



The Influence of Capital Adequacy, Asset Quality and Liquidity on the Profitability of Bank Jateng

Pengaruh Kecukupan Modal, Kualitas Aset dan Likuiditas Terhadap Profitabilitas Bank Jateng

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Abstract

Stakeholders who wish to evaluate a company's financial accounts, the ratio's computation is crucial. The study's goal is to examine how Bank Jateng's profitability is impacted by the capital adequacy ratio, asset quality, and liquidity. Data gathering is a review of the literature with the goal of locating information and data in electronic documents that can aid in the writing process. Bank Jateng's profitability was not significantly impacted by either the liquidity ratio, as determined by the Loan Deposit Ratio (LDR), or the capital adequacy, as determined by the Capital Adequacy Ratio (CAR). The profitability of Bank Jateng was significantly impacted by the asset quality ratio as determined by the Non-Performing Loan (NPL). The CAR ratio can be used by businesses to safeguard depositors and enhance the stability and effectiveness of the financial system.

Keywords : Capital Adequacy, Asset Quality, Liquidity and Profitability

Abstrak

Pihak-pihak yang ingin menilai laporan keuangan suatu perusahaan, perhitungan rasio sangat penting. Tujuan dari penelitian ini adalah untuk mempelajari bagaimana rasio kecukupan modal, kualitas aset, dan likuiditas berdampak pada profitabilitas Bank Jateng. Studi pustaka mengarahkan pencarian data dan informasi melalui dokumen elektronik yang dapat mendukung dalam proses penulisan untuk pengumpulan data. Rasio kecukupan modal (CAR) dan rasio likuiditas (LDR) yang diukur melalui rasio deposito pinjaman (LDR) tidak berdampak signifikan terhadap profitabilitas Bank Jateng. Sebaliknya, rasio kualitas aset yang diukur melalui rasio pinjaman yang tidak memenuhi syarat (NPL) berdampak signifikan terhadap profitabilitas Bank Jateng. Perusahaan dapat menggunakan rasio CAR untuk melindungi deposan dan meningkatkan stabilitas serta efisiensi sistem keuangan.

Kata Kunci: Capital Adequacy, Asset Quality, Liquidity dan Profitability

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1. Introduction

Stakeholders who wish to evaluate a company's financial accounts, ratio calculation is crucial. Capital, asset quality liquidity, and potential profit growth are the main areas of focus for the evaluation. The business can also utilize this ratio analysis to evaluate operating outcomes, fix mistakes that arise from deviating from the planned plans, and steer clear of other harmful situations. With ratio analysis, detailed and complex financial information is easy to read and interpret, so that a company's report is easy to compare with the financial statements of other companies, and it is faster to see developments and performance periodically (Mulyana, 2018). In Indonesia, economic development remains central to all development carried out by the government. The general goal of development is to improve people's welfare. The government in carrying out economic development gives a larger role to the private sector. Therefore, the existence of business entities, financial institutions and banking is very strategic in realizing the ideals of development. Because they act as a bridge between capital owners (fund providers) and fund users (fund users), banking institutions are among the foundations of a nation's economy.

Consequently, the magnitude of Net Interest Margin (NIM) will influence the bank's profit and loss, subsequently affecting the bank's overall performance. Bank Jateng has strong performance, benefiting the Central Java Government and contributing to enhanced economic growth (Suciati & Kurniawan, 2022). Profitability and liquidity are regarded as factors that help mitigate the danger of financial hardship (Hidayat et al., 2024). Financial management is essential for maintaining the entire well-being of a company (Sambharakreshna et al., 2024). The findings of the Aldizar & Agustina (2022) study reveal that Asset Quality possesses a negative regression coefficient and a significant value below alpha, indicating that Asset Quality significantly influences profitability. The robust financial performance of banks can enhance public trust in financial institutions, hence affecting individuals' investment and savings choices (Wende & Paramitalaksmi, 2023). Financial institutions are integral to the economic framework of a nation, particularly in developing countries such as Indonesia (Pratiwi et al., 2023).

