

THE IMPACT OF DEBT ON RETURN ON ASSET IN INDONESIA'S CONSTRUCTION COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE (2019-2023)

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ABSTRACT

This research investigates the outcome of debt-related variables on Return on Assets (ROA) in the Indonesian construction sector from 2019 to 2023, focusing on total Debt and the Debt to Asset Ratio (DER). Analyzing data from 20 construction companies through multiple linear regression, it was found that while total debt does not significantly influence ROA, the Debt to Asset Ratio significantly negatively impacts profitability, with each unit increase resulting in a 9.59% decrease in ROA. These findings highlight the importance of managing the proportion of debt relative to total assets as a critical factor in financial performance. The study emphasizes the need for strategic debt management to balance growth with financial stability, providing insights for financial managers in optimizing capital structure to enhance operational efficiency and long-term sustainability.

Keywords: Return on Assets, Debt to Asset Ratio, Construction Sector

INTRODUCTION

The construction industry holds an important place in Indonesia's economic landscape, significantly shaping the nation's growth and development trajectory. In 2022, this sector accounted roughly 10% to Indonesia's GDP, underscoring its vital role in stimulating economic activities and generating employment opportunities. As the government intensifies its focus on infrastructure investments—ranging from transportation networks to housing projects—the demand for construction services continues to rise. This surge brings not only promising opportunities but also challenges, particularly in managing financial resources effectively to ensure sustained growth and profitability.

To meet the increasing demands of large-scale infrastructure projects, construction companies often turn to debt financing. According to the Central Statistics Agency (BPS), total investment in the construction sector soared to IDR 480 trillion in 2023, reflecting a remarkable growth trend. However, as companies depend more on debt to fund their operations, it becomes essential to understand how different aspects of debt impact their financial performance. This study looks into how debt affects Return on Assets (ROA), which is a key way for appraising how well a company leverages its assets to drive profitability.

ROA works as a vital indicator of a company's efficiency, with higher values reflecting better management and utilization of resources to produce profit. In the construction sector,

characterized by asset-heavy operations, monitoring ROA is critical for various stakeholders, including investors and financial managers. On the flip side, debt ratios like the Debt to Asset Ratio (DAR) shed light on the extent to which companies finance their assets through debt. Recent reports from the Financial Services Authority (OJK) reveal that the average DAR for construction firms in Indonesia reached 58% in 2023, signifying a strong dependence on borrowed funds to support their operations.

The dynamic between ROA and these debt metrics raises important questions about the sustainability of leveraging strategies in the construction industry. While debt can serve as a powerful tool for growth and expansion, excessive leverage may lead to financial challenges, particularly during economic downturns or unexpected project delays. Therefore, understanding how total debt and the Debt to Asset Ratio affect ROA is essential for effective financial management and risk mitigation. This study seeks to explore this relationship, providing insights that can help construction firms navigate their financial landscapes more effectively.

Focusing on construction businesses on the Indonesia IDX out of 2019 through 2023, this inquiry will analyze the connection between ROA and key debt variables, specifically total debt and DAR. By employing multiple linear regression analysis, this examination aims to quantify the outcome of these drivers of profitability, thereby contributing to the existing knowledge on financial management in the construction sector. The findings will provide valuable guidance for practitioners seeking to optimize their capital structures and ensure sustainable growth in an increasingly competitive environment.

RESEARCH METHOD

1. Research Types and Sources

This study uses quantitative data, specifically financial statement information, sourced directly from the IDX website. The data reflects financial performance indicators for analysis, and all information was obtained from publicly available sources.

2. Population, Sample, and Sampling Technique

This research examines the financial statements of construction firms listed on the IDX out of 2019 through 2023. In selecting the sample, the inquiry utilized a purposive sampling method, ultimately resulting in a sum of 20 firms included in the analysis.

3. Research Variable

This study utilizes ROA as the measured (dependent) variable, which reflects the company's capacity to produce profit in relation to all of its assets. Meanwhile, Debt to Asset Ratio (DAR) and total debt are considered independent variables, examining how these financial leverage measures impact the profitability of the company.

4. Operational Definition

Return on Assets (ROA) is a metric that demonstrates how much profit a company makes compared to its total assets, reflecting how well management is utilizing its assets to yield earnings. It is computed by dividing net earnings over entire assets. A greater ROA demonstrates that the company is proficiently managing its assets (Hossain, 2020). The formula to calculate ROA is as follows:

$$ROA = \frac{\text{Net Income}}{\text{Total Assets}} \times 100\%$$

The Debt to Assets Ratio (DAR) reveals the fraction of a company's assets backed through debt, offering clarity into the level of financial leverage and the associated risk (Smith, 2021). To calculate the DAR, utilized the equation below:

$$DAR = \frac{\text{Total Debt}}{\text{Total Assets}} \times 100\%$$

This research utilizes a time series model as its primary analytical approach. It incorporates descriptive analysis alongside multiple linear regression to explore the links amid the variables.

