The 2nd International Student Conference on Economics and Business Excellence (ISCEBE) 2025
e-ISSN: 3090-4811
Vol. 2/BM-ISCEBE (2025)

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ANALYSIS OF THE FINANCIAL PERFORMANCE OF PT BUKIT ASAM TBK THROUGH PROFITABILITY RATIOS STUDIES IN THE BUMN MINING SECTOR

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Abstract

This study aims to analyze the financial performance of PT Bukit Asam Tbk (PTBA), a State-Owned Enterprise (SOE) engaged in the coal mining sector, using a profitability ratio approach. The ratios used include Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM) during the period 2019 to 2024. The research method applied is descriptive quantitative by utilizing secondary data sourced from the company's annual financial statements. The data was processed using Microsoft Excel software for ratio calculation and Eviews 12 for panel data regression analysis. The results showed that PTBA's financial performance experienced significant fluctuations influenced by the dynamics of coal prices, government regulatory policies, and changes in global energy direction. Statistically, ROA has a significant positive effect on NPM, while ROE shows a significant negative effect. These findings provide important insights for company management, investors, and policy makers in evaluating the effectiveness of financial management as well as PTBA's business sustainability prospects.

Keyword: *Return on Assets (ROA), Return on Equity (ROE), dan Net Profit Margin (NPM)*

Introduction

The mining sector is one of the main pillars of the Indonesian economy, contributing significantly to state revenues, job creation, and the provision of raw materials for the energy sector and manufacturing industry. Among the strategic subsectors, coal mining remains the main source of national energy even though the world is moving towards clean energy transition. In this context, PT Bukit Asam Tbk (PTBA), as a State-Owned Enterprise (SOE) in the coal mining sector, plays an important role in supporting national energy security and making significant contributions in the form of taxes, royalties and state dividends (Ministry of Energy and Mineral Resources, 2023).

However, the challenges faced by the coal industry are increasingly complex, especially due to fluctuations in global commodity prices, decarbonization policies in various countries, and pressure to switch to environmentally friendly energy sources. In such erratic market conditions, PTBA must be able to sustain its performance. Because it indicates the company's capacity to turn a profit from the capital and assets under management, profitability measurement is therefore essential.

Financial measures like return on equity (ROE), return on assets (ROA), and net profit margin (NPM) are used to gauge profitability. NPM displays the amount of net profit made from each unit of sales, ROE calculates the return on shareholder investment, and ROA demonstrates how well the business uses its assets. An overall view of the company's financial management effectiveness is given by these three ratios.

Based on PTBA's financial statements for the period 2019 to 2024, it is known that its financial performance shows fluctuations that reflect external dynamics such as the COVID-19 pandemic, commodity price spikes, and changes in energy policy direction. Therefore, this study aims to evaluate PTBA's financial performance through profitability ratio analysis, and analyze the effect of ROA and ROE on NPM using a panel data

e-ISSN: 3090-4811
Vol. 2/BM-ISCEBE (2025)

regression approach. The results of this study are expected to provide relevant information for investors, academics, and policy makers in assessing the effectiveness and prospects for PTBA's business sustainability.

Research Methods

This study uses a quantitative descriptive approach which aims to provide an objective description of the financial performance of PT Bukit Asam Tbk (PTBA) through profitability ratio analysis during the 2019-2024 period. According to Sugiyono (2019), a quantitative descriptive approach is used to describe phenomena based on numerical data systematically and accurately.

1. Data Type and Source

The type of data used is secondary data, which is obtained from PTBA's annual financial statements. Data sources include :

- Company official website : www.ptba.co.id
- Indonesia Stock Exchange portal : www.idx.co.id

The data collected includes information on revenue, net profit, total assets, total equity, and total liabilities for six years of observation (2019-2024).

2. Research Variables

The main variables in this study are profitability ratios :

- **Return on Assets (ROA)** = (Net Profit / Total Asets) × 100%
- **Return on Equity (ROE)** = (Net Profit / Total Equity) × 100%
- **Net Profit Margin (NPM)** = (Net Profit / Revenue) × 100%

These ratios are used to evaluate the company's efficiency in generating profits and managing financial resources.

