International Journal of Application on Economics and Business (IJAEB)
Volume 1, Issue 4, 2023. ISSN: 2987-1972

DETERMINANTS OF BANKS' PROFITABILITY – EVIDENCE FROM GO PUBLIC BANKS IN INDONESIA

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Submitted: 05-09-2023, Revised: 23-10-2023, Accepted: 20-11-2023

ABSTRACT

Bank performance needs to be monitored because of the role of banks as intermediary institutions that collect funds from surplus parties and channel them to deficit parties. This business characteristic makes the banking sector regulated by the government to maintain economic stability and meet the interests of society. Banking performance during 2018-2022 is engaging to study because there is a significant force, namely the COVID-19 pandemic, which impacts economic stability in Indonesia. This research was conducted to obtain empirical evidence of the influence of banking-specific factors and industry-specific factors on banking performance. This research uses quantitative methods by collecting financial reporting data from companies in the banking sub-sector. The banking-specific factors that influence bank performance are capital measured by CAR, liquidity measured by CDR, firm size measured by bank size, asset quality measured by NPL, cash ratio, leverage measured by the DER, management productivity measured by the BPE and the industry-specific factors that influence bank performance, namely GDP, inflation rate and effective tax rate. ROA measures banking performance. Data collection and processing were carried out using IBM SPSS Statistics 25 software. The study's results showed the banking-specific factors that significantly influenced bank performance were CDR, bank size, NPL, DER, and BPE. In contrast, the industry-specific factor was only GDP, which significantly influenced banking performance.

Keywords: *Banking Specific Factors, Industry Specific Factors, Banking Performance*

1. INTRODUCTION

Banking plays the role of collecting funds from the public in the form of savings and channeling them in the form of credit or other things for the benefit of the people at large. Banks, as agents of trust, agents of development, and agents of service, contribute to building the economy and improving people's living standards. The health and stability of banking will significantly influence the ups and downs of an economy. Healthy banks are necessary for an economy that wants to grow and develop well. Banks are exposed to risks that can endanger their performance conditions when carrying out their business. Banks must continuously monitor their performance to avoid risk so that factors that support banking performance can be improved. Factors that influence banking performance are divided into internal factors that can be controlled by management and external factors that cannot be controlled by management, such as macroeconomic factors and industry characteristics. Banks that cannot maintain their performance well can experience bankruptcy and be liquidated. This condition will certainly reduce the level of public trust in banks. Therefore, early warning systems are needed to provide information about problems in the banking industry so that they can be anticipated before they reach a crisis.

Bank profitability is attractive to study because of the characteristics of the banking business, namely as an intermediary institution that acts as a driving force for a country's economy because of its efforts to channel funds to the community, both individual entrepreneurs and business entities that need funding capital. Banking has short-term targets, namely to fulfill minimum liquidity obligations, and long-term targets to increase company value. Therefore, banks in carrying out their business are heavily regulated by the government to avoid risks that

could endanger their business and the country's economic conditions. For example, when two large banks in the US went bankrupt, namely Silicon Valley Bank and Signature Bank, a systemic risk emerged: banks experienced failure simultaneously due to the loss of other banks. This incident created panic among the public to withdraw their money from the bank. As a result, many customers withdrew their deposits simultaneously in the last 48 hours before Silicon Valley Bank collapsed. Signature Bank also experienced the same problem, namely experiencing massive withdrawals of funds and ending up bankrupt on Friday, March 10, 2023.

Based on a literature review, Alshatti (2016) found that CAR, Bank Size, and DER positively affected ROA, NPL negatively impacted ROA, and CDR was insignificant for banks in Jordan. Meanwhile, in Dao & Nguyen (2020) research, it was found that there was a significant negative effect of Bank Size for Thailand and Vietnam, but for Malaysia, there was no significant effect on ROA. However, a negative influence of CAR on ROA was found. In research by Ercegovac et al., (2020), it was found that BPE and NPL had a significant impact on ROA, and bank Size and CAR were not substantial for European Union banks. Meanwhile, in Indonesia, CDR and CAR have a positive and significant influence on bank ROA, while DER has a negative and significant impact on ROA. GDP and IR were insignificant in bank ROA in Indonesia from 2009 to 2019. There are differences in the influence of these factors on bank performance. Many authors find that certain aspects have a negative effect, but for some banks and some countries, these factors have a positive or insignificant impact. Therefore, the topic of banking-specific and industry-specific factors on banking profitability is again raised in this research.

The subjects used in this research are banking subsector companies listed on the Indonesia Stock Exchange in 2018-2022, published audited financial reports in 2018-2022, and mainline banking companies. Banks going public were chosen because they offer their shares so that the public can know the company's financial condition through information disclosure. Therefore, it is crucial to identify the factors that influence banking performance. The public can assess company value at any time to choose which bank will produce higher profitability and increase company value. Mainboard Banking was selected because it is a large company with an excellent financial track record. Banking performance during 2018-2022 is engaging to study because there is a significant force, namely the COVID-19 pandemic, which impacts economic stability in Indonesia.

