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CAMEL Ratio on Profitability Banking performance: Case Studies of Banks in Indonesia

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Abstract

A The purpose of the study was to determine whether there was an effect of the CAMEL variable (CAR, AEPA, NIM, BOPO, and LDR) on the profitability variable (ROA), in banking companies in Indonesia for the 2014-2018 period. The population and sample in this study are banking companies in Indonesia. The data collection technique is sample data from the Indonesia Stock Exchange. In this study data analysis using SPSS version 23. The indicators used in the CAMEL analysis are CAR (Capital Adequacy Ratio), AEPA (Allowance for Earning Assets), NIM (Net Interest Margin), ROA (Return on Assets), LDR (Loan to Deposit Ratio). Based on the results of the study, CAR does not affect profitability (ROA), while the variables: AEPA, NIM, BOPO, and LDR affect profitability. The purpose of this study is to provide input on banking conditions so that banks can improve weaknesses so that banks can get the expected benefits.

Keywords: Capital Adequacy Ratio, Productive Assets, Net Interest Margin, Return on Asset, Loan to Deposit Ratio.

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Introduction

A bank is a financial intermediary institution that has a function to connect customers. Customers who have more funds will keep their funds while customers who need funds certainly expect the bank to be able to meet its needs so that the bank will channel its funds in the form of credit. Capital markets play an important role in the growth of a country's economy. According to (Sudarmawanti & Pramono, 2017) a healthy bank is a bank measured by increasing rentability. This is also related to the efficiency and ability of banks in carrying out operations, with the efficiency of costs, the profits obtained by banks will be greater. Meanwhile, the performance shown by banks by looking at financial indicators determines the bank's performance. The financial performance of banks can be seen from several financial indicators such as Capital Adequacy Ratio (CAR) which is the adequacy of v (MCPO) following applicable regulations. BOPO as an indicator of banking rentability. LDR

(Loan Deposit Ratio) to show as an indicator of banking liquidity. This includes Return on Assets (ROA) and Net Interest Margin (NIM). Meanwhile, according to (Siti Ma'rufah Nadiroh, 2018), the profitability ratio can also be used as a benchmark for the success of a bank's financial performance. One of the indicators used to measure profitability is a return on assets (ROA) because ROA can be used as a measure of the effectiveness of the company in generating profits by utilizing its assets. The greater the ROA, the greater the level of profit achieved by a bank and the better the position of the bank in terms of the use of assets. This indicates that the financial ratio can be used to assess the level of health of the bank. The purpose of the study was to motivate researchers to determine the magnitude of the effect of the CAMEL variable (CAR, AEPA, NIM, BOPO, and LDR) on the profitability variable (ROA) in banking companies in Indonesia for the 2014-2018 period. So that the Bank will make the right decision if it knows the cause of the profitability, even this is new research in government-owned banking. The data for this research is the period from 2014 to 2018 because in this period the banking system is in a stable condition and there are no cases of Covid-19, while the data taken from the Indonesia Stock Exchange data. Based on the background above the author is interested in researching with the title: The Impact of Camel on Profitability in Banking Companies: Case studies of Banks in Indonesia.

According to, (Griha, Zulbahridar, and Satriawan 2014) CAR is a comparison or balance of long-term funding of the company indicated by the comparison of long-term debt to its capital. The fulfillment of the company's funds from its capital sources comes from stock capital, retained earnings, and reserves. If the company's funding derived from its capital still has a deficit, it is necessary to consider the funding of companies that come from outside, namely from debt financing. But in meeting the needs of funds, companies must look for efficient funding alternatives. Efficient funding will occur if the company has optimal capital. According to Sofiasani and Gautama 2016, CAR is Capital which is an aspect that can influence depositors' perception of a bank. Therefore, bank management should be able to maintain capital adequacy at a safe level. Capital adequacy is a very important aspect to protect shareholder confidence and avoid banks from the threat of financial distress. According to Widyaningrum and Septiarini 2015, CAR is a financial ratio related to banking capital in which the amount of capital of a bank will affect the capability or not of a bank efficiently carrying out its activities. CAR is an indicator of the bank's ability to cover the decline in its assets because of bank losses caused by risky assets. CAR or Capital Adequacy Ratio is by comparing capital against risk-weighted assets (WAAR).