3. Data Processing Technique

Data processing was done in two stages :

- Ratio Calculation: Using Microsoft Excel to calculate ROA, ROE, and NPM for each year.
- Trend Analysis: Observing the fluctuations in the ratios from year to year to understand the dynamics of the company's profitability.

4. Data Analysis Technique

To analyze the relationship between ROA and ROE on NPM, a panel data regression model was used with the help of Eviews 12 software. The stages of analysis include :

1. Descriptive Statistical Test: To determine the basic characteristics of each variable.
2. Selection of Estimation Model: Using Common Effect Model (CEM) or Pooled Least Square (PLS).
3. Interpretation of Regression Results: Testing the significance of the effect of ROA and ROE on NPM.

5. Purpose of Analysis

Through this method, it is expected to gain an in-depth understanding of the effectiveness of PTBA's asset and equity management in generating profits and its implications for overall financial performance.

This method also allows the identification of the influence of external factors such as global coal prices, national energy policy, and global economic conditions on the company's profitability performance.

Results and Discussion

1. Financial Performance of PT Bukit Asam Tbk (2019-2024)

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Table 1.

Summary of Income Statement (In Millions Rupiah)

Description	Revenue	Gross Profit	Net Profit
2019	21.787.564	7.611.504	4.040.394
2020	17.325.192	4.566.260	2.407.927
2021	29.261.468	13.484.223	8.036.888
2022	42.648.590	17.966.286	12.779.427
2023	38.488.867	9.157.305	6.292.521
2024	42.764.968	8.202.210	5.139.423

Source: PT Bukit Asam Tbk Annual Report 2019-2024

PTBA's financial performance showed a fluctuating pattern. 2021 and 2022 were the peak of performance with significant increases in revenue and profit, mainly influenced by rising coal prices and post-pandemic recovery. However, a decline in net profit and gross profit occurred in 2023-2024, indicating pressure from the cost side and market volatility.

2. PTBA Balance Sheet Structure

Table 2.

Balance Sheet Summary (In Millions Rupiah)

Description	Total Assets	Total Liabilities	Total Equity
2019	26.098.052	7.675.226	18.422.826
2020	24.056.755	7.117.559	16.939.196
2021	36.123.703	11.869.979	24.253.724
2022	45.359.207	16.443.161	28.916.046
2023	38.765.189	17.201.993	21.563.196
2024	41.785.576	19.141.764	22.643.812

Source: PT Bukit Asam Tbk Annual Report 2019-2024

The balance sheet trend shows an increase in assets and equity until 2022, but a decline thereafter. Nevertheless, the capital structure remains healthy, as equity remains dominant compared to liabilities, indicating a relatively low level of leverage and good financial risk management.

3. Profitability Ratio Analysis

a. Return on Assets (ROA)

Table 3.

Calculation of Return on Assets PT Bukit Asam Tbk Period 2019-2024

Year	Net Profit	Total Assets	ROA
2019	5.139.423	41.785.576	12%
2020	6.292.521	38.765.189	16%
2021	12.779.427	45.359.207	28%
2022	8.036.888	36.123.703	22%
2023	2.407.927	24.056.755	10%
2024	4.040.394	26.098.052	15%

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Source: Data processed by researchers, 2025

ROA shows the efficiency in using the company's assets to generate profits. The best performance occurred in 2022. The decline in ROA in 2023-2024 indicates operational efficiency challenges.

b. Return on Equity (ROE)

Table 4.

Calculation of Return on Equity (ROE) PT Bukit Asam Tbk Period 2019-2024

Year	Net Profit	Total Equity	ROE
2019	5.139.423	22.643.812	23%
2020	6.292.521	21.563.196	29%
2021	12.779.427	28.916.046	44%
2022	8.036.888	24.253.724	33%
2023	2.407.927	16.939.196	14%
2024	4.040.394	18.422.826	22%

Source: Data processed by researchers, 2025

The highest ROE occurs in 2022, indicating an optimal level of return to shareholders. A decline in the following year indicates a decrease in efficiency in equity utilization.

c. Net Profit Margin (NPM)

Table 5.

