



Capital structure, profitability, and firm value: an empirical study of PT. Indocement Tunggul Prakarsa Tbk.

Falentina Titin*, Sri Mardiana

Universitas Pamulang, Tangerang Selatan, Banten, Indonesia

*Correspondence author: valentintitin652@gmail.com

DOI: <https://doi.org/10.65881/ecobiztech.v1i2.70>

ARTICLE INFO

History:

Received: 05-11-2026

Revised: 05-14-2026

Accepted: 05-15-2026

Published: 05-20-2026

Keywords:

capital structure;
profitability;
firm value;
debt to equity ratio;
price to book value.

ABSTRACT

Purpose: to examine the effect of capital structure, measured by debt to equity ratio (DER), and profitability, measured by return on equity (ROE), on firm value, measured by price to book value (PBV).

Method: this study uses a quantitative, associative research design. The data used are secondary data obtained from the annual financial statements of PT. Indocement Tunggul Prakarsa Tbk. for the period 2015–2024. The data are analyzed using multiple linear regressions in EViews.

Findings: capital structure has a negative and significant effect on firm value, while profitability has no significant effect on firm value. However, capital structure and profitability simultaneously have a significant effect on the firm's value.

Implications: capital structure plays a more dominant role than profitability in determining firm value. Therefore, PT. Indocement Tunggul Prakarsa Tbk. should carefully manage its debt levels to avoid excessive financial risk and ensure optimal capital structure in order to enhance firm value.

Originality: lies in its specific focus on PT. Indocement Tunggul Prakarsa Tbk. uses recent financial data from 2015–2024, providing updated empirical evidence on the relationship between capital structure, profitability, and firm value in the Indonesian cement industry.



Open access article under CC-BY-SA license.



Introduction

Current global and national economic developments are driving increasingly fierce business competition across various industrial sectors, including the Indonesian cement industry (Panjaitan et al., 2023). This situation is influenced by various external factors, including political, economic, and social changes, as well as dynamic technological developments. Companies are required to manage their operations

effectively and efficiently to adapt to changing business environments and maintain business continuity (Gupta et al., 2023). In facing this competition, companies focus not only on achieving short-term profits but also on increasing firm value as a long-term goal that reflects shareholder welfare. Firm value is a crucial concern for investors because it is related to a company's ability to generate profits and increase its share price (Wahyuni & Gani, 2022).

PT. Indocement Tunggal Prakarsa Tbk. is one of the largest cement companies in Indonesia that plays a strategic role in supporting national development, particularly in the infrastructure and property sectors. Indonesia's economic growth in the third quarter of 2025, at around 5.04%, indicates that national development activities continue to expand. In addition, the decline in poverty rates and the increasing need for housing and infrastructure have also driven high demand for cement products. However, PT. Indocement Tunggal Prakarsa Tbk. faces various business challenges as reflected in its financial condition during the 2015–2024 period. The company's total debt increased from 3.772 trillion in 2015 to 8.305 trillion in 2024. On the other hand, the company's total equity and net profit fluctuate. The company's stock price has also declined in recent years, from 22,325 in 2015 to 7,400 in 2024. This condition indicates problems with capital structure, profitability, and firm value, so further research is needed to examine the relationships among these variables.

Capital structure is a crucial factor influencing firm value. While debt in the capital structure can increase firm value up to an optimal level, excessive debt can increase financial risk and decrease firm value (Bui et al., 2023). Several previous studies have shown varying results regarding the effect of capital structure and profitability on firm value. Some studies have found a positive effect of capital structure on firm value (Alifian & Susilo, 2024; Kammagi & Veny, 2023; Nurhaliza & Azizah, 2023), while others have shown a negative (Arianti, 2022; Rossa et al., 2023) or even insignificant effect (Ayem & Ina, 2023; Safaruddin et al., 2023). Some studies have found a positive effect of profitability on firm value (Alifian & Susilo, 2024; Dina & Wahyuningtyas, 2022; Nurhaliza & Azizah, 2023), while others have shown a negative (Lestari et al., 2023) or even insignificant effect (Dharmaputra et al., 2022; Hidayat & Khotimah, 2022; Wijaya & Susilowati, 2024). These differences in research findings indicate a research gap that requires further study. The novelty of this study lies in its focus, specifically on PT. Indocement Tunggal Prakarsa Tbk., using the latest data from 2015–2024. This provides an up-to-date empirical picture of the relationship between capital structure, profitability, and firm value in the Indonesian cement industry.

