Jurnal Sistem Informasi, Manajemen, dan Akuntansi (SIMAK)
Volume 24 Issue 01, May, 2026
P-ISSN: 1693-5047, E-ISSN: 2621-0320

The Effect of Profitability, Liquidity, Asset Structure, and Dividend Policy on Capital Structure

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Abstract: This study aims to analyze the effect of profitability, liquidity, asset structure, and dividend policy on capital structure. This study uses a sample of 70 infrastructure sector companies listed on the Indonesia Stock Exchange for the 2020-2024 period. The research method used is quantitative and takes secondary data from annual reports, which are analyzed using panel data regression using Eviews12. The results show that profitability and asset structure do not significantly influence capital structure. Meanwhile, liquidity has a negative effect and dividend policy has a positive effect on capital structure. The conclusion of this study is that high profitability does not always reduce debt because the infrastructure sector requires large amounts of external funding. High liquidity actually has a negative effect on capital structure. The higher the liquidity, the lower the use of debt because the company is able to finance its needs with internal funds. Asset structure has not had a significant impact on capital structure, the large proportion of fixed assets is not always a primary consideration for companies in determining funding decisions through debt. Dividend policy has a positive effect on capital structure. The greater the dividends distributed, the greater the company's need for external funding, so the use of debt in the capital structure increases.
Keywords: Profitability, Liquidity, Asset Structure, Dividend Policy, Capital Structure

Article Info:
Received: March 2nd 2026 | Revised: April 29th 2026 | Accepted: May 29th 2026
DOI:

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1. INTRODUCTION

A company's capital structure reflects the composition of long-term debt to equity, which is used as the main source of financing for the company (Rehan et al., 2023). In the infrastructure sector, the capital structure is generally dominated by a relatively high proportion of debt because its business activities are capital-intensive, long-term, and require large initial investments (Indah et al., 2025). Therefore, companies need to manage their capital structure effectively in order to meet financial obligations, attract investors, and ensure the long-term sustainability of projects (Kong et al., 2023). Based on data processed by the author, PT Waskita Karya (Persero) Tbk's debt-to-equity ratio increased during the 2020–2024 period. In 2020, the debt to equity ratio was recorded at 5.37%, then increased to 5.70% in 2021 and 5.90% in 2022. A more significant increase occurred in 2023 with a ratio of 7.24%, reaching 8.78% in 2024. This increase illustrates that the proportion of debt to equity is getting higher every year (Rahima, 2024).

Profitability is one of the factors that influence capital structure decisions (Ahmed et al., 2023). Companies with high profitability tend to lower their debt-to-equity ratio because they prioritise internal funding (Liza et al., 2025). However, in conditions of economic recovery and adjustment, companies need to balance profitability and capital requirements for expansion, making it important to evaluate how profitability plays a role in capital structure decisions in supporting corporate financing strategies (Nguyen et al., 2023).

Liquidity is a key determinant in determining capital structure as it reflects a company's ability to meet its short-term obligations (Simanungkalit et al., 2025). Companies with high liquidity levels generally have sufficient internal funds to meet their obligations, reducing their reliance on external debt. As a result, their debt-to-equity ratio tends to be lower, leading to a more conservative capital structure (Kalesha et al., 2024). Therefore, companies maintain liquidity at an optimal level so that the capital structure remains efficient, stable, and capable of supporting growth without causing excessive financial risk (Wu et al., 2023).

Another important factor influencing capital structure is asset structure (Valeriy, 2021). Companies find it easier to obtain debt when they have a large fixed asset position, so companies tend to take advantage of this condition by making debt the first alternative for obtaining external funding sources, which increases the company's capital structure (Putri & Willim, 2025). Thus, the asset structure in the capital structure is very important so that the funding decisions taken are in accordance with the characteristics and needs of the company and support long-term financial stability (Priyan, 2025).

Dividend policy also affects the capital structure because the amount of dividends determines the amount of profit that can be used as a source of internal funding (Triyono et al., 2020). Companies with stable dividend policies are generally more trusted by investors, thus potentially influencing financing decisions and capital structure (Rara et al., 2023). Although dividend distribution may be delayed due to high debt burdens, dividend policy remains an important element in maintaining the balance and sustainability of a company's capital structure (Arumona et al., 2024).