According to (Respati and Yandono 2008), which is meant by AEPA is the Formation of Productivity Asset Allowance, is a comparison between AEPA that has been formed against AEPA that must be formed by banks, the use of this ratio is as a reserve to cover bank losses against the risk of productive assets (credit, inclusion, securities, bills to other banks) planted by banks. Meanwhile, according to (Widati 2012) AEPA is a reserve formed by the Bank to apply the principle of prudence in managing the Bank to cover possible losses due to bad loans (Dunil, 2004). The greater the ratio of AEPA, the Bank is more compliant with the provisions on the establishment of AEPA following the Decree of the Director of BI No.31/148/KEP/DIR dated 12 Nov 1998 concerning the establishment of AEPA. Whereas according to, (Spica and Herdinigtyas 2005), the meaning of AEPA is AEPAAP ratio (Allowance for the elimination of Productive Assets against Productive Assets). AEPA ratio

shows the ability of bank management in maintaining the quality of productive assets so that the amount of AEPA can be managed properly. The greater the AEPA, the worse the productive assets of the bank are concerned so that the possibility of a bank in a problematic condition is greater. Coverage of productive asset components and AEPA that have been established following the applicable Productive Asset Quality provisions. AEPA fulfillment ratio. This ratio demonstrates the ability of bank management in determining the amount of AEPA that has been established against AEPA that must be formed. The greater this ratio, the less likely the bank will be because the larger the AEPA that has been formed from AEPA that must be formed. Calculation of AEPA that must be established following the applicable Productive Asset Quality provisions.

The Net Interest Margin (NIM) ratio is used to measure the bank's management ability to manage its productive assets to generate net interest income. Net interest income is derived from interest income minus interest expense. The NIM ratio is used to determine the net interest income in the 12 months that banks can earn when compared to the average productive assets of banks. This net interest income is derived from interest income minus interest expense. Productive assets considered are productive assets that can generate interest (Bi Circular Letter No. 3/30/DPNP dated December 14, 2001). According to, (Nugroho 2012) NIM measures the ability to earn assets / productive assets on the results of its income (net interest income / NII) while according to, (Spica and Herdinigtyas 2005), NIM (Net Interest Margin). This ratio is used to measure the bank's management ability to manage its productive assets to generate net interest income. Net interest income is derived from interest income minus interest expense. The greater this ratio, the higher the interest income on productive assets managed by the bank so that the chances of a bank in a problematic condition are smaller.

Operating Cost Ratio (BOPO) is a comparison between operational and operational costs that is used to measure the level of efficiency and ability of a bank in carrying out its operations. The BOPO ratio is often called the efficiency ratio which is used to measure the ability of bank management to control operational costs against operating income. BOPO is the ratio of operating costs in the last 12 years to operating income in the same period (Hidayat 2017). The lower the BOPO means the more efficient the bank is in controlling its operations, with the cost efficiency, the profits obtained by the bank will be even greater. The efficiency of the costs incurred will produce a profit that is smaller than the profit earned. The BOPO variable has a standard set by Bank Indonesia in PBI No. 6/9/PBI/2004, which is less than 92%. Against Operating Income (BOPO) is often referred to as the efficiency ratio which is used to measure the ability of bank management to control operational costs against operating income.

This LDR ratio is used to look at the liquidity of a bank by dividing the amount of credit provided by a bank against third-party funds. The higher this ratio, the lower the liquidity ability of a bank so that a bank is in a state of trouble. According to, (Yusuf, 2017), is a liquidity ratio measures the short-term liquidity capability of the company by looking at current assets changes relative to its current debt (debt, in this case, is a bank obligation). According to, (Siahaan and Asandimitra 2018) is "Liquidity is the ability of a company to meet its short-term obligations., A bank is said to be liquid if the bank in question can pay all its debts, especially savings deposits, current accounts, and deposits at the time of billing, and

can also fulfill all credit applications that are eligible to be financed. While Wastam Wahyu Hidayat 2016, is Liquidity is the ratio between current assets to current liabilities of the company, the higher the liquidity of the company, the better the company's ability to fulfill its short-term obligations, good liquidity ratio makes a guarantee for investors to invest in these companies thereby affecting the company's capital structure. Companies must optimize the use of liquid assets in the company by investing in profitable, to enhance shareholder value.