Banking has a very large role in advancing a country's economy (Rizky & Winarni, 2020). Bank performance frequently serves as a criterion for clients when selecting capital placement or borrowing options (El Islami & Ikbal, 2024). Bank performance frequently serves as a criterion for customers when selecting fund allocation or borrowing options. The bank's performance indicates its financial health, as evidenced by the operation and release of financial statements (Wanuri et al., 2022). The health of a bank is reflected in its performance. Financial statements serve as a tool for evaluating a bank's financial health. The bank's stability is shown by its operational activities and the public's confidence in the financial sector (Putri et al., 2021). Financial statements are crucial for the legitimacy and accountability of banks in the perception of the public. Financial statements serve as reference materials that inform government and internal banking policy formulation and public decision-making, enabling the assessment of a bank's financial health (Safii et al., 2022).

Bank Jateng continues to strengthen collaboration with several external parties and stakeholders. In line with this, 2023 will be a push for Bank Jateng to strengthen service quality by supporting its Information Technology capabilities. Bank Jateng continues to innovate in providing quality services, such as Sharia Mobile Banking and online credit

applications, as well as contribute to accelerating the digitalization of regional financial processes, including through the Cash Management System (CMS) in the Village Financial System (Siskeudes). Finally, all strategic policies and achievements in 2023 reflect the Bank's commitment to support reliable services and contribute to the community economy and regional development. The Board of Directors and management have also implemented the necessary efforts to maintain the Bank's governance practices in accordance with the principles of Good Corporate Governance (GCG), in order to present the Bank's added value widely and sustainably. Amidst the challenges faced in 2023, the Board of Directors, supported by related staff, has worked with quite optimal results. This can be seen through a number of the Bank's operational achievements which generally show positive growth compared to the previous year. As of December 31, 2023, the Bank's total assets were IDR88.45 trillion or grew 4.69% yoy compared to December 31, 2022, which was IDR84.49 trillion.

Profitability is used as a measure in achieving profit in a certain period. Profit becomes very important because as an intermediary institution, banks have a role as a financing, storage and lending channel so that in the end it can improve the welfare of the community, in maintaining these functions to run smoothly, a bank must be able to maintain the continuity of its operational activities, namely by generating high profits. The state and performance of a bank are reflected in its health, which helps supervisory bodies decide on strategies and areas of concentration for bank supervision and guidance. The Board of Commissioners recommends that a comprehensive evaluation be carried out and an appropriate strategy be prepared so that performance for the 2024 financial year can be improved. The assessment of assets to determine their credit risk is known as asset quality. Asset quality is a bank's effort to evaluate existing assets. The evaluation of asset quality set by the OJK or Financial Services Authority includes profitable assets and assets that do not provide returns. In the banking industry, assets are often a tool or method for evaluating the quality of profitable assets. Profitable assets are an aspect used to determine the level of profitability and vitality of a bank. According to the Financial Services Authority, one of the criteria for assessing bank health is asset quality. The effort made to evaluate the kinds of assets that the bank owns is known as asset quality. The bank's performance will improve if the predicted asset quality rises, particularly in terms of making a profit (Sa'idah & Mauluddi, 2018).

The research gap lies in the unanswered problems of research (Kristiyanti et al., 2024) on asset quality and liquidity. Limitation of research by Prasetyo & Darmayanti (2015) which examines financial reports every month, not annual reports. There is a difference between the results if profitability is positioned as a dependent variable (Septiarini & Ramantha, 2014) with profitability as an intervention of the Capital Adequacy Ratio (CAR) (Mulyaningsih & Hidajat, 2022). This study uses asset quality with NPL (Non Performing Loan) measurements and liquidity with LDR (Loan to Deposit Ratio) measurements. Disclosure of contributions to profitability is analyzed using annual reports for the period 2005 to 2023. This study confirms the position of profitability as a dependent variable because capital in the independent variable can have a strong correlation with the assumptions proposed. Capital adequacy and profitability are two interrelated factors in the banking and corporate world. Capital adequacy indicates the bank's ability to maintain capital, while profitability indicates the company's ability to generate profits. Asset quality and profitability are important aspects in banking. Asset quality relates to the assessment of assets owned by the bank, while profitability relates to the bank's ability to generate profits. Liquidity and profitability are two indicators

used to measure a company's financial performance. Liquidity measures the company's ability to pay short-term debts, while profitability measures the company's ability to generate profits. Based on the background of the problem that has been explained, the researcher is interested in examining the influence of capital adequacy, asset quality and liquidity on the profitability of Bank Jateng.

