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The Effect of Profitability and Managerial Ownership on Financial distress with Capital Structure as Moderating Variabel

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Abstract
The construction industry in Indonesia decreasing in profits in the 2019-2023 period, with several large companies recording consecutive losses. This study aims to analyze the effect of profitability and managerial ownership on financial distress and identify whether capital structure strengthens this effect of construction companies. Quantitative and moderated regression approach was used with secondary data financial statements of construction companies listed on Indonesia Stock Exchange (IDX) during 2019-2023. The results indicate profitability has a significant effect on financial distress. Conversely, managerial ownership not significant, but when combined with profitability, it can reduce the chance of financial distress. Capital structure not strengthen the profitability and financial distress, but reinforce the influence of managerial ownership. High managerial share ownership and balanced capital structure debt and equity, helps companies avoid financial distress. This study recommends that financial management in construction companies focus on enhancing profitability and managing capital structure to prevent financial distress.

INTRODUCTION

The construction industry was the fourth-largest sector contributing to Indonesia's economic growth in 2023, accounting for 9.92% of the country's Gross Domestic Product (GDP). This highlights the significant role of construction companies in sustaining Indonesia's economic growth, as challenges in this sector could disrupt overall economic progress. Currently, the financial performance of construction companies indicates relatively unfavorable conditions. Bank Indonesia's 2022 Economic Report stated that the construction sector experienced slow growth due to rising energy prices (Adi, 2023).

From 2019 to 2023, Indonesia's construction industry faced a significant decline in profitability, as reflected in the financial statements of several major companies, including PT Waskita Karya (Persero) Tbk. (WSKT). WSKT recorded consecutive losses from 2019 through the first half of 2023 (Kompas, 2023). A primary cause of this situation was the Covid-19 pandemic, declared by the World Health Organization (WHO) on March 11, 2020. The pandemic triggered a global economic slowdown, impacting the construction sector through delayed investments and project suspensions due to social restrictions and lockdown policies (Wu et al., 2022). These effects exacerbated financial uncertainty for construction companies, increasing the risk of financial distress.

The state of financial distress in the construction industry has been worsened by high debt structures. Some companies have substantial debt relative to their assets, raising the likelihood of default and the need for financial restructuring. For instance, Waskita Karya faced significant liquidity pressures and was compelled to restructure its debt to avoid bankruptcy (Pratiwi, 2022). According to Muparuri & Gumbo (2022), a company can be classified as

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experiencing financial distress if it records losses for two consecutive years, with negative figures in operating profit, net profit, and book equity value.

The phenomenon of financial distress in Indonesia's construction industry is a critical concern given the sector's strategic role in national infrastructure development. The significant decline in profitability in recent years indicates serious financial difficulties for many companies. However, existing research has not comprehensively identified the primary determinants of financial distress in this industry or how these factors interact in a volatile economic environment.

Previous studies suggest that profitability is a key factor influencing financial distress. For example, Kalbuana et al. (2022) and Runis et al. (2021) found that Return on Assets (ROA) has a significant negative effect on financial distress, implying that higher profitability can reduce the likelihood of financial distress. Conversely, Dirman (2022) found that profitability does not significantly influence financial distress, highlighting inconsistencies that warrant further analysis.

In addition to profitability, managerial ownership is considered a factor that may affect financial distress. Vuong et al. (2024) found that managerial ownership has a significant impact on financial distress. According to Sumantri et al. (2021), managerial ownership, measured as the percentage of shares held by management, can influence decision-making and corporate strategies in addressing financial crises. However, Mevania et al. (2022) and Utami & Dirman (2022) found that managerial ownership does not significantly affect the likelihood of financial distress. These inconsistent findings underscore the need for further research to clarify the relationship between managerial ownership and financial distress.

While most studies have explored the impact of profitability and managerial ownership on financial distress, few have considered capital structure as a moderating variable. The trade-off theory of capital structure suggests that optimal debt usage can enhance firm value through tax savings, but excessive debt increases the risk of financial distress (Suastini et al., 2016). Thus, capital structure may moderate the relationship between profitability, managerial ownership, and financial distress, though research examining this aspect remains limited.

The construction industry in Indonesia experienced a significant decline in profitability, primarily attributed to the Covid-19 pandemic, which disrupted the operational processes of several industries. This impacted the financial performance of construction companies in managing post-pandemic profits, leading to financial distress. This phenomenon is suspected to result from low asset-based profit returns and limited managerial ownership proportions. However, empirical research on the influence of profitability and managerial ownership on financial distress remains inadequate. This study aims to address this research gap by empirically examining the effects of profitability and managerial ownership on financial distress in Indonesia's construction industry, while considering capital structure as a moderating variable. The findings are expected to contribute to academic literature by enriching the understanding of financial distress and to provide insights for company management in optimizing capital structure to minimize bankruptcy risks.