This research aims to determine the influence of banking-specific and industry-specific factors on banking performance. This study will be needed to suggest how to strengthen the performance of existing banks in Indonesia. This research is also expected to be useful for investors in the decision-making process when carrying out transactions by purchasing shares of banking companies on the IDX. It is hoped that this research can become a reference when further research is carried out.

2. THEORETICAL REVIEWS

Signaling Theory

Signal theory was first put forward by Michael Spence in 1973. The signal theory is an action company management takes to provide guidance or signals to external parties regarding how company management views the company's prospects in the future to reduce information asymmetry between company management and external parties (Dao & Nguyen, 2020)**.** Company management provides signals to external parties by using company financial reports,

which contain reliable company financial information that will provide information about the company's good prospects in the future to reduce the problem of information asymmetry. Signal theory states that company management sends an excellent signal to external parties that the company's prospects are promising by increasing the company's capital (Alshatti, 2016).

Relative Efficiency Hypothesis

The Relative Efficiency Hypothesis was put forward by David J. Ravenscraft in 1983. This theory shows that large banks will gain more profits than small banks. First, large banks may have higher product quality and monopoly power, allowing large banks to charge higher prices. Second, large banks will be more efficient and tend to grow faster. Third, large banks will be more innovative and able to develop existing innovations than small ones. Large banks also benefit from economies of scale (Alshatti, 2016).

Risk-Return Hypothesis

The Risk-Return Hypothesis explains that there is a relationship between risk and return. This hypothesis states that potential profits increase as risk increases. Banks with a low capital ratio will have higher returns than those with a high capital ratio. Banks that have low capital will face more significant risks and thus be able to produce high returns. On the other hand, banks with high capital will face lower risks, resulting in lower returns. However, high-capital banks are safer and continue generating profits even in economically challenging times (Alshatti, 2016).

Asset and Liability Management Theory (ALMA)

ALMA states that banks must be able to manage their liabilities to become a source of liquidity. Banks must maintain a balance between maturing assets and liquidity to maintain their liquidity level and remain an intermediary that provides loan facilities to the public. Banks need to manage assets and liabilities so that these items balance each other and can increase profits for the bank.

Bad Luck Hypothesis

The Bad Luck Hypothesis was first put forward by Berger and DeYoung in 1997, that external events can increase non-performing loans and reduce bank efficiency. Unexpected events can affect the debtor's payment ability, resulting in additional costs and managerial effort. Banks will likely face higher operational costs, which could harm banking efficiency. These costs arise from the need to monitor debtors, collateral values, and disposal costs related to defaulted loans. Therefore, the bad luck hypothesis states that the higher the increase in non-performing loans, the greater the possibility that bank efficiency will decrease (Phung et al., 2022).

Keynesian Consumption Theory

Keynesian Consumption Theory was first put forward by John Maynard Keynes in 1936, stating that there is a relationship between people's income and consumption. This consumption theory states that current consumption depends on the income that is ready to be spent at this time. If people's income increases, consumption will also increase.

The Concept of Productivity

The concept of productivity proposed by Cusolito (2018) is the level of economic efficiency when using capital, people, and technology to produce output. Productivity measures the output of goods or services a company produces compared to its labor, capital, and equipment input. Productivity is essential to measure because it affects company profits. When productivity is high, the savings made by the company will be higher, so profits will be greater.

Banking Performance

Banking performance is supervised and regulated by the Financial Services Authority and supported by various government and Bank Indonesia policies. Banking performance in this study is calculated using a profitability proxy. Marwansyah et al., (2018) states that the profitability ratio compares net profit after tax with the total assets owned by the bank. Therefore, the ratio commonly used to measure bank profitability is Return on Assets or ROA.

Banking Specific Factors and Hypothesis

Based on OJK Regulation Number 11/POJK.03/2016 concerning Minimum Capital Requirements for Commercial Banks, banks must provide minimum capital by risk profile. This capital provision is set at a minimum of 8%, and the OJK has the authority to set it higher if a bank is deemed to have potential losses that require greater capital. Capital in banking is measured using the Capital Adequacy Ratio (CAR). Banks with significant capital will be able to cover all risks of loss that may occur from the credit they distribute, meaning that the risks faced by banks are lower than banks with small capital. When credit problems occur, banks with small capital will need help covering them with their capital. The bank is exposed to higher credit risk. In line with the Risk-Return Hypothesis, banks with high stakes will be able to generate higher returns or income than banks with significant capital levels.
H_1: Capital has a negative and significant influence on banking performance.

A bank's liquidity is the primary tool in obtaining income. A bank with large liquidity means it has sufficient funds to channel financing to the public, but on the other hand, when liquidity is too abundant, there is a slowdown in credit growth. Liquidity is measured using the Credit Deposit Ratio (CDR). Banks with abundant liquidity indicate that banking credit distribution could have been more optimal. This abundance of liquidity in the balance sheet can impact banking revenues that could be more optimal. In line with ALMA, banks must maintain a balance between their maturing assets and liabilities to maintain liquidity capacity while optimizing income by minimizing idle third-party funds.
H_2: Liquidity has a positive and significant influence on banking performance.