Assessment is based on the rentability of a bank which is seen as the ability of a bank to create profit. The ratio of return on assets (Return on Assets). This ratio can be used to measure the effectiveness of banks for overall profit. According to (N. T. Dewi and Wisadha 2015), ROA is the ratio between before taxation total assets. Financial performance in a company will be better if the company can maintain the value of ROA because with the greater ROA, the rate of return expected by the company will be greater and the results can be enjoyed by shareholders. The ratios of banks that can affect ROA are Productive Asset Quality, Capital Adequacy Ratio (CAR), Leverage, and Loanitoi Depositi Ratio (LDR). According to (Siahaan and Asandimitra 2018), the ROA ratio is used to measure the ability of bank management in obtaining overall profit, the greater the ROA of a bank the greater the level of profit achieved by the bank and the better the bank's position in terms of asset use. Meanwhile, according to (Dini Purwanto 2018), Return on Asset (ROA) is used to measure the effectiveness of the company in generating profits by utilizing its assets. The greater the Return on Assets (ROA) indicates better financial performance because the return rate is greater. If the return on assets (ROA) increases, then the profitability of the company increases, so the end impact is the increase in profitability enjoyed by shareholders.

Based on the results of research from (Fadlina Fadlina, Syahnur Said, Andi Nirwana Nur, 2019) it can be known that the capital adequacy variables that are ratio with the Capital Adequacy Ratio (CAR) have no effect on profitability that is the ratio with Return on Asset (ROA). The lack of capital impact on ROA can be caused because the banks that have an opinion in that year do not optimize the existing capital. This is because Bank Indonesia regulations requiring CAR to be at least 8% result in banks always trying to keep their CAR following the provisions. However, the bank tends to keep its CAR no more than 8%. Whereas according to, (Mustafa 2020), that CAR can not partially have an insignificant positive influence on ROA. Meanwhile, according to Djumahir and Ratnawati 2013, Capital Adequacy Ratio (CAR) has no significant effect on Return on Assets (ROA) because of the bank's capital capability in the period 2007-2011 is generally good enough so that profitability is optimal enough. The adequacy of the bank's capital in conducting its core business is an absolute thing to be met.

H_1: Capital Adequacy Ratio (CAR) does not affect Profitability.

According to (Widati 2012) that the results of his research, AEPA has an insignificant positive influence on Return on Assets / ROA with a significance of 0.243 > 0.05, so the hypothesis that AEPAP allowance for the elimination of productive assets negatively affects return on assets / ROA is not proven/rejected. (AEPA) has an insignificant positive effect on Return On Assets /ROA that banking companies even though they have established an Allowance for the elimination of Productive Assets following the provisions of Bank

Indonesia in its operations, there are still fewer current or bad loans but with the establishment of AEPAP, credit operations do not cease because the bank will disburse credit from the AEPA (in the hope that the credit disbursed will be smooth) so that the revenue/return obtained by the bank still exists. The results of the research (Effendi, 2016) can be said that assets have a positive effect on the condition of Return on Assets. Because the higher the assets, the bank's assets can maintain conditions to keep earning profit and the more effective the management of assets so that the bank in bankruptcy will be lower.

H_2: AEPA (Allowance for Elimination of Productive Assets) affects Profitability.

The assessment of the bank's health level from management aspects is qualitative, in which factors affecting the health and performance of the bank will be analyzed using questions surrounding management activities that include general management strategies, structures, systems, human resources, leadership, work culture, risk management, credit risk, liquidity risk, operational risks, and others. All of that will boil down to the bank's ability to make a profit. That is, it does not close the possibility of the bank's health level from the management aspect can be measured quantitatively through the calculation of Net Interest Margin (NIM). The influence between NIM and ROA is negative or not unidirectional. This is because if NIM increases, the worse the quality of the bank's financing. The deteriorating quality of financing will cause the amount of problematic financing to increase so that the bank will later spend more than its revenue. As a result of these conditions, bank profits decreased based on research, (Respati & Yandono, 2008), NIM has a significant influence on the operating profit of The National Private Commercial Bank. The NIM ratios generated from the national private banking industry show the ability of bank management in controlling the large interest costs and the ability of bank management in managing productive assets in generating interest (earning assets) on average carried out by bank management influences the bank's business profit.

