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The Effect of Bank Efficiency, Industry Specification, and Macroeconomic on Banking Profitability in Indonesia

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ABSTRACT: Banking in Indonesia has a long and dynamic history. The banking industry in Indonesia has distinctive and diverse characteristics. Banking in Indonesia faces various challenges and opportunities in the future. The purpose of this study is to analyze The Effect of Bank Efficiency, Industry Specification, and macroeconomic factors on the profitability of banks in Indonesia using double log regression. By using double log regression. The process of obtaining data uses secondary data obtained from OJK, BEI, and BI, and the data used is financial data of five banks with the highest profitability. Consisting of ROA, OER, HHI, Concentration Ratio, GDP Growth and GDP per Capita. The results of the study state that OER has a positive but insignificant effect on roa, CR has no significant effect on ROA, hhi has a positive but insignificant effect on ROA, GDP growth has a negative and significant effect on ROA, GDP per capita has a positive but insignificant effect on ROA, And simultaneously each dependent variable affects the independent variable.. This indicates that banking in Indonesia must be vigilant of the macroeconomic fluctuations that can affect the stability of the financial system, as well as take advantage of the opportunities in the domestic and international markets to increase their income and market share.

KEYWORDS: ROA, OER, Concentration Ratio, HHI, GDP Growth, GDP per Capita

INTRODUCTION

The banking sector plays a crucial role in the Indonesian economy. Banks as financial institutions offer various financial services, ranging from savings, loans, to other services for the public and companies. Banking profitability is an important measure to assess the health and sustainability of banks. High profitability enables banks to run their operations, anticipate risks, and meet capital needs for growth, (IMF, 2019).

Banking in Indonesia also has to adapt to international standards set by the Basel Committee on Banking Supervision (BCBS), namely Basel III. Basel III is a regulatory framework that aims to enhance the resilience of the global financial system by setting stricter capital, liquidity, and leverage requirements for banks.

According to the research of Pujianti, R. and Sitorus, N.H. (2016), the banking industry in Indonesia has an oligopolistic market structure, the banking market in Indonesia is a market where the supply of one type of goods is controlled by a few companies. Where the four largest banks (Bank Mandiri, Bank Rakyat Indonesia, Bank Central Asia, and Bank Negara Indonesia) still control more than 50% of the market share based on assets.

According to OJK Portal (2021), the banking industry in Indonesia is also subject to strict regulations from the OJK and Bank Indonesia, including in terms of licensing, minimum capital, capital adequacy ratio (CAR), liquidity, credit, risk management, governance, consumer protection, and others. Various challenges and opportunities in the future will be faced by banking in Indonesia. One of the biggest challenges faced by banking in Indonesia today is the impact of the Covid-19 pandemic that has caused significant economic and social pressure. The pandemic has caused a decline in economic activity, an increase in credit risk, and market uncertainty. Banking is one of the sectors that plays an important role in the Indonesian economy. Banking functions as a financial intermediation institution that collects funds from the public and distributes them back to the public in the form of credit or financing. Thus, banking can support national development and improve people's welfare. However, banking also faces various challenges and risks that can affect its profitability and stability. Therefore, it is important to analyze the factors that affect banking profitability in Indonesia. Banking profitability is influenced by internal and external factors. Internal factors are factors related to the characteristics and policies of the bank itself, such as bank size, asset quality, capital, liquidity, operational

efficiency, deposits, leverage, asset management, and number of branches. External factors are factors related to the banking industry and macroeconomic environment, such as bank ownership, industry concentration, gross domestic product (GDP), inflation, interest rates, and exchange rates.

