of capital they have in anticipation of bad possibilities that may occur in the future and how banks streamline their operational costs. This is all aimed at obtaining profitability which in this case is a form of banking financial performance.

2.2 Research Background

According to Setyaningsih & Utami (2013) based on the results of the analysis shows that partially capital adequacy has a positive effect on the profitability of banks listed on the IDX in 2009-2013, while credit risk and operating expenses operating income (BOPO) have a negative effect on the profitability of banks listed on the IDX in 2009-2013.

Based on the results of the analysis Prasetyo & Darmayanti (2015) it was found that credit risk has a significant negative effect on profitability, liquidity has a significant positive effect on profitability, capital adequacy has an insignificant negative effect on profitability, and operational efficiency has a significant negative effect on profitability.

Research conducted (Riyanto & Surjandari, 2018) provides results that credit and capital risk affect profitability, while liquidity risk has no effect on profitability.

According to Yanti (2020), the variables CAR, FDR and NPF have a significant effect on ROA. There is a positive influence between the CAR ratio and banking profitability (ROA). This shows that the higher the CAR, the better the bank's ability to bear the risk of each risky productive asset.

Research conducted Ariani & Prinoya (2021) shows that the CAR and LDR variables have a positive and significant effect on company financial performance (ROA) while the BOPO variable has a negative and significant effect on company financial performance (ROA). BOPO has a negative effect, explaining that if BOPO increases, it means that efficiency decreases and

profitability or ROA will decrease, where the more efficient a bank is, the bank's performance will increase and public trust will increase. Therefore, it is expected that Islamic banking will further improve its efficiency in managing its operating costs.

According to Prayoga et al., (2022) show that NPL and BOPO have a positive effect on the financial performance of commercial banks, the CAR has no effect on the financial performance of commercial banks

2.3 Hypothesis Development
a) The Effect of Credit Risk on Banking Financial Performance
Giving credit is the main activity carried out by a bank. Function Banks in providing credit will have risks in the form of non-current credit payments or what is commonly referred to as credit risk. So that it can be explained that credit risk is an event experienced by banks due to creditors who are unable to pay their debts and interest at the agreed maturity date at the time the transaction is made. Credit risk can affect the profitability of a bank because if the customer does not repay the loan within the specified time, the amount of credit will increase so that it will affect the level of bank profitability. In other words, the higher the NPL value, the lower the profitability of the bank. NPL can be calculated by comparing non-performing loans with total loans. According to Prasetyo & Darmayanti (2015) and Riyanto & Surjandari, (2018) it was found that credit risk has a significant negative effect on profitability.

b) The Effect of Capital Adequacy on Banking Financial Performance
Capital adequacy is a policy or regulation of a company or bank in handling its capital. Capital is the funds invested by the owner in the framework of establishing a business entity which is intended to finance the bank's business activities in addition to complying with the regulations set by the monetary authority (Taswan, 2010:213). Adequate capital can increase public confidence because it indicates that the bank can accommodate the possible risk of loss that will be experienced by the bank due to the bank's operational activities. That way, capital adequacy will have an impact on increasing profits or profitability obtained by banks through credit loan interest. CAR is an indicator that is often used to measure the level of bank capital adequacy. CAR can be obtained by calculating the ratio or comparison between own capital and RWA. The CAR ratios show how far all bank assets that contain risk can be financed from the capital owned by the bank so as to minimize the risk of the bank going bankrupt so that the bank can still carry out its activities and earn a profit.

If the CAR ratio increases, it will affect the increase in a bank's profit, because the losses that may be borne by the bank can be absorbed by the capital owned by the bank. So that the greater the CAR, the greater the ROA. According to Indarti & Minanari (2019) and Yanti (2020) the CAR variable has a significant effect on ROA. There is a positive influence between the CAR ratio and banking profitability (ROA). This shows that the higher the CAR, the better the bank's ability to bear the risk of any risky earning assets.

c) The Effect of Operational Efficiency on Banking Financial Performance
Operational efficiency is the ability of banks to utilize their funds with the costs incurred to operate these funds Setyaningsih & Utami (2013). Every business activity carried out by a bank

should be considered or planned in advance so that later the resources used can be utilized and used properly. Banks that can run operational efficiency will have an impact on increasing profits received. An indicator that is often used to measure operational efficiency is the BOPO ratio. In the world of banking, BOPO has a major influence in measuring the level of efficiency and also the ability of banks to carry out their operational activities

The BOPO value reflects how efficient the bank is in carrying out its operational activities. A high BOPO value indicates that the operating expense owned by the bank is greater than the operating income it earns. If the value of operating expenses is smaller, it means that the bank can cover operating expenses with operating income, which means that the bank can manage its activities efficiently so as to increase the value of its profitability.