H_3: NIM (Net Interest Margin) affects Profitability.

The operational cost ratio is used to measure the level of efficiency and ability of the bank in carrying out its operational activities. The success of a bank is based on a quantitative assessment of the profitability of a bank that can be measured using the ratio of operating costs to operating income. BOPO includes the ratio of profitability (earnings). The increasing ratio reflects the bank's lack of ability to reduce operational costs and increase its operating income which can cause losses because the bank is less efficient in managing its business (SE. Intern BI, 2004). The smaller this ratio means the more efficient the operational costs incurred by the bank concerned. If the BOPO ratio in a bank is high, it means that the costs incurred by the bank for operations are greater than the operating income that goes to the bank. If the bank's operating income is small, the bank's level of profitability (ROA) will be low. (Safitri et al., 2021) argues that operational efficiency is carried out by banks to find out whether banks in their operations related to the bank's main business are carried out correctly (in accordance with the expectations of management and shareholders) and are used to show whether the bank has used all its production factors effectively and efficiently useful. The

results of research conducted by (Parenrengi & Hendratni, 2018), (Suryadi et al., 2020) show that BOPO has a positive and significant effect on profitability. The higher the BOPO ratio, the greater the probability that the bank is in troubled condition. Meanwhile (Syakhrun et al., 2019) and (Sofyan, 2019) found that BOPO had a negative and significant effect on profitability.

H_4: Operating Cost Ratio (BOPO) affects Profitability (ROA).

A high Loan to Deposit Ratio (LDR) means that bank liquidity is lower and tends to be illiquid so that the risk in investing becomes high. However, for investors, a high LDR means that a lot of funds are channeled into credit so that banks will earn profit from credit interest. High returns will ultimately increase public confidence which will ultimately increase the share price and ultimately increase the return on shares owned from the previous period. In other words, information about the increase in LDR gives a good signal for investors to estimate the return they will get. According to (Santoso 2016), the results of this study show that LDR has a positive and significant effect on the development of stock returns in banks in Indonesia. This is in line with the frame of mind proposed by the researchers, where the increasing LDR ratio is accompanied by an increase in stock returns. The bank in disbursing credit to the funds collected is high, the higher the credit provided by the bank and will also increase the interest income from the loan which has an impact on the high profit of the bank concerned, so it can be said that the bank's financial performance increases, in other words, the increase in the Loan to Deposit Ratio (LDR) will increase the return on shares.

H_5: The Effect of Liquidity (LDR= Loan to Deposite Ratio) affects Profitability.

Research Design and Method

In this study, researchers used multiple linear regression methods to test the influence of CAMEL (Capital, Asset, Management, Earning, Liquidity) on Profitability (ROA) on bank companies in Indonesia sebanyak 20 bank periode 2020 dan 2021 sehingga total sampel adalah 40 data. A conceptual model of research is a conceptual model that shows the relationship between variables that have been identified is important for analyzing research problems. A study needs to be determined with the aim that the research is done will get the data following the expected, population, and samples in this research is a banking company in Indonesia. In this study, researchers used multiple linear regression to examine the effect of bank soundness using the CAMEL method on state-owned banks in Indonesia. Analysis of this data using the Eviews method.

Results and Discussion

Statistical Result

Normality test is used to test whether the independent variable data is normal or not, the condition of the variable data is normal if Asymp.Sig is greater than 0.05. Based on the results of data processing with the SPSS-One-Sample Kolmogorov-Smirnov Test, the independent variables consisting of CAR, AEPA, NIM, BOPO and LDR, produce values with probability Asymp. Sig.> 0.05. so, it can be concluded that the tested independent variable data is normally distributed so that it is eligible for statistical inference analysis.

