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DETERMINANTS OF PROFITABILITY: EVIDENCE FROM INFRASTRUCTURE SECTOR ON INDONESIA STOCK EXCHANGE

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Abstract

This study aims to investigate the effects of corporate growth, leverage, and size on profitability. The two primary ideas that make up the theoretical framework are signaling theory and trade-off theory. This kind of study employs a quantitative approach, which entails processing data as numerical values. This study uses secondary data that was obtained from the Indonesia Stock Exchange's official website. 69 infrastructure-related businesses that are listed on the Indonesia Stock Exchange make up the study's population. This study's sampling strategy combines purposive sampling with non-probability sampling, in which the samples are chosen according to predetermined standards. Forty-five firms were utilized as samples in this investigation. Using Eviews 12 software, panel data regression is the data analysis method utilized in this study. Descriptive statistical analysis, partial hypothesis testing, traditional assumption testing, and determination coefficient keys are all examples of data analysis testing. The study's findings suggest that, business size has no discernible effect on profitability. Profitability is significantly impacted, by debt and business expansion.

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INTRODUCTION

Companies are competing more fiercely in the recent period of globalization. Moreover, the infrastructure sector plays a crucial role in supporting a country's economic growth (Mahmood et al., 2024). Adequate infrastructure, such as roads, bridges, energy networks, and communication, can enhance productivity and the well-being of society. Thus, investment in this sector often becomes a priority for the government and business actors due to its domino effect on the national economy (World Bank, 2020). In its latest report, the World Bank (2020) stated that investment in the infrastructure sector can reduce poverty, expand job access, and promote the development of remote areas.

Table 1.
Number of Infrastructure Sector Issuers on the Indonesia Stock Exchange 2020-2024

Year	Number of Company
2020	29
2021	31
2022	33
2023	35
2024	69

Source: idx.co.id, 2024

Based on the table above, it can be seen that in the last 4 years, the number of issuers in the infrastructure sector has increased, where in 2020 there were 29 issuers, then in 2021 there were 31 issuers, indicating an increase or addition of issuers in the infrastructure sector. In 2022, it increased to 33 issuers, then in 2023 it increased again to 35, and in 2024 it increased significantly to 69 issuers in the infrastructure sector. Although the number of issuers in the infrastructure sector has significantly increased each year, some issuers in the infrastructure sector have experienced a decline in financial performance. This can be seen from the profit values that are negative. Here is a table of issuers in the Infrastructure Sector that experienced negative profit values from 2019 to 2023.

Table 2.
List of Company with Negative Profit Values

Company Name	2020	2021	2022	2023
PT Centratama (CENT)	- 509,181,000,000	- 2.486,550,000,000	-844,398,000,000	- 314,231,000,000
PT Acset (ACST)	- 1,340,079,000,000	- 693,366,000,000	- 451,613,000,000	- 276,638,000,000
PT Himalaya Energi (HADE)	-2,441,000,000	-313,000,000	-282,182,801	-677,525,763
PT Smartfren (FREN)	- 1,523,602,951,388	-435,325,081,365	1,064,305,000,000	- 108,952,000,000
PT First Media (KBLV)	- 21,478,000,000	- 1,265,864,000,000	-281,170,000,000	-78,124,000,000

Source: Bursa Efek Indonesia, 2024

The issue of financial performance in the infrastructure sector is evident in several issuers in the sector that have experienced negative profitability values or are said to be incurring losses. Several issuers in the infrastructure sector shown in the table above with stock codes CENT, FREN, ACST, HADE, KBLV have incurred losses from 2020 to 2023. Through the discovery of this phenomenon, it becomes evident that the issue of profitability is still very important to be studied further. Profitability is a critical factor in assessing a company's performance in both short and long term. In financial theory, profitability is a crucial element that might affect investors' estimates of a company's future

potential (Dasman et al., 2024). A firm with high profitability has favorable prospects, which encourages investors to respond favorably and expect the company's value to rise. Conversely, low profitability suggests that the business is struggling, which makes investors react unfavorably to the stock of the company (Endri & Fathony, 2020).