Research conducted by Uddin & Hosen (2022) states that profitability has a positive effect on capital structure, meaning that weak or less profitable companies also tend to manage more debt. Meanwhile, Nga & Long (2021) found that profitability has a negative effect on capital structure, with highly profitable

companies preferring to use internal sources of funds. The research by Boateng et al. (2022) shows that liquidity has a positive effect on capital structure, while Mardan et al. (2023) reveal that liquidity has a negative effect on capital structure. Putri & Willim (2025) research states that asset structure has a positive effect on capital structure; the greater the proportion of fixed assets owned by a company, the higher its capital structure. Meanwhile, Rahmawati & Sapari (2021) shows that asset structure has a negative effect on capital structure. On the other hand, research by Eprianto (2025) highlights that dividend policy has a positive effect on capital structure, while Eloundou & Chi (2024) reveal the opposite. However, what distinguishes this study is that the authors add dividend policy as an independent variable, with the research object in the infrastructure sector and a more recent observation period, from 2020 to 2024.

This study aims to analyse the effect of profitability, liquidity, asset structure, and dividend policy on capital structure in the infrastructure sector on the IDX during the observation period of 2020–2024.

2. LITERATURE REVIEW

Pecking Order Theory

The Pecking Order Theory proposed by Myers (1984) states that companies have a preference order in determining funding sources. Companies will prioritise internal funding because the use of internal funds does not incur asymmetric information costs (Yıldırım & Çelik, 2021). When companies have investment opportunities, internal funds will be used first so as to reduce dependence on debt (Rahmawati & Sapari, 2021). However, if internal funds are insufficient to finance investment needs, companies will switch to external financing, starting with debt, then issuing shares as a last resort (West et al., 2021). This theory also emphasises that companies do not set specific capital structure targets, but rather that financing decisions depend entirely on the availability of internal funds and the level of investment needs (Hastutik et al., 2022). Therefore, in the context of this study, the Pecking Order Theory is used as a basis for understanding how profitability, liquidity, asset structure, and dividend policy affect a company's funding preferences and their implications for capital structure (Izkha & Muniroh, 2022).

Trade-off Theory

The Trade-off Theory developed by Kraus & Litzenberger (1973) is one of the main theories in capital structure, which attempts to explain how companies choose the best combination of debt and equity utilisation to improve capital structure. This theory highlights that companies will balance the benefits of interest savings from the use of debt (tax shield benefit) with the bankruptcy costs arising from excessive use of debt. Myers (2001) explains that the trade-off theory views capital structure as the result of balancing tax benefits and bankruptcy costs. In addition, debt financing can increase business value through tax protection, making debt financing cheaper than equity financing, but the optimal level of debt should be the primary choice (Nicodano & Regis, 2020).

Capital Structure

Capital structure describes the combination of debt and equity used by a company to finance its operational activities (Rehan et al., 2023). According to

Brigham & Houston (2015), capital structure is the proportion of long-term funding consisting of debt and equity chosen by a company to minimise capital costs. Barton & Gordon (1988) state that capital structure describes the extent to which a company uses debt-based financing to finance its assets. The composition of debt and equity may differ for each company, depending on funding needs, internal conditions, and the financing strategy applied (Indah et al., 2025). Capital structure is measured using the debt equity ratio, which is the ratio of total debt owned by the company to total equity (Wibowo, 2021). This ratio describes the level of leverage and the company's dependence on external funding. The higher the debt equity ratio, the greater the interest obligation pressure and financial risk, especially if there is a decline in cash flow. In general, a debt equity ratio (DER) value < 1 reflects a conservative capital structure with a dominance of equity, while a DER value in the range of 1 to 2 indicates a relatively balanced combination of debt and equity financing. Meanwhile, a DER > 2 indicates a high dependence on debt financing, which can increase a company's financial risk, especially when operational or market conditions are under pressure (Investopedia, 2023).

Profitability

Profitability is a measure that shows how efficiently a company generates profits from its assets or capital, which includes various resources such as capital, number of employees, cash sales, and branches (Nguyen et al., 2023). Companies with high profitability tend to attract investment more easily and have a stronger ability to develop their business sustainably (Syababy & Purwaningsih, 2023). In its development, profitability has become one of the main indicators for investors in assessing the stability and efficiency of a company, especially in sectors that face market dynamics and high levels of competition (Supeno et al., 2022). In addition, changes in global economic conditions and the implementation of cost efficiency strategies contribute to the level of company profitability in the current period (Ibrahimov & Vancsura, 2025). The ratio used to measure profitability in this study is Return On Assets (ROA), which is a ratio that describes the comparison between a company's net profit and its total assets (Ahmed et al., 2023). In general, a Return On Assets (ROA) value with a percentage above 5% is considered good, while a percentage above, 20% is categorised as very good. The higher the ratio, the more efficient the use of assets in generating profits. However, a low ROA, especially below 5%, may indicate that the company is not effectively utilising its assets (ScaleOcean, 2024).