2. Methodology

2.1. Model Development

Main Problems

The Basel III framework recommends that financial institutions uphold an elevated ratio of liquid assets and capital, in conjunction with credit risk requirements (Saleh & Afifa, 2020). Credit risk does not adversely affect profitability; instead, liquidity negatively influences profitability, but capital adequacy positively impacts profitability (Lawrence et al., 2020). In contrast to research conducted by Octavia & Manda (2022), credit risk (NPL) positively affects profitability, while liquidity partially does not affect profitability. In contrast to research conducted by Harahap & Effendi (2020), credit risk negatively impacts profitability and capital adequacy positively impacts profitability. Financial performance generally includes many indicators, and profitability is one of its main aspects (Anhar et al., 2024).

The influence of capital adequacy on profitability

The Capital Adequacy Ratio is a measure of a bank's ability to maintain sufficient capital levels. Tahu et al., (2023) demonstrate that the Capital Adequacy Ratio (CAR) has a favorable and significant impact on the profitability of banking enterprises listed on the Indonesia Stock Exchange (IDX). Capital adequacy has a significant effect on profitability (Putri & Susila, 2022). The principal objective of banking operations is to achieve maximum profitability. The profitability ratio assesses the firm's ability to create profit. The principal objective of banking operations is to achieve maximum profitability. The profitability ratio assesses the firm's ability to create profit. A bank is an organization that facilitates the movement of payments and serves as a financial middleman between parties with money (surplus units) and parties in need of money (deficit units). Furthermore, banks are an industry that depends on public trust for its operations, so maintaining the bank's health is essential. A number of indicators can be used to evaluate a bank's health. The financial report of the relevant bank is one of the primary indications that serve as the foundation for the evaluation. Numerous financial ratios that are frequently used as the foundation for evaluating a bank's health can be computed from the financial report. The financial report analysis's findings will be useful in interpreting a number of important correlations and patterns that may serve as a foundation for thinking about the company's future prospects. The CAR ratio calculates the possible risk of loss that the institution may experience by utilizing the capital adequacy of the bank, expressed as a percentage (Ruchiyat, 2024).

H1 : Capital adequacy has a significant effect on profitability

The influence of asset quality on profitability

Asset quality is all assets owned by a bank with the intention of being able to earn income according to its function. The results of Lee & Wage (2022) research show that partially asset quality (NPL) has a significant effect on banking profitability (ROA). Banking is one of the supporting factors to improve the economy in a country. The more developed the country, the role of banking in managing and controlling the country is increasingly significant. Because almost all sectors require banking services. The profitability of the bank itself is important for the bank because it represents the health of the bank. The increase in NPL will encourage a decrease in the ROA level (Rosita et al., 2024). Profitability can be a basic aspect in measuring banking achievements.

H2 : Asset quality has a significant effect on profitability

The influence of liquidity on profitability

Liquidity assesses a company's capacity to fulfill short-term obligations due within one year. Research by Anisa & Febyansyah (2024) indicates that liquidity positively and significantly influences profitability. Liquidity has a positive and significant effect on profitability (Darmayanti & Susila, 2022). Profitability describes an entity's capability in creating profits during a certain period. Bank Jateng posted operating income from the conventional banking segment of Rp6,670.27 billion in 2023, an increase of Rp118.55 billion or 2% compared to Rp6,551.72 billion in 2022. The bank's increased net assets were the primary cause of the increase. Additionally, Bank Jateng reported Rp1,986.23 billion in operational profit from the traditional banking business in 2023, a 20% drop of Rp492.609 billion from Rp2,478.84 billion in 2022. Interest payments on Third Party Funds increased, which was the primary cause of the decline. According to Nuriasari (2018), liquidity is one of the financial ratios that functions as an evaluation of the accuracy of an entity in settling its short-term liabilities. The importance of this ratio is because the company is vulnerable to bankruptcy if it fails to complete its short-term obligations. Liquidity as a term used to describe a number of assets that are easily converted into cash.