Another factor that can influence profitability is Firm Size. The size of the company is considered capable of influencing profitability. This leads to a significant amount of debt because the company's risk in fulfilling its responsibilities is very low. Companies that generate larger profits tend to have larger retained earnings, allowing them to meet their funding needs for business expansion or the creation of new products from internal funding sources. The larger the retained earnings, the greater the funding needs sourced from the company's internal resources, thereby reducing the use of funds sourced from debt (Pras et al., 2021). Subsequently, the utilization of capital obtained through debt (leverage) or foreign funding can affect the company's ability to manage financial costs and operational efficiency, which in turn influences its profitability performance. The corporation may utilize debt to acquire money for the purpose of enhancing earnings. Tan & Wei, (2024) state leverage is a factor that can affect a company's valuation. However, their conclusion is supported by empirical analysis demonstrating that firms with higher leverage tend to exhibit more volatile earnings and lower valuation multiples, particularly in uncertain market conditions. Leverage may be defined as an assessment of the risk associated with a corporation. Increased leverage correlates with heightened investment risk. Elevated leverage has the potential to enhance profitability, however, it also requires prudent financial management to balance the benefits of increased returns with the risks of financial distress (Lusmeida & Gunawan, 2025).

Additionally, another important consideration is the expansion of a company, which serves as a significant determinant of profitability, because growth enables firms to achieve economies of scale, increase market share, and improve operational efficiency. Companies exhibiting substantial growth demonstrate ongoing development and provide the potential for future profitability. Strategic investment in an expanding business may markedly enhance profitability. The company's growth is anticipated to be directly proportionate to its value, since more growth elevates investors' expectations for future performance (Gompers, 2022). Excessive or unregulated growth which refers to rapid business expansion without strategic planning, resource alignment, or financial control might jeopardize the company's stability and diminish its worth. Conversely, organizations that effectively manage their growth through measured investment, scalable operations, and prudent financial governance typically attain greater market valuations, evidenced by the rise in their stock prices and overall company values, so influencing their profitability.

Numerous prior studies have examined the relationship between firm size and profitability. Research by Maside-Sanfiz et al. (2024) and Bortoluzzo et al. (2024), which focus on European firms, find a significant positive influence of firm size on profitability, possibly due to the advantages of economies of scale and market dominance in developed economies. Similarly, Yudha et al. (2022), a local Indonesian study, also reports that larger firms tend to be more profitable. However, Putra and Gantino (2021) argue that firm size does not significantly affect profitability in the Indonesian context. This difference may stem from variations in market structure, industry characteristics, and firm maturity between developed and emerging markets. In the author's perspective, firm size tends to relate to profitability, particularly when firms operate in capital-intensive or competitive industries.

Regarding leverage, studies such as those by Anisa and Febyansyah (2024) and Susilawati and Purnomo (2023) found that leverage significantly affects profitability in Indonesian companies. These results suggest that when properly managed, debt financing can enhance performance by increasing operational capacity or funding strategic initiatives. On the other hand, Lamba and Atahau (2022), focusing on firms listed in different market environments, reported no significant effect of leverage on profitability. This inconsistency could be due to differences in risk tolerance, interest rate environments, and financial management practices. The author believes leverage can positively relate

to profitability if used cautiously, with well-controlled financial risks. For corporate growth, Novitasari (2021) and Adelin et al. (2023) conclude that business expansion significantly improves profitability, likely because growth signals market confidence and future earnings potential. However, Susilawati and Purnomo (2023) found the opposite result in a different Indonesian sample. This contradiction may arise from the quality and speed of the growth process rapid or unplanned growth may burden resources rather than enhance financial outcomes. The author contends that corporate growth, if well-planned and aligned with strategic capabilities, generally supports profitability.