Firm size is a scale that classifies the size of a company based on several aspects, including total assets and total income. The larger the company size, the stronger the company's condition will be. The calculation will use total assets because they tend to be more stable than total sales. When more credit is disbursed, total banking assets will increase, and banking performance will improve along with the increase in income received. In line with the Relative Efficiency Hypothesis, large banks have an advantage over small banks.
H_3: Bank Size has a positive and significant influence on banking performance.

Based on OJK Regulation No.40/POJK.03/2019, Banks are obliged to manage assets based on the precautionary principle to maintain bank assets in good quality and carry out asset quality

assessments. According to the credit agreement, the quality of problematic assets reported by banks in the form of NPL indicates that debtors have problems with loan payments because they cannot pay some or all of their obligations to the bank. NPL suggests a decline in the health of a bank's asset quality and impacts decreasing banking performance. In line with the Bad Luck Hypothesis, unexpected external events can increase NPL and reduce bank efficiency.
H_4: Asset Quality has a negative and significant influence on banking performance.

Cash and cash equivalents are the company's main assets, which have the highest level of liquidity and are payment instruments that are always ready to be used to finance the company's activities. Banks with an abundance of assets in the form of cash and cash equivalents on their balance sheets indicate that banks can pay their immediate obligations smoothly. However, large portions of cash and cash equivalents are considered less efficient because the company can use the money to obtain income. Under ALMA, banks manage their liquidity ratios optimally, namely reducing idle third-party funds and increasing income while maintaining risks as small as possible to meet their cash flow needs.
H_5: Cash Ratio has a negative and significant influence on banking performance.

Based on OJK Regulation No.31/POJK.03/2019 concerning Obligations to Fulfill Leverage Ratios for Commercial Banks, banks are required to fulfill this ratio at a minimum of 3%. The leverage ratio aims to limit excessive leverage on banks so that they can prevent banks from the risk of selling bad assets, which could harm the bank and the entire financial system. The leverage Ratio is measured using the DER. Signal Theory explains that bank management signals external parties that the company will have promising prospects by increasing its capital. Correspondingly, when there is a decrease in the leverage ratio, namely an increase in company equity, and the bank's performance remains good, the company gives a signal to external parties that their company is better than its competitors, who cannot increase their equity without further reducing their profits.
H_6: Leverage has a negative and significant influence on banking performance.

Employee contributions to the company can be calculated using the productivity ratio, namely the Business per Employee Ratio, by calculating net profit divided by the number of employees. Based on the productivity concept by Cusolito and Maloney, productivity is the level of economic efficiency when using capital, people, and technology to produce output. In line with that, a bank with productive employees means that it can carry out efficiency in its operations by utilizing the bank's capital, existing workforce, and technology to produce output in the form of higher profits than other banks that do not have productive employees.
H_7: Productivity has a positive and significant influence on banking performance.

Industry-Specific Factors and Hypothesis

Economic growth is a condition in a country where people experience increased income due to increased production of goods and services. A country's economic growth can be seen from the Gross Domestic Product indicator. GDP is the amount of added value (goods and services) produced by all economic units of a country. A large GDP value means that the country also has large economic resources. Based on the consumption theory developed by Keynes, there is a relationship between income that is ready to be spent now and consumption that is carried out. If income prepared to be paid increases, consumption will also increase. Improving people's income should positively impact company income because people can consume, for example, to make investments or apply for credit from banks.

H_8: Economic Growth has a positive and significant influence on banking performance.

Inflation is a tendency for the prices of goods and services to increase continuously, not just for a moment. The Consumer Price Index (CPI) is the indicator used to calculate inflation. Changes in the CPI reflect the increase (inflation) or decrease (deflation) in goods and services over a certain period. Based on Bank Indonesia's monetary policy transmission theory, changes to BI 7DRR will affect interest rates. When there is high inflation, the Central Bank will raise the benchmark interest rate, and banks respond by increasing deposit interest rates followed by an increase in credit interest rates. The increasing interest rate makes people prefer to save their money in banks and absorb the money in circulation, which can slow economic growth and inflation. When credit distribution is hampered, this reduces banking performance.
H_9: Inflation Rate has a negative and significant influence on banking performance.

Taxes are a government tool to obtain revenue from individuals and entities to finance routine expenditures and development at the central and regional levels. However, the government's goal of maximizing tax revenue differs from the company's business goals. The company will try to make a profit at the minimum possible cost. Therefore, companies carry out tax planning or management to streamline legal tax payments without avoiding tax payments (Lumbuk & Fitriasuri, 2022). This research uses the Effective Tax Rate as an indicator to measure the level of effectiveness of company tax management. Companies generally carry out tax management to streamline their legal tax payments without avoiding tax payments. The more effectively a company carries out tax management, the smaller the effective tax rate that the company must pay so that it can improve the company's performance.
H_{10}: Effective Tax Rate has a negative and significant influence on banking performance.

