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The Effect of Income and Total Assets on Return on Assets with Total Asset Turnover as an Intervening Variable at PT Permodalan Nasional Madani Kabanjahe Branch

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A R T I C L E I N F O

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A B S T R A C T

This study aims to analyze the effect of Revenue and Average Total Assets on Return on Assets (ROA) through Total Asset Turnover (TATO) as an intervening variable at PT Permodalan Nasional Madani (PNM) Kabanjahe Branch. The data used is secondary data from monthly financial reports spanning 48 periods (2022–2025). Data analysis was conducted using the Structural Equation Modeling (SEM) method based on Partial Least Squares (PLS) utilizing SmartPLS 4 software. The results showed that Revenue partially has a significant effect on TATO and directly has a significant effect on ROA. Average Total Assets partially has a significant effect on TATO, but does not directly have a significant effect on ROA. Furthermore, TATO is proven to have a strong positive and significant direct effect on ROA. Through mediation effect testing, TATO is significantly proven to act as an intervening variable with a partial mediation role in the relationship between Revenue and ROA, and a full mediation role in the relationship between Average Total Assets and ROA. These findings confirm that a large accumulation of total assets will not be able to generate optimal profitability for the branch office without operational acceleration and efficiency of asset turnover

INTRODUCTION

A company's financial performance is one of the important indicators in assessing how successfully the company manages its resources. One of the measures often used to evaluate this performance is return on assets, which is a ratio that shows the company's ability to generate profit through the utilization of all its assets. The higher the return on assets, the more effectively the company manages its assets to make a profit. To boost profitability, companies need to pay attention to factors that affect return on assets, including revenue, total assets, and total asset turnover. Revenue reflects the results a company earns from its operational activities, while total assets represent all the economic resources used to support the business. Meanwhile, total asset turnover shows how effectively the company uses its assets to generate revenue. So, ideally, an increase in revenue and assets should be followed by a boost in asset utilization efficiency, which can eventually improve the company's profitability.

However, the phenomenon that happened at PT Permodalan Nasional Madani Kabanjahe Branch shows a different situation. Based on the data on revenue and total assets development of PT PNM Kabanjahe Branch for the period 2022-2025, it can be seen that the company experienced an increase in revenue and total assets from year to year. However, this increase was not accompanied by an improvement in asset utilization efficiency or company profitability. Revenue increased from IDR 178.765 billion in 2022 to IDR 260.329 billion in 2025. Meanwhile, total assets saw a much more significant increase, from IDR 57.361 billion in 2022 to IDR 412.354 billion in 2025. The growth of total assets happened way faster than the growth of revenue. During the study period, revenue only went up by about 45.6 percent, while total assets grew by around 618.8 percent. This shows that the massive increase in assets hasn't been able to generate a proportional boost in revenue, which has led to a sharp drop in activity and profitability ratios.

The research gap is also shown in the inconsistencies of previous studies. Research by Sriyana and Sosrowidigdo (2025), Nabilla and Wartono (2025), and Hasanatun et al. (2025) concluded that increasing the effectiveness of asset use can improve company profitability. However, different results were found by Nurjanah and Mutawali (2025), who stated that total asset turnover has a negative and significant effect on return on assets. Aside from the inconsistencies in research results, the testing of Total Asset Turnover as an intervening variable in the context of non-bank microfinance institutions like PT PNM is still very limited. This article was written with the aim of analyzing the effect of income and total assets on return on assets through total asset turnover as an intervening variable at PT Permodalan Nasional Madani Kabanjahe Branch.

LITERATURE REVIEW

Grand Theory: DuPont Analysis Theory

The DuPont Analysis theory is used as the grand theory in this study because it can explain the relationship between income, total assets, total asset turnover, and return on assets. The DuPont model provides a more detailed picture of financial performance because it can show the contribution of each component in forming the profitability level (Soliman, 2008). The basic concept of DuPont Analysis explains that return on assets is the result of the interaction between the ability to generate profit and the effectiveness of asset use through the formula:

ROA = Net Profit Margin x Total Asset Turnover

Through the DuPont approach, adding physical assets doesn't always lead to high profitability if those assets aren't managed productively.

Theoretical Study of Variables

Revenue is the inflow of gross economic benefits that comes from an entity's main activities and results in an increase in equity (Kieso et al., 2022). Total assets reflect all the economic resources controlled by a company to support its operational activities (Brigham & Houston, 2022). Total Asset Turnover (TATO) is an activity ratio that measures how efficiently a company uses its assets to generate revenue, while Return on Assets (ROA) measures the net profit capacity based on the company's total asset base (Kasmir, 2021).

METHODS

This study uses a causal-explanatory design. The unit of analysis in this research is the monthly financial reports of PT Permodalan Nasional Madani Kabanjahe Branch for the 2022-2025 period, covering 48 observation periods. The variable operationalization includes Revenue (X1) measured by total revenue, Total Assets (X2) measured by total assets, Total Asset Turnover (Y) calculated by dividing revenue by total assets, and Return on Assets (Z) calculated from the comparison of net income to total assets. Data analysis uses Structural Equation Modeling (SEM) based on Partial Least Squares (PLS) with the SmartPLS 4 application through the evaluation of the outer model and inner model.

RESULTS

The evaluation of the measurement model (outer model) confirmed that all constructs have loading factor values above 0.7 and Average Variance Extracted (AVE) values above 0.5, so the validity and reliability criteria have been well met. The next step is structural testing (inner model) using the bootstrapping method to assess the significance of the relationships between variables.

Table 1. Path Hypothesis Testing Results (Path Coefficient)

Variable Path Relationships	**Path Coefficients**	**P-Value**	**Conclusion**
Revenue -> TATO	Strong Positives	< 0.05	Signifikan
Total Aset -> TATO	Signifikan	< 0.05	Signifikan
ROA -> revenue	Positive	< 0.05	Immediate Significance
Total Aset > ROA	Low / Small	> 0.05	Insignificant Directly
THIS -> ROA	Strong Positives	< 0.05	Signifikan
Revenue -> TATO -> ROA	Partial Mediation	< 0.05	Significant Mediation
Total Aset -> TATO -> ROA	Full Mediation	< 0.05	Significance of Full Mediation

DISCUSSION

Based on the structural testing, it was found that revenue has a significant direct positive effect on both asset turnover and overall profitability. However, the total asset accumulation was proven not to have a significant direct impact on the formation of ROA. This situation clarifies the empirical anomaly occurring at PT PNM Kabanjahe Branch: an increase in large-scale physical asset value (reaching 618.8%) does not automatically boost the branch's profit level capacity directly.

Through the mediation results, the Total Asset Turnover (TATO) variable has been shown to act as a partial mediation variable in the relationship between revenue and ROA, as well as a full mediation variable in the relationship between total assets and ROA. This basically confirms the DuPont Analysis theory: increasing physical assets can actually risk lowering profitability performance if the operational turnover of those assets slows down or is less productive compared to the asset expansion rate itself.

CONCLUSIONS AND RECOMMENDATIONS

This study concludes that income has a significantly positive effect on TATO and ROA. Total assets have a significant effect on TATO, but they do not have a direct impact on ROA. TATO has been proven to act as an intervening variable that mediates the effect of income and total assets on ROA at PT Permodalan Nasional Madani Kabanjahe Branch. Management is advised to focus on optimizing the productivity and utility of fixed and current assets to boost asset turnover efficiency in order to achieve maximum profitability.

FURTHER STUDY

This study has limitations with its focus on a single branch office over a limited period (48 months). Future research is suggested to expand the scope of operational data (multi-branch) and to add external macroeconomic indicators..

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