This study aims to analyze the effects of capital structure, measured by the debt-to-equity ratio (DER), and profitability, measured by return on equity (ROE), on firm value, measured by price-to-book value (PBV), at PT. Indocement Tunggal Prakarsa Tbk. This research is important to conduct because the results are expected to provide benefits both theoretically and practically. Theoretically, this study is expected to enrich the literature on financial management, particularly capital structure, profitability, and firm value in the Indonesian cement industry. In practice, this study is expected to be considered in the management of PT. Indocement Tunggal Prakarsa Tbk. in determining optimal funding and capital management policies to increase profitability and firm value. In addition, this study is expected to serve as a source of information for investors in assessing the company's financial condition before making investment decisions, and as a reference for future researchers interested in similar topics.

Literature review

Trade-off theory

Trade-off theory is the primary theory underlying research on capital structure, profitability, and firm value. This theory explains that companies determine their optimal capital structure by balancing the benefits of debt with its risks (Esghaier, 2024). Using debt can provide tax benefits, as interest on debt can reduce the company's tax burden (Hanlon & Heitzman, 2022). However, excessive debt use can also increase the risk of bankruptcy and agency costs, ultimately reducing the company's value. According to the trade-off theory, companies strive to achieve an optimal capital structure, a condition in which the benefits of debt equal its costs (Brusov & Filatova, 2023). If a company manages its capital structure effectively, it can increase profitability and firm value. Conversely, a suboptimal capital structure can increase financial risk, thereby reducing company performance and investor confidence.

Signalling theory

Signaling theory holds that companies can signal to investors through published information, particularly financial information reflected in the company's financial statements. This theory was first developed by Spence (1973), who argued that management has more complete information about the company's condition than external parties; therefore, companies need to send signals to investors to reduce information asymmetry. In the context of financial management, company signals can include information on profitability, capital structure, dividend policy, and growth prospects. Investors will use this information as a basis for their investment decisions. Companies with good financial performance generally send positive signals to the market, which can increase investor confidence and impact share prices and firm value. Conversely, if a company displays poor financial conditions, investors may respond negatively, leading to a decline in the company's value.

Capital structure

Capital structure is the combination of debt and equity financing sources used by a company to fund its operations. Capital structure is a crucial financial decision because it affects a company's ability to meet funding needs and influences the level of risk and return it will receive. According to Bui et al. (2023), capital structure reflects a company's financial proportions between long-term debt and equity, its sources of financing. Meanwhile, according to Brusov & Filatova (2023), capital structure is the balance between debt and equity that a company uses to finance its assets. Proper capital structure management can help a company obtain optimal funding sources with a manageable level of risk. Conversely, a capital structure that is too heavily indebted can increase a company's financial risk and undermine investor confidence. In this study, capital structure is measured using the debt-to-equity ratio (DER). DER is a ratio used to compare a company's total debt to its total equity. This ratio indicates the extent to which a company uses debt to finance its operations compared to its equity.

Profitability

Profitability is a company's ability to generate profits through all its operational activities. Profitability is a key indicator of management's effectiveness and efficiency in allocating company resources to generate profits. According to Kalbuana et al. (2022), profitability is a ratio used to assess a company's ability to generate profits within a

specific period. Meanwhile, according to Alarussi & Gao (2023), profitability is a company's ability to generate profits using its resources, whether from equity or assets. High profitability indicates a company's ability to manage its resources efficiently, thereby maximizing returns for shareholders. Profitability is also a key consideration for investors when making investment decisions. In this study, profitability is measured using return on equity (ROE). ROE is a ratio that measures a company's ability to generate net income relative to its equity.

Firm value

Firm value is an investor's perception of a company's success, as reflected in its stock price on the market. Firm value is an important indicator because it reflects shareholder welfare and the company's future prospects. According to Yildiz et al. (2024), firm value reflects investors' perceptions of managers' success in managing company resources, which is often linked to the company's stock price. Meanwhile, according to Dobrowolski & Drozdowski (2022), firm value is the present value of future cash flows, influenced by the company's risk level. Companies with high firm value generally gain investor trust more easily because they are perceived as capable of providing a good return on investment. Therefore, companies will strive to increase firm value through optimal financial management. In this study, firm value was measured using price to book value (PBV). PBV is a ratio comparing the market price of a company's stock to the book value per share.

Hypothesis development

Trade-off theory explains that debt in the capital structure can provide tax savings that increase firm value, as long as it is at an optimal level. Capital structure, as measured by the debt-to-equity ratio (DER), indicates the extent to which a company finances its operations with debt relative to equity. Proportional debt use can be a positive signal for investors because it indicates the company can access external funding to support growth and improve financial performance. However, if debt use is too high, the company's financial risk will increase, potentially reducing investor confidence. Thus, capital structure has a significant relationship with firm value, as reflected in price-to-book value (PBV). Research conducted by Nurhaliza & Azizah (2023); Kammagi & Veny (2023); Alifian & Susilo (2024) states that capital structure has a positive effect on firm value because optimal debt use can increase investor confidence. Based on this, the hypothesis proposed in this study is H1: Capital structure has a positive effect on firm value.