Liquidity

Liquidity reflects a company's ability to meet its short-term financial obligations. A high level of liquidity indicates that the company has a good ability to meet these obligations, while a low level of liquidity indicates that the company's ability is lacking (Kalesha et al., 2024). Companies with high liquidity tend to use internal funds to finance investment activities before opting for external financing through debt, and find it easier to gain the trust of short-term creditors (Simanungkalit et al., 2025). The ratio used to measure liquidity in this study is the Current Ratio (CR), which is the ratio of current assets to current liabilities. This ratio directly illustrates the company's ability to utilise its current assets to meet short-term liabilities in a timely manner (Kartikayanti & Ardini, 2021). In general, a good current ratio is considered to be between 1.5 and 2.5. This indicates that for

every unit of short-term debt, the company has 1.5 to 2.5 of short-term assets that can be used to meet that debt (Kasmir, 2019).

Asset Structure

Asset structure shows the ratio between fixed assets and total assets owned by the company. The position of the asset structure is very strategic in the company's financing process (Putri & Willim, 2025). According to Mujiatun et al. (2021), companies will find it easier to obtain loans if they have a high amount of fixed assets. This condition is often exploited by companies by prioritising the use of debt as the main option in obtaining external funding, which ultimately increases the company's capital ratio. However, companies with a relatively high amount of fixed assets will find it easier to obtain additional funds from external sources, but most companies will prefer to use internal funds, with debt serving only as an additional supporting component (Cahyani & Nyale, 2022). Furthermore, the use of FAR is considered more appropriate than other ratios such as Total Asset Turnover or Capital Intensity Ratio, as these two ratios are more oriented towards operational efficiency and the ability of assets to generate sales, rather than the composition of assets as the basis for funding decisions (Albart & Purnomo, 2024). Therefore, FAR is more relevant for explaining the relationship between a company's asset structure and capital structure (Wulandari & Handayani, 2025). The ratio used to measure asset structure in this study is the Fixed Asset Ratio (FAR), which is the ratio of fixed assets to total company assets. The higher the ratio, the greater the fixed assets used as collateral, so that the use of debt in the capital structure tends to increase (Digdowiseiso, 2025). The Fixed Assets Ratio in the infrastructure industry is generally in the range of 50% to 80%, because this sector is capital intensive and requires large investments in fixed assets. This range is in line with the fixed asset investment needs in this sector (Investopedia, 2023).

Dividend Policy

Dividend policy is a management decision regarding the distribution of a company's net profit to shareholders as dividends or retaining it for reinvestment purposes. This policy affects investors' perceptions of the company's prospects (Feizal et al., 2021). According to Harjito & Martono (2014), companies will distribute profits earned at the end of the year to shareholders as dividends or retain them to increase capital in order to fund investments in the coming period. The dividend payout ratio (DPR) is a ratio that measures the company's income distributed to shareholders in the form of dividends by dividing the dividend per share by the earnings per share. This ratio is used to assess the company's dividend policy (Nguyen et al., 2025). As an indicator of dividend policy, this ratio generally ranges from 20% to 50%, depending on the characteristics and financial conditions of each company. Dividend policy is also regulated within the framework of corporate governance, whereby public companies are required to disclose their dividend policy to shareholders as stipulated in POJK.04/2016 (2016) concerning the annual reports of issuers or public companies, particularly in relation to the presentation of information on the use of profits and dividend distribution policy. Therefore, management needs to establish a dividend policy that is realistic, sustainable and in line with the company's financial condition and business strategy (Zatira & Fitriana, 2025).