H3 : Liquidity has a significant effect on profitability

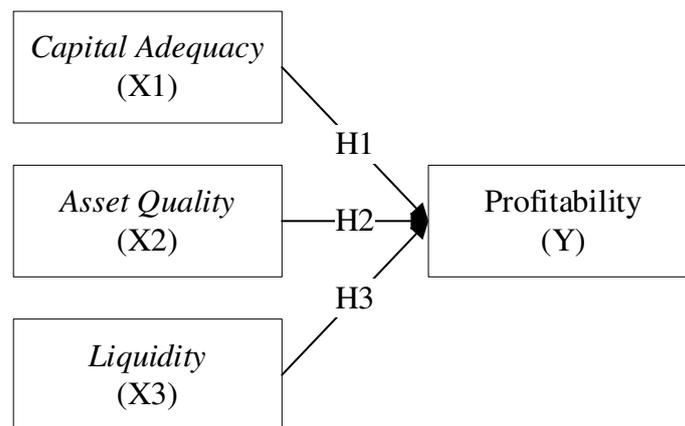


Figure 1. Conceptual Framework

Table 1. Operational Definition of Variables

| Variables | Definiton | Indicator |
|----------------------------|---|---|
| Capital adequacy (X_1) | the bank's ability to cover asset declines due to losses and is used to determine the bank's ability to meet its short-term commitments when billed (Hidayat, 2022) | <p style="text-align: center;"><i>Capital Adequacy Ratio (CAR)</i></p> $CAR = \frac{\text{tier 1 capital} + \text{tier 2 capital}}{\text{risk weighted assets}}$ |
| Asset quality (X_2) | capability of bank management to oversee its productive assets (Wulansari et al., 2024) | <p style="text-align: center;"><i>Non Performing Loan (NPL)</i></p> $NPL \text{ Ratio} = \frac{\text{Nonperforming Loans}}{\text{Total Loans}}$ |
| Liquidity (X_3) | evaluation of the entity's assessment of its accuracy in settling its short-term liabilities (Nuriasari, 2018) | <p style="text-align: center;"><i>Loan to Deposit Ratio (LDR)</i></p> $LDR \text{ Ratio} = \frac{\text{Total Loan}}{\text{Total Deposit to Equity}} \times 100\%$ |
| Profitability (Y) | the company's ability to make profit in relation to sales, total assets, and equity (Sukadana & Triaryati, 2018) | <p style="text-align: center;"><i>Return On Assets (ROA)</i></p> $ROA = \frac{\text{net income}}{\text{Average Total Assets}}$ |

Source: theoretical basis 2025 (processed)

2.2. Data Collection

Research data collection techniques are methods or ways used to collect the information needed in a study or research (Iba & Wardhana, 2024). This study utilizes an overview of the financial and operational data of Bank Jateng from 2005 to 2023. The primary data for this study were acquired through documentation analysis of Bank Jateng's financial statements. This study utilized secondary data acquired through documentation studies, involving the collecting and analysis of working papers and other pertinent references related to the research subject. This study used a literature review as its data collection approach, aimed at acquiring data and information from both written and electronic sources to help the writing process. This study involved literature reviews through the collection, examination, and analysis of the company's financial statements and pertinent references to achieve conceptual clarity, thereby forming theoretical frameworks for the research discussion.

2.3. Analysis Method

Research Assumption Test

The classical assumption test is a statistical precondition for multiple linear regression analysis employing Ordinary Least Squares (OLS). The classical assumption test is carried out in four stages, namely normality, multicollinearity, heteroscedasticity and autocorrelation. Research assumption testing is a process to ensure that research data meets certain assumptions. Assumption testing is carried out before conducting hypothesis testing (Santosa, 2021).

The normality test evaluates the distribution of variables. Optimal data normality entails possessing a normal or approximately normal distribution of data. This study employs statistical tests. The normality test is a test that functions to test whether the data on the

independent variables and dependent variables in the regression equation produces data that is normally distributed or not normally distributed (Ghozali, 2016).

The linearity test is employed to ascertain the relationship among independent, intervening, and dependent variable data. Linearity test is a test to determine whether there is a linear relationship between the dependent variable and the independent variable. This test is carried out to see whether the model built has a linear relationship (Djazari et al., 2013).

Multicollinearity testing seeks to ascertain whether two independent variable dimensions concurrently exhibit a connection with the dependent variable. The multicollinearity test is a linear relationship between independent variables in multiple regression (Widarjono, 2010).

The Autocorrelation Test seeks to ascertain the existence of a correlation between the disturbance error at time t and the disturbance error at time $t-1$ (preceding period) (Ghozali, 2016). To confirm the presence or absence of autocorrelation in this regression model, a series test is carried out. To test it, you can use the Durbin-Watson (DW) test.

