Banking Financial Performance: Mitigation Forms, Efficiency, Capabilities and Debt

Bungatang[1*] and Edy Jumady[2]
[1,2]STIEM Bongaya, Makassar, Sulawesi Selatan, Indonesia

Email Address:
bungatang@stiem-bongaya.ac.id

Abstract: This study aims to examine how the Capital Adequacy Ratio (CAR), Operating Expenses Operating Income (OEOI), Net Interest Margin (NIM), and Loan to Deposit Ratio (LDR) affect the profitability of Return on Assets (ROA). The object of this research is that conventional commercial banks are chosen because they have a relatively rapid growth compared to Islamic commercial banks. This type of research includes causal research using quantitative methods. The population of this study is banking companies registered in the Indonesia Banking Directory and the 2018-2020 Bank Indonesia monthly publication reports. Sampling used the saturated sample method, with 36 data samples from the 2018-2020 Bank Indonesia Monthly Published Reports. Then the data were analyzed using multiple linear regression analysis with the Ordinary Least Square model using the Eviews Version 12 software. The data test results found that the Capital Adequacy Ratio (CAR) had no significant effect on profitability. Meanwhile, Operating Expenses Operating Income (OEOI), Net Interest Margin (NIM), and Loan to Deposit Ratio (LDR) have a positive and significant effect on profitability.

Keywords: CAR, OEOI, NIM, LDR, ROA

Abstrak: Penelitian ini bertujuan untuk menguji bagaimana Capital Adequacy Ratio (CAR), Operating Expenses Operating Income (OEOI), Net Interest Margin (NIM) dan Loan to Deposit Ratio (LDR) berpengaruh terhadap profitabilitas Return on Asset (ROA). Objek penelitian ini adalah dipilih bank umum konvensional karena memiliki pertumbuhan yang cukup pesat dibandingkan bank umum syariah. Jenis penelitian ini termasuk penelitian kausal dengan menggunakan metode kuantitatif. Populasi dari penelitian ini adalah perusahaan perbankan yang yang terdaftar di Indonesia Banking Directory dan Laporan Publikasi bulanan Bank Indonesia 2018-2020. Pengambilan sampel menggunakan metode sampel jenuh, dengan sampel data Laporan Publikasi bulanan Bank Indonesia 2018-2020 sebanyak 36 data. Kemudian data di analisis dengan metode analisis regresi linier berganda dengan model Ordinary Least Square menggunakan bantuan software Eviews Versi 12. Hasil pengujian data ditemukan bahwa Capital Adequacy Ratio (CAR) tidak berpengaruh signifikan terhadap profitabilitas. Sedangkan Operating Expenses Operating Income (OEOI), Net Interest Margin (NIM) dan Loan to Deposit Ratio (LDR) berpengaruh positif dan signifikan terhadap profitabilitas.

Kata Kunci: CAR, OEOI, NIM, LDR, ROA

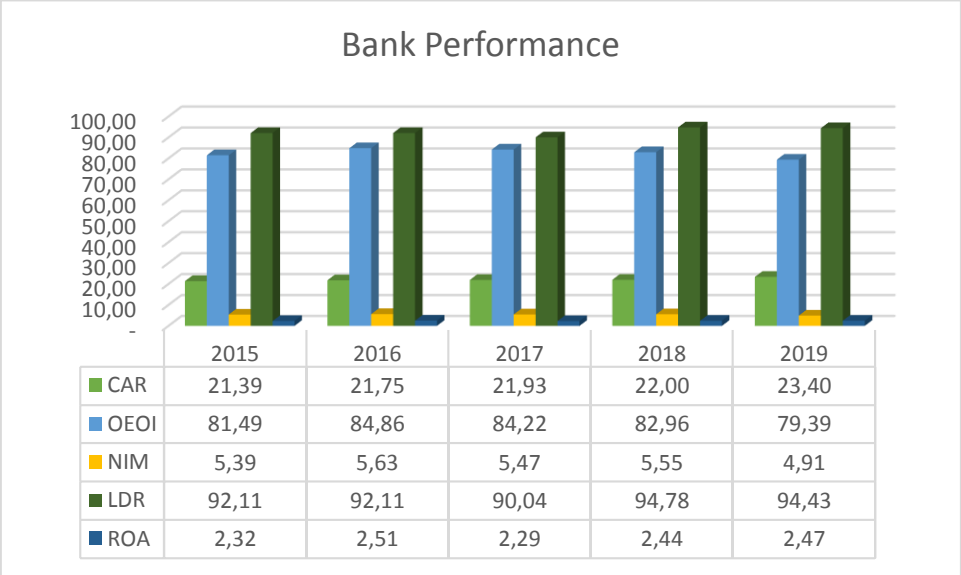
INTRODUCTION

The banking industry plays an essential role in economic development as a financial intermediary between parties with excess funds and those who need funds. By definition, a bank is a business entity that collects funds from the public on credit and other means to improve people's living standards (Usman, 2001). The philosophy behind the practice of banking is a public trust. This can be reflected in the main activity of banks in accepting deposits from the public in the form of deposits, demand deposits, and time deposits, as well as providing credit to all parties who need funds. Investors who deposit funds can consider what kind of bank to invest in when they understand its performance. The better the bank's performance, the greater the security and profitability of the funds invested (Astuti, 2018). Investors can find out the bank's performance based on the bank's financial ratios and the resulting profitability. The bank's financial performance is a measure of success for its directors, so the directors cannot be replaced if the bank is good. (Utami and Silaen, 2018) suggest that banking performance can be measured using the average loan interest rate, the average deposit interest rate, and banking profitability. The deposit interest rate is a measure of weak performance and causes problems. Hence, the research concludes that profitability is the most appropriate indicator to measure a bank's performance (Putri and Affandi, 2018).

The potential for success in the company is reflected in the company's financial statements in the form of profitability and the profitability measures used are the rate of return equity (ROE) for companies in general and return on assets (ROA) in the banking industry (Susanto and Kholis, 2016). Return on Assets (ROA) focuses on the company's ability to earn earnings in the company's operations. At the same time, Return on Equity (ROE) only measures the return obtained from the company owner's investment in the business (Rahmadi, 2017). So in this study, ROA is used to measure banking performance.