3. Research Method
3.1 Data and Sample
The population of this study is conventional banking companies listed on the Indonesia Stock Exchange. The sample used in this study is conventional banking companies listed on the IDX in 2019 - 2021. The reason for choosing banking companies in this study is because they are a vital sector in driving economic growth in Indonesia. Indonesia where many in banking to serve the needs of the community. The sampling method used is purposive sampling, namely sampling based on criteria

Table 1 Sample Selection Criteria

No.	Criteria	Total
Banking population in 2019-2021		43
1.	Inconsistent banking companies listing in 2019-2021	(3)
2.	Companies that publish annual financial reports for 2019-2021	0
3.	Companies that merge and acquisitions in 2019 – 2021	(1)
Sample Total		39
Research Year		3
Number of observation data		117

3.2 Variables
a. Dependent Variable

Banking Financial Performance using a profitability proxy, namely Return On Assets (ROA) by comparing profit after tax divided by total assets. This ratio can be formulated as follows: (Riyanto & Surjandari, 2018)

$$ROA = \frac{\text{Net income available to common stockholders}}{\text{Total Asset}} \times 100\%$$

Table 2 Assessment Criteria Return On Asset

Percentage Value	Predicate
> 1,21%	Healthy
> 0,98% - ≤ 1,21%	Fairly healthy
> 0,76% - ≤ 0,98%	Unhealthy
≤ 0,76%	Very Unhealthy

Source: BI Circular No. 13/24/DPNP October 25, 2011

b. Independent Variable

   1) Credit Risk

Credit risk is an event that may be experienced by a bank due to creditors who cannot be responsible for paying debts and interest at the agreed maturity date at the time the transaction is made. NPL is often used in the credit risk measurement method. NPL is the ratio of non-performing loans to total loans. The NPL formula can be written as follows: (Kasmir, 2003:266) in (Setyaningsih & Utami, 2013).

$$NPL = \frac{Credit\ Problem}{Total\ Credit}\ x\ 100\%$$

Table 3 Assessment Criteria Credit Risk

Percentage Value	Predicate
0,00% - ≤ 10,35%	Healthy
10,36% - ≤ 12,60%	Fairly healthy
12,61% - ≤ 14,85%	Unhealthy
> 14,85%	Very Unhealthy

Source: BI Circular No. 13/24/DPNP October 25, 2011

   2) Adequacy Capital

Capital adequacy is a regulation of a banking company that is agreed upon by the company in handling the capital they have. CAR is a capital ratio that shows the bank's ability to provide funds for business development purposes and accommodate the risk of loss of funds caused by bank operations. This variable is measured using a ratio scale, which is based on the percentage comparison of Capital with Risk-Weighted Assets. The CAR ratio can be formulated as follows: (Kasmir, 2003:265) in (Setyaningsih & Utami, 2013)

$$CAR = \frac{Bank\ Capital}{Risk\ Weighted\ Assets}\ X\ 100\%$$

Table 4 Assessment Criteria Capital Adequacy Ratio

Percentage Value	Predicate
> 8%	Healthy
≥ 6,5% - ≤ 7,99%	Fairly healthy
≥ 5% - ≤ 6,49	Unhealthy
≤ 4,99%	Very Unhealthy

Source: BI Circular No. 13/24/DPNP October 25, 2011

3) Operational Efficiency

Operational efficiency is a comparison between the planned budgeting that will be issued with the income that will be received by a company or bank. An indicator that is often used to measure operational efficiency is the BOPO ratio. The formula for the BOPO ratio can be written as follows: (Kasmir, 2003:268) in (Setyaningsih & Utami, 2013)

$$BOPO = \frac{Operating\ costs}{Operating\ Income} \times 100\%$$

Table 5 Assessment Criteria Operational Income Ratio

Percentage Value	Predicate
≤ 93,52%	Healthy
93,53% - ≤ 94,73%	Fairly healthy
94,74% - ≤ 95,92%	Unhealthy
≥ 95,93%	Very Unhealthy