With the equation:

$$Y = \beta X_1 + \beta X_2 + e_1$$

Which:

Y : Return on Assets (ROA)

X₁ : Total debt

X₂ : Debt to Assets Ratio (DAR)

ANALYSIS AND DISCUSSION

Table 1. Descriptive Analysis

	N	Range	Min	Max	Mean	Std. Deviation
DEBT	100	9,E+13	1127712	9,E+13	7,17E+12	1,989E+13
ROA	100	68,0900	-43,8600	24,2300	,199800	9,0962675
DER	100	,8700	,1000	,9700	,587800	,2009451

Source: Data Processed, 2024

In this study, data from 20 construction companies were analyzed over a five-year period, specifically from 2019 to 2023. This results in a total of 100 observations (n=100), as each company contributes 5 data points (one for each year)

On average, the debt level among the companies in this study is around 7.17 trillion (7,170,000,000,000), with figures varying widely from as low as 1,127,712 to as high as 9 trillion. The standard deviation is quite large at 19.89 trillion, indicating that there is significant variability in how much debt these companies carry.

The average ROA for the sample is 0.1998%. However, it varies greatly, with some companies reporting a negative ROA of -43.86% while others reach as high as 24.23%. The standard deviation of 9.0963% suggests that the performance of these companies in terms of asset utilization varies widely.

The average debt to asset ratio is 0.5878, meaning that, on average, about 58.78% of the companies' assets are financed through debt. The range for this ratio spans from a minimum of

10% to a maximum of 97%, reflecting differing levels of reliance on debt financing among the companies studied.

Table 2. Regression Analysis

	B	Std. Error	Beta	t	Sig.
(constant)	5,851	2,872	-	2,037	,044
DEBT	-1,947E-15	,000	-,004	-,040	,968
DER	-9,591	4,826	-,212	-1,987	,050

Source: Data Processed, 2024

The multiple linear regression analysis findings, as depicted in Table 2, is capable of being expressed by the ensuing equation.

$$ROA = 5.851 - 1.947E - 15X_1 - 9.591X_2 + E$$

The coefficient for Debt is -1.947E-15, an extremely small value, and the p-value (Sig.) is 0.968. While the p-value is greater over the conventional 0.05 boundary, it points that Debt doesn't have a significant effect on ROA. In simple terms, this means that changes in the total debt of the companies don't appear to affect how well they generate returns on their assets. The lack of significance for Debt might suggest that other factors—like how the debt is structured or used—could be more important than just the amount of debt itself.

In contrast, the DAR has a coefficient of -9.591 along with a p-value of 0.050, denoting numerically significant at the 5% mark. This means there's a noticeable negative bond between DAR and ROA. Specifically, with each 1-unit amplify in the DAR, the ROA decreases by about 9.591%. This shows that as companies rely more on debt to finance their assets, their profitability tends to drop. This aligns with financial theory, which suggests that higher debt levels can increase financial risk, making it harder for companies to effectively generate returns on their assets.

This quantitative analysis reinforces the weight of DAR as a key predictor of financial outcomes. Despite the amount of debt does not significantly affect ROA, companies with higher leverage (as indicated by a higher Debt to Asset Ratio) tend to suffer from lower profitability. This suggests that excessive reliance on debt financing increases financial risk, as higher debt obligations reduce the power to yield returns from assets. Managing this ratio is critical for maintaining profitability, and financial managers must aim to optimize leverage to balance growth opportunities with financial stability.

CONCLUSION

This study explores the relationship between Return on Assets (ROA) and debt-related variables, specifically Debt and the Debt to Asset Ratio, in the Indonesian construction sector from 2019 to 2023. The analysis reveals that while total debt does not significantly affect ROA, the Debt to Asset Ratio negatively impacts profitability, with each unit increase resulting in a 9.59% decrease in ROA. These findings highlight that it's the proportion of debt relative to total assets, rather than the absolute amount, that is crucial for financial performance. Consequently, construction firms must

adopt a strategic approach to financial management, balancing leverage against the risks of high debt levels. Optimizing capital structures to maintain a favorable Debt to Asset Ratio is essential for sustaining profitability and minimizing financial distress. This research reinforces the importance of debt structure in influencing financial outcomes and provides valuable insights for practitioners navigating the complexities of financial decision-making in the construction industry.

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