According to the description above, it can be seen through the research model in **Figure 1** as follows:

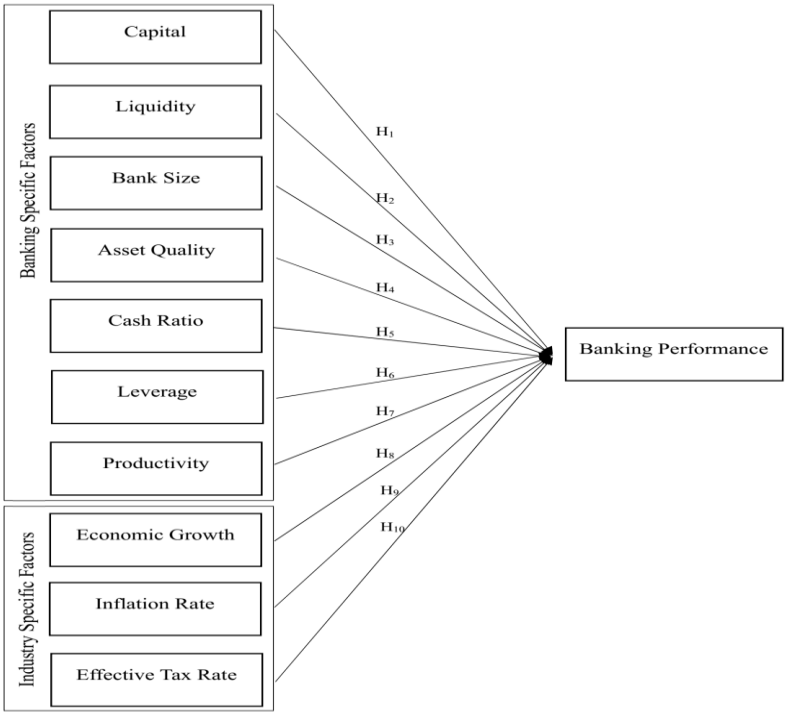

Figure 1. Research Model

3. RESEARCH METHOD

This research uses quantitative research, where data is collected through measurements and objective and standard instruments. One quantitative research method is regression analysis. Regression analysis aims to determine the correlation of a variable on other variables. This research uses a correlational research method that describes the relationship between two or more variables. The correlation coefficient is used to see how variations in one factor relate to variations in others. The data studied is from banking subsector companies listed on the IDX in 2018-2022, GDP data via the World Bank, and inflation rate data via the Bank Indonesia. This data was collected first, summarized in Microsoft Excel, and processed using IBM SPSS Statistics 25.

The sampling techniques used in this research are Non-Probability Sampling and Purposive Sampling techniques. Purposive sampling is a sampling technique that is not random but is based on assessments or estimates that have been previously determined according to the aims and objectives of the research (Hermawan & Amirullah, 2016)**.** The elements selected as samples represent the researcher's belief that the elements are representative of the population. The criteria used in sampling in this research are: 1) All banking subsector companies listed on the Indonesia Stock Exchange in 2018-2022; 2) Have complete audited financial reports for 2018-2022; 3) Is a major banking company.

Table 1. Operational Variables

Performance Indicator / Influencing Factors	**Variables**	**Formula**	**References**
Dependent Variable	Return on Asset	$ROA = \frac{\text{Net Profit}}{\text{Total Asset}}$	Mohanty & Krishnankutty, 2018
Independent Variable			
1) Bank-Specific Factor	Capital Adequacy Ratio	$CAR = \frac{\text{Capital}}{\text{Risk–Weighted Assets}}$	Kantharia & Biradar, 2022
	Credit-to-Deposit Ratio	$CDR = \frac{\text{Total Credit}}{\text{Total Deposit}}$	Kantharia & Biradar, 2022
	Bank Size	Bank Size = Ln (Total Asset)	Mohanty & Krishnankutty, 2018
	Non-Performing Loan	$NPL\ net = \frac{\text{Total Bad Credit}}{\text{Total Credit}}$	Usman & Lestari, 2019
	Cash Ratio	$\text{Cash Ratio} = \frac{\text{Cash and Cash Equivalent}}{\text{Immediate Liability}}$	Kantharia & Biradar, 2022
	Debt-to-Equity Ratio	$DER = \frac{\text{Total Liability}}{\text{Total Equity}}$	Kantharia & Biradar, 2022
	Business per Employee	$BPE = \frac{\text{Net profit}}{\text{Number of Employee}}$	Mohanty & Krishnankutty, 2018
2) Industry-Spesific Factor	Gross Domestic Product	$GDP = \frac{\text{GDP current year} - \text{GDP last year}}{\text{GDP last year}}$	Kantharia & Biradar, 2022
	Inflation Rate	$IR = \frac{\text{IHK current year} - \text{IHK last year}}{\text{IHK last year}}$	Kantharia & Biradar, 2022
	Effective Tax Rate	$ETR = \frac{\text{Tax Expense}}{\text{Profit Before Tax}}$	Kantharia & Biradar, 2022