Based on the explanation of the phenomenon and the research gaps that have been described, which show varying results regarding the size of the company, leverage, and company growth on profitability, a deeper theoretical and methodological review is required before drawing conclusions about the existence of a valid research gap. Although profitability has been widely studied, inconsistencies across empirical findings persist, particularly due to variations in industry context, analytical models, and the absence of a strong theoretical foundation in some studies. For instance, the study by Yudha et al. (2022), which found that firm size significantly affects profitability, used a sample of manufacturing companies with a panel data regression model. On the other hand, Putra and Gantino (2021), who conducted their research on pharmaceutical and real estate property companies using multiple linear regression with SPSS, concluded that firm size does not significantly influence profitability. However, their study did not employ any grand theory to frame the analysis, which may limit the interpretability and generalizability of their findings. These differences in research design, industry context, statistical tools, and the absence of theoretical underpinnings could explain the inconsistencies.

Moreover, since neither study used an established theoretical lens such as signaling theory, trade-off theory, or growth-profitability trade-off models, the connection between variables remains conceptually fragmented. This calls for a more theory-driven analysis to clarify the mechanisms linking firm characteristics to profitability. While it is true that profitability can be influenced by a wide range of factors, the selection of firm size, leverage, and company growth in this study is not arbitrary; these variables are frequently cited in foundational literature as primary internal determinants of firm performance.

Limiting the number of variables to three is done intentionally to ensure model parsimony and analytical focus, especially within the context of the infrastructure sector, which presents unique characteristics such as capital intensity, long asset cycles, and regulated environments. This sectoral specificity justifies a focused variable selection, supported by empirical gaps and contextual relevance. Furthermore, the methodological approach in this study has been carefully designed to overcome the shortcomings of previous research by integrating sound theoretical framing and robust empirical analysis. Accordingly, this research aims to contribute to a clearer understanding of how firm size, leverage, and company growth influence profitability in infrastructure companies listed on the Indonesia Stock Exchange.

The trade-off theory asserts that firms will incur debt to a specific threshold, where the tax benefits of increased debt equate to the expenses associated with financial hardship. Financial distress costs encompass the expenses associated with bankruptcy or reorganisation, as well as heightened agency charges stemming from a deterioration in the company's credibility. The trade-off theory for optimum capital structure encompasses several aspects, including taxes, agency costs, and expenses associated with financial distress, while preserving the assumptions of market efficiency and symmetric information to evaluate the balance and advantages of using debt. The ideal debt level is attained when tax savings are maximized, equating to the expenses associated with bankruptcy. In the context of this study, leverage is the variable linked to the trade-off theory. According to the theory's implication, higher leverage may enhance profitability due to interest tax shields, but only to the extent that financial distress and agency costs remain manageable. Hence, a positive yet diminishing relationship between leverage and profitability is theoretically expected. Previous studies such as

Anisa and Febyansyah (2024) and Susilawati and Purnomo (2023) support this notion, showing that optimal debt usage can enhance firm performance.

The signaling theory elucidates that the information sender (the information owner) conveys signals or cues through information that represents the company's status. This information is advantageous for the recipients (investors) since it enhances their comprehension of the company's status and facilitates improved investment selections. Consequently, the signals sent by the information owner may be utilized by investors to analyze and appraise the possible gains and dangers associated with investing in the firm. In the present research, company growth is interpreted as a form of market signal. Firms that expand their assets, revenue, or operational scope may be seen as signaling strength, resilience, or future profitability to investors. Unlike formal disclosures through financial reports, such growth actions act as non-formal and observable signals that influence investor perceptions. Therefore, signaling theory helps explain how firms communicate future performance expectations through their strategic growth decisions. Empirical studies such as Novitasari (2021) and Adelin et al. (2023) suggest that corporate expansion can shape investor confidence and thus enhance profitability, acting as an indirect signaling mechanism.