3. RESEARCH METHOD

This study examines the effect of independent variables consisting of profitability, liquidity, asset structure, and dividend policy and capital structure as dependent variables. Capital structure is measured using the debt equity ratio (DER), which is calculated by dividing total debt by total equity (Endri et al., 2021). Profitability in this study can be measured through Return On Asset (ROA) to calculate net profit after tax divided by total assets (Digdowiseiso, 2025). Liquidity is measured using the Current Ratio (CR), which is calculated by dividing current assets by current liabilities (Wu et al., 2023). Asset structure is measured using the Fixed Asset Ratio (FAR), which is calculated by dividing fixed assets by total assets (Sengkey et al., 2025). Dividend policy is measured using the dividend payout ratio (DPR) proxy, which is calculated by dividing dividends per share by earnings per share (Nguyen et al., 2025).

The population in this study uses secondary data in the form of financial reports from 70 infrastructure sector companies listed on the Indonesia Stock Exchange (IDX) or the respective company websites for the 2020-2024 period. Sampling was conducted using purposive sampling with the aim of obtaining samples that met the criteria of companies that consistently published annual reports and companies that distributed dividends in 2020-2024. Based on these criteria, 18 companies were found to meet the requirements for the 5-year period, resulting in a total of 90 data samples used in this study. However, after conducting an outlier detection test, 4 companies were found to have extreme values and were therefore excluded from the research sample. Thus, the final total number of observations used was 70 data points.

This study used a quantitative approach and technical data analysis, namely panel data regression analysis (a combination of cross-sectional and time series data with more than one independent variable) using the Eviews 12 (Econometric Views) programme. Data analysis in this study included descriptive statistical tests (mean, maximum, minimum, and standard deviation), panel data regression analysis (Common Effect Model, Fixed Effect Model, and Random Effect Model), and panel data regression selection using the Lagrange Multiplier test, Chow test, and Hausman test. Next, classical assumptions were tested, including multicollinearity, heteroscedasticity, autocorrelation, and normality. Then, the final stage is hypothesis testing, which includes simultaneous significance testing (F test), partial significance testing (T test), and the coefficient of determination (R-squared) with a significance level of 0.05 (5%). The regression model formula used is as follows:

$$DER_{it} = \beta_1 ROA_{it} + \beta_2 CR_{it} + \beta_3 FAR_{it} + \beta_4 DPR_{it} + \varepsilon_{it} \quad \text{.....(1)}$$

Explanation:

DER	= Capital structure
i	= Company
t	= Time period 2020-2024
β	= Regression coefficient
ROA	= Profitability
CR	= Liquidity
FAR	= Asset structure
DPR	= Dividend policy
εit	= Error

4. RESULTS AND DISCUSSION

Descriptive Statistical Test

According to Hair et al. (2019:85), pre-analysis outlier checks must be carried out to ensure that the sample is representative of the population for analysis and to identify observations that are truly unique in terms of population representation, so that observations must be evaluated before any type of analysis begins. Outlier detection uses standard scores or z scores with the following conditions (Hair et al., 2019: 88-90):

a. If the number of samples is ≤ 80, then observations with a Z score > 2.5 or < -2.5 are outliers.
b. If the sample size is > 80, observations with a Z score > 3 or < -3 are outliers.

The number of data in this study is 90 data consisting of 18 companies for the period 2020-2024. The number of data is 90 > 80, therefore the determination of outliers with Z scores >3 or < -3 are outliers. The results of outlier detection are as follows:

Table 1. The Results of Outlier Detection

No	Code	Year	Z Score				
			ROA	CR	FAR	DPR	DER
1	POWR	2021	-0.207	**3.595**	0.620	0.204	-0.471
2	POWR	2022	-0.247	**3.890**	0.590	0.205	-0.471
3	POWR	2023	-0.232	**3.757**	0.563	0.206	-0.524
4	POWR	2024	-0.238	**4.260**	0.517	0.207	-0.518
5	WIKA	2023	-0.293	-0.456	-0.824	-0.536	**3.597**
6	BALI	2021	**4.387**	-0.499	1.663	-0.074	-0.322
7	BALI	2022	**4.787**	-0.524	1.642	-0.109	-0.274
8	BALI	2023	**3.143**	-0.681	1.651	0.089	-0.303
9	BALI	2024	**5.096**	-0.491	1.660	-0.134	-0.317
10	WEGE	2021	-0.406	-0.144	-1.138	**8.557**	-0.008

Source: Data Processed (2025)

Based on the table 1, it can be seen that there are 10 data consisting of 4 companies detected as outliers, so these companies must be removed from the study. Thus, the final number of data is 70 consisting of 14 companies.