Table 1 describes independent and dependent variables. This research uses independent variables for banking-specific factors, namely Capital Adequacy Ratio, Credit Deposit Ratio, Bank Size, Asset Quality, Cash Ratio, Debt to Equity Ratio, Business per-Employee and industry-specific factors, namely Gross Domestic Product, Inflation Rate, and Effective Tax Rate. The dependent variable in this research is banking performance, namely, Return on Assets. The regression equation in this research as follows:

$$ROA = \alpha + \beta_1 CAR + \beta_2 CDR + \beta_3 SB + \beta_4 AQ + \beta_5 CR + \beta_6 DER + \beta_7 BPE + \beta_8 GDP + \beta_9 IR + \beta_{10} ETR + \varepsilon$$

4. RESULTS AND DISCUSSIONS

Data analysis aims to answer the problem formulation and test the proposed hypothesis, whether the hypothesis is rejected or accepted, or whether the results are by the proposed hypothesis or not. The data that has been collected will be processed and analyzed using descriptive statistical tests and multiple regression analysis. Data analysis in this research used IBM SPSS Statistics version 25 software. Before carrying out regression analysis and hypothesis testing, several classic assumptions must be met first. Classical assumptions are necessary and must be met to ensure that the regression model being tested is the best model. That is, it has accurate estimates, is free from bias, and is consistent (Ghozali, 2016). The four classical assumption tests that must be met are the Normality Test, Multicollinearity Test, Heteroscedasticity Test, and Autocorrelation Test.

Descriptive Statistics

Table 2. Descriptive Statistics

Variables	Observation	Mean	Median	Max	Min	Std Dev
ROA	115	0.01723	0.01680	0.0431	0.0004	0.01125
CAR	115	0.24674	0.22680	0.5927	0.0029	0.08860
CDR	115	0.83981	0.82520	1.6300	0.2967	0.22385
SB	115	32.40723	32.69590	35.2282	28.9802	1.55142
NPL	115	0.01239	0.00910	0.0497	0.0018	0.00899
CR	115	7.13627	2.86960	91.3643	0.1625	14.36546
DER	115	5.63678	5.34280	16.0789	0.0574	2.58757614
BPE	115	300,434,178	221,000,000	1,618,633,464	1,243,004	296,073,927
GDP	115	0.03420	0.05000	0.0530	-0.0210	0.02831843
IR	115	0.0298200	0.0272000	0.0551	0.0168	0.01378089
ETR	115	0.2522983	0.2341000	0.9176	-0.0300	0.10966290

As shown in Table 2, the results of descriptive statistical tests for each variable in the research are attached. The total sample data used for processing was 115 from 23 banking companies during 2018-2022.

The Return on Assets (ROA) variable has an average of 0.0172 and a median value of 0.0168. The Capital Adequacy Ratio (CAR) variable has an average of 0.2467 and a median value of 0.2268. Almost all banking sector companies have met the OJK's minimum capital requirement of 8%. The Credit Deposit Ratio (CDR) variable averages 0.8398 and a median value of 0.8252. This average value shows that banking companies have currently distributed credit of around 83.98% of the total deposits collected. The Bank Size (SB) variable has an average of 32.4072 and a median value of 32.6959. On average, banks in Indonesia have total assets of IDR 118.65

trillion. The Non-Performing Loan (NPL) variable averages 0.0124 and has a median value 0.0091. On average, the value of non-performing loans in Indonesian banks during 2018-2022 has a ratio of 1.24% of the total credit disbursed. The Cash Ratio (CR) variable averages 7.1363 with a median of 2.8696. On average, Indonesian banks' cash and cash equivalent value during 2018-2022 has a ratio of 286.96% of the total outstanding immediate liabilities. The Debt Equity Ratio (DER) variable averages 5.6368 with a median value of 5.3428. The Business per Employee (BPE) variable averages IDR 300,434,178.00 and a median of IDR 221,000,000.00. On average, each banking management in Indonesia can generate profits of IDR 300 million per year to support company performance. The Gross Domestic Product (GDP) variable has an average of 0.0342 and a median value of 0.050. The Inflation Rate (IR) variable has an average of 0.0298 and a median value of 0.0272. The highest IR value is 0.0551. and the lowest value is 0.0168. The Effective Tax Rate (ETR) variable averages 0.2523 and a median of 0.2341.

Classical Assumption Test

The normality test aims to determine whether the independent and dependent variables have a normal distribution. A good regression model is a regression that is typically distributed or close to normal (Ghozali, 2016). This research uses the One-Sample Kolmogorov-Smirnov Test to test normality. The significance level used is 0.05. The normality test produces a Kolmogorov-Smirov significance value of 0.200, which means the data is typically distributed because this value is more significant than 0.05. Thus, the results of the normality test with ROA as the dependent variable fulfill the normality assumption.