Model Test

The F test was performed to assess the concurrent impact of all independent variables capital adequacy, asset quality, and liquidity on the dependent variable of profitability, as outlined in the proposed model. At an alpha level of 0.05 with degrees of freedom $v_1 = 3$ and $v_2 = 97$, the F_{table} value is 2.73. If F_{table} is less than F_{count} , the capital adequacy, asset quality, and liquidity significantly influence profitability concurrently.

Hypotetis Testing

Linear regression is a prediction method that uses a straight line to describe the relationship between two or more variables (Sinaga et al., 2022). The regression model examines the influence of independent variables on a singular dependent variable. Multiple regression analysis is utilized to determine the degree to which performance characteristics influence the dependent variable of profitability.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e \dots\dots\dots 1)$$

Information :

- Y : profitability
- α : regression constant
- $\beta_1 ; \beta_2 ; \beta_3$: variable coefficient
- X_1 : capital adequacy
- X_2 : asset quality
- X_3 : liquidity
- e : Standar error

The hypothesis testing is conducted by comparing the t_{count} with the t_{table} derived from the t distribution. If t_{count} exceeds t_{table} , then the null hypothesis (H_0) is rejected. At an alpha level of 0.05 and 14 degrees of freedom, the t -table value is 1.992. If t_{count} exceeds 1.992, then the null hypothesis (H_0) is rejected.

3. Result

3.1. Description

As of December 31, 2023, Bank Jateng is an ROE entity that has never carried out any public offering on any stock exchange. Bank Jateng continues to strengthen collaboration with several external parties and stakeholders. In line with this, 2023 will be a push for Bank Jateng to strengthen service quality by supporting its Information Technology capabilities. Bank Jateng continues to innovate in providing quality services, such as Sharia Mobile Banking and online credit applications, as well as contribute to accelerating the digitalization of regional financial processes, including through the Cash Management System (CMS) in the Village Financial System (Siskeudes). Finally, all strategic policies and achievements in 2023 reflect the Bank's commitment to support reliable services and contribute to the community economy and regional development.

Table 2. Consolidated Statements of Profit or Loss and Other Comprehensive Income
(In millions of rupiah)

| Description | 2023 | 2022 | 2021 |
|---|-----------|-----------|-----------|
| Interest and Sharia Profit Sharing Income | 7.046.258 | 6.864.627 | 6.507.452 |
| Interest and Sharia Profit Sharing Expenses | 2.248.081 | 1.610.954 | 1.881.242 |
| Net Interest Margin | 4.798.171 | 5.253.673 | 4.626.211 |
| Other Operation Income | 532.051 | 478.080 | 484.808 |
| Other Operating Expenses | 2.992.526 | 2.791.573 | 2.437.051 |
| Operating Income | 2.099.675 | 2.523.401 | 1.723.391 |
| Other Non-Operating Income (Expenses) | (25.189) | (97.088) | 14.422 |
| Income Before Income Tax | 2.074.486 | 2.426.314 | 1.737.813 |
| Income Tax Expenses | 487.638 | 596.525 | 409.265 |
| Net Profit for the Year | 1.586.848 | 1.829.789 | 1.328.547 |
| Comprehensive Income | 1.661.827 | 1.677.183 | 1.416.321 |
| Earnings per Share (in thousands of Rupiah) | 360 | 474 | 350 |

Source: AR Bank Jateng 2023

Table 3. Consolidated Cash Flows (In millions of rupiah)

| Description | 2023 |
|--|-------------|
| Cash flow Obtained from Operating Activity | (1.062.216) |
| Cash flow Used for Investing Activity | 2.335.171 |
| Cashflow Used for Financing Activity | 1.034.397 |
| Net Decrease of Cash and Cash Equivalent | 2.307.352 |
| Impact of Currency Mismatch on Cash and Cash Equivalents | 647 |
| Cash and Cash Equivalents at Beginning of Year | 8.449.825 |
| Cash and Cash Equivalents at End of Year | 10.757.824 |

Source: AR Bank Jateng 2023

3.2. Assumption Test

Normality Test

This study used the Kolmogorov-Smirnov statistical test, which indicates that the data is regularly distributed if the significance value exceeds 0.05. This test is conducted prior

to data processing. The normality test for the equation of independent and dependent variables is presented in Table 2. In Table 2, the equation variables exhibit a probability level exceeding 0.05, with the unstandardized residual demonstrating a probability level of 0.200 for each instance. The data for both the dependent and independent variables exhibit a normal distribution ($> \alpha$ value).