Source: BI Circular No. 13/24/DPNP October 25, 2011

4. Results
4.1 Descriptif Statistic Analysis

Table 6 Deskriptif Statistic

	Y_ROA	X1_NPL	X2_CAR	X3_BOPO
Mean	0.257436	1.841795	29.41479	97.11316
Median	0.540000	1.400000	22.55000	92.16000
Maximum	4.740000	4.960000	169.9200	287.8600
Minimum	-15.89000	0.000000	9.010000	23.77000
Std. Dev.	3.283605	1.403449	22.26744	42.37495
Skewness	-3.009922	0.769078	3.975094	2.180169
Kurtosis	13.80276	2.539201	22.34954	9.797110

Jarque-Bera	745.5738	12.56902	2133.349	317.9146
Probability	0.000000	0.001865	0.000000	0.000000
Sum	30.12000	215.4900	3441.530	11362.24
Sum Sq. Dev.	1250.719	228.4815	57517.29	208293.8
Observations	117	117	117	117

1) Financial Performance Proxied by Return On Assets (ROA)

Banking financial performance can be measured by various proxies. However, in this study uses a return on assets proxy. ROA can measure how much net profit will be generated from every one rupiah of funds embedded in total assets. The higher the return on assets, the higher the amount of net profit generated from each rupiah fund embedded in total assets. In table 5 the mean shows the figure of 0.26%, which means that the average ability of banks to manage their assets to generate profits is still relatively low. In other words, the level of financial performance in terms of profitability is still low. According to the Return On Asset (ROA) assessment criteria in BI Circular Letter No. 13/24/DPNP On October 25, 2011, the percentage value of 0.76% indicates unhealthy criteria. The maximum value of 4.74% is owned by Allo Bank, Tbk in 2021. The minimum value of -15.89% is owned by Bank Jago, Tbk in 2019.

2) Credit Risk Proxied by Non-Performing Loans (NPL)

Credit risk is an event that may be experienced by a bank due to creditors who cannot be responsible for paying debts and interest at the agreed maturity date at the time the transaction is made. Credit risk is proxied by Non-Performing Loans (NPL) to see the customer's ability to pay their obligations by the amount and period agreed upon by both parties. In table 5 the mean shows the number 1.84%, which means that the average bank credit risk is still relatively healthy because it is below 5% which has been determined by the government. The maximum value of 4.96% is owned by Bank Victoria International, Tbk in 2019. The minimum value of 0% is owned by Bank Jago, Tbk in 2020 and Bank Capital Indonesia, Tbk in 2020 and 2021

3) Capital Adequacy which is proxied by Capital Adequacy Ratio (CAR)

Capital adequacy is a policy or regulation of a company or bank in handling its capital. This study use Capital Adequacy Ratio proxy. CAR is used to see the minimum amount of capital required by a bank when operating a banking business. In table 5 the mean shows a value of 29.41%, which means that the company's average capital adequacy is in good condition. This is in a by Circular No. 13/24/DPNP On October 25, 2011 the percentage value >8% had a healthy predicate. The maximum value of 169.92% is owned by Bank Jago, Tbk in 2021. The minimum value of 9.01% is owned by the Regional Development Bank of Banten, Tbk in 2019.

4) Operational Efficiency proxied by Operational Cost of Operating Income (BOPO)

Operational efficiency means that the costs incurred to generate profits are less than the profits derived from the use of these assets. In table 5 the mean is 97.11%, which means that the costs incurred are greater than the income earned. This is by BI Circular No.

13/24/DPNP On October 25, 2011, the BOPO value of 95.93% has an unhealthy predicate. The maximum value of 287.86% is owned by Bank Raya, Tbk in 2021. The minimum value of 23.77% is owned by Bank CIMB Niaga, Tbk in 2020.

4.2 Selection of Estimation Model

Based on the estimation technique, the regression model with panel data can be estimated using three estimation models, namely the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM).