Descriptive statistical test analysis was used as a brief review of the research data, presenting the minimum, maximum, mean, and standard deviation of each variable. The variables used include profitability, liquidity, asset structure, dividend policy, and capital structure. Through purposive sampling, 70 observations were collected from infrastructure companies listed on the Indonesia Stock Exchange (IDX) during the period 2020 to 2024.

Table 2. Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std.Deviation
DER	70	0.223553	5.153389	1.426466	1.162845
ROA	70	-0.024660	0.511593	0.066092	0.072616
CR	70	0.182184	3.325954	1.336770	0.994865
FAR	70	0.000738	0.874776	0.378020	0.301158
DPR	70	-0.562243	1.974466	0.509719	0.403625

Source: Data Processed (2025)

Based on table 2, the capital structure measured by the Debt-to-Equity Ratio (DER) has a mean value of 1.426466 and a standard deviation of 1.162845. The maximum value of DER is 5.153389, which is observed in PT Indosat Tbk (ISAT) in 2023, indicating that the company has a higher proportion of total debt relative to equity in its capital structure. Meanwhile, the minimum value of DER is 0.223553 for PT Cardig Aero Services Tbk (CASS) in 2024, suggesting that the company relies less on debt financing compared to equity. These findings reflect the variation in financing decisions among firms within the sample.

Profitability, proxied by Return on Asset (ROA), has a mean value of 0.066092 and a standard deviation of 0.072616. The maximum profitability value is 0.511593 at PT Kencana Energi Lestari Tbk (KEEN) in 2024, which means that this company has performed well in generating net profit after tax. Meanwhile, the minimum or smallest profitability value is -0.024660 at PT Surya Semesta Internusa Tbk (SSIA) in 2021, which indicates that this company has poor performance in obtaining net profit after tax.

Liquidity, which is proxied by the Current Ratio (CR), has a mean or average value of 1.336770 and a standard deviation of 0.994865. The maximum value for liquidity is 3.325954 for PT Paramita Bangun Sarana Tbk (PBSA) in 2021, which means that PBSA has a good ability to cover its short-term liabilities or current debts. Meanwhile, the minimum value of 0.182184 was recorded by PT Sarana Menara Nusantara Tbk (TOWR) in 2023, indicating that this company has poor performance in meeting its short-term liabilities or current debts.

The asset structure, which is proxied by the Fixed Asset Ratio (FAR), has a mean value of 0.378020 and a standard deviation of 0.301158. The maximum value of 0.874776 was recorded by PT Gihon Telekomunikasi Indonesia (GHON) in 2020, which means that GHON's assets are largely dominated by fixed assets, reflecting a capital-intensive company. Meanwhile, the minimum value of 0.000738 was recorded by PT Kencana Energi Lestari Tbk (KEEN) in 2020, indicating a low proportion of fixed assets in the company's asset structure, thereby limiting its ability to use assets as collateral for debt.

The dividend policy, which is proxied by the Dividend Payout Ratio (DPR), has a mean value of 0.509719 and a standard deviation of 0.403625. The maximum value of 1.974466 was recorded by PT Total Bangun Persada Tbk (TOTL) in 2023, indicating that the dividends paid were greater than the current year's net profit. This was possible because the company used retained earnings or company cash in the distribution of dividends. Meanwhile, the minimum value of -0.562243 was recorded by PT Surya Semesta Internusa Tbk (SSIA) in 2020. A negative or excess DPR value is caused by a company experiencing a net loss but still distributing dividends from retained earnings or company cash, so that dividend distribution does not only depend on current year profits.

Panel Data Regression Selection

There are three panel data approach models, namely the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). One of these three panel data estimation techniques can be selected through the Chow test, Hausman test, and Lagrange Multiplier test.

Chow Test

The Chow Test was used to assess which model was more appropriate between the Common Effect Model and the Fixed Effect Model. The analysis was

conducted using the Chi-Square test with the following hypotheses: H_0: confirm CEM and H_1: confirm FEM. Condition: Reject H_0 if the Cross-section Chi Square probability value < α (α = 5%). Based on the Chow Test results in the appendix, the Cross-section Chi Square probability value is 0.0000 < 0.05. Therefore, H_0 is rejected and H_1 is accepted, and the model used is the Fixed Effect Model (FEM).