Table 4. One Sample Kolmogorov – Smirnov Test

| | | CAR | NPL | LDR | ROA | Unstandardized Residual |
|---------------------------|----------------|---------------------|-------------------|---------------------|-------------------|-------------------------|
| Normal | Mean | 17.36 | 1.47 | 84.92 | 3.00 | .0000000 |
| Parameters ^{a,b} | Std. Deviation | 3.165 | 1.125 | 11.132 | .798 | .49962654 |
| Most Extreme | Absolute | .103 | .174 | .158 | .231 | .149 |
| Differences | Positive | .095 | .174 | .075 | .231 | .149 |
| | Negative | -.103 | -.132 | -.158 | -.099 | -.077 |
| Asymp. Sig. (2-tailed) | | .200 ^{c,d} | .132 ^c | .200 ^{c,d} | .009 ^c | .200 ^{c,d} |

Source: Predictive Analytics Software 2024 (processed)

Linearity Test

Linear regression analysis is employed when a linear relationship exists. If no linear relationship exists between the two variables, non-linear regression analysis is employed.

Table 5. Linearity Test

| Model | Relationship | Deviation of Linearity | |
|-------|----------------------------------|------------------------|-------|
| | | F | Sig |
| 1 | profitability * capital adequacy | 0,721 | 0,714 |
| 2 | profitability * asset quality | 0,489 | 0,914 |
| 3 | profitability * liquidity | 1,550 | 0,148 |

Source: Predictive Analytics Software 2024 (processed)

According to Table 5, the Deviation from Linearity value is 0.714, which exceeds 0.05, indicating a linear relationship between the independent variable (X1) and the dependent variable (Y). Consequently, the regression analysis model is applicable for predicting profitability based on capital sufficiency. Deviation from Linearity value of 0.914, surpassing 0.05, so affirming a linear relationship between the independent variable (X2) and the dependent variable (Y). the Deviation from Linearity value is 0.148, which exceeds 0.05, indicating a linear relationship between the independent variable (X3) and the dependent variable (Y). Consequently, the regression analysis model is applicable for predicting profitability based on capital adequacy, asset quality and liquidity.

Multicolinierity Test

An effective regression model exhibits no association among independent variables. If the independent variables exhibit correlation, they are not orthogonal. The Multicollinearity test results in Table 6 indicate a VIF value below 10 and a Tolerance value exceeding 0.1, signifying an absence of simultaneous relationships between the independent and intervening variables in this study. Consequently, it can be concluded that the regression model is free from multicollinearity.

In the Intercorrelation table 6, the Eigen values (2), (3), (4) and (5) are > 0.01, so it can be concluded that multicollinearity symptoms do not occur in this study.

Tabel 6. Collinearity Coefficient

| | Model | Collinearity Statistics | |
|---|------------------|-------------------------|-------|
| | | Tolerance | VIF |
| 1 | (Constant) | | |
| | Capital adequacy | .781 | 1.280 |
| | Asset quality | .733 | 1.364 |
| | Liquidity | .922 | 1.084 |

a. Dependent Variable: Profitability

Source: Predictive Analytics Software 2024 (processed)

Table 7. Intercorrelation Diagnostics

| Dimension | Eigen value | Condition Index | Variance Proportions | | | |
|-----------|-------------|-----------------|----------------------|------------------|---------------|-----------|
| | | | Constant | Capital adequacy | Asset quality | Liquidity |
| 1 | 4.961 | 1.000 | .00 | .00 | .00 | .00 |
| 2 | .089 | 16.171 | .00 | .63 | .01 | .02 |
| 3 | .078 | 25.213 | .20 | .03 | .50 | .35 |
| 4 | .067 | 27.040 | .58 | .01 | .03 | .62 |
| 5 | .053 | 30.589 | .22 | .33 | .46 | .01 |

a. Dependent Variable: profitability

Source: Predictive Analytics Software 2024 (processed)

Data Autocorrelation Test

The researcher employed the Durbin-Watson test as illustrated in Table 6. The Durbin-Watson test value obtained from the conducted analysis is 1.909. The value is then compared with the dL and dU values. dL signifies the lower limit of the Durbin-Watson statistic, while du indicates the upper limit of the Durbin-Watson statistic. The dL and dU values can be derived from the Durbin-Watson table at $\alpha = 5\%$, where n signifies the number of observations and k represents the count of independent and dependent variables. The dL value is determined to be 1.390, the dU value is 1.595, and k equals 4. The calculation $(4-dL)$ results in $(4 - 1.390) = 2.610$. The value $(4-dU) = 2.405$. The DW value $(1.909) < (4-dU)$ and the DW value $> dU$, so there is no autocorrelation problem in the study.