1) Chow Test

Table 7 Chow Test

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	4.674551	(38,75)	0.0000
Cross-section Chi-square	142.090594	38	0.0000

The hypotheses in the chow test are:
H0 = Common Effect Model or pooled OLS

H1 = Fixed Effect Model

Based on the results of the Chow test above, the probability value of cross-section F is $0.0000 < 0.05$, then H1 is accepted, which means that the Fixed Effect Model selected then performs the Hausman test.

2) Hausman Test

Table 8 Hausman Test

Correlated Random Effects - Hausman Test

Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	5.958044	3	0.1137

The hypotheses in the Hausman test are:
H0 = *Random Effect Model*

H1 = *Fixed Effect Model*

Based on the results of the Hausman test above, the probability value of a random cross-section is $0.1137 > 0.05$, so H1 is rejected and H0 is accepted, which means that the random effect model is selected so it is necessary to perform the Lagrange Multiplier test.

3) LM Test

Table 9 Lagrange Multiplier Test

Lagrange multiplier (LM) test for panel data
Date: 07/27/22   Time: 08:07
Sample: 2019 2021
Total panel observations: 117
Probability in ()

Null (no rand. effect) Alternative	Cross-section One-sided	Period One-sided	Both
Breusch-Pagan	30.38555 (0.0000)	1.126927 (0.2884)	31.51248 (0.0000)
Honda	5.512309 (0.0000)	-1.061568 (0.8558)	3.147149 (0.0008)
King-Wu	5.512309 (0.0000)	-1.061568 (0.8558)	0.197901 (0.4216)
GHM	-- --	-- --	30.38555 (0.0000)

Based on the results of the Lagrange Multiplier (LM) test, the Breusch-Pagan value is $0.00 < 0.05$, which means that the random effect model selected as the panel data regression model

Classical assumption test is not needed because it is panel data and in this study the chosen model is REM (Random Effect Model) using Generalized Least Squared (GLS) which ignores violations of the classical assumption test.

4.3 Goodness of Fit Test

Table 10 Data Panel Regression

Dependent Variable: Y_ROA
Method: Panel EGLS (Cross-section random effects)
Date: 07/28/22   Time: 13:00
Sample: 2019 2021
Periods included: 3
Cross-sections included: 39

Total panel (balanced) observations: 117
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.425389	0.428953	17.31048	0.0000
X1_NPL	0.170194	0.089674	1.897910	0.0603
X2_CAR	-0.008421	0.006758	-1.246003	0.2153
X3_BOPO	-0.074487	0.002919	-25.51903	0.0000

Effects Specification		S.D.	Rho
Cross-section random		1.027548	0.5507
Idiosyncratic random		0.928216	0.4493

Weighted Statistics			
R-squared	0.853796	Mean dependent var	0.119045
Adjusted R-squared	0.849914	S.D. dependent var	2.427117
S.E. of regression	0.940287	Sum squared resid	99.90774
F-statistic	219.9639	Durbin-Watson stat	1.279789
Prob(F-statistic)	0.000000		

1) Model Fit Test (F Statistics Test)
   The F statistic test in this study shows a probability value (F-Statistic) of 0.0000 < 0.05 which means that this research model is feasible to use.
2) Coefficient of Determination
   Based on the table above, it shows that the coefficient of determination indicated by the R-squared value is 0.853796, which means that 85.38% of the variation in the amount of credit risk is proxied by NPL, capital adequacy is proxied by CAR and operational efficiency is proxied by BOPO while (100% - 85.38%) = 14.62% of the total financial performance proxied by ROA is explained by other variables that are not included in this research model.

3) T-statistic test (Test hypothesis)

Table 11 Resume Hypothesis Test

No.	Hyphotesis	Beta	Sig	Conclusion
1	H1. *Credit Risk*	0.170194	0.0603	Rejected
2	H2. Capital Adequacy	-0.008421	0.2153	Rejected
3	H3. Operational Efficiency	-0.074487	0.0000	Accepted

5. Discussion

a. The Effect of Credit Risk on Financial Performance

Credit risk as proxied by Non-Performing Loans (NPL) has a positive effect but not significant on financial performance as proxied by Return On Assets (ROA). Credit risk should be able to affect the profitability of a bank because if the customer does not repay the loan within the specified time, the amount of credit will increase so that it will affect the level of bank profitability. This is also contrary to agency theory where agents should be able to manage third party funds (customers) to be channeled back to the community in the form of credit which in turn can improve banking financial performance if banks can reduce credit risk a maximum of 5%.