Hausman Test

Since FEM was selected, the test proceeded to the Hausman test to determine which model was best between the Fixed Effect Model (FEM) and the Random Effect Model (REM) with the rule that if the Cross-section Chi-square probability value < 0.05, then FEM was selected, and if the Cross-section Chi-square probability value > 0.05, then REM was selected. Cross-section Chi-square > 0.05, then REM is selected. The Hausman test results show that the Cross-section random probability value is 0.7629 > 0.05, meaning that the Random Effect Model (REM) remains the best model compared to the Fixed Effect Model (FEM).

Lagrange Multiplier Test

Furthermore, to ensure the consistency of model selection, a Lagrange Multiplier test was conducted to determine the best model between the Common Effect Model (CEM) and the Random Effect Model (REM). The Lagrange Multiplier test results show a probability value of 0.0000 < 0.05, indicating that the Random Effect Model (REM) is more appropriate to use than the Common Effect Model (CEM). Based on the results of the Chow test, Hausman test, and Lagrange Multiplier test, it can be concluded that the Random Effect Model (REM) is the most appropriate and suitable panel data estimation model to be used in this study.

Best Panel Data Regression Model

Results from panel data regression model testing:

Table 3. The Results of Panel Data Regression

Model	Test	Explanation	Result
Model 1	Chow Test	CEM vs FEM	Fixed Effect Model
Model 2	Hausman Test	FEM vs REM	Random Effect Model
Model 3	Lagrange Multiplier Test	CEM vs REM	Random Effect Model

Source: Data Processed (2025)

Based on the table 3, the test results explain that the Random Effect Model (REM) is most suitable for application in this study.

Classical Assumption Test

Normality Test The normality test results have a probability value of 0.077821 > 0.05, so it can be concluded that the data is normally distributed (Napitupulu et al., 2021: 140).

Multicollinearity Test

This test stipulates that if the correlation value is < 0.85, then there is no multicollinearity problem. Based on the results of the multicollinearity test in this study, the correlation value shows a figure below 0.85, so it can be concluded that all independent variables in this study do not have a multicollinearity problem.

Heteroscedasticity Test

According to Rosetika et al. (2020: 240); Rolanda & Laksmiwati (2020: 76); Mulyani et al. (2022: 33), to detect the presence or absence of heteroscedasticity in a panel data model with random effects, namely by comparing the sum square in weighted statistics with the sum square of unweighted statistics. If the sum square in the weighted statistics is less than the sum square of the unweighted statistic, then the model is free from heteroscedasticity. The sum of squares of the residuals in the weighted statistics is 1.128051, which is smaller than the sum of squares of the residuals in the unweighted statistics, which is 7.189645. Therefore, it can be concluded that the regression equation model does not experience heteroscedasticity or passes the heteroscedasticity test.

Autocorrelation Test

The result that the Durbin-Watson value of 1.339784 is between -2 and +2 (-2 < 1.339784 < +2), so it can be concluded that the panel data regression model does not show any serious indications of autocorrelation. Thus, the regression model can still be used for further analysis (Savitri et al., 2021: 5).

Panel Data Regression Analysis

In this study, there is the following regression equation:

$$DER_{it} = 1.476790 + 0.390677ROA_{it} - 0.342611CR_t - 0.043724FAR_{it} + 0.142662DPR_{it} + \varepsilon_{it}$$

The constant value of 1.476790 means that if the values of the independent variables, namely probability (ROA), liquidity (CR), asset structure (FAR), and dividend policy (DPR) are considered constant or equal to zero, then the value of the capital structure (DER) is 1.476790. The profitability (ROA) regression coefficient of 0.390677 indicates that if the ROA value increases by 1 (assuming other independent variables remain constant), the capital structure (DER) will increase by 0.390677. This coefficient is positive, which means that the higher the company's profitability, the more the capital structure tends to increase. The liquidity regression coefficient (CR) of -0.342611 indicates that if CR increases by 1 (assuming other independent variables remain constant), then the capital structure (DER) will decrease by -0.342611. This coefficient is negative, which means that the higher the company's liquidity level, the lower the use of debt in the company's capital structure. The asset structure regression coefficient (FAR) of -0.043724 indicates that if FAR increases by 1, assuming other independent variables remain constant, the capital structure (DER) will increase by -0.043724. This negative coefficient indicates that companies with a higher proportion of fixed assets tend to use less debt in their capital structure. The dividend policy regression coefficient (DPR) of 0.142662 indicates that if the DPR increases by 1, assuming other independent variables remain constant, the capital structure (DER) will increase by 0.142662. This coefficient is positive, indicating that the greater the proportion of dividends distributed by the company, the greater the tendency to use debt in the company's capital structure.