LITERATURE REVIEW

Bank is a financial institution that acts as an intermediary between parties that have excess funds and parties that need funds, as well as an institution that functions to facilitate payment transactions. Bank is also a business entity that collects funds from the public in the form of savings and distributes them to the public in the form of credit or other forms in order to improve the living standards of the people. Bank can be classified based on its function, ownership, status, and pricing method.The Effect of Bank Efficiency on Profitability Brigham and Houston (2001) stated that return on total assets (ROA) is the ratio between net income earned by common shareholders and total assets. High ROA value indicates that the company has good performance, because the investment results obtained are also large. ROA shows how effective the company is in utilizing its assets to create value for shareholders. ROA can also be used as an indicator of performance, solvency, and efficiency of the company. Profitability is the ability of the bank to generate profits from its operations. Profitability can be measured by using the Return on Asset (ROA) ratio, which is the ratio between net income and total assets. ROA shows how effective the bank is in managing its assets to generate profits. High ROA indicates that the bank has high profitability. Bank-specific size can be done by using various indicators or financial ratios that reflect the internal and external aspects of the bank. The results of Athanasoglou's (2008) and O'Connell (2023) studies took several bank-specific factors that affect profitability, where Athanasoglou et al (2008). showed that all bank-specific factors, except bank size, had a significant effect on bank profitability. Whereas in O'Connell (2023) study, all bank-specific factors, except credit risk, had a significant effect on bank profitability. One of the bank-specific measures is efficiency measured from the OER ratio. From the above review

The Effect of Industry Specification on Profitability Market concentration is a measure that shows how large the market dominance or power possessed by a number of companies in an industry (Rothaermel, 2013). Market concentration can be measured in various ways, such as the Herfindahl-Hirschman index (HHI), concentration ratio (CR), or market share (MS). The Herfindahl-Hirschman index is the sum of the squares of the market share of each company in an industry. The concentration ratio is the percentage of the total market share owned by a number of the largest companies in an industry. Market share is the proportion of sales or output generated by a company in an industry. Market concentration can affect the level of competition, efficiency, and profitability in an industry. The higher the market concentration, the lower the level of competition and the higher the level of profitability that can be achieved by the companies operating in the industry. Conversely, the lower the market concentration, the higher the level of competition and the lower the level of profitability that can be achieved by the companies operating in the industry. This is in accordance with the structure-conduct-performance (SCP) theory which states that market structure determines firm behavior and industry performance. Macroeconomics is a branch of economics that studies the behavior and performance of the economy as a whole, both at the national and global levels. Macroeconomics focuses on aggregate variables, such as gross domestic product (GDP), inflation, unemployment, balance of payments, exchange rates, and others. Macroeconomics also studies the government policies that affect the economy, such as fiscal, monetary, trade, and growth policies. GDP can be measured using various economic indicators or ratios, such as: GDP Per Capita: GDP per capita is GDP divided by the population of a country. GDP per capita can be used as an indicator of the income or welfare level of the average population of a country. GDP Growth: GDP growth is the percentage change in GDP from one period to the next. GDP growth can be used as an indicator of the level of development or progress of a country's economy.

RESEARCH METHOD

This research is a quantitative research using secondary data. The data taken are BRI, BCA, Mandiri, BNI, and CIMB banks, with high profitability, which data are taken from OJK, BEI, and BI. The dependent variable in this research is Profitability measured by ROA. The independent variables are Bank Efficiency measured by OER, Market Concentration measured by CR and HHI, GDP measured by GDP growth and GDP per capita. The data analysis model used in this research is non-linear regression in double log. Double log regression is chosen because it can overcome the problems that arise in linear regression models, such as the violation of classical assumptions, heteroscedasticity, and non-linearity. Double log regression can also change the interpretation of regression coefficients into elasticity or percentage change. The hypothesis test in this research is F test (simultaneous test) and t test (partial test).

RESULTS AND DISCUSSION

In the banking world, financial performance is one of the important aspects to be measured and evaluated. Financial performance can reflect how well the bank performs the intermediation function, which is collecting funds from the public and distributing them back in the form of credit or financing. Financial performance can also affect the market value of the bank, which is the stock price reflected on the stock exchange. The following are the descriptive Objective OER, HHI, CRn, GDP Growth, GDP Per Capita, and ROA.

In the banking world, one of the indicators used to measure financial performance is the OER ratio. OER ratio is an abbreviation of operational expenses to operational income, which shows how efficient the bank is in managing its operational costs and revenues. A low OER ratio indicates that the bank is able to generate more income than the costs incurred, thus increasing the profitability of the bank. Conversely, a high OER ratio indicates that the bank has difficulty in controlling its operational costs, thus reducing the profitability of the bank. Therefore, the OER ratio is one of the benchmarks for the health and competitiveness of the bank in the market. The size of OER in the form of a table in 5 banks with the highest profit in this study is shown in the table.

