

**The Effect of Net Interest Margin (NIM), Operating Expenses, Operating Income (BOPO), Loan to Deposit Ratio (LDR), on Return on Assets (ROA) at PT Bank Mayapada Internasional Tbk for the Period of 2014-2023****E Landitha Karunia Antika, Palupi Permata Rahmi, Yoyo Sudaryo, Riyandi Nur Sumawidjaja, Diah Febriyanti**

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**Abstract**

Profitability is a ratio to assess the company's ability to seek profit. This ratio also provides a measure of the level of effectiveness of a company's management. Profitability at PT Bank Mayapada Internasioanl Tbk in 2014-2023 fluctuated every year and tended to decline at the end of the research year. This study aims to determine the effect of Net Interest Margin (NIM), Operating Costs of Operating Income (BOPO), Loan to Deposit Ratio (LDR) on Return On Assets (ROA) for the 2014- 2023 period. This study uses a quantitative method with a descriptive verification approach. The data source used is secondary data with documentation data collection inthe form of annual financial reports and purposive sampling technique. The data analysis technique used is descriptive analysis, regression analysis, correlation analysis, coefficient of determination analysis, and hypothesis testing either partially or simultaneously with the help of the SPSS 25 program. The research results show that the average ROA is 0.919%, categorized as healthy. However, ROA in the last 2 years of the 2022-2023 research period has decreased drastically with the lowest value being 0.04% and is below Bank Indonesia's provisions for the healthy ROA category, namely 1.5%. The average NIM is 3.13% which is categorized as healthy, but in the year of research, namely 2020, it dropped drastically with a minimum value of 0.47%, even far from the minimum limit of 6% according to Bank Indonesia regulations for the healthy NIM category. The average BOPO is 91.79 which is categorized as healthy, but BOPO at the end of the research period in 2024 rose to the highest value, namely 99.40% and is above Bank Indonesia's provisions for the healthy BOPO category, namely a maximum of 85%. The average LDR is 85.10% which is categorized as however the LDR in the 3 years at the end of the research period in 2021 has decreased drastically with the lowest value being 71% and the highest value in 2019 even approaching the maximum and minimum limits, namely 80%-110% accordingly. Bank Indonesia provisions for the healthy LDR category. Partially NIM has no effect on ROA with a contribution of 1.80%. BOPO has no effect on ROA with a contribution of 99.40%. LDR has a significant effect on ROA with a contribution of 88.59%. Together (simultaneously) NIM, BOPO, LDR have a significant influence on ROA at PT Bank Mayapada Internasional Tbk for the 2014-2023 period.

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**Keywords:** Net Interest Margin (NIM), Operating Cost of Operating Income (BOPO), Loan to Deposit Ratio (LDR), Return On Assets (ROA).

## INTRODUCTION

In today's era of globalization, the development of the business world is very rapid. This can be seen from the increasing number of competing companies that have competitive advantages. A rapidly growing economy also creates more capital needed to improve a country's economy. One of the banks listed on the Indonesia Stock Exchange, namely PT Bank Mayapada Internasional Tbk, is a banking company in Indonesia engaged in banking services. In running its business, a bank's profitability is a very appropriate marker to measure a bank's performance (Aryanto, 2023).

The level of profitability measured by Return on Assets (ROA) at PT Bank Mayapada Internasional Tbk as a whole has fluctuated from 2014-2023, where at the end of the 2022-2023 research period it decreased drastically with the lowest Return On Assets (ROA) value of 0.04% and below Bank Indonesia's requirements for the healthy Return On Assets (ROA) category of 1.5% (Indonesia, 2016) (Suwandi & Oetomo, 2017).

In addition to Return on Assets (ROA) at PT Bank Mayapada Internasional Tbk, the Net Interest Margin (NIM) ratio also fluctuated. It was stable for several years but the increase and decrease were not too significant, but in the research year, namely 2020, it dropped to 0.47% from 3.61% in the previous year. This shows that it is very necessary to emphasize the cost of funds, namely the interest paid by banks to each source of funds (Aryanto, 2023; Bernardin, 2016).

The Operating Cost Ratio of Operating Income (BOPO) at PT Bank Mayapada Internasional Tbk fluctuated. This can be seen in 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022 and 2023, Operating Costs Operating Income (BOPO) has increased. With this increase, it means that the Bank is less efficient in operating its total spending. Loan to Deposit Ratio (LDR), Bank Indonesia sets the Loan to Deposit Ratio (LDR) ratio at a minimum of 80% and a maximum of 110%, because if the ratio value is above 110%, the Bank can be said to have poor Bank liquidity because the amount of deposits is not able to cover the amount of credit that has been given, this can be seen in the research year from 2014-2023 experiencing fluctuations, however, at the end of the research year, it was seen that the increase in LDR was quite large, from 82.13% in 2022 to 88.59% in 2023, even close to the minimum limit of 80%. This must be a concern of the management because the increase in the funds distributed is quite large.