Profitability refers to a company's capacity to produce profit from operations carried out throughout a designated timeframe (Kusoy & Priyadi, 2020). This is a factor for investors and prospective investors when selecting a firm. A company's profitability directly enhances its appeal to investors seeking to provide finance (Aini & Suwarno, 2024). A substantial rate of return can be utilized to satisfy the majority of financial requirements from internally produced resources (Soleha & Maria, 2022). The size of a firm may be characterized as an asset possessed by the organization, represented according to its dimensions. The size of a company can influence its ability to generate revenue because larger companies often have their own advantages in solving business problems and generating income due to the support of company assets (Santoso & Junaeni, 2022). Large companies usually have many assets overall, thus attracting investors who want to invest in the business (Himawan & Andayani, 2020). Kusumadewi (2020) said that the leverage ratio quantifies the extent to which a corporation is funded by debt. The excessive use of debt will jeopardise the firm by placing it in a state of severe leverage, resulting in a significant debt load that is hard to alleviate. This ratio highlights the significant importance of debt financing for the firm by indicating the proportion of the company's assets backed by debt financing (Kustina & Rizka, 2021). This ratio seeks to evaluate the equilibrium between the value of assets, especially fixed assets, and equity (Zahro & Nurastuti, 2023). Company growth is the extent to which a company establishes itself within the broader economic system or the economic system for the same industry, as per Fajriah et al. (2022). According to (Santoso & Junaeni, 2022), growth is dependent on the extent to which a company is positioned within the overall economic system or the economic system for the same industry. Consequently, investors will be more inclined to invest in companies that exhibit high growth rates than those that exhibit low growth rates (Prasetyo et al., 2024).

The signalling theory helps to clarify the link between firm size and profitability as a company's profits or profitability is much influenced by its size. Investors, creditors, and other stakeholders concerning the stability and financial prospects of a firm might get cues from its size. Larger businesses are more appealing to investors generally because they have more resources, are more likely to resist economic instability, and are generally more stable. In this context, firm size functions as a signal not through conventional disclosure, such as mandatory financial statements, but through non-formal indicators such as expansion announcements, acquisitions, large-scale hiring, or capital expenditure activities that reflect growth and operational scale. These actions, though not always explicitly explained in reports, signal strength and long-term viability to the market. The formal channel would be standard financial reporting, while the signal here emerges when stakeholders interpret observable company behavior such as significant growth patterns as a sign of future profitability. Thus, being a larger and more expansive company may act as a signal, not solely because

of its reported size, but because of how that size is *demonstrated* and perceived outside formal disclosures. Furthermore, bolstering the evidence that firm size significantly affects profitability are earlier research by (Yudha et al. 2022; Maside-Sanfiz et al. 2024; Bortoluzzo et al. (2024). These studies support the proposition that firm size, as both an economic factor and an implied market signal, plays a critical role in determining profitability. These results lead one to propose the following hypothesis:

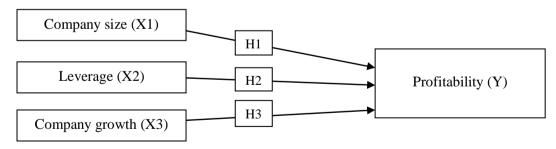
H₁: The more the company size increases, the more its profitability rises.

The correlation between leverage and profitability is elucidated by capital structure theory, which posits that profitability is indeed affected by leverage, as the incorporation of debt in the capital structure can enhance a company's profitability, provided that the return on investment exceeds the cost of debt. Companies can acquire supplementary cash for corporate development, investment in productive assets, and enhancements in operational efficiency through the use of debt, which can provide increased profits. Furthermore, the trade-off hypothesis posits that leverage offers tax advantages via the tax shield, allowing interest on debt to be deducted from taxes, which subsequently enhances the company's net profit. Furthermore, prior studies by Anisa & Febyansyah (2024) and Susilawati & Purnomo (2023) indicate that leverage affects profitability. The second hypothesis is articulated as follows based on the presentation of these facts;

H₂: The more a firm's leverage increases, the more profitability declines.