Return on Assets (ROA), according to Bank Indonesia Circular Letter No.13/24/DPNP, is used as a proxy in measuring the profitability of a bank (Hamdani et al., 2018). Return on Assets is used because it is a crucial profitability ratio for banks and is used to measure the effectiveness of banks in generating profits by utilizing their total assets. This ratio is used to measure the ability of bank management to gain overall profit (Fernos, 2017). ROA is important for banks because using ROA considers the bank's management in obtaining overall profits (Ozili, 2017). (Al-Homaidi et al., 2018) states that the greater the ROA of a bank, the better the bank's position in terms of assets. Return on Assets illustrates bank productivity in managing funds to generate profits. The higher the ROA can attract new entrants to enter the industry so that banks were operating in Indonesia are competing to achieve the maximum level of profit.

The role of banking in Indonesia is crucial; therefore, banks need to improve their performance to create healthy and efficient banking. Figure 1 presents developments in the performance of national commercial banks during 2015-2019.



	2015	2016	2017	2018	2019
CAR	21,39	21,75	21,93	22,00	23,40
OEOI	81,49	84,86	84,22	82,96	79,39
NIM	5,39	5,63	5,47	5,55	4,91
LDR	92,11	92,11	90,04	94,78	94,43
ROA	2,32	2,51	2,29	2,44	2,47

Figure 1. Performance of National Commercial Banks 2015-2019
Source : www.ojk.go.id (2020)

Based on Figure 1, it can be seen that the capital aspect of the bank's Capital Adequacy Ratio (CAR) is growing every year until the end of 2019, reaching 23.40%. The value to measure bank management's ability to control operational costs to operating income (OEOI) has decreased since 2017 and until the end of 2019 by 79.39%. The NIM value to measure the ability to disburse credit shows fluctuations until the end of 2019 of 4.91%. The value of market risk arising from the movement of the Loan to Deposit Ratio (LDR) market variable fluctuated until December 2019 of 94.43%. Then, the ROA value, which has fluctuated since 2017 and until the end of 2019, was 2.47%. It is expected that banks can maintain or increase the resulting ROA value to increase profitability in the coming years. Suppose there is a decrease in the value of profitability. In that case, it is necessary to know what factors cause fluctuations (ROA) to be immediately addressed to increase further profitability.

Profitability is influenced by one of them by the Capital Adequacy Ratio (CAR). CAR is a ratio that considers bank capital with Risk-Weighted Assets (RWA). CAR is one of the ratios of the capital adequacy ratio. Adequacy of capital is an important factor for banks in business development and accommodating the risk of loss (Haryanto, 2016). (Damayanti and Savitri, 2018), Bank Indonesia stipulates capital (CAR), the minimum capital requirement that each bank must maintain as a certain proportion of the total Risk-Weighted Assets (RWA). RWA is the sum of balance sheet assets (assets recorded on the balance sheet) with RWA.

Capital risk relates to funds invested in risky assets, both low and higher than others. (Prasastinah Usanti, 2019) suggests that the measurement of the Capital Adequacy Ratio (CAR), the function of assessing capital or capital, measures a bank's ability to absorb unavoidable losses. Furthermore, a tool to measure the size of the bank's wealth or the wealth owned by shareholders. Then so that bank management can work efficiently following the wishes of the owners of capital.

In regulating banking efficiency and capability, banks use the ratio of Operating Expenses Operating Income (OEOI) to measure the ability of bank management to control operational costs against operating income (Hakim, 2017). (Safitri et al., 2021) suggests that banks carry out operational efficiency in order to find out whether the bank in its operations related to the bank's primary business is carried out correctly (following the expectations of management and shareholders) and is used to show whether the bank has used all the factors of production appropriately and effectively. Thus, the operating efficiency of a bank will affect a bank's performance. A good bank's financial performance can increase public confidence to invest their funds, so profitability is expected to increase. The smaller this ratio, the more efficient the operational costs incurred by the bank so that the possibility of a bank in a problematic condition is getting smaller (Fahrul and Rusliati, 2016).

Profitability is also influenced by Net Interest Margin (NIM). NIM is used to measure the ability of bank management to generate interest income by looking at the bank's performance in lending, considering that bank operating income is highly dependent on the difference in interest from disbursed loans (Anugrah & Yatna, 2020). This ratio is used to determine the net interest income in 12 months that can be obtained by the bank when compared to the average earning assets of the bank. This net interest income is derived from interest income minus interest expense. (Moorcy, 2020) states that productive assets that are considered are productive assets that can generate interest. So that the more significant the change in the NIM of a bank, the greater the ROA obtained, which means that the bank's performance is getting better. Meanwhile, if the change in NIM is getting smaller, then the ROA is also getting smaller; in other words, the company's performance is decreasing.

The Loan to Deposit Ratio (LDR) is used to measure the bank's ability to pay its debts and pay back to its depositors and meet the credit requests submitted (Ruwanti, 2016). LDR is the ratio between the total amount of credit given to third-party funds. The amount of credit disbursed will determine the bank's profit. If the bank cannot channel credit while many funds are collected, it will cause losses to the bank (LE Dewi et al., 2015). The less credit is disbursed, the less opportunity for banks to get interested in credit, which means reducing profits; on the contrary, if banks distribute credit well, the bank's income on credit interest increases, so that the profits generated also increase. Increased profitability indicates that the financial performance of the bank is also increasing.

This study chose banking companies listed on the Indonesia Stock Exchange as research objects for several reasons. First, conventional commercial banks currently have a relatively rapid growth compared to Islamic commercial banks; therefore, conventional commercial banks have been chosen as research objects. Most banks in Indonesia still rely on credit as the primary source of income to finance their operations. Banks reflect investor confidence in the stability of a country's financial system and banking system. Second, many banking companies have gone public, making it easier to see the financial position and performance of a bank. The rising stock price of banking in Indonesia shows investors' high hopes for the country's economic growth. This study examines how CAR, OEOI, NIM, and LDR affect ROA.

THEORITICAL REVIEW

Agency theory explains that agency relationships arise when one or more person (principal) hires another person (agent) to carry out an activity and then delegates decision-making authority to the agent (Jensen and Smith, 2000). The relationship between principals (society) and agents (banking management) in banking companies is influenced by a regulator, namely the government through BI. This is the basis that the principal gives responsibility to the agent following the agreed work contract following the policies approved by the regulator, in this case, BI. Given the complex capital structure in banking, there are at least three agency relationships that can lead to information asymmetry, namely: (1) the relationship between depositors, banks, and regulators, (2) the relationship between owners, managers, and regulators, (3) the relationship between borrowers (borrowers), managers and regulators (Lukitasari and Kartika, 2015). Control in banking does not only involve the principal but also creditors or depositors. It is called market discipline; in the agency perspective, it can be explained through debt agency relationships (Iryanto and Wahyudi, 2010). The use of debt or public funds can cause agency problems when managers decide to make high-risk investments. If it goes well, such a decision will be very profitable for the bank, but if it fails, it will be very detrimental to the depositors. Agency theory in this research refers to bank customers as the principal and the banking party as the agent. The bank distributes funds to the public and can generate profits and have good financial performance. The greater the profitability means, the better because the bank's prosperity increases with greater profitability, influenced by aspects of CAR, OEOI, NIM, and LDR.