## RESEARCH METHOD

Metode yang digunakan dalam penelitian ini adalah metode kuantitatif dengan pendekatan metode deskriptif dan verifikatif. (Sugiyono, 2020) menyatakan bahwa Metode kuantitatif dapat diartikan sebagai metode penelitian The method used in this study is a quantitative method with a descriptive and verifiable method approach. (Sugiyono, 2019) stated that the quantitative method can be interpreted as a research method based on the philosophy of positivism, used to research on a certain population or sample, data collection using research instruments, quantitative/statistical data analysis, with the aim of describing and testing the hypothesis that has been determined. Quantitative Research Methods according to (Tarsito, 2014) is "systematic scientific research on parts and phenomena and their relationships". The verifiable method according to Sugiyono (2017:6) states that: "The verifiable approach is a research method through proof to test the hypothesis of descriptive research results with statistical calculations so that the results of proof are obtained that show

the hypothesis is rejected or accepted which is based on the philosophy of positivism, used to research on a certain population or sample, data collection using research instruments, quantitative/statistical data analysis, with the aim of describing and testing the hypothesis that has been determined. Quantitative Research Methods according to (Tarsito, 2014) is "systematic scientific research on parts and phenomena and their relationships". The verifiable method according to (Sugiyono, 2017) states that: "The verifiable approach is a research method through proof to test the hypothesis of descriptive research results with statistical calculations so that the results of proof are obtained that show the hypothesis is rejected or accepted.

**RESULTS AND DISCUSSION**

**Variable description**

**Table 1 Multiple Regression Analysis**

Coefficients <sup>a</sup>						
Model	Unstandardized Coefficients			Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.	
1	(Constant)	-4.236	6.042		-.868	.356
	NIM	.067	.231	.118	.435	.603
	BOPO	-.035	.044	-.302	-1.649	.211
	LDR	.091	.056	.808	4.412	.033

From the multiple linear regression equation above, it can be interpreted as follows:

1. The constant value is -4.236 and has a negative value. This can be interpreted that the Return On Assets (ROA) is worth -4,236 if each variable Net Interest Margin (NIM), Operating Cost Operating Income (BOPO), Loan to Deposit Ratio (LDR) in this study is valued at 0 (zero).
2. The regression coefficient of the Net Interest Margin (NIM) variable is 0.067 which means that if the other independent variable has a fixed value and the Net Interest Margin (NIM) increases by 1 unit, then the Return On Assets (ROA) will increase by 0.067 units.
3. The regression coefficient of the variable Operating Income Operating Costs (BOPO) is (-0.035), meaning that if the other independent variables have a fixed value and the Operating Income Operating Costs (BOPO) increase by 1 unit, then the Return On Assets (ROA) will decrease by 0.035 units.
4. The regression coefficient of the variable Loan to Deposit Ratio (LDR) is 0.091, meaning that if the value of other independent variables is fixed and the Loan to Deposit Ratio (LDR) increases by 1 unit, then the Return On Assets (ROA) will increase by 0.091 units.

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**Table 2 Analysis of Partial Correlation Coefficients**

ROA	Pearson Correlation	1	.378***	-.623***	.699
	Sig. (2-tailed)		.422	.032	.009
	N	12	12	12	12
NIM	Pearson Correlation	.378***	1	-.126***	.386
	Sig. (2-tailed)	.422		.603	.326
	N	12	12	12	12
BOPO	Pearson Correlation	-.623***	-.126***	1	-.447
	Sig. (2-tailed)	.032	.603		.189
	N	12	12	12	12
LDR	Pearson Correlation	.699	.356	-.447	1
	Sig. (2-tailed)	.009	.326	.189	
	N	12	12	12	12

Based on correlation calculations, it shows that:

1. The correlation between Net Interest Margin (NIM) and Return On Assets (ROA) is partially 0.378. Based on the correlation criteria table, the number of 0.378 is included in the correlation interval value between 0.20 – 0.399 which has a low correlation relationship. Because the results are positive, it can be concluded that every increase in Net Interest Margin (NIM) will increase Return On Assets (ROA).
2. The correlation between Operating Costs Operating Income (BOPO) and Return On Assets (ROA) is partially -0.623. Based on the correlation criteria table, the number of 0.623 is included in the correlation interval value between 0.60 – 0.799 which has a strong correlation relationship. Because the results are negative, it can be concluded that every increase in Operating Costs Operating Income (BOPO) will reduce Return On Assets (ROA).
3. The correlation between the Cost of Loan to Deposit Ratio (LDR) and Return On Assets (ROA) is partially 0.699. Based on the correlation criteria table, the number of 0.699 is included in the correlation interval value between 0.60 – 0.799 which has a strong correlation relationship. Because the results are positive, it can be concluded that every increase in the Loan to Deposit Ratio (LDR) will increase Return On Assets (ROA).

**Table 3 Analysis of Simultaneous Correlation Coefficients**

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.865 <sup>a</sup>	.642	.400	.78587

a. Predictors: (Constant), LDR, NIM, BOPO

b. Dependent Variable: ROA

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Based on the simultaneous correlation coefficient, it can be seen that the value of R-square is 0.642 or 64.2%, which means that the Return On Assets (ROA) of 64.2% is influenced by the three independent variables (X) while the remaining 35.8% is influenced by other factors.

**Effect Net Interest Margin (NIM) terhadap Return On Assets ROA)**

The results of the study show that the Net Interest Margin (NIM) variable partially does not have a significant effect on the Return On Asset (ROA) of PT Bank Mayapada Internasional for the 2014-2023 period with a contribution of 1.80%. The results of this study are in line with the research conducted by (Harun, 2016) in his journal entitled "The Effect of Financial Ratios Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Net Interest Margin (NIM), Operating Costs Operating Income (BOPO), Non-Performing Loans (NPL) on Return On Assets (ROA)" shows that Net Interest Margin (NIM) has no effect on Return On Assets (ROA), and has a relationship with what Irmawati and Dewi (2014) researched in their journal entitled "Analysis of the Influence of Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), and Net Interest Margin (NIM) on Return On Assets (ROA)" shows that Net Interest Margin (NIM) has no effect on Return On Assets (ROA)

**Effect of Operating Costs Operating Income (BOPO) on Return On Assets (ROA)**

The results of the study show that the variable Operating Cost Operating Income (BOPO) partially does not have a significant effect on the Return on Assets (ROA) at PT Bank Mayapada Internasional Tbk for the period of 2014-2023 with a contribution of 99.40%. The results of this study are in line with research conducted by (Rohimah, 2021) in her journal entitled "Analysis of the Effect of Operating Costs of Operating Income (BOPO), Capital Adequacy Ratio (CAR), and Non-Performing Loan (NPL) on Return On Assets (ROA) at State-Owned Banks in 2012-2019 (Study on Banks Going Public on the Indonesia Stock Exchange)" shows that Operating Costs Operating Income (BOPO) have no effect on Return On Assets (ROA), and has a connection with research conducted by Heny (2019) in his journal entitled "The Effect of Net Profit Margin (NPM), and Operating Costs of Operating Income (BOPO) on Return On Assets (ROA) in Transportation Companies Listed on the Indonesia Stock Exchange in 2013-2015" shows that Operating Costs Operating Income (BOPO) have no effect on Return On Assets (ROA).

**Pengaruh Loan to Deposit Ratio (LDR) terhadap Return On Assets (ROA)**

The results show that the Loan to Deposit Ratio (LDR) variable partially has a significant effect on the Return on Assets (ROA) of PT Bank Mayapada Internasional Tbk in 2014-2023 with a contribution of 88.59%. This shows that when the Loan to Deposit Ratio (LDR) increases, the Return on Assets (ROA) obtained by banks will experience a significant increase and vice versa. This is in line with previous research that discusses the relationship between Loan to Deposit Ratio (LDR) and Return On Assets (ROA) and has a connection to

this research, including by (Susilawati & Nurulrahmatiah, 2021) (Octaviani & Andriyani, 2018) in his journal entitled "The Effect of Capital Adequacy Ratio (CAR), Non-Performing Loan (NPL), and Loan to Deposit Ratio (LDR) on Return On Assets (ROA) in Companies in the Banking Sector Listed on the IDX for the period 2012-2016" that the Loan to Deposit Ratio (LDR) variable is significant affect the Return On Asstes (ROA) variable The coefficient in the LDR variable with a positive sign indicates that every increase in the LDR value will increase the ROA value. Strengthened by the results of research conducted by (Briliantoro, 2022) in their journal entitled "The Effect of Capital Adequacy Ratio (CAR), Non-Performing Loan (NPL), Operating Expenses Operating Income (BOPO), Net Interest Margin (NIM), and Loan to Deposit Ratio (LDR) on Return On Assets (ROA) Case study on People's Credit Banks in Salatiga registered with the Financial Services Authority in 2011-2015" shows that there is a significant influence between Loan to Deposit Ratio (LDR) to Return On Assets (ROA).