Panel Data Hypothesis Test

Partial Significance Test (T-test)

Based on the T test results with a probability level of 0.05 and a T table value of 1.995468, the profitability variable has a positive impact on the capital structure proxied by ROA with a t-value of 1.302690 and a probability of 0.1973 > 0.05, so

H_1 is not accepted. Meanwhile, the hypothesis test results show that the liquidity variable has a negative and significant effect on capital structure with a t-value of −5.932012 and a probability of 0.0000 < 0.05, so the hypothesis is accepted. Furthermore, asset structure also does not have a positive effect on capital structure with a t-value of −0.148795 and a probability of 0.8822 (> 0.05), so the hypothesis is rejected. On the other hand, dividend policy, measured by the dividend payout ratio (DPR), shows a positive effect on capital structure with a t-value of 2.710887 and a probability of 0.0086 < 0.05, thus accepting the hypothesis.

Table 4. The Results of Parsial Test

Hypothesis	Statement	Results	Explanation
H_1	Profitability has a negative effect on capital structure	T Calculated < T Table **1.302697 < 1.995468** Probability Value. < 0.05 **0.1973** > 0.05	Hypothesis Rejected
H_2	Liquidity has a negative effect on capital structure	T Calculated < T Table **-5.932012 < 1.995468** Probability Value. < 0.05 **0.0000 < 0.05**	Hypothesis Accepted
H_3	Asset structure has a positive effect on capital structure	T Calculated < T Table **-0.148795 < 1.995468** Probability Value. < 0.05 **0.8822 > 0.05**	Hypothesis Rejected
H_4	Dividend policy has a positive effect on capital structure	T Calculated. T Table **2.710887** > **1.995468** Probability Value. < 0.05 **0.0086** < **0.05**	Hypothesis Accepted

Source: Data Processed (2025)

Simultaneous Significance Test F

The F test results with a significance level of 0.05 show a probability value (F-Statistic) of 0.000000, which is less than 0.05, and the calculated F value (13.14016) > F table (1.339784). Therefore, the overall results indicate that the independent variables, namely profitability, liquidity, asset structure, and dividend policy, simultaneously affect the dependent variable, namely capital structure.

Determination Coefficient Test

The results of the determination coefficient test show an Adjusted R-Squared value of 0.413069, which means that the dependent variable, namely capital structure, can be explained by the independent variables of profitability, liquidity, asset structure, and dividend policy by 0.413069, while the remaining 58.6931% (100%-41.3069%) is explained by other variables outside this research model.

Discussion

The Effect of Profitability on Capital Structure

The first hypothesis (H_1) suggests that profitability does not have a negative effect on a company's capital structure. Therefore, H_1 is rejected. Companies with high profitability have greater internal funding capacity. In practice, companies can still use external funding to support expansion and long-term investment needs. Furthermore, the effect of profitability on capital structure when linked to the Pecking Order Theory shows that companies tend to prioritise the use of internal funds derived from retained earnings before using external financing. However, the capital-intensive nature of the infrastructure industry and the need for large financing allow companies to continue to rely on debt even though they have adequate profitability levels. The results of this study are in line with several previous studies by Hapsari et al. (2021); Rahmawati & Sapari (2021); Ahmed et al. (2023), which state that profitability does not have a positive effect on capital structure.

The Effect of Liquidity on Capital Structure

The second hypothesis (H_2) states that liquidity has a negative effect on capital structure. Thus, H_2 is accepted. A negative regression coefficient indicates that the higher the company's liquidity level, the lower the use of debt in its capital structure (Kalesha et al., 2024). Companies with good ability to meet short-term obligations tend to rely on internal funds rather than adding new debt (Simanungkalit et al., 2025). These results are in line with the Pecking Order Theory, which states that companies will prioritise internal funding before using external sources of funds (Pardanawati, 2021). A high level of liquidity reflects the availability of adequate cash so that companies are not overly dependent on debt-based financing (Wu et al., 2023). These findings are also consistent with previous studies by Cahyani & Nyale (2022); Mardan et al. (2023); Syababy & Purwaningsih (2023), which concluded that liquidity has a negative effect on capital structure.