The relationship between company growth and profitability can also be interpreted through the lens of signaling theory. Although signaling theory did not directly discuss company growth or profitability, his theory provides a conceptual foundation for understanding how observable firm actions such as rapid growth can act as signals to the market. High growth may serve as a positive signal to creditors, investors, and stakeholders regarding the company's financial prospects and long-term viability. Rather than through formal financial reports, these growth signals are conveyed via observable strategic moves such as market expansion, increased production capacity, or new product launches. Rapid business development is often associated with larger market share, product innovation, and greater operational efficiency, which in turn enhances profitability. This argument is also supported by previous studies conducted by (Novitasari, 2021; Adelin et al., 2023) which state that company growth significantly affects profitability. Based on these findings, the third hypothesis is formulated as follows;

H₃: The growth of the company appears to significantly influence its profitability.



Source: Data processed by researcher, 2025

Figure 1. Research Model

RESEARCH METHODS

This study employs a quantitative research approach to examine the causal relationship between three independent variables and one dependent variable. The independent variables examined consist

of company size (X1), leverage (X2), and company growth (X3). In the interim, the variable under examination, which serves as the focal point of the research, is profitability (Y). This research aims to identify a significant cause and effect relationship between these variables, thereby enhancing the understanding of the factors that influence profitability. This research utilizes secondary data obtained from the financial statements of companies categorized within the infrastructure sector on the Indonesia Stock Exchange.

The study's population comprises 69 companies operating within the infrastructure sector. The sampling method employed was non-probability sampling, specifically utilizing a purposive sampling technique. The infrastructure sector was selected due to its unique characteristics, particularly its capital-intensive nature, long-term project cycles, and sensitivity to regulatory and policy changes. These factors are expected to influence firms' capital structure decisions and profitability patterns differently compared to other sectors. Therefore, focusing on this sector provides a more homogeneous context to test the theoretical relationships under study, which might be diluted in broader sectoral analyses. In terms of time frame, the study covers financial data from 2020 to 2023 to capture both pre-pandemic and post-pandemic financial behavior, as well as recent strategic adjustments within the sector. While the number of companies that have published their 2023 audited financial statements at the time of data collection may not cover all 69 infrastructure firms, only those with complete and publicly available audited reports for the full five-year period were included in the final sample.

This ensures data consistency, comparability, and reliability for the analysis. Additionally, only companies reporting their financial statements in rupiah were included in the final sample. This criterion was necessary to maintain consistency in currency denomination and avoid distortions in ratio-based calculations such as profitability (ROA), leverage (DAR), and growth. Including companies that report in foreign currencies could introduce exchange rate fluctuations and conversion inconsistencies, thereby compromising the comparability and accuracy of the analysis. The criteria for selecting samples are presented in the table below.

Table 3. Sample Criteria

No	Criteria	Sample
1	Until 2023, all infrastructure sector companies that are listed on the Indonesia	69
	Stock Exchange.	
2	Companies in the infrastructure sector that failed to publish comprehensive	(21)
	financial reports from 2020 to 2023.	
3	Companies in the infrastructure sector that do not present financial statements in	(3)
	rupiah.	
4	Number of company samples	45
5	The amount of data observed	45 x 4 = 180

Source: Data processed by researcher, 2025

The study sample consists of 45 enterprises, yielding a total of 180 observed data points, as detailed in the sample selection table above. The ROA indicator is utilised to assess profitability by calculating the ratio of total net profit to total assets. The SIZE indicator is utilised to measure the company size variable through the multiplication of the natural logarithm by the total assets. The Debt-to-Asset Ratio (DAR) is utilised to evaluate the leverage variable through the calculation of total liabilities divided by total assets. The GROWTH indicator is utilised to assess the company's growth variable. The calculation involves subtracting the total assets of the current year from the total assets of the previous year, followed by dividing the resultant value by the total assets of the previous year. A ratio scale is utilised for the measurement of all independent and dependent variables. The research

data analysis encompasses several key components: the selection of the panel data regression model, the execution of descriptive statistical analysis, and the assessment of classical assumptions, which includes tests for normality, heteroscedasticity, multicollinearity, and autocorrelation. The Eviews-12 software will be utilised to perform panel data regression analysis subsequent to the classical assumption evaluations.