Table 8. Durbin-Watson Test

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------|----------|-------------------|----------------------------|---------------|
| 1 | .611a | .374 | .349 | 1.843 | 1.909 |

a. Predictors: (Constant), CAR, NPL, LDR

b. Dependent Variable: ROA

Source: Predictive Analytics Software 2024 (processed)

3.3. Model Test

F-Test

The F_{table} value is 2.73, which is less than F_{count} , which is 7.769 (table 9). Capital adequacy, asset quality, and liquidity significantly influence profitability concurrently. An increase in the values of capital sufficiency, asset quality, and liquidity factors correlates with an increase in profitability.

Table 9. ANOVA

| | Model | Sum of Squares | df | Mean Square | F | Sig. |
|---|------------|----------------|----|-------------|-------|-------------------|
| | Regression | 6.982 | 3 | 2.327 | 7.769 | .002 ^b |
| 1 | Residual | 4.493 | 15 | .300 | | |
| | Total | 11.475 | 18 | | | |

a. Dependent Variable: ROA

b. Predictors: (Constant), LDR, CAR, NPL

Source: Predictive Analytics Software 2024 (processed)

Correlation Determination

The coefficient of determination measures the extent to which variance in the dependent variable can be explained by variance in the independent variable. The coefficient of determination obtained from the computations is displayed in the following table 8. The Adjusted R Square value for the latent variables of capital adequacy, asset quality, and liquidity is 0.530. Approximately 53% of profitability can be attributed to capital sufficiency, asset quality, and liquidity, whilst 47% is affected by other factors.

Table 10. Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .780 ^a | .608 | .530 | .547 |

a. Predictors: (Constant), LDR, CAR, NPL

Source: Predictive Analytics Software 2024 (processed)

3.4. Hypothesis Testing

The results acquired from data processing for multiple regression analysis are as follows at table 11. The regression test findings indicate that an equation can be formulated $Y = 3,083 + 0,072X_1 - 0,601X_2 - 0,005X_3$ or $ROA = 3,083 + 0,072CAR - 0,601NPL - 0,005LDR$.

Hypothesis 1 t-test

The hypothesis testing of the capital adequacy variable on profitability is conducted by comparing the t_{count} from Table 11 in the t column with the t_{table} derived from the t distribution. If t_{count} exceeds t_{table} , then the null hypothesis (H_0) is rejected. At an alpha level of 0.05 and 14 degrees of freedom, the t -table value is 1.992, but the calculated t for capital adequacy (X_1) is 1.570. Therefore, it can be inferred that t_{count} is less than t_{table} . The rejection of H_0 indicates that the capital adequacy constant (X_1) does not significantly influence profitability (Y).

Hypothesis 2 t-test

The hypothesis test regarding the asset quality variable's impact on profitability is conducted by comparing the t_{count} from Table 11 with the t_{table} derived from the t distribution. If t_{count} exceeds t_{table} , then H_0 is rejected. At an alpha level of 0.05 and 95 degrees of freedom, the t -table value is 1.992, whereas the calculated t for asset quality (X2) is -4.490. It can be concluded that $-t_{count}$ is greater than $-t_{table}$. The null hypothesis (H_0) is rejected, indicating that the asset quality constant (X1) significantly influences profitability (Y). The regression coefficient for Non-Performing Loan (X2) is -0.601. This indicates that for each one-point rise in asset quality value (X2), while other independent variables are held constant, profitability will decline by 60.1%. A negative coefficient signifies an inverse link between the dependent variable (Y) and the independent variable (X2), with X2 being a non-performing loan component.

Hypothesis 3 t-test

Hypothesis testing of liquidity variable on profitability is done by comparing t_{count} obtained in Table 11, in column t with t_{table} obtained from t distribution. If $t_{count} > t_{table}$, then H_0 is rejected. With alpha level of 0.05 and degree of freedom of 95, t_{table} value is obtained as 1.992, while from calculation obtained t on liquidity (X3) is -0.448. So it can be concluded that $-t_{table} < -t_{count} < t_{table}$. So H_0 is accepted which means that liquidity constant (X3) does not have significant influence on profitability (Y).