In the theory of anticipated income, banks can provide long-term loans whose repayments are scheduled according to a fixed time. The payment schedule in principal and interest installments will supply regular cash flow and ultimately meet liquidity needs. Income anticipation theory prioritizes liquidity so that banks can anticipate liabilities as soon as possible and predict current assets that will come in. This theory encourages banks to treat long-term loans as potential sources of liquidity (Astohar and Sumiyanti, 2019). The emergence of this theory was initiated by the low application of credit to banks, resulting in excess liquidity and low profits obtained by banks, especially during the economic depression. With the introduction of the anticipated theory, banks are encouraged to be more aggressive by boldly providing long-term loans, for example, real estate loans, investment loans, and consumer loans (Ichsan, 2014).

The weakness of the anticipated income theory is that this theory assumes that all loans can be collected according to the scheduled time without considering the possibility of credit repayment failures by the debtor due to external and or internal factors (Siahaan and Asandimitra, 2016). External factors occur beyond the control of the customer, for example, a prolonged economic recession and unsupportive government policies. Internal factors include mismanagement of the company's lack of experienced and skilled personnel. This liquidity theory is difficult to expect as a source of minimum liquidity and meets the needs of credit demands that must be met immediately.

This income anticipation theory also explains the capital adequacy ratio as one of the factors of the banking capital ratio. Capital adequacy ratio is a ratio that shows how far all bank assets that contain risks (credit, investments, securities, claims on other banks) are also financed from the bank's capital funds in addition to obtaining funds from sources outside the bank, such as public funds. Loans, and so on. The higher the capital adequacy ratio value

indicates that the bank has sufficient capital to support its needs and bear the risks posed, including credit risk. A bank can channel more credit; in line with increased credit, it will increase the loan to deposit ratio itself. Third-party funds can be placed in posts that generate income for the bank, one of which is in the form of credit. The growth of third-party funds will result in credit growth, increasing liquidity (Husaeni, 2017).

Capital Adequacy Ratio (CAR) is a bank performance ratio to measure the adequacy of capital owned by a bank to support assets that contain or generate risks, for example, loans (Rahmadi, 2017). The calculation of the minimum capital adequacy or bank capital adequacy (capital adequacy) is based on the ratio or comparison between the capital owned by the bank and the total risk-weighted assets (RWA). RWA is the sum of RWA for balance sheet assets (assets listed in the balance sheet) and RWA for administrative assets (administrative assets) (Bank Indonesia Circular Letter Number 13/24/DPNP). The capital adequacy ratio of banks in Indonesia based on the Circular Letter of Bank Indonesia Number 13/24/DPNP dated October 25, 2011, concerning the Rating of the Soundness of Commercial Banks is measured using the Capital Adequacy Ratio (CAR). CAR is measured from the ratio between own capital and Risk-Weighted Assets (RWA) (Octaviani and Saraswati, 2018).

Based on the provisions of Bank Indonesia, a bank declared to be a healthy bank must have a CAR of at least 8% of the RWA. This is based on the provisions set by BIS (Bank for International Settlements). Following the Financial Services Authority Regulation Number 11/POJK.03/2016 concerning Minimum Capital Adequacy Requirements for Commercial Banks, it is stated that Banks are required to provide minimum capital according to their risk profile. The minimum capital requirement is calculated using the Minimum Capital Adequacy Ratio (CAR). Minimum capital provision is set at a minimum of 8% (eight percent) of Risk-Weighted Assets (RWA) for Banks with a risk profile rating of 1 (one); 9% (nine percent) to less than 10% (ten percent) of RWA for Banks with a risk profile rating of 2 (two); 10% (ten percent) to less than 11% (eleven percent) of RWA for Banks with a risk profile rating of 3 (three) 11% (eleven percent) to 14% (fourteen percent) of RWA for Banks with a risk profile rank 4 (four) or rank 5 (five) (Rahayu and Wahyudi, 2020).

The greater the Capital Adequacy Ratio (CAR), the greater the bank's profit. In other words, the smaller the bank's risk, the greater the profit earned by the bank. (Harun, 2016), (Wibisono and Wahyuni, 2017) and (Rembet and Baramuli, 2020) in their research show that CAR has a significant positive effect on ROA. The results of this study are not supported by research results (Suwandi and Oetomo, 2017) and (Nanda et al., 2019), which state that CAR does not affect bank performance, while (Putrianingsih and Yulianto, 2016) shows that CAR hurts profitability. Capital Adequacy Ratio (CAR) hurts Return on Assets (ROA) in Banking Companies Listed on the IDX for 2010-2013. So it can be concluded that the level of profit obtained by the bank is not significantly affected by the magnitude of the CAR ratio if the banking company only uses most of its capital to cover operational failures such as other non-performing developments.

H1: Capital Adquacy Ratio (CAR) has a positive effect on profitability at Commercial Banks in Indonesia.

Operating Expenses Operating Income (OEOI) is the ratio of operational costs used to measure the level of efficiency and ability of the bank in carrying out its operations (Buchory, 2015). The increasing OEOI ratio reflects the bank's lack of ability to suppress its operations which can cause losses because the bank is less efficient in managing its business. On the other hand, the smaller the OEOI, the higher the operational costs incurred by the relevant bank. This ratio, which is often called the efficient ratio, is used to measure the ability of bank management to control operational costs against operating income (Pradnyawati & Widhiastuti, 2020). According to Bank Indonesia, efficiency is measured by comparing total operating costs with total revenue or what is often called OEOI. The increased ratio indicates the bank's ability to reduce operating costs and increase its operating income so that it can cause losses because the bank is less efficient in managing its business. Bank Indonesia sets the best figure for the OEOI ratio below 90%, if the OEOI ratio exceeds 90% to close to 100% then the bank can be categorized as inefficient in carrying out its operations (Ashari and Nugrahanti, 2020). The results of research conducted by (Parenrengi and Hendratni, 2018; Suryadi et al., 2020) show that OEOI has a positive and significant effect on profitability. The higher the OEOI ratio, the greater the probability that the bank is in troubled condition. While the results of the study (Syakhrun et al., 2019; Sofyan, 2019) found that OEOI had a negative and significant effect on profitability.