METHOD

The research design employed in this study is quantitative, involving scientific research that collects numerical data and analyzes it statistically to address research questions and test hypotheses. This study examines hypotheses concerning the relationship between independent variables profitability and managerial ownership, and the dependent variable, financial distress, with capital structure serving as a moderating variable. Financial distress is predicted using the

Grover Model. The moderating variable in this study is the Debt-to-Equity Ratio (DER), used as a proxy for capital structure.

The population in this study consists of construction companies listed on the Indonesia Stock Exchange (IDX). The research sample comprises construction companies listed on the IDX from 2019 to 2023. The sampling technique used is non-probability sampling technique applied is purposive sampling (judgment), which involves selecting samples based on specific characteristics determined by the researcher. In this case, the sample includes 15 construction companies consistently listed on the IDX and publishing their financial reports during the period from 2019 to 2023.

Table 1. Construction Companies listing on Indonesian Stock Exchange 2019-2023

No	Stockholding	Company Name	IPO
1	ACST	Acset Indonusa Tbk.	24 June 2013
2	ADHI	Adhi Karya (Persero) Tbk.	18 March 2004
3	BUKK	Bukaka Teknik Utama Tbk.	29 June 2015
4	DGIK	Nusa Konstruksi Enjiniring Tbk	19 December 2007
5	IDPR	Indonesia Pondasi Raya Tbk.	10 December 2015
6	JKON	Jaya Konstruksi Manggala Pratama	04 December 2007
7	NRCA	Nusa Raya Cipta Tbk.	27 June 2013
8	PBSA	Paramita Bangun Sarana Tbk.	28 September 2016
9	PPRE	PP Presisi Tbk.	24 November 2017
10	SSIA	Surya Semesta Internusa Tbk.	27 March 1997
11	TOPS	Totalindo Eka Persada Tbk.	16 June 2017
12	TOTL	Total Bangun Persada Tbk.	25 July 2006
13	WEGE	Wijaya Karya Bangunan Gedung T	30 November 2017
14	WIKA	Wijaya Karya (Persero) Tbk.	29 October 2007
15	WSKT	Waskita Karya (Persero) Tbk.	19 December 2006

source : www.idx.co.id 2024

Classical assumption tests were conducted to ensure that the regression model obtained has predictive capability and meets validity. The classical assumption tests used in this study include tests for heteroscedasticity and multicollinearity. A robust regression model must be free from violations of classical assumptions. If such violations occur, the resulting regression model will not be useful for decision-making.

RESULTS AND DISCUSSION

Descriptive Analysis

Descriptive statistical analysis was used to analyze the data by describing or illustrating the collected data. The profitability projected by the Return on Assets (ROA) for ACST Company in 2019 (in millions) was Rp -1,136,236, with total assets of Rp 10,446,519. This calculation indicates that the net profit ratio or return of ACST Company was 10.9% of its total assets in 2019. The following is a comparison of the average ROA for each company.