RESULT AND DISCUSSIONS

The descriptive statistical test findings show that the return on assets (ROA) variable has a reasonably high amount of data variance, with a standard deviation of 0,151 and an average of 0,011. The size variable shows that the sample firms are rather steady in size, with an average of 28.9493 and a standard deviation of 2,168. With an average of 0,528 and a standard deviation of 0,251, the debt-to-assets ratio (DAR) variable reveals a highly diversified amount of firm leverage. On the other hand, the growth variable shows that the company's growth fluctuates; it has a standard deviation of 0,234, an average of 0,036. The negative skewness in ROA (-2,859) and size (-0,197) indicates a leftward data distribution, whereas the positive skewness in DAR (0.4762) and growth (1,703) show a rightward distribution trend. Both ROA (34,468) and growth (16,337) have kurtosis values more than three, indicating a very leptokurtic distribution. The size, on the other hand, is more in line with the normal distribution (2,551).

Table 4.
Descriptive Statistical Test

	ROA	SIZE	DAR	GROWTH
Mean	0,012	28,949	0,528	0,036
Median	0,018	29,130	0,526	0,030
Maximum	0,667	33,290	1,570	1,612
Minimum	-1,28	23,390	0,037	-0,723
Std. Dev.	0,151	2,168	0,251	0,234
Skewness	-2,859	-0,197	0,476	1,703
Kurtosis	34,468	2,551	4,196	16,337
Jarque-Bera	7671,816	2,672	17,530	1421,060
Probability	0,000	0,263	0,001	0,000
Sum	2,076	5210,880	95,068	6,524
Sum Sq. Dev.	4,095	841,038	11,296	9,756
Observations	180	180	180	180

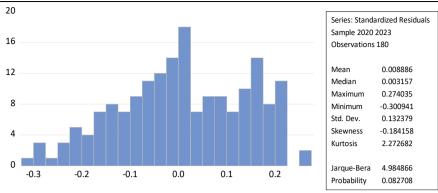
Source: Eviews, 2025

Based on the panel data model selection test depicted in Table 5, it is evident that this research model employs the REM analysis model for additional data.

Table 5. Selection of Panel Data Model

Test Name	Model	Selected Model
Chow Test	FEM vs CEM	FEM
Hausman Test	FEM vs REM	REM
LM Test	REM vs CEM	REM

Source: Eviews, 2025



Source: Eviews, 2025

Figure 2. Normality Test

The Jarque-Bera probability value is 0.483, which indicates that it is more than 0.05. As a consequence, it is possible to assert that the data is normally distributed and that it passes the normality test. This conclusion may be reached on the basis of the findings of the ordinary distribution test that was presented before.

Table 6. Heteroscedasticity Test

F-statistic	1,400	Prob. F(8,171)	0,199
Obs*R-squared	11,067	Prob. Chi-Square(8)	0,198

Source: Eviews, 2025

The results of the heteroscedasticity test that were presented earlier suggest that the Obs R-square value obtained a chi-square probability of 0.1979, which is larger than 0.05. As a consequence, the model does not display heteroscedasticity.

Table 7. Multicollinearity Test

Variable	Coefficient	Uncentered	Centered
variable	Variance	VIF	VIF
SIZE	3,24E-05	255,8248	1,418
DAR	0,002	7,379	1,355
GROWTH	0,002	1,086	1,060

Source: Eviews, 2025

It is possible to draw the conclusion that the Centered VIF values for the variables of business size, leverage, and company growth are less than 10, which indicates that there is no multicollinearity in this model. This conclusion can be reached based on the findings of the multicollinearity test that were presented before.

Table 8.
Autocorrelation Test

Breusch-Godfrey Serial Correlation LM Te	est:		
Null hypothesis: No serial correlation at up	to 2 lags		_
F-statistic	1,369	Prob. F(2,174)	0,199
Obs*R-squared	13,716	Prob. Chi-Square(2)	0,186

Source: Eviews, 2025

According to the findings of the autocorrelation test that was discussed before, it is possible to observe that the chi-square probability value is 0.1864, which is higher than 0.05, suggesting that there is no autocorrelation.