The results of this study are in line with research conducted by (Dewi & Srihandoko, 2018) which states that credit risk proxied by Non-Performing Loans (NPL) has an effect but is not significant on financial performance proxied by Return On Assets (ROA). It can be concluded that large or small bank credit risk does not affect financial performance. this is because there are still banks that have an NPL value of 5% which is included in the category of less healthy in performance.

b. Effect of Capital Adequacy on Financial Performance

Capital adequacy proxied by the Capital Adequacy Ratio (CAR) has a negative effect but not significant on banking financial performance. Capital adequacy is a policy or regulation of a company or bank in handling its capital Adequate capital can increase public confidence because it indicates that the bank can accommodate the possible risk of loss that will be experienced by the bank due to the bank's operational activities. That way, capital adequacy will have an impact on increasing profits or profitability obtained by banks through credit loan interest. However, in this study it is not proven that capital adequacy has an influence on financial performance. This shows that all bank assets that contain risks that are financed by their own capital have no significant effect on the profits generated. The company may just use a large part of its capital to cover operating losses like other problematic coaching. The size of the CAR obtained by banks does not have a significant effect on the resulting return on assets.

The results of this study are in line with research conducted (Pracoyo & Imani, 2018) and (Antika & Novyarni, 2020)which state that the capital proxied by the Capital Adequacy Ratio (CAR) has an effect but is not significant on profitability which is proxied by return on assets (ROA).

c. Effect of Operational Efficiency on Financial Performance

Operational efficiency as proxied by Operating Expenses Operating Income (BOPO) has a significant and significant effect on financial performance. The negative relationship obtained means that the greater the operational efficiency, the smaller the resulting financial performance.

Banks that can run operational efficiency will have an impact on increasing profits (profitability) received. The BOPO value reflects how efficient the bank is in carrying out its operational activities. A high BOPO value indicates that the operating expense owned by the bank is greater than the operating income it earns. If the value of operating expenses is smaller, it means that the bank can cover operating expenses with operating income, which

means that the bank can manage its activities efficiently so as to increase the value of its profitability.

The results of this study are in line with research conducted (Antika & Novyarni, 2020) and (Ariani & Prinoya, 2021) which show that the BOPO variable has a negative and significant effect on the company's financial performance (ROA). BOPO has a negative effect, explaining that if the BOPO increases, it means reduced efficiency and profitability or ROA will decrease, where the more efficient a bank is, the bank's performance will increase and public confidence will increase. Therefore, banks are expected to further improve their efficiency in managing their operational costs

6. Conclusion

This research is a causal research that explains the effect of an independent variable (NPL, CAR and BOPO) on the dependent variable (ROA). To prove the hypothesis in the formulation of the problem, secondary data is taken from the financial statements of banks listed on the IDX website. Based on the test results that have been carried out, only the operational efficiency variable proxied by BOPO has a significant effect on financial performance proxied by return on assets (ROA). This is because the high BOPO value indicates that the operating expenses owned by the bank are greater than the operating income it gets. If the value of operating expenses is smaller, it means that the bank can cover operational expenses with its operating income, which means that the bank can manage its activities efficiently so that it can increase its profitability value, but the negative direction of the relationship means that BOPO increases, which means that efficiency decreases and profitability or ROA will decrease, where the more efficient a bank is, the bank's performance will increase and public trust will increase. Therefore, it is expected that banks will further improve their efficiency in managing their operating costs so that financial performance, in this case profitability, can be maximized. Suggestions for further research (1) add other variables such as good corporate governance mechanisms so that more visible banking financial performance in terms of management by management (2) increase the population and samples in non-bank companies such as multi finance, leasing, cooperatives and pawnshops, (3) increase the research period and (4) for banks to increase efficiency in managing their operational costs so that banking performance increases and the level of public trust also increases.

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