Table 1. Normality Test Results

		ROA	CAR	AEPA	NIM	BOPO	LDR
N		40	40	40	40	40	40
Normal Parameters	Mean	2.7119	13.5125	1.0457E4	.5238	9.2258E6	17.1941
	Std. Deviation	.26638	2.31539	6.11055E2	.32023	8.09994E5	3.51329
Most Extreme	Absolute	.124	.166	.135	.141	.141	.165
	Positive	.124	.166	.135	.141	.141	.165
	Negative	-.119	-.151	-.108	-.092	-.118	-.160
Kolmogorov-Smirnov Z		.700	.938	.764	.800	.800	.932
Asymp. Sig. (2-tailed)		.512	.272	.309	.438	.544	.241

Furthermore, the normality test in this study used the Jarque-Bera (J-B) test, with a significance level used α = 0.05. The test results are shown in Figure 1.

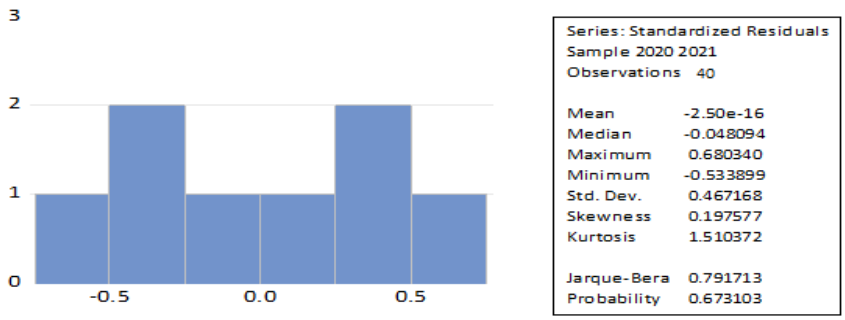

Figure 1. Normality Test Results

Based on Figure 1, the probability value is 0.673103 > 0.05. So, the data used in this study are normally distributed. The multicollinearity test was carried out to see whether there was a correlation between the independent variables.

Table 2. Multicollinearity Test Results

No	Variable	Centered Variance Inflation Factors (VIF)
1	CAR (X1)	0,037806
2	AEPA (X2)	0,059983
3	NIM (X3)	0,067349
4	BOPO (X4)	0,062482
5	LDR (X5)	0,067377

Source: Eviews Output V.12 (2022)

The test results show that the coefficient value between variables is less than 0.9, so the research data does not have a multicollinearity problem. The heteroscedasticity test was carried out to see whether there was an unequal variance from the residuals of one observation to another in the regression model.

Table 3. Heteroscedasticity Results

Info	Score	Info	Score
F. Statistics	8.513316	Prob.F(5,35)	0,1350
Obs* R-Square	6.287403	Prob.Chi-Square (5)	0,1204
Scaled explained SS	6.160359	Prob.Chi-Square (5)	0,1808

Source: Eviews Output V.12 (2022)

Based on table 3, the results of the heteroscedasticity test with the Harvey test. A probability value of Chi-Square Obs*Rsquared > 0.05. So it can be concluded that this regression model has no heteroscedasticity problem.

Table 4. Chow Test Results

Effect Test	Statistik	d.f	Prob.
Cross-section F	3.71983	(5,35)	0.0000
Cross-section chi-square	39.32518	5	0.0000

Source: Eviews Output V.12 (2022)

Table 4 shows the results of the probability cross-section F with Prob. 0.0000 is smaller than the significance level of 0.05 (0.0000 <0.05). So, it can be concluded that the results of the chow test accept H1, or the fixed effect model is better than the common effect model.

Table 5. Hausman Test Results

Test Summmary	Chi-s.q statistik	Chi-s.q.d.f	Prob.
Cross-section F	0.513600	5	0.0106

Source: Eviews Output V.12 (2022)

Table 6. Partial Test Results (t test)

Variable	B	Std.Error	t	Sig.
Constant	12,998	6.198	2.097	0.050
CAR	-0.229	0.321	-0.714	0.487
AEPA	-0.430	0.179	-2.398	0.031
NIM	0.199	0.130	1.981	0.042
BOPO	0.075	0.028	2.732	0.016
LDR	-0.073	0.161	-2.340	0.047
R Squared	0.85256			
Adj. R-Squared	0.83089			
F Statistics	35.81607			
Prob. F	0.0000			

Source: Eviews Output V.12 (2022)