The autocorrelation test is carried out to determine whether observations made at successive times are related to each other. There are independent residuals between one observation and another (Ghozali, 2016). The Durbin-Watson test can be carried out to detect autocorrelation. The Durbin-Watson value is 2.013. For research with ten independent variables and a total of 115 data, the du value is 1.8877. Therefore, the Durbin-Watson value is between du and 4-du, namely $1.8877 < 2.013 < 2.1123$ so the regression model is free from autocorrelation problems.

The heteroscedasticity test is used to test whether there is an inequality of variance from the residual value of one observation to another in the regression model (Ghozali, 2016). The Glejser test is carried out to see whether there is heteroscedasticity. The significance value for each independent variable is 0.948, 0.454, 0.066, 0.637, 0.856, 0.736, 0.712, 0.992, 0.843, 0.740, 0.367 for constant, CAR, CDR, SB, AQ, CR, DER, BPE, GDP, IR, ETR respectively, all of the significance values are greater than 0.05, so this means that there is no heteroscedasticity problem in the regression model.

The multicollinearity test was carried out to test the modal regression, namely whether there is a relationship between the independent variables (Ghozali, 2016). Multicollinearity in the regression model can be seen from the values of tolerance and VIF (Variance Inflation Factor). The tolerance value for each independent variable is 0.473, 0.745, 0.496, 0.690, 0.736, 0.767, 0.542, 0.575, 0.612, 0.789. The VIF value is 2.112, 1.341, 2.014, 1.449, 1.359, 1.304, 1.907, 1.740, 1.634, and 1.276 for the variables CAR, CDR, SB, AQ, CR, DER, BPE, GDP, IR, ETR respectively, all tolerance values are more significant than 0.10. The VIF value is smaller than 10, so the regression model has no multicollinearity problem.

Multiple Linear Regression Analysis

Simultaneous testing is carried out to see the influence of the independent variable on the dependent variable simultaneously. The output resulting from processing using IBM SPSS Statistics version 25 is an F-Statistics significance value of 0.000 (Sig < 0.05), so H_0 is rejected, and H_a is accepted, meaning that the research model can be used because the independent variable has a significant effect on the dependent variable simultaneously. Therefore, the research will continue with a partial test (t-test).

A partial test (t-test) is carried out to determine whether each independent variable's influence is significant on the dependent variable. The t-test results are showed in Table 3 as follows:

Table 3. t-test Results

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	-.024	.079		-.305	.761
	CAR	.067	.042	.129	1.611	.110
	CDR	.061	.026	.151	2.369	.020
	SB	.005	.002	.160	2.043	.044
	NPL	-1.624	.341	-.317	-4.767	.000
	CR	-1.528E-5	.000	-.005	-.074	.941
	DER	-.003	.001	-.169	-2.687	.008
	BPE	7.519E-11	.000	.483	6.337	.000
	GDP	.315	.118	.193	2.656	.009
	IR	-.298	.236	-.089	-1.262	.210
	ETR	-.021	.026	-.050	-.810	.420

Based on the test results is shown in Table 3, the regression equation used is as follows:

ROA = -0.024 + 0.067 CAR + 0.061 CDR + 0.005 SB – 1.692 AQ – 0.00001528 CR – 0.003 DER + 0.00000000007519 BPE + 0.315 GDP – 0.298 IR – 0.021 ETR

The CAR has a significance value of 0.110 (Sig > 0.05), so H_0 is accepted, and H_1 is rejected, meaning that CAR, which measures capital partially, does not significantly influence profitability as measured by ROA. CAR has a positive direction of 0.067, meaning that when other variables are constant, profitability will increase by 0.067 if CAR increases by one unit.

Credit-to-Deposit Ratio has a significance value of 0.020 (Sig < 0.05), so H_0 is rejected, and H_2 is accepted, meaning that CDR, which measures liquidity partially, significantly affects banking profitability as measured by ROA. CDR has a positive direction of 0.061, meaning that when other variables are constant, profitability will increase by 0.061 if CDR increases by one unit.

Bank Size has a significance value of 0.044 (Sig < 0.05), so H_0 is rejected, and H_3 is accepted, meaning that the SB variable, which measures company size partially, significantly affects banking profitability as measured by ROA. SB has a positive direction of 0.005, meaning that when other variables are constant, profitability will increase by 0.005 if SB increases by one unit.

NPL have a significance value of 0.000 (Sig < 0.05), so H_0 is rejected, and H_4 is accepted, meaning that the NPL, which measures the quality of assets, partially has a significant effect on banking profitability as measured by ROA. NPL has a negative direction of -1,624, meaning that when other variables are constant, profitability will decrease by 1,624 if NPL increases by one unit.