According to the trade-off theory, companies that generate high profitability tend to have a better ability to meet financial obligations and build investor confidence. Profitability, measured by return on equity (ROE), indicates a company's ability to generate net income from its equity. A high ROE reflects management's effectiveness in managing shareholder capital, thus providing a positive signal to investors regarding the company's prospects. This condition can increase investor interest in purchasing the company's shares, leading to higher share prices and impacting the company's value as measured by price-to-book value (PBV). Research by Dina & Wahyuningtyas (2022); Nurhaliza & Azizah (2023); Alifian & Susilo (2024) shows that ROE has a positive and significant effect on firm value, as companies with higher profit levels are more attractive to investors. Based on this, the hypothesis proposed in this study is H2: Profitability has a positive effect on firm value.

Method

This study uses a quantitative, associative research design. The quantitative approach is used because this study aims to measure and analyze relationships among variables using numerical data from the company's financial statements. Meanwhile, associative research is used to determine the relationship and influence between independent variables, namely capital structure and profitability, on the dependent variable, namely firm value. Thus, this study not only describes the condition of the variables but also tests hypotheses regarding their influence. The object of this study is PT. Indocement Tunggol Prakarsa Tbk., a company engaged in the cement industry and listed on the Indonesia Stock Exchange (IDX). This company was selected based on the consideration that PT. Indocement Tunggol Prakarsa Tbk. is one of the large companies that play a significant role in supporting infrastructure development in Indonesia and has financial reports published in full and consistently throughout the study period. The research was conducted indirectly through secondary data collection from the company's annual financial reports obtained from the official website of the Indonesia Stock Exchange (<https://www.idx.co.id/>) and the company's official website (<https://www.indocement.co.id/>).

This research was conducted for four months, starting from September 2025 to December 2025. Research activities include data collection, processing, analysis, and the preparation of research reports. The population in this study is all the published financial reports of PT. Indocement Tunggol Prakarsa Tbk. The research sample was determined using a purposive sampling technique, namely one based on specific criteria to meet research needs. The sample used is the annual financial report of PT. Indocement Tunggol Prakarsa Tbk. for the period 2015–2024, so the number of samples in this study is 10 years of financial reports. The data used in this study are quantitative figures from the company's financial reports, including total debt, total equity, net profit, and the company's stock price. The data source used is secondary data obtained indirectly through the company's annual report and publications of the Indonesia Stock Exchange. Data collection is conducted using the documentation method, namely by collecting, recording, and analyzing financial reports related to the research variables.

The independent variables in this study consist of capital structure and profitability, while the dependent variable is firm value. Capital structure is measured using the debt-to-equity ratio (DER), which compares a company's total debt to its total equity.

$$DER = \frac{\text{Total Debt}}{\text{Total Equity}}$$

Profitability is measured by return on equity (ROE), a ratio that shows a company's ability to generate net profit from its own capital.

$$ROE = \frac{\text{Net Income}}{\text{Total Equity}} \times 100\%$$

Meanwhile, firm value is measured using price-to-book value (PBV), a ratio that compares the share price to the company's book value per share.

$$PBV = \frac{\text{Stock Price}}{\text{Book Value per Share}}$$

The data analysis techniques used in this study are descriptive statistics and multiple linear regression using Eviews 12. Descriptive statistical analysis is used to describe the development of research variables during the observation period. Furthermore, multiple linear regression analysis is used to determine the effect of capital structure and profitability on firm value. Before conducting hypothesis testing, classical assumption tests are performed, including normality, multicollinearity, heteroscedasticity, and autocorrelation tests, to ensure the regression model meets the required assumptions. Hypothesis testing is carried out using the t-test to determine the partial effect of independent variables on the dependent variable, and the coefficient of determination (R^2) to assess the magnitude of their contribution in explaining the dependent variable.

Results and discussion

Normality test

Before conducting hypothesis testing, it is necessary to assess whether the regression model meets the classical assumptions. One such classical assumption test is the residual normality test. This test aims to determine whether the residuals (nuisance errors) in the regression model are normally distributed. The results of the residual normality test are shown in Figure 1.