Table 9.
Panel Data Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-0,294	0,193	-1,521	0,130
SIZE	0,0126	0,007	1,782	0,076
DAR	-0,127	0,057	-2,238	0,026
GROWTH	0,187	0,044	4,248	0,000

Source: Eviews, 2025

Based on the test results shown above, the following equation can be derived;

 $ROA = -0.294 + 0.012 \text{ SIZE} - 0.127DAR + 0.04 \text{ GROWTH} + \epsilon$

The equation's results indicate that the variables size, debt-to-assets ratio (DAR), and growth have a constant value of -0.294, which influences the return on assets (ROA). This constant suggests that ROA will have a negative value of 0.294 if all independent variables are valued at zero. The regression coefficient of 0.012 on size suggests that a 1 percent increase in size will result in a 0.012 increase in ROA, while a 1 percent decrease in size will result in a 0.012 decrease in ROA. The DAR regression coefficient of -0.127 suggests that a 1 percent increase in DAR will result in a 0.127 decrease in ROA, while a 1 percent decrease in DAR will result in a 0.127 increase in ROA. The growth coefficient of 0.04 indicates that a 1 percent increase in growth will result in a 0.04 percent increase in ROA. Conversely, a 1 percent decrease in growth will result in a 0.04 percent decrease in ROA. In general, the magnitude and growth variables have a positive impact on ROA, whereas DAR has a negative impact on ROA.

Table 10.
Partial hypothesis test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0,294	0,193	-1,521	0,130
SIZE	0,017	0,007	1,782	0,076
DAR	-0,127	0,056	-2,239	0,026
GROWTH	0,187	0,044	4,248	0,000

Source: Eviews, 2025

The probability value for the variable of company size is 0.0765, exceeding the threshold of 0.05. Consequently, it is not considered statistically significant, as shown by the results of the partial test illustrated in the image above. This indicates that the profitability variable is not substantially affected by the company's size; therefore, the initial hypothesis is dismissed. The leverage variable exhibits partial significance, indicated by a probability value of 0.0264, which falls below the threshold of 0.05. This indicates that leverage significantly influences the profitability variable; therefore, the second hypothesis is accepted. The profitability variable is notably affected by the company growth variable, exhibiting a probability value of 0.0000, which is considerably below the threshold of 0.05. The analysis indicates that the profitability variable is significantly affected by both leverage and company growth within this regression model, whereas company size does not exert a meaningful influence on profitability.

Table 11. Coefficient Determination Test

Root MSE	0,121	R-squared	0,133
Mean dependent var	0,007	Adjusted R-squared	0,119

Source: Eviews, 2025

In terms of return on assets (ROA), the dependent variable, the coefficient of determination test shows that the model can only explain about 11.34 percent of the variance, while the other 86.66 percent is explained by variables that are not in the model. A value of 0.1334 for R-squared indicates this. The modified R-squared value of 0.1186 indicates that the model's ability to explain variance in ROA has been somewhat reduced to 11.86 percent after taking into consideration the number of independent variables in the model. Based on the results of the first hypothesis test, it was found that the probability value of company size was 0.07, which is greater than 0.05, indicating that company size does not have a significant impact on company profitability, thus the first hypothesis is rejected. This shows that an increase in the scale of a company does not always correspond to an increase in profit. Although larger companies have access to more resources, greater asset capacity, and higher economies of scale potential, this does not automatically guarantee better profitability. In the infrastructure sector, the size of a company often reflects the magnitude of investment in fixed assets, but it does not always reflect efficiency in generating profits. Larger companies may also face challenges in managing complex operations and higher cost structures, which can limit profitability improvements.