Calculation of Net Profit Margin (NPM) PT Bukit Asam Tbk Period 2019-2024

Year	Net Profit	Revenue	NPM
2019	5.139.423	42.764.968	12%
2020	6.292.521	38.488.867	16%
2021	12.779.427	42.648.590	30%
2022	8.036.888	29.261.468	27%
2023	2.407.927	17.325.192	14%
2024	4.040.394	21.787.564	19%

Source: Data processed by researchers, 2025

NPM reflects the efficiency of profit to revenue. Efficiency peaks in 2022. The decline in margins in 2023-2024 indicates pressure on profitability despite high revenues.

Descriptive Statistical Analysis and Regression Test Common Effect Model

1. **Descriptive Statistical Analysis**

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Table 6
Descriptive Analysis Test Results

	NPM	ROA	ROE
Mean	0.196667	0.171667	0.275000
Median	0.175000	0.155000	0.260000
Maximum	0.300000	0.280000	0.440000
Minimum	0.120000	0.100000	0.140000
Std. Dev.	0.072847	0.067057	0.103682
Skewness	0.462212	0.629624	0.382124
Kurtosis	1.615906	2.100155	2.275763
Jarque-Bera	0.692569	0.598856	0.277148
Probability	0.707311	0.741242	0.870599
Sum	1.180000	1.030000	1.650000
Sum Sq. Dev.	0.026533	0.022483	0.053750
Observations	6	6	6

Source : Eviews 12

Descriptive statistical analysis was conducted to describe the basic characteristics of the three main variables in this study, namely Net Profit Margin (NPM), Return on Assets (ROA), and Return on Equity (ROE). The data was analyzed using Eviews 12 software with a sample of observations from 2019 to 2024.

1. **Net Profit Margin (NPM)**

   The average NPM of 19.67% shows that in general the company is able to generate net profit of almost 20% of total revenue. The variation between companies is relatively low, reflected in the standard deviation value of 7.28%. The distribution of NPM data tends to be skewed to the right (skewness 0.4622), which indicates more observations with values below the average. In addition, the kurtosis value of 1.6159 indicates a flatter data distribution than the normal distribution (platykurtic).

2. **Return on Assets (ROA)**

   ROA has an average of 17.17%, which indicates a fairly good level of asset management efficiency in generating profits. ROA variation is at a moderate level with a standard deviation of 6.71%. The distribution of ROA data also shows a slope to the right (skewness 0.6296) with a kurtosis value of 2.1002, which is close to a normal distribution.

3. **Return on Equity (ROE)**

   ROE has the highest average of 27.50%, indicating a relatively high return on shareholders' equity. However, ROE shows the greatest variation between companies with a standard deviation of 10.39%. The ROE data distribution is also slightly skewed to the right (skewness 0.3821) and has a kurtosis value of 2.2758, which is close to a normal distribution.

Normality Test

The Jarque-Bera test results for the three variables show a probability value above 0.05, so it can be concluded that the data is normally distributed. Therefore, the data is suitable for classical linear regression analysis.

Common Effect Model Regression Test

To test the effect of Return on Assets (ROA) and Return on Equity (ROE) on Net Profit Margin (NPM), a multiple linear regression model with the Common Effect Model approach is used. The analysis was carried out using Eviews 12 software with observation data for 6 years (2019-2024).

Table 7
Common Effect Model Test Results

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Dependent Variable: NPM Method: Least Squares Date: 05/29/25 Time: 22:17 Sample: 2019 2024
Included observations: 6

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.032912	0.009245	3.559792	0.0378
ROA	2.178739	0.187693	11.60797	0.0014
ROE	-0.764590	0.121392	-6.298520	0.0081

R-squared	0.993858	Mean dependent var	0.196667
Adjusted R-squared	0.989764	S.D. dependent var	0.072847
S.E. of regression	0.007370	Akaike info criterion	-6.675907
Sum squared resid	0.000163	Schwarz criterion	-6.780027
Log likelihood	23.02772	Hannan-Quinn criter.	-7.092708
F-statistic	242.7362	Durbin-Watson stat	3.188512
Prob(F-statistic)	0.000481		

Sources : Eviews 12

Regression Equation

Based on the estimation results in Table, the multiple linear regression equation is obtained as follows :

$$NPM=0{,}032912+2{,}178739\times ROA-0{,}764590\times ROE$$

Interpretation of Regression Results (Common Effect Model)

1. **Constant (C = 0,032912)**

   The constant value indicates that when ROA and ROE are zero, the Net Profit Margin (NPM) is estimated at 3.29%. Although this condition is not common in practice, the constant value indicates the influence of other variables outside ROA and ROE on NPM

2. **Effect of ROA on NPM**

   The ROA coefficient of 2.178739 with a p-value of 0.0014 (<0.05) indicates that ROA has a positive and significant effect on NPM. This means that an increase in efficiency in the use of company assets will increase net profit margins. This confirms that companies that are able to manage their assets efficiently tend to obtain higher profitability.