Table 1. OER

Bank	2021				2022			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
BRI	65,77	64,38	64,68	64,68	66,27	69,73	72,22	78,67
Mandiri	45,5	45,11	45,62	46,19	46,75	46,81	47,7	49,29
BCA	55,26	54,49	54,8	55,27	55,24	58,47	61,15	67,04
BNI	38,6	39,31	40,03	40,76	41,58	42,58	43,83	45,76
CIMB	57,15	58,89	60,66	62,48	64,34	66,24	68,19	71,03

For 2 years, there are 5 banks with the highest profitability, of the 5 banks studied, the most significantly high OER is CIMB with a rate value of -19.54103899%. And the smallest is Mandiri with a rate value of -7.68918644%.

In the economic world, one of the indicators used to measure the level of market competition is the Concentration Ratio (CR) Index. The CR index is a number that shows how large the market concentration is on a number of certain companies. The CR index is obtained by summing up the market share (S) of several companies. For example: CR 5 = S1 + S2 + S3 + S4 + S5, which means the CR index of the five largest companies in an industry. A low CR index indicates that the market is competitive, with many companies having a balanced market share. Conversely, a high CR index indicates that the market is oligopoly or monopoly, with a few companies dominating the market share. Therefore, the CR index is one of the benchmarks for the health and efficiency of the market.

Table 2. CR

Bank	2021				2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
BRI	15,37	15,52	16,73	16,81	16,01	15,77	15,58	16,79
Mandiri	17,26	16,91	16,92	17,29	16,82	17,04	17,01	17,93
BCA	11,88	12,08	12,08	12,30	12,22	12,07	11,92	11,83
BNI	9,40	9,36	9,50	9,67	9,04	9,03	9,40	9,36
CIMB	2,77	2,87	2,91	2,97	2,85	2,80	2,66	2,60

For 2 years, there are 5 banks with the highest profitability, of the 5 banks studied, the most significantly high HHI is BCA with a rate value of 29.4117647%. And the smallest is BRI with a rate value of 20%.

In the economic world, one of the indicators used to measure the level of market competition is the Herfindahl-Hirschman Index (HHI). HHI is a number that shows how large the market concentration is on a number of certain companies. HHI is calculated by summing up the squares of the market share of each company in an industry. A low HHI indicates that the market is competitive, with many companies having a balanced market share. Conversely, a high HHI indicates that the market is oligopoly or monopoly, with a few companies dominating the market share. Therefore, HHI is one of the benchmarks for the health and efficiency of the market.

Table 3. HHI

Bank	2021				2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
BRI	23,31	23,33	24,08	24,09	23,34	23,32	23,99	24,01
Mandiri	16,73	16,85	17,43	17,55	16,66	16,80	17,33	17,45
BCA	13,26	13,51	13,67	13,84	13,15	13,40	13,52	13,69
BNI	7,10	7,24	7,30	7,44	7,06	7,20	7,26	7,39
CIMB	1,18	1,21	1,24	1,26	1,20	1,22	1,25	1,27

In 2021, the first quarter of the five banks reached 3792.0964, the second quarter was 3861.38, the third quarter was 4060.238, the fourth quarter was 4119.072. And in 2022, the first quarter reached 3771.1881, the second quarter was 3836.5636, the third quarter was 4013.2225, the fourth quarter was 4071.7161. This can be interpreted that the combination of the five banks is classified as spectrum 3, meaning that the change in market concentration is significant. The market classification in the second quarter (2021) and the first quarter (2022) is a monopoly market, otherwise the market is a tight oligopoly.

For 2 years, there are 5 banks with the highest profitability, of the 5 banks studied, the most significantly high HHI is CIMB with a rate value of 14.28%. And the smallest is BRI with a rate value of 10.86%.

In the economic world, one of the indicators used to measure the welfare of a country is the GDP Growth Ratio Index. The GDP Growth Ratio Index is a number that shows how fast the gross domestic product (GDP) of a country increases in a certain period. GDP is the total value of goods and services produced by a country in one year. A high GDP Growth Ratio Index indicates that the country is experiencing rapid economic growth, which means that the income and quality of life of the people increase. Conversely, a low GDP Growth Ratio Index indicates that the country is experiencing stagnation or economic contraction, which means that the income and quality of life of the people decrease. Therefore, the GDP Growth Ratio Index is one of the benchmarks for the progress and prosperity of a country. The GDP growth in the form of a table in this study is shown in the Table.