This study has similar results compared to studies conducted by (Rantika et al., 2022; Anisa & Febyansah, 2024; Adityaputra & Perdana, 2024) which state that company size does not have a significant effect on profitability. On the other hand, research conducted by (Pradnyaswari & Dana, 2022; Natanael & Mayangsari, 2022; Pranita & Darmayanti, 2024) states that company size has a significant influence on profitability. The findings of the second hypothesis test revealed a leverage probability value of 0.026, which is below 0.05, indicating that leverage significantly affects the company's profitability; hence, the second hypothesis is accepted. The significance of leverage concerning the earnings generated by the firm is paramount. An excessively high leverage value might hinder the company's profitability. Excessive leverage might result in interest obligations that ultimately diminish the company's profitability. In infrastructure corporations, which often depend on external finance for large-scale projects, a substantial degree of leverage can adversely affect financial stability and profitability. While debt can facilitate growth and enhance shareholder returns, elevated interest expenses and the potential for default may diminish profit margins. The trade-off hypothesis posits that firms must weigh the advantages of debt use, including tax benefits from interest deductions, against the possible financial repercussions of bankruptcy risk and liquidity constraints. When leverage is employed judiciously, infrastructure firms may enhance their company's worth by leveraging debt to finance lucrative projects without unduly compromising profitability. Excessive leverage might result in substantial interest expenses that may surpass the advantages of the financing, thus diminishing net profit and obstructing long-term growth.

This research is in line with the findings of (Ayoush et al., 2021; Musa & Ibrahim, 2022; Alarussi & Gao, 2023; Dewi & Abundanti, 2023) which state that leverage has a significant impact on the profitability of the company. Another perspective found by (Nugraha et al., 2021; Welkom et al., 2024) states that leverage does not have a significant impact on the profitability of the company. The findings of the third hypothesis test revealed a probability value of 0.000 for business growth, which is below 0.05, signifying a substantial effect of company growth on profitability; hence, the third hypothesis is accepted. Company growth signifies an enhancement in operational capability, market expansion, and revenue augmentation that can directly facilitate profit enhancement. In the infrastructure industry, corporate growth is frequently linked to project development, heightened

investment in fixed assets, and enhanced operational efficiency that fosters long-term value generation. Sustainably growing companies often possess enhanced access to new business possibilities, increased competitiveness, and superior capabilities in risk management and adaptation to economic fluctuations. Consequently, a larger growth rate of the firm correlates with a better possibility for increased profitability. This study's findings align with those of the studies done by Trisnayanti & Wiagustini (2022) and Tica et al. (2023). Conversely, research conducted by Lim & Rokhim (2021) and Susilawati & Purnomo (2023) indicates that corporate growth does not significantly affect profitability.

CONCLUSIONS AND RECOMMENDATION

The research findings indicate that company size does not significantly affect profitability. Companies with extensive asset structures may have difficulties due to elevated operating costs, thereby restricting profitability enhancement. The leverage variable significantly influences profitability in the infrastructure business. Firms employing substantial leverage may incur considerable interest obligations, resulting in diminished profitability. The element of corporate expansion greatly influences profitability. The higher the company's growth rate, the greater the potential increase in profitability that can be achieved.

The limitations of this study are that the variables used are still limited to company size, leverage, and company growth, while other factors such as operational efficiency, managerial policies, and macroeconomic conditions can also affect profitability but have not been analyzed in this study. The exclusion of these variables is primarily due to the unavailability of consistent and quantifiable secondary data across all firms in the selected sample, particularly regarding internal operational indicators and strategic managerial decisions. Additionally, macroeconomic data were not incorporated due to the focus of this study on firm-level determinants and the intention to maintain model parsimony. To enhance the generalizability and comprehensiveness of future findings, it is essential that subsequent research expands the scope of industrial sectors under investigation. This expansion should not merely be posed as a recommendation, but embraced as a deliberate commitment by the researcher to progressively broaden the analytical coverage in future phases or related studies. Examining a more diverse range of industries beyond the infrastructure sector would allow for more robust comparative insights and help determine whether the observed relationships among variables remain consistent across varying industrial contexts. Furthermore, incorporating additional variables such as ownership structure, investment in innovation, and dividend policy could offer a more nuanced understanding of the determinants of profitability.

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