### **The Effect of Net Interest Margin (NIM), Operating Expenses, Operating Income (BOPO), Loan to Deposit Ratio (LDR) on Return On Assets (ROA)**

The results of the study show that simultaneously there is a significant influence of Net Interest Margin (NIM), Operating Expenses, Operating Income (BOPO), and Loan to Deposit Ratio (LDR) on Return On Asset (ROA) at PT Bank Mayapada Internasional Tbk for the period 2014-2023, with a contribution of 68.5%. This shows that when Net Interest Margin (NIM), Operating Expenses Operating Income (BOPO), and Loan to Deposit Ratio (LDR) increase, the Return On Assets (ROA) obtained by banks will experience a significant increase and vice versa. This is in line with previous research that discusses the relationship between Net Interest Margin (NIM), Operating Expenses, Operating Income (BOPO), and Loan to Deposit Ratio (LDR) to Return On Asset (ROA) and has a connection with this research, including by (MARLITA, 2017) in his journal entitled "The Influence of Capital Adequacy Ratio (CAR), Non-Performing Loan (NPL), Operating Expenses Operating Income (BOPO), Net Interest Margin (NIM), and Loan to Deposit Ratio (LDR) to Return On Assets (ROA) A case study on Bank Perkreditan Rakyat in Salatiga registered with the Financial Services Authority in 2011-2015" shows that together the variables Net Interest Margin (NIM), Operating Expenses, Operating Income (BOPO), and Loan to Deposit Ratio (LDR) have an effect on Return On Assets (ROA).

### **CONCLUSION**

Based on the results of the research and discussion on the effect of Net Interest Margin (NIM), Operating Costs Operating Income (BOPO), Loan to Deposit Ratio (LDR) on Return On Assets (ROA) both partially and simultaneously in PT Mayapada Internasional Tbk, the author draws conclusions to answer the formulation of this research problem, namely the Return On Assets (ROA) of PT Bank Mayapada Internasional Tbk fluctuates with a decreasing tendency every year with an average of 0, 919%. The average of 0.919% indicates the healthy category, however, the Return On Assets (ROA) at the end of the 2023 research period decreased drastically with the lowest value of 0.04% and below Bank Indonesia's

requirements for the healthy ROA category of 1.5%. PT Bank Mayapada Internasional Tbk's Net Interest Margin (NIM) has fluctuated with a downward trend. The average of 3.13% indicates the healthy category, however, the Net Interest Margin (NIM) at the end of the research year, namely 2023, dropped drastically with a minimum value of 0.47%, even close to the minimum limit of 6% in accordance with Bank Indonesia's provisions for the healthy Net Interest Margin (NIM) category. Operating Costs Operating Income (BOPO) of PT Bank Mayapada Internasional Tbk fluctuates every year with an increasing tendency with an average of 91.79%. The average of 91.79% indicates a healthy category, however, the Operating Income Operating Costs (BOPO) at the end of the 2023 research period increased with the highest value of 99.40% and was above Bank Indonesia's provisions for the healthy Operating Income Operating Costs (BOPO) category, which was a maximum of 85%. The Loan to Deposit Ratio (LDR) of PT Bank Mayapada Internasional Tbk has fluctuated and tends to decline with an average of 85.10%. Net Interest Margin (NIM) has no effect on Return On Assets (ROA) at PT Bank Mayapada Internasional Tbk for the period 2014-2023 only provides a cons of 9.5%. Operating Expenses Operating Income (BOPO) has no effect on Return On Assets (ROA) at PT Bank Mayapada Internasional Tbk for the 2014-2023 period only contributes 99.40% Loan to Deposit Ratio (LDR) has a significant effect on Return On Assets (ROA) at PT Bank Mayapada Internasional Tbk for the 2014-2023 period and contributes 88.59%. Net Interest Margin (NIM), Operating Expenses, Operating Income (BOPO), Loan to Deosit Ratio (LDR) together (simultaneously) have a significant effect on Return On Assets (ROA) at PT Bank Mayapada Internasional Tbk for the 2014-2023 period with a contribution of 64.2% while 35.8% is influenced by other factors that are not studied.

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