Table 4. The GDP growth

Year	2021				2022			
Quarter	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Score	-0,96	3,31	1,55	1,06	-0,96	3,72	1,81	0,35

Between 2021 and 2022, there is GDP growth, the most significantly high GDP growth rate is in 2022 with a rate value of -2.10416. And the GDP growth rate from the first quarter of 2021 to the fourth quarter of 2022 is -1.364583.

GDP per Capita is one of the indicators used to measure the economic welfare of a country. GDP per Capita is the value of GDP of a country divided by its population. GDP per Capita shows how large the average income per person in a country is. A high GDP per Capita indicates that the country has a high level of prosperity, while a low GDP per Capita indicates that the country has a high level of poverty. Therefore, GDP per Capita is one of the benchmarks for the progress and development of a country.

Table 5. GDP per Capita

Year	In Milion Rupiah							
	2021				2022			
Quarter	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Score	57	58	60	A	64	67	70	74

Between 2021 and 2022, there is GDP growth, the most significantly high GDP growth rate is in 2022 with a rate value of -2.10416. And the GDP growth rate from the first quarter of 2021 to the fourth quarter of 2022 is -1.364583.

ROA (Return on Asset) is one of the financial ratios that measures how efficient a company is in generating profits from the use of its assets. ROA shows how much net income is generated by the company per unit of asset. A high ROA indicates that the company is able to utilize its assets well to create value for shareholders. Conversely, a low ROA indicates that the company is less effective in managing its assets and generating low profits. Therefore, ROA is one of the benchmarks for performance and profitability of the company.

Tabel 6. ROA

Bank	2021				2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
BRI	0,49	0,86	1,18	1,92	0,74	1,51	2,33	2,76
Mandiri	0,41	0,87	1,29	1,77	0,63	1,23	1,82	2,26
BCA	0,65	1,28	1,99	2,56	0,64	1,43	2,25	3,10
BNI	0,28	0,58	0,85	1,14	0,43	0,94	1,46	1,79
CIMB	0,37	0,74	0,34	1,32	0,39	0,83	0,43	1,66

For 2 years, there are 5 banks with the highest profitability, of the 5 banks studied, the most significantly high ROA is BNI with a rate value of 539.28571428%. And the smallest is CIMB with a rate value of 348.648%.

In this research, a classical assumption test was conducted to ensure that the linear regression model used met the required conditions. However, the test results showed that there were some assumptions that were not met, namely linearity, multicollinearity, and autocorrelation. The linearity assumption was not met because the relationship between the dependent and independent variables was not linear. The multicollinearity assumption was not met because there was a high correlation between some independent variables. The autocorrelation assumption was not met because there was a dependence between the error values in different periods. Therefore, it was decided to proceed to the double log regression phase, which is a regression model that uses logarithmic transformation on one or both sides of the regression equation, to overcome these problems.

The purpose of this research is to analyze the effect of bank-specific, industry-specific, and macroeconomic variables on banking profitability in Indonesia. The dependent variable used is Return on Assets (ROA), which is the ratio between net income and total assets. The independent variables used are Operational Expenses to Operational Income (OER), concentration ratio (CR), Herfindahl-Hirschman Index (HHI), gross domestic product (GDP) growth, and GDP per capita. This research uses secondary data in the form of financial reports of banks registered with the Financial Services Authority (OJK) and macroeconomic data from the Central Bureau of Statistics (BPS) during the period of 2021-2022. The analysis method used is double log regression, which is a regression model that uses logarithmic transformation on one or both sides of the regression equation. Double log regression is chosen because it can overcome the problems that arise in the linear regression model, such as the violation of classical assumptions, heteroscedasticity, and non-linearity.

Table 7.