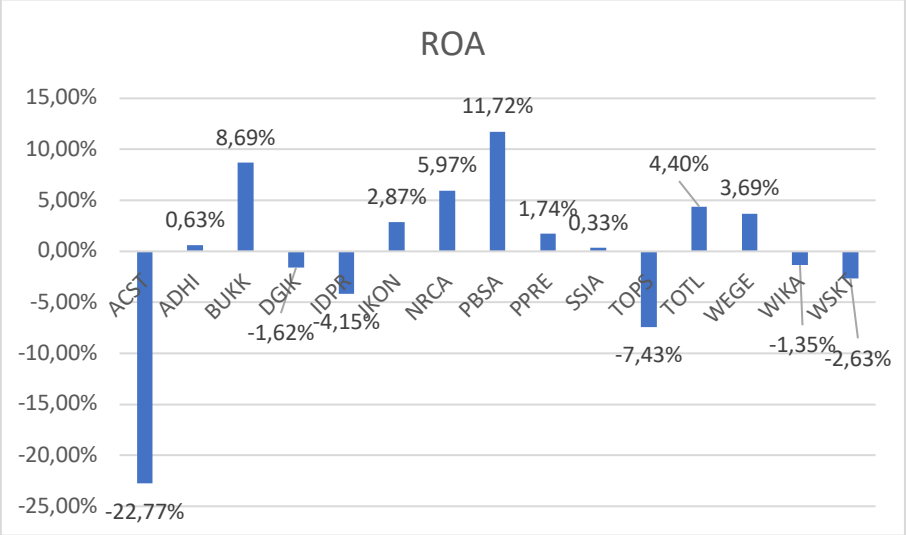

Figure 2. ROA average construction companies

Figure 2 shows that ACST Company had the lowest average ROA, at -22.77%. The highest average ROA was recorded by PBSA at 11.72%. This indicates that ACST Company in 2019 had significantly lower earning power compared to other companies. Based on the observation of financial statements, ACST Company's liabilities exceeded its assets, meaning the company's assets were insufficient to cover its debt costs. Debt costs, including interest expenses, reduce net income (Brigham & Ehrhardt, 2016)

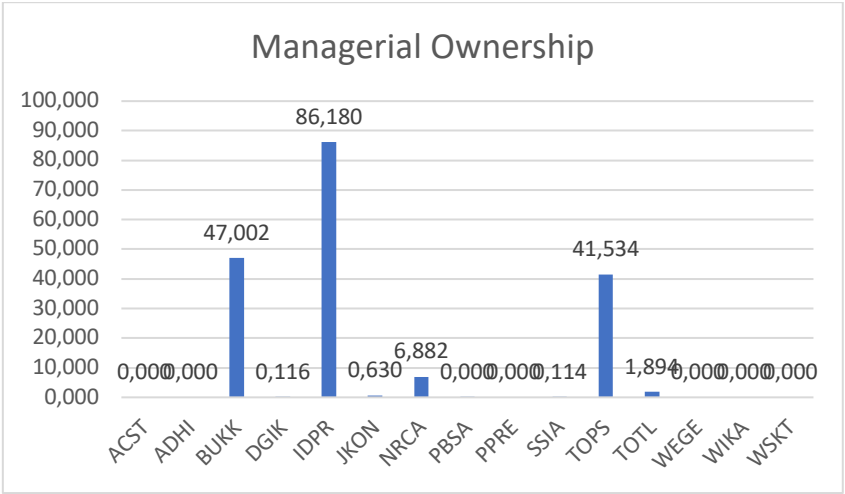

Figure 3. Average Managerial Ownership Construction Companies

The study results show that the highest average managerial ownership was recorded by IDPR at 85.180%, while the lowest, at 0%, was observed in several companies, particularly state-owned enterprises such as ADHI, WEGE, and WIKA. Financial distress, projected using the G-Score, is calculated with the following formula. A company is considered to be in financial distress if its G-Score is ≤ -0.02.

$$\text{G-Score} = 1{,}650\ X1 + 3{,}404\ X3 + 0{,}016\ (\text{ROA}) + 0{,}057$$

Notes :

G-Score : Grover results

X1 : Working Capital to Total Assets

X3 : Earning Before Interest and Taxes (EBIT) to Total Assets
ROA : Net Income to Total Assets
This is the example G-Score calculation of ACST in 2019:

G-Score = 1,650 (-538.088/10,446,519 + 3,404 (-1,007,209/10,446,519) + 0,016 (-1,136,236/10,446,519) + 0,057
= -0.857

Table 2. Average G-Score Rata-rata and Categorization

No	Company	G_Score	Notes
1	ACST	-0.857	*Financial distress*
2	ADHI	0.380	No
3	BUKK	0.610	No
4	DGIK	0.280	No
5	IDPR	0.358	No
6	JKON	0.643	No
7	NRCA	0.981	No
8	PBSA	1.495	No
9	PPRE	0.468	No
10	SSIA	0.460	No
11	TOPS	0.324	No
12	TOTL	0.729	No
13	WEGE	0.790	No
14	WIKA	0.086	No
15	WSKT	-0.082	No

The majority of construction companies in Indonesia did not experience financial distress. However, ACST Company had a G-Score of -0.857, indicating financial distress. The capital structure in this study is proxied by the Debt-to-Equity Ratio (DER). Calculations show that ACST Company's debt ratio in 2019 was 44.50 times its equity.