The Effect of Asset Structure on Capital Structure

The third hypothesis (H_3) states that asset structure does not have a positive effect on capital structure. The empirical results support this, leading to the rejection of H_3. This finding indicates that the proportion of fixed assets does not significantly influence firms' debt financing decisions. Although, in theory, fixed assets can serve as collateral to facilitate borrowing, in practice, firms may not rely heavily on asset structure when determining their capital structure (Digdowiseiso, 2025). This may occur because financing decisions are often influenced more strongly by other considerations, such as management's risk preferences, business risk, and the availability of alternative financing sources. For instance, firms with stable cash flows may prefer internal financing regardless of their asset base, while firms with higher business risk may avoid additional debt to reduce financial distress risk. In addition, easier access to capital markets and flexible financing instruments can reduce the dependence on tangible assets as collateral. Therefore, the presence of substantial fixed assets does not necessarily lead firms to increase their leverage (Sengkey et al., 2025). These findings are consistent with prior studies by Albart & Prurnomo (2024) and Wulandari & Handayani (2025), which also found that asset structure does not significantly affect capital structure.

The Effect of Dividend Policy on Capital Structure

The fourth hypothesis (H_4) states that dividend policy has a positive effect on capital structure. Thus, H_4 is accepted. These results show a positive regression coefficient, indicating that the greater the proportion of dividends distributed to shareholders, the greater the tendency for companies to increase the use of debt in their capital structure (Eprianto, 2025). Large dividend distributions can reduce retained earnings, so companies need external funding sources to meet operational and investment needs (Feizal et al., 2021). In line with the Trade-Off Theory, which states that companies will balance the benefits of using debt and the costs of bankruptcy, when retained earnings decrease due to a high dividend policy, companies tend to use debt as an alternative source of funding (Triyono et al., 2020). These results are similar to previous studies by Izkha & Muniroh (2022); Hasan et al. (2023), which state that dividend policy has a positive effect on capital structure.

5. CONCLUSION

Based on the results of data analysis conducted on infrastructure sector companies listed on the Indonesia Stock Exchange (IDX) during the period 2020 to 2024, it can be concluded that the profitability variable does not have a significant effect on capital structure. Profitability does not affect capital structure due to the characteristics of infrastructure sector companies, which are capital-intensive and require large amounts of long-term financing, so that financing decisions do not depend entirely on the level of profit generated by the company. Negative liquidity indicates that companies with high liquidity tend to reduce the use of debt in their capital structure. Companies that are able to meet their short-term obligations will rely more on internal funds than external financing. Furthermore, the asset structure has no effect, possibly due to the tendency of companies not to make fixed assets a major factor in determining capital structure, even though, in theory, fixed assets can be used as collateral in obtaining external financing. Meanwhile, dividend policy has a positive effect on capital structure because it shows that the larger the dividend distribution, the lower the retained earnings, so companies tend to increase their use of debt to meet their financing needs.

However, this study has several limitations that need to be considered. The study only uses the variables of profitability, liquidity, asset structure, and dividend policy in explaining capital structure, so it does not fully reflect all factors that can influence a company's financing decisions. The measurement of capital structure uses the Debt to Equity Ratio, so it does not describe long-term financing risk or the overall proportion of debt to assets. As a suggestion for future research, other variables beyond profitability, liquidity, asset structure, and dividend policy that could potentially influence capital structure should be added, such as company size, business risk, or company growth. It is also recommended to use other indicators in measuring capital structure, such as the debt to asset ratio or long-term debt to equity ratio, in order to comprehensively describe long-term financing risk and the proportion of debt to total company assets. Future research could also use different industry sectors or apply other analytical methods so that the research results are more comprehensive and can be generalised more broadly.

Companies are advised to be more focused when determining the optimal capital structure, with management tending to consider factors such as profitability,

liquidity, asset structure, and dividend policy. The percentage of debt used must still be taken into account in order to benefit the entity. Investors interested in long-term investment in an entity should consider the capital structure, which includes debt and equity. Companies must maintain their capital structure because if it is not managed properly, it can hinder dividend payments and require profit reserves to keep the company stable in distributing dividends. Meanwhile, managers should consider the asset structure so that it is maximised, thereby increasing the possibility of the company obtaining large loans.

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