3. **Effect of ROE on NPM**

   The ROE coefficient of -0.764590 with a p-value of 0.0081 (<0.05) shows a negative and significant effect on NPM. In other words, an increase in ROE is associated with a decrease in NPM. This may indicate a high risk of leverage or inefficiency in the use of equity capital to increase profits.

Interpretation of Regression Coefficient

- Constant (0.032912): When ROA and ROE are equal to zero, NPM is predicted to be 3.29%.
- ROA (2.178739): Every 1 unit increase in ROA is predicted to increase NPM by 2.18 units, assuming ROE remains constant. This suggests that asset efficiency has a strong influence on profitability.

e-ISSN: 3090-4811
Vol. 2/BM-ISCEBE (2025)

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- ROE (-0.764590): Every 1 unit increase in ROE is estimated to decrease NPM by 0.76 units, assuming ROA is constant. This reflects that an increase in ROE does not necessarily mean an increase in profitability.

Goodness of Fit and Statistical Test

- **R-squared = 0,993858**
  Indicates that 99.39% of the variation in NPM can be explained by the ROA and ROE variables. This indicates a very good fit of the model.
- **Adjusted R-squared = 0,989764**
  Adjusts for the number of variables and observations, and still indicates high model power.
- **F-statistic = 242,7362 (p-value = 0,000481)**
  Indicates that the overall regression model is significant.
- **Durbin-Watson = 3,188512**
  Indicates the possibility of negative autocorrelation, which needs to be further analyzed, especially in light of the limited number of observations.

Analysis and Key Findings

The analysis shows that asset management efficiency (ROA) is the main factor that positively and significantly affects the company's profitability (NPM). In contrast, return on equity (ROE) has a negative and significant effect on NPM, which indicates that an increase in ROE does not automatically increase profit margins, and can even be an indication of high leverage risk or inefficient use of equity capital.

This finding emphasizes the importance of asset management efficiency and the need to evaluate funding strategies so as not to have a negative impact on profit margins.

Conclusion

This study shows that the financial performance of PT Bukit Asam Tbk experienced significant fluctuations during the 2019-2024 period, which were influenced by external factors such as coal prices and national energy policies. The results of the profitability ratio analysis show that :

- ROA contributes positively and significantly to NPM.
- ROE has a negative and significant effect on NPM.

Fluctuations in financial performance are reflected in :

- ROA highest 28% (2021) and lowest 8% (2023), rising again to 15% (2024).
- ROE is highest at 44% (2021) and lowest at 14% (2023), rising again to 22% (2024).
- NPM is highest at 30% (2021) and lowest at 12% (2019), recovering to 19% (2024).

The regression model shows that ROA is a strong predictor of profitability, while ROE needs to be watched as it can lower NPM if not managed well. The R-squared value of 99.39% indicates a very high level of model explanation, although the Durbin-Watson value of 3.18 indicates potential negative autocorrelation due to the limited amount of data.

Suggestions

1. Asset Efficiency:
   In order to avoid creating undue debt that could lower profit margins, the usage of equity should be assessed.

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2. Capital Structure Evaluation:

   The use of equity should be evaluated so as not to create excessive leverage that can reduce profit margins.

3. Strategic Considerations for Investors and Policy Makers:

   Profitability ratios need to be considered in decision-making, given the high volatility of the energy sector.

4. Diversification and Risk Management:

   The company should consider business diversification and strengthen risk management to reduce dependence on global coal prices.

5. Further Research Development:

   It is recommended that further research use quarterly data or a longer period of time as well as autocorrelation and heteroscedasticity tests to ensure the validity of the model.

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