H2: Operating Expenses Operating Income has a positive effect on profitability at Commercial Banks in Indonesia.

Net Interest Margin (NIM) is a ratio used to measure the ability of bank management to manage their productive assets to generate net interest income (Wijaya and Yudawisastra, 2019). Net interest income is derived from interest income minus interest expense. This ratio shows the bank's ability to obtain operating income from funds placed in the form of loans (credit). The higher the NIM, the more influential the bank is in placing earning assets in credit. The standard set by Bank Indonesia for the NIM ratio is 6% and above (Harun, 2016). The greater this ratio, the higher the interest income on productive assets managed by the bank. The possibility of the bank being in a problematic condition is getting smaller (Sudarmawanti and Pramono, 2017). So it can be concluded that the greater the net interest margin (NIM) of a company, the greater the company's return on assets (ROA), which means the financial performance is getting better or increasing. Vice versa, if the net interest margin (NIM) is getting smaller, the return on assets (ROA) will also be smaller. Research conducted (AS Dewi, 2018) and (Pinasti and Mustikawati, 2018) NIM significantly affects profitability. (Zulfikar, 2014) found that NIM had a significant adverse effect on profitability. Meanwhile, research conducted (Rembet and Baramuli, 2020) states that NIM does not affect bank profitability.

H3: Net Interest Margin (NIM) has a positive effect on profitability at Commercial Banks in Indonesia.

Loan to Deposit Ratio (LDR) is a ratio used to assess a bank's liquidity by dividing the amount of credit provided by the bank against third-party funds (Sudarmawanti & Pramono, 2017). Liquidity is a ratio to measure a bank's ability to meet its short-term obligations when billed. In other words, it can pay back the disbursement of depositors'

funds when they are billed and can meet the credit requests that have been submitted. A company is said to be liquid if, when it is billed, the bank can pay. Then the bank must also fulfill all credit applications that are eligible to be financed. In this study, the liquidity ratio used is the Loan to Deposit Ratio (LDR). This is because LDR can measure the ability of bank management to develop credit distribution whose funds come from third parties. LDR is also a ratio that shows the ability of a bank to provide funds to debtors with capital owned by the bank and funds that can be collected from the public.

Based on Bank Indonesia Regulation Number 17/11/PBI/2015 concerning Amendments to Bank Indonesia Regulation Number 15/15/PBI/2013 concerning Statutory Reserves for Commercial Banks in Rupiah and Foreign Exchange for Conventional Commercial Banks, it is stated that the lower limit of LDR is 78%, while the upper limit of LDR is 92%. LDR is a proxy for the risk profile in the Risk-Based Bank Rating, namely liquidity risk. Liquidity management is critical because a small amount of liquidity can disrupt the banking system as a whole.

The higher the LDR ratio, the lower the liquidity capacity of the bank concerned so that the possibility of a bank in troubled conditions will be even greater (Sudarmawanti and Pramono, 2017). LDR is a measurement of all loans provided with third-party funds as an effort to assess the bank's performance. LDR functions as a determining factor for the size of the minimum statutory reserve requirement (GWM) and an indicator of bank intermediation. Research conducted (Christiano et al., 2015; Lubis et al., 2019) states that LDR has a positive and significant effect on ROA. The results of a study from (Kelvin and Oetomo, 2017) found a significant negative LDR on profitability. Meanwhile, (Maria 2015; Agam and Pranjoto, 2021) research shows that LDR has no significant effect on ROA.

H4: Loan To Deposit Ratio (LDR) has a positive effect on profitability at Commercial Banks in Indonesia.

METHODS

This type of research includes causal research using quantitative methods. The population of this study is banking companies registered in the Indonesia Banking Directory and the 2018-2020 Bank Indonesia monthly publication reports. Sampling using the saturated sample method, using the monthly published reports of Bank Indonesia 2018-2020 as many as 36 data. This data can be obtained by accessing the site www.ok.go.id on the banking statistics page. The data were analyzed using multiple linear regression analysis with the Ordinary Least Square model using the Eviews Version 12 software. The data in this study were analyzed through several stages of testing. The first stage tests the classical assumptions of normality, autocorrelation, and heteroscedasticity tests.

The decision of whether a residual usually is distributed or not can be made by comparing the calculated JB (Jarque-Bera) probability value with an alpha level of 0.05 (5%). If the calculated Prob is more significant than 0.05, it can be concluded that the residuals are normally distributed and vice versa; if the value is smaller, there is not enough evidence to state that the residuals are normally distributed. The autocorrelation test used the Brusch-Godfrey method or the Lagrange Multiplier Test (LM). With the provisions of the value of Prob. F or can also be referred to as the probability value Fcount must be greater than the alpha level of 0.05 (5%) so that it can be said that there is no autocorrelation in the

multiple linear regression model. On the other hand, if the value of Prob. Account less than 0.05, it can be concluded that there is an autocorrelation—multicollinearity test using Variance Inflation Factors (VIF). Suppose the Centered Variance Inflation Factors (VIF) value is less than or not greater than 10 or 5. In that case, it can be said that there is no multicollinearity in the two independent variables. The heteroscedasticity test uses the heteroscedasticity test method using the Glejser method with the decision whether or not heteroscedasticity occurs in the multiple linear regression model by looking at the Prob value. F-statistic (F-count). If the value of Prob. If the account is greater than the alpha level of 0.05 (5%), then there is no heteroscedasticity, whereas if the value of Prob. F-count less than alpha level 0.05 (5%); means that there is heteroscedasticity.

RESULTS

The results of data normality using the average probability plot graph found that the data in this study were average and could be used. Figure 1 shows the Jarque-Bera value of 0.720706 and a significance of 0.697430 or 69.74% > 5% significance level, meaning that the research variables are normally distributed.