	Unstandardized Coefficients	
	B	St.Error
(Constant)	-7.600	4.425
LnOER	.204	.594
LnCR	-.316	1.115
LnHHI	.489	.688
LnPertumbuhan_PDB	-.258	.093
LnPDB_per_Kapita	1.637	.848

Generating an equation, namely Based on the double log regression equation, it can be interpreted as follows:

(Constant) -7.600 shows the value of ROA if all independent variables are zero. This value has no economic meaning because it is impossible for all independent variables to be zero. LnOER 0.204 shows that every 1% increase in OER will increase ROA by 20.4%. This shows a positive relationship between OER and ROA.

LnCR -0.316 shows that every 1% decrease in CR will increase ROA by 31.6%. This shows a negative relationship between CR and ROA.

LnHHI 0.489 shows that every 1% increase in HHI will increase ROA by 48.9%. This shows a positive relationship between HHI and ROA.

LnGDP_Growth -0.258 shows that every 1% decrease in HHI will increase ROA by 25.8%. This shows that GDP growth and ROA in the regression model.

LnGDP_per_Capita 1.637 shows that every 1% increase in GDP per capita will increase ROA by 163.7%. This shows a positive relationship between GDP per capita and ROA.

Tabel 8. F Test

Model	Sum of Squares	Df	F
Regression	5.745	5	10.725
Residual	2.571	24	
Total	8.316	29	

In this research, I conducted an F test to find out whether the macroeconomic and microeconomic variables simultaneously have a significant effect on banking performance measured by ROA. The F test results showed that the F calculated value of 3.152 was greater than the F table value of 10.725 at the 5% significance level. This means that the null hypothesis stating that there is no significant simultaneous effect between the OER, CR, HHI, GDP growth, and GDP per capita variables on ROA is rejected. Thus, I conclude that these variables together have a significant effect on ROA.

T test is one of the hypothesis testing methods used to find out whether there is a significant effect between the independent variable and the dependent variable in the regression model. T test is done by comparing the t calculated value with the t table value at a certain significance level. If the t calculated value is greater than the t table value, then the null hypothesis stating that there is no significant effect is rejected. Conversely, if the t calculated value is smaller than the t table value, then the null hypothesis is accepted. T test can be done on linear or non-linear regression models, including double log regression. Double log regression is a regression model that uses logarithmic transformation on one or both sides of the regression equation. It can also be seen that if the sig value of the variable is smaller than 0.05 then ho is rejected or Ha is accepted which means there is an influence of independent variables on the dependent variable. Double log regression can overcome the problems that arise in the linear regression model, such as the violation of classical assumptions, heteroscedasticity, and non-linearity. Double log regression can also change the interpretation of regression coefficients into elasticity or percentage change. In this research, I will use double log regression to analyze the effect on banking performance in Indonesia. I will conduct a t test for each independent variable used in the double log regression model.

Table 9. T Test

	Standardized Coefficients Beta	Sig
(Constant)		.099
LnOER	.074	.735
LnCR	-.397	.779
LnHHI	.974	.484
LnGDP_Growth	-.386	.011
LnGDP_per_Capita	.269	.065

LnOER shows the t value for the LnOER variable. This value is greater than the t table value with sig 0.05, which is 0.735. This means that OER has no effect on profitability

LnCR shows the t value for the LnCR variable. This value is greater than the significant value with sig 0.05, which is 0.779,. This means that CR has no effect on profitability

LnHHI shows the t value for the LnHHI variable. This value is smaller than the t table value with df 29 and sig 0.05, which is 0.484. This means that HHI has no effect on profitability

LnGDP_Growth shows the t value for the LnPertumbuhan_PDB variable. This value is smaller than sig 0.05, which is 0.011. This means that GDP Growth affects the profitability variable.

LnGDP_perCapita shows the t value for the LnGDP per Capita variable. This value is greater than sig 0.05, which is 0.065. This means that GDP per Capita has no effect on the profitability variable GDP per Capita significant in the regression model.