Table 11. Regression Coefficient

| Model | Unstandardized Coefficients | | Standardized Coefficients Beta | t | Sig. |
|------------|-----------------------------|------------|-----------------------------------|--------|------|
| | B | Std. Error | | | |
| (Constant) | 3.083 | 1.225 | | 2.516 | .024 |
| 1 CAR | .072 | .046 | .287 | 1.570 | .137 |
| NPL | -.601 | .134 | -.847 | -4.490 | .000 |
| LDR | -.005 | .012 | -.075 | -.448 | .660 |

a. Dependent Variable: ROA

Source: Predictive Analytics Software 2024 (processed)

4. Discussion

4.1. The influence of the capital adequacy ratio on the profitability of Bank Jateng

The data analysis results revealed that the capital adequacy ratio did not substantially affect the profitability of Bank Jateng. This means that the measure of the bank's ability to maintain sufficient levels of capital has no influence on the company's ability to generate profits. The results of this research are different from the research by Tahu et al., (2023) which demonstrates that the Capital Adequacy Ratio (CAR) has a favorable and significant impact on the profitability of banks listed on the Indonesia Stock Exchange (IDX). Even though there is no influence, the capital adequacy ratio needs to be maintained in accordance with regulations in the banking industry. This insignificant influence of the capital adequacy ratio on profitability also provides opportunities for further research.

4.2. The influence of asset quality ratio on the profitability of Bank Jateng

The data analysis revealed that the asset quality ratio significantly influenced the profitability of Bank Jateng. Asset quality refers to all assets held by a bank with the purpose of generating income based on their function. Lee & Wage (2022) study demonstrated that partial asset quality (NPL) significantly influenced banking profitability (ROA). Profitability serves as a fundamental criterion in assessing banking performance. One way to predict a company's profitability is by using financial ratios. Financial ratios describe a relationship between a certain amount and another amount. Financial ratio analysis tools can clarify or give a summary of the study of a company's excellent or bad financial situation, particularly when the ratio figure is contrasted with the comparative ratio figure that is used as a standard. The performance of Bank Jateng's profitability aspect, namely operating profit (profit before tax) for the 2023 financial year period has not met the target and has decreased to IDR 2.07 trillion or decreased by -14.50% compared to operating profit for the 2022 financial year of IDR 2.43 trillion.

4.3. The influence of liquidity ratio on the profitability of Bank Jateng

The data analysis results indicated that the liquidity ratio did not significantly impact the profitability of Bank Jateng. Liquidity assesses a company's capacity to fulfill short-term liabilities due within one year. The findings of study indicate a negative correlation between the liquidity gap and profitability. Profitability refers to an entity's ability to generate profits over a specified period. The results of this study are in line with Kusumawati et al. (2022) research which revealed that liquidity does not have a significant effect on profitability. Bank Jateng posted operating income from the conventional banking segment of Rp6,670.27 billion in 2023, an increase of Rp118.55 billion or 2% compared to Rp 6,551.72 billion in 2022. The bank's increased net assets were the primary cause of the increase. Additionally, Bank Jateng reported Rp1,986.23 billion in operational profit from the traditional banking business in 2023, a 20% drop of Rp492.609 billion from Rp2,478.84 billion in 2022. Interest payments on Third Party Funds increased, which was the primary cause of the decline.

5. Conclusion

The Capital Adequacy Ratio (CAR) does not significantly influence the profitability of Bank Jateng. The asset quality ratio, assessed using the Non-Performing Loan (NPL) metric, substantially influences the profitability of Bank Jateng. The liquidity ratio, as assessed by the Loan Deposit Ratio (LDR), does not significantly impact the profitability of Bank Jateng. The outcomes of the profitability analysis, assessed by the capital adequacy ratio and liquidity ratio, do not exert a major influence.

Researchers recommend employing alternative measuring instruments for the capital adequacy ratio. Regulators must oversee capital alongside risk-weighted assets to assess the likelihood of bank failure. Companies can utilize the CAR ratio to safeguard depositors and enhance the stability and efficiency of the financial system. Further research can also analyze liquidity factors based on the quick ratio, cash ratio and current ratio.

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