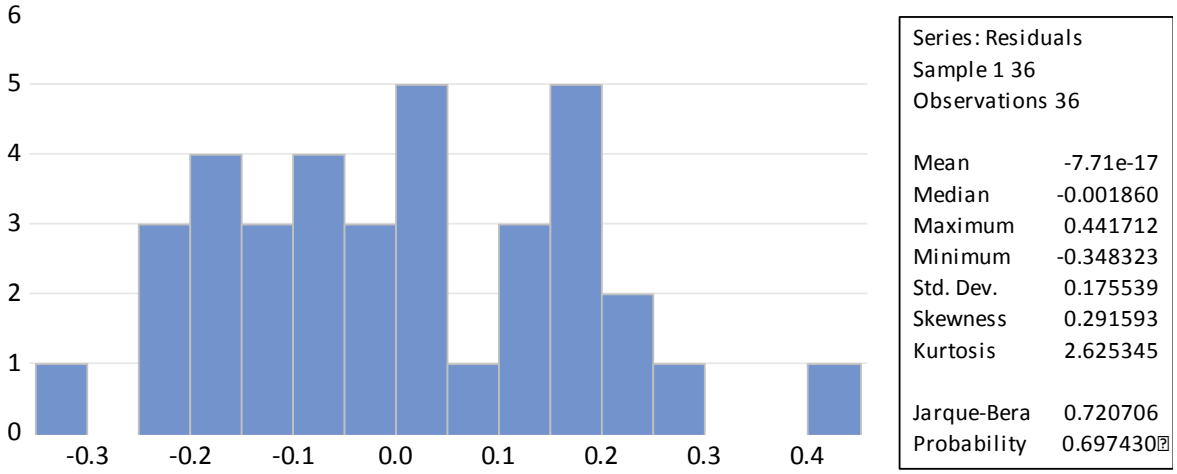


Figure 1. Normality Test Results
Source : Output Eviews V.12 (2021)

To ensure that the estimated data are free from autocorrelation, this study uses the Brusch-Godfrey method as described in table 1.

Table 1. Autokorelasi Test Results

F-Statistik	1.579593	Prob. F(3,32)	0.2135
Obs*R-squared	4.643488	Prob. Chi-Square (3)	0.1998
Scaled explained SS	2.981683	Prob. Chi-Square (3)	0.3945

Source : Output Eviews V.12 (2021)

In table 1, it can be seen the value of Prob. F is 0.2135 and is greater than the 5% significance level. This shows that there is no autocorrelation. Furthermore, the

heteroscedasticity test is carried out to see whether disturbances appear in the regression function, which can be done using the Harvey test as shown in table 2.

Table 2. Heteroskedasticity Test Harvey Results

F-Statistik	0.567164	Prob. F(3,32)	0.6407
Obs*R-squared	1.817537	Prob. Chi-Square (3)	0.6111
Scaled explained SS	1.134655	Prob. Chi-Square (3)	0.7687

Source : Output Eviews V.12 (2021)

In table 2, it can be seen the value of Prob. From F-count is equal to 0.567164 and Prob. of 0.6407. All tests are more significant than the 5% significance value, so there is no heteroscedasticity in the equation model. Furthermore, a multicollinearity test was performed using Pearson Correlation, as presented in table 3.

Table 3. Multikolinearitas Result

No	Auxiliary	Variance Inflation Factors (VIF).
1	CAR (X1)	0,1779
2	OEOI (X2)	0,5108
3	NIM (X3)	0,3076
4	LDR (X4)	0,7525

Source : Output Eviews V.12 (2021)

In table 3, the test results show that the coefficient value between variables is less than 0.9, so the data in this study does not have a multicollinearity problem.

Table 4. Coefficient of Determination

R-squared	0.884236	Mean dependent var	2.336111
Adjusted R-squared	0.869299	S.D. dependent var	0.301485
S.E. of regression	0.108995	Akaike info criterion	-1.466792
Sum squared resid	0.368274	Schwar criterion	-1.246859
Log likelihood	31.40226	Hannan-Quinn criter	-1.390030
F-statistik	59.19672	Durbin-Watson stat	-1.211028
Prob(F-statistik)	0.000000		

Source: Output Eviews V.12 (2021)

In table 4, the R-Square value is 0.884, while the Adjusted R-Squared value is 0.869. The R-Square results of 88.40% CAR, OEOI, NIM, and LDR significantly affect ROA.

Table 5. Partial Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob
C	-7.017972	1.763078	-3.980523	0.0004
X1	-0.000316	0.000324	-0.975121	0.3370
X2	0.000280	0.000112	2.510787	0.0175
X3	0.626812	0.140252	4.469173	0.0001
X4	0.000518	6.70E-05	7.731938	0.0000

Source: Output Eviews V.12 (2021)

Based on table 5, the panel data regression equation is obtained as follows:

$$Y = -7{,}0179 - 0{,}0003\ X1 + 0{,}0002\ X2 + 0{,}6268\ X3 + 0{,}0005\ X4 + e$$

This model explains the CAR variable coefficient of 0.0003 with a negative direction, meaning that if there is a CAR, profitability will decrease by 0.0003. The OEOI variable is 0.0002 with a positive direction, meaning that if there is an increase in OEOI, the profitability will increase by 0.0002. The variable coefficient of NIM is 0.6268 with a positive direction, meaning that if there is an increase in NIM, then profitability will increase by 0.6268. The LDR variable coefficient is 0.0005 with a positive direction, meaning that if there is an increase in LDR, the profitability will increase by 0.0005.

DISCUSSION

The study results found that CAR had no significant effect on profitability. These results indicate that the first hypothesis (H1) is rejected. These results illustrate that with the fulfillment of CAR, banks can absorb the losses faced by banks. On the other hand, banks should not use too many funds for reserve purposes because it can reduce funds for expansion. The percentage of CAR for Islamic banks is above 10% of the minimum Bank Indonesia stipulation of 8% of RWA; delays in business expansion due to high CAR will ultimately affect the financial performance. The results of this study support the agency theory in that this study refers to bank customers as the principal and the bank as the agent. The bank distributes funds to the public and can generate profits and have good financial performance. The greater the profitability means, the better because the bank's prosperity increases with greater profitability, influenced by CAR, OEOI, NIM, and LDR aspects. As well as supporting the income anticipation theory, it also explains the capital adequacy ratio as one of the factors of the banking capital ratio. Capital adequacy ratio is a ratio that shows how far all bank assets that contain risks (credit, investments, securities, claims on other banks) are also financed from the bank's capital funds in addition to obtaining funds from sources outside the bank, such as public funds. Loans, and so on.

The higher the capital adequacy ratio value indicates that the bank has sufficient capital to support its needs and bear the risks posed, including credit risk. A bank can channel more credit; in line with increased credit, it will increase the loan to deposit ratio itself. Third-party funds can be placed in posts that generate income for the bank, one of which is in the form of credit. The growth of third-party funds will result in credit growth, which will also increase liquidity (Husaeni, 2017); (Suwandi and Oetomo, 2017).

Furthermore, (Nanda et al., 2019) support the results of this study, which shows that CAR does not affect profitability. However, in contrast to the results of research (Harun, 2016) (Wibisono and Wahyuni, 2017) and (Rembet and Baramuli, 2020), CAR has a significant positive effect on ROA. It is also different from the results of research (Putrianingsih and Yulianto, 2016) which shows that CAR hurts profitability, meaning that the level of profits obtained by banks is not significantly affected by the size of the CAR ratio if banking companies only use most of their capital to cover operational failures such as coaching another jam.