The Cash Ratio has a significance value of 0.941 (Sig > 0.05), so H_0 is accepted, and H_5 is rejected, meaning that the CR variable, does not significantly influence banking profitability as measured by ROA. CR has a negative direction of -0.00001528, meaning that when other variables are constant, profitability will decrease by 0.00001528 if CR increases by one unit.

DER has a significance value of 0.008 (Sig < 0.05), so H_0 is rejected, and H_6 is accepted, meaning that the DER variable, which measures leverage partially, significantly affects banking profitability as measured by ROA. DER has a negative direction of -0.003, meaning that when other variables are constant, profitability will decrease by 0.003 if DER increases by one unit.

BPE has a significance value of 0.000 (Sig < 0.05), so H_0 is rejected, and H_7 is accepted, meaning that the BPE variable, which measures management productivity, partially has a significant effect on banking profitability as measured by ROA. BPE has a positive direction of 0.00000000007519, meaning that when other variables are constant, profitability will increase by 0.00000000007519 if BPE increases by one unit.

Gross Domestic Product has a significance value of 0.009 (Sig < 0.05), so H_0 is rejected, and H_8 is accepted, meaning that the GDP variable partially significantly affects banking profitability as measured by ROA. GDP has a positive direction of 0.315, meaning that when other variables are constant, profitability will increase by 0.315 if GDP increases by one unit.

The inflation rate has a significance value of 0.210 (Sig > 0.05), so H_0 is accepted, and H_9 is rejected, meaning that the IR variable, does not significantly influence banking profitability as measured by ROA. IR has a negative direction of -0.298, meaning that when other variables are constant, profitability will decrease by 0.298 if IR increases by one unit.

Effective Tax Rate has a significance value of 0.420 (Sig > 0.05), so H_0 is accepted, and H_{10} is rejected, meaning that the ETR variable, does not significantly influence banking profitability as measured by ROA. ETR has a negative direction of -0.021, meaning that when other variables are constant, profitability will decrease by 0.021 if ETR increases by one unit.

Table 4. Coefficient of Determination Test

Model	R	R-Square	Adjusted R-Square	Std. Error of the Estimate	Durbin-Watson
1	.826[a]	.683	.652	.02716	2.013

Based on the resulting output in Table 4, the Adjusted R-squared value for the regression model is 0.652. Thus, it can be seen that the independent variables in the model can explain 65.2% of the dependent variable, while other variables outside the model explain the remaining 34.8%.

Discussion

Based on the description above, it can be seen through the summary of test results in **Table 5** below:

Table 5. Hypothesis Testing Results

Variables	Expected Influence	Coefficient	Prob.	Hypothesis Conclusion
CAR	Negative, Significant	0.067	0.110	H_1 rejected
CDR	Positive, Significant	0.061	0.020	H_2 accepted
SB	Positive, Significant	0.005	0.044	H_3 accepted
NPL	Negative, Significant	-1.624	0.000	H_4 accepted
CR	Negative, Significant	-1.528E-5	0.941	H_5 rejected
DER	Negative, Significant	-0.003	0.008	H_6 accepted
BPE	Positive, Significant	7.519E-11	0.000	H_7 accepted
GDP	Positive, Significant	0.315	0.006	H_8 accepted
IR	Negative, Significant	-0.298	0.201	H_9 rejected
ETR	Negative, Significant	-0.021	0.783	H_{10} rejected

Based on the results of multiple regression in Table 5, increasing CAR does not have a significant effect on increasing profitability. The research results cannot prove the Risk Return Hypothesis theory, which estimates that banks with lower capital ratios will have higher returns than financial institutions with greater capital because there is a possibility of a decline in asset quality, thereby increasing the risk that banks must bear. For example, when the COVID-19 pandemic occurred, banks with significant capital could not cover the increase in risky assets because the increase was too high. Therefore, an increase in capital does not always increase banking profitability. This analysis's results align with the research results of Syachreza and Gusliana, (2020) which show that CAR does not significantly influence ROA.

Increasing CDR has a significant positive effect on increasing profitability. The results of this research prove the ALMA Theory, where banks must maintain a balance between their assets and liabilities in an ideal position to maintain liquidity capabilities while optimizing income by minimizing idle third-party funds. This research finds that increasing bank credit distribution will increase banking profitability. Banks also do not experience an abundance of excessive liquidity, which could cause banks to lose opportunities to gain profits. The results align with the research results of Pratama et al., (2021) which show that CDR has a significant positive effect on ROA.

Multiple regression analysis shows that the Bank Size variable has a significant positive effect on ROA. Banks with high total assets will also be able to obtain high income. The results of this research prove the Relative Efficiency Hypothesis Theory that large banks have an advantage compared to small banks. The results of this analysis align with the research results of Henny dan Lestari, (2017) which show that Bank Size has a significant positive effect on ROA because large banks have a greater efficiency level in achieving profits than small banks.