Based on table 5, the results of the random cross-section probability are obtained. F of 0.0106 is smaller than the significance level of 0.05 (0.0286 <0.05). So, the results of the Hausman test accept H1, or the fixed effect model is more appropriate for this study. A partial

significance test (T-test) was conducted to show how far the influence of one independent variable on the dependent variable individually to be tested at a significance level of 0.05. If the significance value in the regression model is more than 0.05, then H0 is accepted, and Ha is rejected, and vice versa; if the significance value of the regression model is less than 0.05, then H0 is rejected, and Ha is accepted.

$$Y = 12{,}998 - 0{,}229X1 - 0{,}430X2 + 0{,}193X3 + 0{,}075X4 - 0{,}073X5 + e$$

Table 6 shows that the CAR has a probability value greater than 0.05, namely 0.487, with a negative regression coefficient of -0.229, indicating that H0 is accepted and H1 is rejected. So it can be concluded that CAR has a significant negative effect on ROA; Meanwhile, the AEPA value is smaller than 0.05, namely 0.031, with a negative regression coefficient of -0.430, indicating that H0 is rejected and H2 is accepted. So, it can be concluded that AEPA has a negative and significant effect on ROA; Meanwhile, the NIM value is smaller than 0.05, namely 0.042, with a positive regression coefficient of 0.199, indicating that H0 is rejected and H3 is accepted. So it can be concluded that NIM has a positive and significant effect on ROA; Meanwhile, the BOPO value is smaller than 0.05, namely 0.016, with a positive regression coefficient of 0.075, indicating that H0 is rejected and H3 is accepted. So, it can be concluded that BOPO has a significant positive effect on ROA; Meanwhile, the LDR value is smaller than 0.05, namely 0.047, with a negative regression coefficient of -0.073, indicating that H0 is rejected and H5 is accepted. So it can be concluded that LDR has a negative and significant effect on ROA.

The determinant coefficient test (Adjusted R2) was carried out to measure the extent to which the independent variables in this study consisted of CAR, AEPA, NIM, BOPO, and LDR in explaining the dependent variable, namely ROA. Based on table 6, the Adjusted R-squared value is 0.83089 or 83.08%. This shows that the independent variables, CAR, AEPA, NIM, BOPO, and LDR, can explain the dependent variable, namely ROA of 83.08%. At the same time, the remaining 16.92% is influenced by other variables not included in this study.

A simultaneous significance test (F test) was conducted to test whether all independent variables in this study have a simultaneous effect on the dependent variable. Based on table 7, the probability value of the F-statistic has a Prob value. Of 0.0000. This shows that if the probability (F-statistic) < 0.05, then the hypothesis is accepted. So it can be concluded that CAR, AEPA, NIM, BOPO, and LDR have a simultaneous (together) effect on ROA in banking companies listed on the Indonesia Stock Exchange in 2010-2021.

Discussion

Based on the results of the study that CAR does not affect profitability (ROA) because the significant value is greater than 0.05 (Sig. > 0.05), namely: 0.487, this indicates that the small CAR will not affect the rise and fall of ROA. Based on the results of research from (Fadlina, Syahnur Said, Andi Nirwana Nur, 2019) it can be known that the variables of capital adequacy are ratio with Capital Adequacy Ratio (CAR) has no effect on profitability that is estimated with Return on Asset (ROA). The lack of capital impact on ROA can be caused because the banks that have an opinion in that year do not optimize the existing capital. This is because Bank Indonesia regulations requiring CAR to be at least 8% result in banks always

trying to keep their CAR following the provisions. However, the bank tends to keep its CAR no more than 8%. While according to, (Andrian and Musdholifah 2017) In this study between CAR and ROA has no influence. This indicates that the small size of CAR will not affect the ups and downs of ROA meaning that the small amount of capital adequacy of the bank (CAR) does not necessarily cause a small number of bank profits. Banks that have large capital but cannot use their capital effectively to generate profit will not have a significant impact on the profitability of the bank.