The study results found that OEOI had a positive and significant effect on profitability. These results indicate that the second hypothesis is accepted. The standard used by Bank Indonesia for the BOPO ratio is 83-90%. The average OEOI ratio during the 2017-2019 period showed a fluctuation of 84.22 in 2017, down in 2018 by 82.79% until the end of 2019 it fell again by 79.39% by banks in Indonesia, the best OEOI figure is below 90%, according to standard ratio set. Because the level of the OEOI ratio is relatively low, it means that the performance of the bank's management is quite efficient in using existing resources in the bank, resulting in an increase in profit before tax, which will ultimately increase ROA. Therefore, the results of this study support the decision of Bank Indonesia, namely the best number for the OEOI ratio is below 90%, because if the OEOI ratio exceeds 90% to close to 100%, then the bank can be categorized as inefficient in carrying out its operations (Ashari and Nugrahanti, 2020). This study also supports agency theory in that this research refers to bank customers as the principal and the banking party as the agent. The bank distributes funds to the public and can generate profits and have good financial performance. The greater the profitability means, the better because the bank's prosperity increases with greater profitability, influenced by aspects of CAR, OEOI, NIM, and LDR. In line with the research results found by (Parenrengi & Hendratni, 2018; Suryadi et al., 2020), it shows that OEOI has a positive and significant effect on profitability. The higher the OEOI ratio, the bank is said to be efficient. However, the results of this study differ from (Syakhrun et al., 2019; Sofyan, 2019), finding that OEOI has a negative and significant effect on profitability.

The study results found that NIM had a positive and significant effect on profitability. This result states that the third hypothesis is accepted. This means that the NIM reflects the market risk that arises due to the movement of market variables, where it can affect the bank's profit and loss. Net interest income is derived from the difference between the interest earned from lending and the interest payable to depositors. The larger this ratio will increase net interest income to contribute to the bank's profit, so it can be concluded that the greater the NIM ratio, the greater the profitability. The results of this study support the agency theory in that this research refers to bank customers as the principal and the banking party as the agent. These banks channel funds to the public, generate profits and have good financial performance. The greater the profitability means, the better because the bank's prosperity increases with greater profitability, influenced by aspects of CAR, OEOI, NIM, and LDR. The greater this ratio, the higher the interest income on productive assets managed by the bank. The possibility of the bank being in a problematic condition is getting smaller (Sudarmawanti and Pramono, 2017). So it can be concluded that the greater the net interest margin (NIM) of a company, the greater the company's return on assets (ROA), which means that the financial performance is getting better or increasing. Vice versa, if the net interest margin (NIM) is getting smaller, the return on assets (ROA) will also be smaller. In

line with the research results proven by (Dewi, 2018; Pinasti and Mustikawati, 2018) that NIM has a significant positive effect on profitability. In contrast to the research results (Zulfikar, 2014) found that NIM has a significant negative effect on profitability. The research results by (Rembet and Baramuli, 2020) state that NIM does not affect bank profitability.

The study results found that LDR had a positive and significant effect on profitability. These results state that the fourth hypothesis is accepted. This means that a high LDR indicates the magnitude of the bank's profitability. This shows that the performance of banks in distributing credit to third parties is quite efficient. The more loans disbursed, the more income received by the bank will increase as profitability increases. The results of this study support agency theory in that this research refers to bank customers as the principal and the banking party as the agent. The bank distributes funds to the public and can generate profits and have good financial performance. The greater the profitability means, the better because the bank's prosperity increases with greater profitability, influenced by aspects of CAR, OEOI, NIM, and LDR.

These results support the anticipation theory, which explains that the capital adequacy ratio is one of the factors of the banking capital ratio. With significant capital, a bank can channel more credit. Increased credit will increase the loan to deposit ratio itself. Third-party funds can be placed in posts that generate income for the bank, one of which is in the form of credit. The growth of third-party funds will result in credit growth, which will also increase liquidity (Husaeni, 2017). The results of this study support the research that has been done (Christiano et al., 2015; Lubis et al., 2019), which found that LDR has a positive and significant effect on ROA. In contrast, (Kelvin and Oetomo, 2017) research found a significant negative LDR on profitability. The study results (Maria, 2015; Agam and Pranjoto, 2021) show that LDR has no significant effect on ROA.

CONCLUSION

Based on the results of data testing that has been carried out, it can be concluded that the Capital Adequacy Ratio (CAR), which functions to assess bank capital, has no significant effect on profitability. While Operating Expenses Operating Income (OEOI) is an operating expense ratio used to measure the level of efficiency and ability of a bank in carrying out its operations, Net Interest Margin (NIM) is used to measure the ability of bank management to generate interest income by looking at the bank's performance in lending. , considering that the bank's operating income is highly dependent on the difference in interest from disbursed loans and the Loan to Deposit Ratio (LDR), which is used to measure the ability of bank management to develop credit distribution whose funds come from third parties and have a positive and significant effect on profitability. It is recommended that the Bank's management increase the CAR ratio, reduce the BOPO ratio, and maintain the LDR and NPL ratios. The company should maintain the bank's capital level (CAR) because capital is the most crucial factor that the bank must own. Further research is recommended to use more samples by adding the companies studied.

REFERENCES

Agam, D. K. S., dan Pranjoto, G. H. (2021). Pengaruh CAR, LDR, BOPO, dan Size Terhadap ROA pada Sektor Perbankan yang Terdaftar di BEI 2015-2019. *Jurnal Kajian Ilmu Manajemen (JKIM)*, *1*(2).

Al-Homaidi, E. A., Tabash, M. I., Farhan, N. H. S., and Almaqtari, F. A. (2018). Bank-specific and macro-economic determinants of profitability of Indian commercial banks: A panel data approach. *Cogent Economics & Finance*, *6*(1), 1548072.

Anugrah, T., dan Yatna, C. N. (2020). Pengaruh Non Performing Loan, Loan To Deposit Ratio, Net Interest Margin, Biaya Operasional Pendapatan Operasional Dan Capital Adequacy Ratio Terhadap Profitabilitas Bank Umum Konvensional Buku 4 Periode 2012-2016. *Perbanas Review*, *4*(1).

Ashari, H., dan Nugrahanti, T. P. (2020). Anatomi Laporan Keuangan Bank Bermasalah Sebelum Pencabutan Ijin Usaha. *Akuntabilitas*, *13*(2), 221–238.