The NPL variable has a significant negative effect on ROA. An increase in NPL will have a significant impact on reducing banking profitability. The results of this research prove the Bad Luck Hypothesis, that the level of NPL will reduce bank efficiency so that banks will face greater costs as a result of which profits will decrease. This research found that banks that have

high quality non-performing assets will generate small profits. This can happen because when bad credit increases, banks do not get income from interest payments by debtors, thereby reducing banking income. The results of this analysis are in line with the research results of Ercegovac et al., (2020) which show that NPL have a significant negative effect on banking ROA in the European Union.

Multiple regression analysis shows that the Cash Ratio has a negative direction and does not significantly influence ROA. The decrease in banking Cash Ratio is not significant in increasing banking profitability. The results of this research cannot prove the ALMA. Banking cash and cash equivalents in Indonesia are at an ideal level, so there is no cash abundance. The results of this analysis contradict the research results of Kantharia & Biradar, (2023) which show that the Cash Ratio has a significant negative effect on banking ROA in the European Union.

The DER variable has a significant negative effect on ROA. Increasing DER has a significant impact on reducing ROA and vice versa. The results of this research prove the Signaling Theory, where bank management signals to external parties that the company will have promising prospects by increasing its capital. The significant capital owned by banks is an excellent signal to external parties that banks can absorb potential losses that the company may experience. This research's results align with those of Bansal et al., (2018) who found that the Equity Ratio negatively and significantly affected ROA.

Multiple regression analysis shows that the BPE variable significantly positively affects ROA. Increasing BPE has a significant impact on increasing profitability and vice versa. The results of this research prove the Productivity Theory by Cusolito and Maloney, where banks that have productive employees can carry out efficiency in their operations by utilizing the bank's capital, existing workforce, and technology so that they can produce output in the form of higher profits than other banks. The analysis results align with Mohiuddin, (2017) research results, which show that Business per Employee has a significant positive effect on banking ROA in Bangladesh.

GDP has a significant positive effect on ROA. An increase in GDP value has a significant impact on increasing banking profitability. When there is a decrease in GDP, it will have a significant impact on decreasing banking profitability. The results of this research prove Keynes' Consumption Theory that there is a relationship between current disposable income and current consumption; if disposable income increases, consumption also increases, which means an increase in GDP. When GDP rises, it means that national income has increased and people's purchasing power has increased. The results align with the research results of Egbunike and Okerekeoti, (2018) which shows that the GDP has a significant positive effect on ROA.

Multiple regression analysis shows that the Inflation Rate variable has a negative direction and does not significantly influence ROA. An increase in the Inflation Rate does not have a significant impact on reducing banking profitability. The results of this research are not in line with the BI 7DRR monetary policy, where when inflation occurs, BI will increase the reference interest rate, to which banks respond by increasing deposit and loan interest rates. The result happens because when inflation occurs, and the Central Bank increases the benchmark interest rate, banks will not immediately increase their credit interest rates but will look at the condition of their customers and debtors first. The results of this analysis align with the research results

of Trihardianto and Hartanti, (2022) which found that the Inflation Rate did not significantly influence ROA.

ETR has a negative direction and does not significantly influence ROA. This result is likely to occur because tax is an obligation that banks must pay, so whatever tax rate banks pay will still reduce banking profitability. However, when banks manage earnings, they will be protected from the full impact of higher tax burdens. However, this still will not eliminate the impact of taxes on banking profits. The results of this analysis contradict the research results of Kantharia dan Biradar, (2023) which show that the ETR has a significant positive effect on ROA.

5. CONCLUSIONS AND SUGGESTIONS

Based on this research, it is possible to conclude that the following are related to the hypothesis:
1. Capital has a positive direction but does not affect banking performance.
2. Liquidity has a positive and significant influence on banking performance
3. Company size has a positive and significant influence on banking performance
4. The quality of non-performing assets has a negative and significant influence on banking performance
5. The cash ratio has a negative direction but does not have any influence on banking performance
6. Leverage has a negative and significant influence on banking performance
7. Management productivity has a positive and significant influence on banking performance
8. Economic growth has a positive and significant influence on banking performance
9. The inflation rate has a negative direction but does not have any impact on banking performance
10. The effective tax rate has a negative direction but is not significant on banking performance

This research certainly has several limitations, starting from the independent variables in the form of banking-specific factors, which are narrowed down to only capital, liquidity, firm size, asset quality, cash ratio, leverage, productivity, and industry-specific factors narrowed down to only gross domestic product, inflation rate, and effective tax rates. Likewise, the dependent variable is banking performance, which only uses ROA to measure profitability. Furthermore, this research describes the condition of company performance in one finance subsector, namely the banking subsector listed on the IDX. This research also only took five years of data, namely 2018-2022. The suggestion is that future researchers conduct research by adding other determining variables related to banking-specific and industry-specific factors to obtain more detailed results. Further research can also share observations regarding company performance in several finance subsectors or other economic sectors to determine which sectors or subsectors are worst affected and which sectors benefit from macroeconomic factors.

ACKNOWLEDGEMENT

The authors would like to acknowledge people who have supported this study.

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