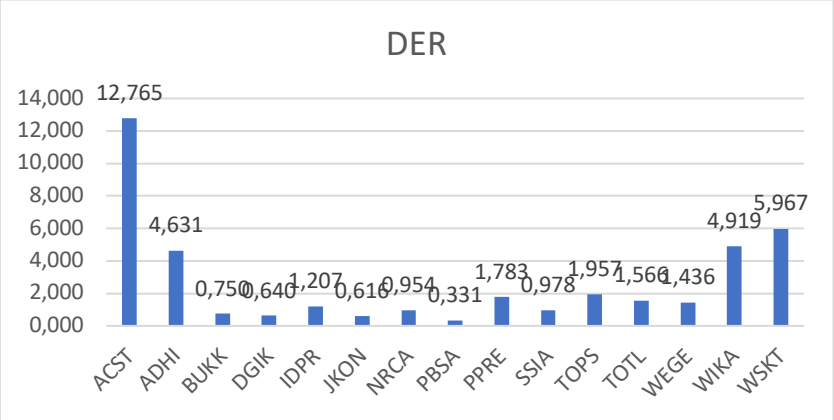

Figure 4. Debt to Equity Ratio Construction Companies

The following is a comparison of the average DER for each company. From 2019 to 2023, ACST Company had the highest average DER at 12.765, while PBSA had the lowest at 0.331. This indicates that ACST Company relied more heavily on debt financing than equity, resulting in a higher debt ratio compared to other companies (Brigham & Ehrhardt, 2016).

Classical assumption tests

Classical assumption tests were conducted to ensure that the model meets the basic assumptions of multiple linear regression analysis, including normality, multicollinearity, autocorrelation, and heteroscedasticity tests. The normality test results, with a significance level greater than 0.05, indicate that the data is normally distributed. All independent variables showed no multicollinearity, meaning they are not correlated with one another. The questionnaire items exhibited no heteroscedasticity, indicating homogeneous responses. Therefore, the research data is deemed suitable for multiple regression analysis.

Multiple Linear Regression

Table 3. Multiple Linear Regression

Regression Model	Coefficients	t	Significancy	Notes
(Constant)	0.444	14.115	0.000	
ROA (PROF)	5.396	14.405	0.000	Accepted
MO	-0.004	-1.648	0.104	Rejected
ROA_DER (CS)	0.067	1.482	0.143	Rejected
MO_DER (CS)	0.004	2.101	0.039	Accepted
R squared	0,842			
Adjusted R Square	0,833			

Y = 0.444+ 5.396.X1 -0.004.X2 + 0.067.X3 + 0.004.X4

Y : *Financial distress*
X1 : Profitability
X2 : Managerial Ownership
X3 : Moderating Effect Structrul Modal*Profitability
X4 : Moderating Effect Structrul Modal*Managerial Ownership

The regression equation results show that profitability has a positive and significant effect on the G-Score of financial distress, as indicated by a t-test significance value of 0.000 < 0.05. Managerial ownership does not have a significant effect on the G-Score of financial distress, as shown by a t-test significance value of 0.104 > 0.05. The moderation of capital structure on profitability does not have a significant effect on the G-Score of financial distress, as indicated by a t-test significance value of 0.143 > 0.05. However, the moderation of capital structure on managerial ownership has a positive and significant effect on the G-Score of financial distress, as shown by a t-test significance value of 0.039 < 0.05.

Based on the coefficient of determination analysis for the regression equation, the adjusted R^2 value is 0.842. This means that the combined influence of profitability, managerial ownership, the moderation of capital structure on profitability, and the moderation of capital structure on managerial ownership accounts for 84.2% of the variation in financial distress (Y), while the remaining 15.8% is influenced by other variables outside this study.

The Impact of Profitability on Financial Distress in Construction Companies

Habib et al. (2020) state that corporate financial distress encompasses four common terms: failure, bankruptcy, insolvency, and default. Bankruptcy refers to a company's inability to meet current obligations, possibly due to liquidity issues. Insolvency indicates that a company is in financial difficulty, which in most jurisdictions requires a legal declaration involving courts.

The analysis results show that profitability significantly affects financial distress, as indicated by a t-test significance value of 0.000 < 0.05, meaning the first hypothesis is accepted. Profitability is a company's ability to generate profit (Kasmir, 2019). This capability includes profits derived from the sale of goods/services or from corporate investments. However, such profits can also trigger issues where management manipulates earnings to make financial performance appear favorable to company owners.

The Impact of Managerial Ownership on Financial Distress in Construction Companies

Conceptually, according to Aljughaiman et al. (2023), financial distress occurs when a company's liquidated total assets are less than the total claims of creditors. Existing literature suggests that decision-making processes and management behavior may be affected when a company is in financial distress. This is because, during financial difficulties, a company's revenue may not meet investor expectations, leading to a decline in stock prices and firm value.