The Effect of BOPO on Profitability In this study, it was found that BOPO (Operational Expense to Operational Revenue) is a ratio that measures banking efficiency in carrying out operational activities. ROA (Return on Assets) is a ratio that measures the ability of banking to generate profits by comparing net income with total assets. The positive but insignificant relationship between BOPO and ROA means that the lower the operational costs of banking, the higher the profit generated, but this relationship is not strong enough to be considered statistically significant. The research results are not in line with O'Connell (2023) research, because

O'Connell (2023) found that BOPO has a negative and significant effect on ROA, while the research results show that BOPO has a positive but insignificant effect on ROA. Different results can occur due to differences in time. Another factor that can influence is because the operational costs of these banks are already efficientThe Effect of CR on Profitability The research results show that CR does not affect ROA (Return on Assets). This means that market concentration does not affect the financial performance of the company, or in other words, there is no relationship between market structure and company profitability. The research results are not in line with Lail (2021) research, because both studies found that CR has a positive and significant effect on profitability, while the research results show that CR does not affect ROA. The Effect of HHI on Profitability In this study, HHI has a positive but insignificant effect on profitability. This means that the higher the market concentration, the higher the bank's profitability, but this relationship is not strong enough to be considered statistically significant. This may be due to other factors that have a greater effect on profitability, such as financial performance, company size, and managerial ownership. And it is not in line with Roslita's (2020) research, which found that HHI has a positive and significant effect on ROA, while the research results show that HHI has a positive but insignificant effect on profitability with the ROA parameter. The concentration ratio and HHI in banks under normal conditions in a broad market affect profitability, but in post-covid conditions, a broad market does not affect profitability because customer activities have not been smooth causing and non-performing loans. The Effect of GDP Growth on Profitability GDP growth has a significant negative relationship with profitability. This means that the higher the GDP growth, the lower the bank's profitability. This may be due to factors such as intense competition, high operational costs, increased credit risk, or a decrease in interest margins. The research results are in line with Soestio et.al (2022) research because in their research they also found that GDP growth has a negative effect on bank profitability in Indonesia. However, it correlates negatively. In this observation period, the negative correlation of both variables is relatively weak because during the observation period the growth data increases, the profitability data increases. The Effect of GDP Per Capita on Profitability The research results show that GDP per Capita as one of the macroeconomic variables has a positive but insignificant effect on ROA as a profitability variable. This is not in line with Soesetio et.al.'s (2022) research which found that GDP per Capita has a positive and significant effect on the profitability of small banks in Indonesia. From the research results, it can be concluded that GDP per capita has a positive but insignificant effect on bank profitability. This means that the higher the per capita income of the community, the higher their ability to save and deposit in banks, but this relationship is not strong enough to be considered statistically significant. This may be due to other factors that have a greater effect on bank profitability, such as asset quality, operational efficiency, credit risk, and interest margin. According to data from the Central Statistics Agency (BPS), Indonesia GDP per capita in 2021 reached IDR 62.2 million or US$4,349.51. This amount increased by 8.55% compared to the previous year which was IDR 57.3 million or US$3,992.5. Indonesia GDP per capita tends to increase every year. In 2010, Indonesia GDP per capita was recorded at only IDR 26.8 million or US$2,974.8. However, when compared to other countries, Indonesia GDP per capita is still relatively low. According to data from the World Bank, Indonesia GDP per capita in 2020 ranked 116th out of 190 countries. From the investor's side, GDP per capita also affects their decision to borrow funds from the bank. The higher the GDP per capita, the higher the demand for credit, both for consumption and investment. This can increase bank profitability through increased interest income. However, credit demand is also influenced by macroeconomic conditions, such as inflation, interest rates, exchange rates, and economic growth. If macroeconomic conditions are unstable or not conducive, investors may postpone or reduce their credit demand, due to uncertainty and higher risk. The Effect of BOPO, CR, HHI, GDP Growth, GDP Per Capita on Profitability Bank profitability is the ability of a bank to generate profits from its operations. Bank profitability can be measured by various indicators, such as return on assets (ROA). Bank profitability is influenced by many factors, both internal and external. Internal factors include bank characteristics, such as operational expense to operational revenue (BOPO), leverage, bank size, efficiency, credit risk, and others. External factors include banking industry conditions, such as market concentration, competition, regulation, and others, as well as macroeconomic conditions, such as gross domestic product (GDP) growth, GDP per capita, inflation, interest rates, and others. The results of this study show that BOPO, concentration ratio, HHI, GDP growth, and GDP per capita have a significant simultaneous effect on ROA as a profitability variable in banking in Indonesia, indicating that these factors play an important role in determining bank profitability. These findings are in line with O'Connell (2023) research which also found a positive influence of bank-specific, industry-specific, and macroeconomic factors on bank profitability in England. The results of this study show that BOPO, CR, HHI, GDP per capita, appear to have no effect on profitability. In general, in post-covid recovery conditions, the condition of activities after covid is not as smooth as before, so economic growth has started, changes have occurred in several sectors, which has an impact on banking activities as well, for example, shopping through Online resulted in offline stores decreasing, if these offline traders get capital from bank loans, this is related, they have difficulty paying credit. In the current post-covid recovery conditions, profitability is not much affected by this because the bank that is the object of research is a top-tier bank that has good operational management and financial management capabilities.