Astohar, A., dan Sumiyanti, T. (2019). Analisis Faktor–Faktor Yang Berpengaruh Terhadap Profitabilitas Bank Perkreditan Rakyat Di Indonesia Pada Tahun 2013–2017. *Among Makarti*, *12*(1).

Astuti, M. (2018). Pengaruh Sales Growth dan Profitabilitas Terhadap Dividen Payout Ratio Pada Perusahaan Perbankan Yang Terdaftar di Bursa Efek Indonesia. *I-Economics: A Research Journal on Islamic Economics*, *4*(1), 112–124.

Buchory, H. A. (2015). Banking profitability: How does the credit risk and operational efficiency effect. *Journal of Business and Management Sciences*, *3*(4), 118–123.

Christiano, M., Tommy, P., dan Saerang, I. (2015). Analisis terhadap rasio-rasio keuangan untuk mengukur profitabilitas pada bank-bank swasta yang go public di Bursa Efek Indonesia. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, *2*(4).

Damayanti, P., dan Savitri, D. A. M. (2018). Analisis Pengaruh Ukuran (Size), Capital Adequacy Ratio (Car), Pertumbuhan Deposit, Loan to Deposit Rasio (Ldr), Terhadap Profitabilitas Perbankan Go Public Di Indonesiatahun 2005–2009. *Jurnal Ilmu Manajemen Dan Akuntansi Terapan (JIMAT)*, *3*(2), 45–54.

Dewi, A. S. (2018). Pengaruh car, bopo, npl, nim, dan ldr terhadap roa pada perusahaan di sektor perbankan yang terdaftar di bei periode 2012-2016. *Jurnal Pundi*, *1*(3).

Dewi, L. E., Herawati, N. T., AK, S. E., dan Sulindawati, N. L. G. E. (2015). Analisis pengaruh NIM, BOPO, LDR, dan NPL terhadap profitabilitas (Studi kasus pada bank umum swasta nasional yang terdaftar pada Bursa Efek Indonesia periode 2009-2013). *JIMAT (Jurnal Ilmiah Mahasiswa Akuntansi) Undiksha*, *3*(1).

Fahrul, M., and Rusliati, E. (2016). Credit Risk, Market Risk, Operational Risk and Liquidity Risk on Profitability of Banks in Indonesia. *TRIKONOMIKA*, *15*(2), 78–88.

Fernos, J. (2017). Analisis Rasio Profitabilitas Untuk Mengukur Kinerja (Studi Kasus Pada PT. Bank Pembangunan Daerah Provinsi Sumatera Barat). *Jurnal Pundi*, *1*(2).

Hakim, F. (2017). The Influence of non-performing loan and loan to deposit ratio on the level of conventional bank health in Indonesia. *Arthatama*, *1*(1), 35–49.

Hamdani, H., Wahyuni, N., Amin, A., dan Sulfitra, S. (2018). Analisis Faktor-Faktor yang mempengaruhi Kinerja Keuangan Bank Umum Syariah yang terdaftar di Bursa Efek Indonesia (BEI)(Periode 2014-2016). *Jurnal EMT KITA*, *2*(2), 62–73.

Harun, U. (2016). Pengaruh Ratio-ratio Keuangan Car, Ldr, Nim, Bopo, Npl Terhadap Roa.

Jurnal Riset Bisnis Dan Manajemen, *4*(1), 67–82.
Haryanto, S. (2016). Determinan permodalan bank melalui profitabilitas, risiko, ukuran perusahaan, efisiensi dan struktur aktiva. *Jurnal Ekonomi Dan Bisnis*, *19*(1), 117–138.
Husaeni, U. A. (2017). Determinan Pembiayaan Pada Bank Pembiayaan Rakyat Syariah di Indonesia. *Esensi: Jurnal Bisnis Dan Manajemen*, *7*(1), 49–62.
Ichsan, N. (2014). Pengelolaan Likuiditas Bank Syariah. *Al-Iqtishad: Jurnal Ilmu Ekonomi Syariah*, *6*(1), 97–120.
Iryanto, M. B. W., dan Wahyudi, S. (2010). Mekanisme Bonding Dan Nilai Perusahaan. *Jurnal Keuangan Dan Perbankan*, *14*(3).
Jensen, M. C., and Smith, C. W. (2000). Stockholder, manager, and creditor interests: Applications of agency theory. *Theory of the Firm*, *1*(1).
Lubis, M. S., Nasution, I. A., Mery, M., Jenvony, J., Yulia, V., Devika, V., dan Novera, V. (2019). Pengaruh Perputaran Aktiva, Perputaran Kas, dan Loan to Deposit Ratio (LDR) terhadap Return On Asset (ROA) pada Perbankan yang Terdaftar di Bursa Efek Indonesia pada Tahun 2013-2017. *Owner: Riset Dan Jurnal Akuntansi*, *3*(2), 307–319.
Lukitasari, Y. P., dan Kartika, A. (2015). Analisis Pengaruh Dana Pihak Ketiga, BOPO, CAR, LDR dan NPL terhadap Kinerja Keuangan Pada Sektor Perbankan yang terdaftar di Bursa Efek Indonesia. *INFOKAM*, *11*(4).
Maria, A. (2015). Pengaruh car, bopo, nim, npl, dan ldr terhadap roa: studi kasus pada 10 bank terbaik di indonesia periode 2007-2011. *CALYPTRA*, *4*(1), 1–19.
Moorcy, N. H. (2020). Pengaruh Capital Adequacy Ratio, Net Interest Margin, Dan Loan To Deposit Ratio Terhadap Return On Assets Pada Pt. Bank Bni (Persero), Tbk. *Jurnal GeoEkonomi*, *11*(2), 164–175.
Nanda, A. S., Hasan, A. F., dan Aristyanto, E. (2019). Pengaruh CAR Dan BOPO Terhadap ROA Pada Bank Syariah Pada Tahun 2011-2018 (The Effect of CAR and BOPO Against ROA in Islamic Banking in 2011-2018). *Perisai: Islamic Banking and Finance Journal*, *3*(1), 19–32.
Octaviani, S., dan Saraswati, N. (2018). Analisis Penilaian Tingkat Kesehatan Bank Dengan Metode Risk Profile, Good Corporate Governance, Earnings, Capital. *JAK (Jurnal Akuntansi) Kajian Ilmiah Akuntansi*, *5*(2), 138–146.
Ozili, P. K. (2017). Bank profitability and capital regulation: Evidence from listed and non-listed banks in Africa. *Journal of African Business*, *18*(2), 143–168.
Parenrengi, S., dan Hendratni, T. W. (2018). Pengaruh dana pihak ketiga, kecukupan modal dan penyaluran kredit terhadap profitabilitas bank. *Jurnal Manajemen Strategi Dan Aplikasi Bisnis*, *1*(1), 9–18.
Pinasti, W. F., dan Mustikawati, R. R. I. (2018). Pengaruh CAR, BOPO, NPL, NIM Dan LDR Terhadap Profitabilitas Bank Umum Periode 2011-2015. *Nominal: Barometer Riset Akuntansi Dan Manajemen*, *7*(1), 126–142.
Pradnyawati, S. O., and Widhiastuti, N. L. P. (2020). The Effects Of Nim, Ldr And Bopo On Balinese People's Credit Bank (Bpr) Profitability Of Tabanan. *American Journal of Humanities and Social Sciences Research (AJHSSR)*, *3*(11), 196–203.
Prasastinah Usanti, T. (2019). Pengelolaan Risiko Pembiayaan Di Bank Syariah. *ADIL: Jurnal Hukum*, *3*(2), 408. https://doi.org/10.33476/ajl.v3i2.817.
Putri, U. I., dan Affandi, A. (2018). Rasio Kepemilikan dan Rasio Efisiensi Terhadap Profitabilitas Dampaknya Pada Nilai Perusahaan. *Jurnal Riset Bisnis Dan*