Managerial ownership was found to have no significant effect on financial distress, as indicated by a t-test significance value of 0.104 > 0.05. According to Mappadang (2021), managerial ownership refers to the percentage of shares owned by management, intended to align managers' interests with those of shareholders through share ownership. Managerial positions are thus aligned with company owners (shareholders). Managerial ownership is the percentage of shares held by management and is recognized as an effective corporate governance tool that enhances the focus of stakeholders (i.e., managers and shareholders) (Dixon et al., 2017).

The Simultaneous Impact of Profitability and Managerial Ownership on Financial Distress in Construction Companies

Simultaneously, profitability and managerial ownership significantly affect financial distress, as shown by an F-test (ANOVA) significance value of 0.000 < 0.05. According to Nugroho et al. (2021), financial distress refers to a company's inability to meet fixed monetary payment obligations to employees and shareholders. Financial distress is a situation where an organization or individual lacks sufficient capacity to meet financial obligations due to inadequate revenue. This is typically caused by high fixed costs, outdated technology, high debt, improper planning and budgeting, and poor management, leading to insolvency or bankruptcy. Low profitability levels may also result from high debt costs and low asset turnover, making it difficult for the company to compete with lower revenues compared to other companies in the same industry.

The Moderating Effect of Capital Structure on the Impact of Profitability on Financial Distress in Construction Companies

Based on the research results, capital structure does not strengthen the effect of profitability on financial distress, as indicated by a t-test significance value of 0.143 > 0.05. Capital structure is a company's financial framework directly influenced by internal factors. According to Kasmir (2019), capital structure is the ratio between long-term debt and equity. Fundamentally, capital structure determines the cost of capital to be used. The cost of capital represents the expenses a company must pay to parties providing funds. In other words, the cost of capital, whether from debt or equity, carries consequences depending on the company's decisions.

The Moderating Effect of Capital Structure on the Impact of Managerial Ownership on Financial Distress in Construction Companies

Based on the research results, capital structure strengthens the effect of managerial ownership on financial distress, as indicated by a t-test significance value of 0.039 < 0.05. Kusumawardani and Sudana (2017) state that managerial ownership implies that managers are also shareholders. Every decision made by managers will impact shareholders, prompting managers who are also shareholders to strive to enhance firm value to create prosperity for themselves as shareholders. Long-term capital or external capital represents funding sources that a company must repay within a specific timeframe. The extent of long-term capital usage determines the level of debt, which creates fixed obligations. Capital structure can be effectively managed by directors to make decisions and develop strategies to remain competitive in the industry. If company directors hold minimal shares, they may struggle to make decisions regarding capital structure and compete under financial distress conditions.

CONCLUSION

Based on the research testing six hypotheses related to factors affecting financial distress using financial data from 15 construction companies over the past five years, the following conclusions can be drawn profitability significantly affects financial distress in construction companies. The greater a company's ability to generate profit, the lower the likelihood of financial failure. Company profitability is measured by asset turnover to generate net income. Managerial ownership does not significantly affect financial distress in construction companies. The percentage of shares owned by company directors does not influence the financial failure experienced by construction companies, as financial failure may be affected by other factors such as capital structure and industry competition. Simultaneously, profitability and managerial ownership significantly affect financial distress in construction companies. Managerial ownership influences financial distress when combined with profitability. A company's ability to convert assets into net profit, coupled with a higher percentage of share ownership at the director level, reduces the likelihood of financial distress in construction companies.

Capital structure does not strengthen the effect of profitability on financial distress. The greater a company's ability to generate net profit through asset turnover, without the influence of capital structure, the lower the likelihood of financial distress. Capital structure cost does not affect financial distress in construction companies. However, capital structure strengthens the effect of managerial ownership on financial distress. A higher percentage of share ownership at the director level, supported by a balanced capital structure between debt and equity, reduces the likelihood of financial distress in construction companies. This is because greater managerial ownership at the director level enhances their ability to manage capital structure and avoid financial distress.

Based on the data analysis, this study provides the following recommendations for financial management practitioners in construction companies. Profitability and capital structure can influence financial distress. Therefore, asset turnover strategies are necessary to strengthen revenue and avoid financial distress. Financial managers should also balance capital structure with lower debt levels to reduce company risk and debt costs, which can negatively impact profitability.

For investors, it is advisable to invest in companies not predicted to experience financial distress by analyzing the company's profitability ratios (positive or negative). Investors can also analyze debt-to-equity ratios to assess the company's debt risk. Future research can include additional variables affecting financial distress to develop a more complex model that better

explains real-world phenomena. Extending the research period can provide a broader perspective, and including different types of companies can enhance the study's scope.

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