CONCLUSION

This presents the conclusion from the research that has been conducted on the influence of bank-specific, industry-specific, and macroeconomic factors on banking profitability in Indonesia. This conclusion is based on statistical analysis and interpretation of data that has been outlined in the previous chapter. Namely: a. OER has a positive but insignificant effect on profitability: This means that the lower the operational costs of banking, the higher the profit generated, but this relationship is not strong enough to be considered statistically significant. b. CR as an industry-specific variable does not affect ROA as a profitability variable. This means that the higher the market concentration measured by CR, it does not affect the return on assets measured by ROA. HHI has a positive but insignificant effect on profitability: This means that the higher the market concentration, the higher the banking profitability, but this relationship is not strong enough to be considered statistically significant. c. HHI as an industry-specific variable has a positive but insignificant effect on ROA as a profitability variable. This means that the higher the market concentration measured by HHI, it does not guarantee a higher return on assets measured by ROA. d. GDP growth has a significant negative effect on profitability: This means that the higher the economic growth, the lower the banking profitability. e. GDP per capita has a positive but insignificant effect on profitability: This means that the higher the per capita income of the community, the higher their ability to save and deposit in banks, but this relationship is not strong enough to be considered statistically significant. f. OER, CR, HHI, GDP Growth, GDP per capita have a simultaneous effect on profitability: This means that all variables used in the research have a joint effect on banking profitability, or in other words, there is a relationship between the combination of these variables and banking profitability.

SUGGESTIONS

a. Further research can use different efficiency measurement methods, such as Data Envelopment Analysis (DEA), Stochastic Frontier Analysis (SFA), or Metafrontier Analysis (MFA). b. Further research can use industry specifications, such as business diversification, market structure, and regulation. Using different indicators, such as the Lerner Index (LI), or Boone Indicator (BI). c. Further research can use factors that affect macroeconomics, such as economic growth, inflation, interest rates, exchange rates, and economic stability. Different methods can be used, such as Vector Autoregression (VAR), Vector Error Correction Model (VECM), or Dynamic Stochastic General Equilibrium (DSGE). d. Further research can use factors that affect banking profitability, such as Return on Equity (ROE), Net Interest Margin (NIM), or Earning per Share (EPS). Different methods can be used, such as Ordinary Least Square (OLS), Panel Data Regression, or Tobit Regression. e. Further research can use comparative research on efficiency, industry specifications, macroeconomics, and banking profitability between Indonesia and other countries, especially ASEAN countries. Different methods can be used, such as SWOT Analysis, Benchmarking, or Gap Analysis.

IMPLICATIONS

Bank efficiency, measured by the OER ratio, has a positive but insignificant effect on bank profitability, measured by the ROA ratio. This means that banks that are able to manage their operational costs well can improve their financial performance, but this relationship is not strong enough to be considered statistically significant. Therefore, banks should continue to pay attention to other factors that can affect their profitability, such as asset quality, capital, liquidity, and credit risk.

Industry specifications, measured by the CR and HHI ratios, do not affect bank profitability. This means that the level of market concentration does not affect the financial performance of banks, or in other words, there is no relationship between market structure and BANK profitability. Therefore, banks must be able to compete with other banks in the banking industry, either through product differentiation, services, or innovation.

Macroeconomics, measured by GDP growth and GDP per capita, have a negative and significant and positive but insignificant effect on bank profitability, respectively. This means that national economic growth has a negative impact on bank profitability, while per capita income of the community does not have a positive impact on bank profitability. Therefore, banks should be vigilant about macroeconomic fluctuations that can affect the stability of the financial system, and take advantage of existing market opportunities to increase their income and market share.

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