Manajemen, *11*(1), 40–43.
Putrianingsih, D. I., dan Yulianto, A. (2016). Pengaruh non performing loan (NPL) dan capital adequacy ratio (CAR) terhadap profitabilitas (Studi kasus pada perusahaan perbankan yang terdaftar di BEI periode 2010-2013). *Management Analysis Journal*, *5*(2).
Rahayu, S., dan Wahyudi, I. (2020). Pengaruh Kecukupan Modal, Risiko Kredit, Profitabilitas, dan Ukuran Bank Terhadap Likuiditas (Studi Pada Perusahaan Perbankan yang Terdaftar di BEI Tahun 2013-2018). *Jurnal Akuntansi & Keuangan Unja*, *5*(2), 90–100.
Rahmadi, N. (2017). Analisis Pengaruh Capital Adequacy Ratio (CAR) dan Financing to Deposit Ratio (FDR) terhadap Return On Asset (ROA) dan Return On Equity (ROE) Pada Perusahaan Bank Umum Syariah di Indonesia. *HUMAN FALAH: Jurnal Ekonomi Dan Bisnis Islam*, *1*(1).
Rembet, W. E. C., dan Baramuli, D. N. (2020). Pengaruh Car, Npl, Nim, Bopo, Ldr Terhadap Return On Asset (Roa)(Studi Pada Bank Umum Swasta Nasional Devisa Yang Terdaftar Di BEI). *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, *8*(3).
Ruwanti, G. (2016). Pengaruh Rasio Likuiditas Terhadap Kinerja Keuangan Perbankan Pada Bank-Bank Swasta GO-PUBLIC Di Bursa Efek Indonesia. *Jurnal Manajemen Dan Akuntansi*, *12*(2).
Safitri, J., Shaferi, I., Nusair, A. E. S., and Affandi, M. A. (2021). The Role of Noan Performing Financing (NPF) as A Mediator for The Relationship Between Operating Expenses and Operating Income (BOPO) on The Performance of Islamic Banks in Indonesia. *Perisai: Islamic Banking and Finance Journal*, *5*(1), 110.
Siahaan, D., dan Asandimitra, N. (2016). Pengaruh Likuiditas Dan Kualitas Aset terhadap Profitabilitas pada Bank Umum Nasional (Studi pada Bursa Efek Indonesia Periode 2010-2014). *BISMA (Bisnis Dan Manajemen)*, *9*(1), 1–12.
Sofyan, M. (2019). Faktor-Faktor Yang Mempengaruhi Profitabilitas Bank Perkreditan Rakyat (BPR) di Provinsi Jawa Timur. *Jurnal Inspirasi Bisnis Dan Manajemen*, *3*(1), 63–76.
Sudarmawanti, E., and Pramono, J. (2017). Pengaruh CAR, NPL, BOPO, NIM dan LDR Terhadap ROA (Studi kasus pada Bank Perkreditan Rakyat di Salatiga yang terdaftar di Otoritas Jasa Keuangan Tahun 2011-2015). *Among Makarti*, *10*(1).
Suryadi, N., Mayliza, R., dan Ritonga, I. (2020). Pengaruh Inflasi, Biaya Operasional Terhadap Pendapatan Operasional (Bopo), Dan Pangsa Pasar Terhadap Profitabilitas Bank Umum Syariah Di Indonesia Priode 2012-2018. *Jurnal Tabarru': Islamic Banking and Finance*, *3*(1), 1–10.
Susanto, H., dan Kholis, N. (2016). Analisis rasio keuangan terhadap profitabilitas pada perbankan Indonesia. *Ebbank*, *7*(1), 11–22.
Suwandi, J., dan Oetomo, H. W. (2017). Pengaruh CAR, NPL, BOPO, dan LDR terhadap roa pada busn devisa. *Jurnal Ilmu Dan Riset Manajemen (JIRM)*, *6*(7).
Syakhrun, M., Anwar, A., dan Amin, A. (2019). Pengaruh Car, Bopo, Npf Dan Fdr Terhadap Profitabilitas Pada Bank Umum Syariah Di Indonesia. *Bongaya Journal for Research in Management (BJRM)*, *2*(1), 1–10.
Usman, R. (2001). *Aspek-aspek hukum perbankan di Indonesia*. Gramedia Pustaka Utama.
Utami, U., dan Silaen, U. (2018). Analisis Pengaruh Risiko Kredit dan Risiko Operasional

Terhadap Profitabilitas Bank. *Jurnal Ilmiah Manajemen Kesatuan*, *6*(3), 123–130.

Wibisono, M. Y., dan Wahyuni, S. (2017). Pengaruh Car, Npf, Bopo, Fdr, Terhadap Roa Yang Dimediasi Oleh Nom. *Jurnal Bisnis Dan Manajemen (Journal of Business and Management)*, *17*(1), 41–62.

Wijaya, J. H., and Yudawisastra, H. G. (2019). Influence of Capital Adequacy Ratio, Net Interest Margin and liquidity Ratio against Profitability Ratio. *International Journal of Innovation, Creativity and Change*, *6*(6).

Zulfikar, T. (2014). Pengaruh CAR, LDR, NPL, BOPO dan NIM Terhadap Kinerja Profitabilitas (ROA) Bank Perkreditan Rakyat Di Indonesia. *E-Journal Graduate Unpar*, *1*(2), 131–140.