Based on the results of the study, that AEPA harms profitability (ROA) because the Significant value is smaller than 0.05 (Sig. <0.05), namely: 0.031. From the results of research (Effendi 2016), it can be said that assets have a positive effect on the condition of Return on Assets. Because the higher the assets, the bank's assets can maintain the condition to continue to earn profit and the more effective the management of assets so that the bank in a state of bankruptcy will be lower. while the research results,(Widati 2012), AEPA has an insignificant positive influence on return on assets / ROA with a significance value of 0.243 > 0.05, those banking companies have formed an Allowance for the Elimination of Productive Assets following the provisions of Bank Indonesia but in its operations, there are still less smooth or bad loans but with the establishment of the AEPA, credit operations do not cease because the bank will disburse credit from the AEPA, in the hope that the credit is smooth, so that the bank's income still exists.

Based on the results of the study, that NIM has a positive effect on profitability (ROA) because the significance is smaller than 0.05 (Sig. <0.05), namely: 0.042. This follows the theory that the greater the NIM achieved by a bank, the higher interest income on earning assets managed by the bank concerned will increase the bank's ROA. According to (N. V. Dewi, Mardani, and Salim 2017), that the results showed that NIM variables partially have a significant positive effect on ROA variables, whereas according to, (Djumahir and Ratnawati 2013), the results showed that NIM has a significant effect on ROA, this explains that any increase in NIM will increase ROA. Any increase in net interest income, which is the difference between total interest expense and total interest income increased pre-tax income, which ultimately increased ROA. This means that the bank's management's ability to generate net interest affects the bank's level of income for its total assets.

Based on the results of the study, that BOPO has a positive effect on profitability (ROA) because it is significantly smaller than 0.05 (Sig. < 0.05): 0.016, this is because bank management can increase this ratio can be used as an indication that management can manage their capital to increase the bank's income. This ratio increase is usually followed by an increase in the bank's shares in the market. According to the results of the research, (Respati and Yandono 2008), BOPO has a significant influence on the bank's profit. This ratio is used to measure the bank's management ability in managing available capital to earn net income. Meanwhile, according to (Nugroho 2012), from the testing of BOPO variables, there is no evidence of the influence of BOPO on the probability of bank bankruptcy in Indonesia due to the significance of 0.907, although BOPO has no significant effect on the probability of bank bankruptcy in Indonesia, this indicates that the average bank generates a profit, indicating a fairly good overall mean value of the bank.

Based on the results of the study that the LDR variable affects profitability (ROA) because its significance is smaller than 0.05 (sig < 0.05), namely: 0.047, this is due to how far

the bank's ability to repay depositors' withdrawals by relying on credit provided as a source of liquidity, In other words, the higher the LDR ratio, the smaller the liquidity of the bank's funds. According to Andrian and Musdholifah 2017, this study showed a negative and significant influence between LDR and ROA. The greater the LDR ratio, the smaller the liquidity level of the bank. Because the level of credit provided by banks is so high that it affects the liquidity level of banks. The results of the study from (Mia Saraswati, and Fika Aryani 2019) stated that the Loan to Deposit Ratio (LDR) has a significant negative effect on Return On Assets (ROA), this indicates that the higher the Loan to Deposit Ratio (LDR) the worse or illiquid the bank's condition. The increase in loan to deposit ratio (LDR) shows that banks are less able to fulfill their obligations to pay funds to customers for the credit disbursed. The increase in loan to deposit ratio (LDR) also indicates a high credit delivery but is not accompanied by a high rate of return, so instead of earning a profit, the bank suffers a loss or decrease in profitability.

Conclusions

Based on the results of the study, that CAR does not affect profitability (ROA). This shows that the size of the CAR will not affect the rise and fall of BOPO. means that the increase and decrease in CAR has no impact on Profitability (ROA), AEPA harms Profitability (BOPO), this is because the AEPA ratio indicates that the greater this ratio indicates a decrease in the quality of productive assets, meaning that the higher the AEPA, the worse the quality of productive assets, resulting in a decrease in profitability, and the lower the AEPA ratio, the more profitable it is. ROA) banks. NIM has a positive effect on profitability (BOPO), this is because every increase in net interest income results in an increase in profit before tax which in turn increases Profitability (ROA). BOPO has a positive effect on profitability (ROA), this is because every capital increase will increase profitability. While LDR affects Profitability (ROA), this is due to how far the ability of banks to repay depositors' withdrawals by relying on loans provided as a source of liquidity, in other words, the higher the LDR ratio, the less liquidity of bank funds.

Reference

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