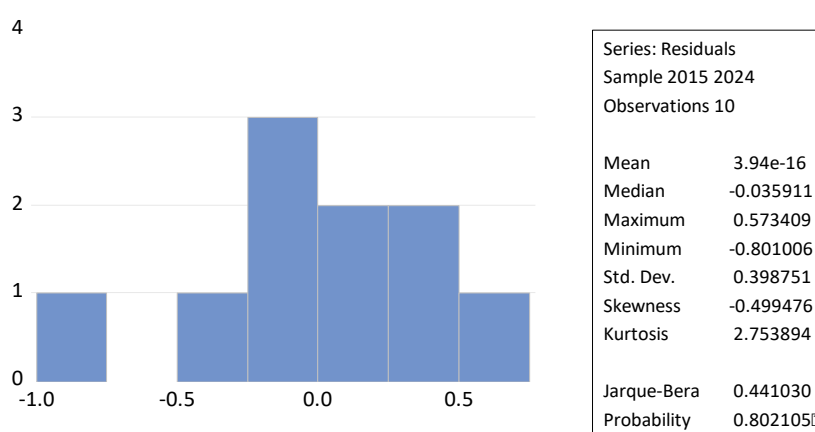


Figure 1 result of normality test
Source: secondary data, processed

Figure 1 shows the residual histogram and the results of the Jarque-Bera normality test from the regression model for the period 2015–2024 with 10 observations. The histogram shows that the residuals are spread around zero and follow a pattern close to a normal distribution. The residual mean value of 3.94E-16, or close to zero, indicates that the model's prediction error is relatively balanced. The skewness value of -0.499476 indicates that the residual distribution is slightly left-skewed, but the skewness is still relatively mild. Meanwhile, the kurtosis value of 2.753894, which is close to 3, indicates that the residual distribution is nearly normal. Based on the Jarque-Bera test, a value of 0.441030 was obtained with a probability of 0.802105. Because the p-value is greater than 0.05, the residuals are normally distributed and acceptable. Thus, the residuals in the regression model meet the normality assumption, making the model suitable for further analysis.

Multicollinearity test

Table 1 shows the results of a multicollinearity test using the Variance Inflation Factor (VIF) method on a regression model with an observation period of 2015–2024 and 10 observations. The multicollinearity test assesses whether the independent variables in a regression model are highly correlated. A good regression model should not experience multicollinearity.

Table 1 results of multicollinearity test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.464250	22.70933	NA
DER	0.000295	10.01229	1.093496
ROE	0.001674	8.979495	1.093496

Source: secondary data, processed

Based on the test results, the DER and ROE variables each have a Centered VIF value of 1.093496. This value is below the general limit of 10, indicating that there are no multicollinearity issues among the independent variables in the regression model. Meanwhile, the relatively large Uncentered VIF value is not a primary reference point in decision-making, as interpretation of multicollinearity is more focused on the Centered VIF value. Thus, it can be said that the independent variables in the regression model are not highly correlated with one another, and the model meets the multicollinearity assumption.

Heteroscedasticity test

The heteroscedasticity test aims to determine whether the residual variance in the regression model is constant. The results of the heteroscedasticity test based on the probability values of each independent variable. Table 2 shows the results of the heteroscedasticity test, as indicated by the probability values for each independent variable, namely DER and ROE. The general decision-making criterion is that if the p-value is greater than 0.05, heteroscedasticity is absent, whereas if it is less than 0.05, heteroscedasticity is present. The test results show that the DER variable has a probability value of 0.0037, which is less than 0.05. This indicates that the DER variable exhibits heteroscedasticity. Meanwhile, the ROE variable has a p-value of 0.7009, which is greater than 0.05, indicating that ROE does not exhibit heteroscedasticity. Thus, it can be said that there is an indication of heteroscedasticity in one of the variables (DER), while the ROE variable does not experience this problem. However, because the model uses the Huber-White-Hinkley (HC1) robust standard error, the impact of heteroscedasticity has been minimized, so the regression estimation results can still be used for further analysis.

Table 2 results of heteroscedasticity test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.348196	0.504544	8.618071	0.0001
DER	-0.069386	0.016220	-4.277909	0.0037
ROE	-0.021075	0.052649	-0.400287	0.7009

Source: secondary data, processed

Autocorrelation test

Based on the test results, the Durbin–Watson (DW) value was obtained as 2.885583. This value is used to detect autocorrelation in the regression model, namely

the relationship between residuals in a given period and those in the previous period. In this study, the sample size was 10 ($n = 10$), and the number of independent variables was 2 ($k = 2$). Based on the Durbin–Watson table at a 5% significance level, the lower limit (dL) was 0.6972, and the upper limit (dU) was 1.6413. Because the DW value is greater than 2, the calculation ($4 - DW$) was performed: $4 - 2.885583 = 1.114417$. The results indicate that the value of ($4 - DW$) is 1.1144, which lies between the dL and dU values, namely $0.6972 < 1.1144 < 1.6413$, so the results of the autocorrelation test are inconclusive and cannot be concluded. Thus, the Durbin–Watson test has not provided certainty about whether the regression model exhibits autocorrelation. Therefore, to prove the presence or absence of autocorrelation in this research model, further testing is needed using the Breusch–Godfrey Test.

Based on the results of the Breusch–Godfrey Test, the Chi-Square(1) Prob. The value was obtained at 0.0456. The Breusch–Godfrey Test is used to detect the presence of autocorrelation in the regression model, particularly in the residual correlation across periods. The basis for making decisions in this test is that if the Chi-Square Prob. If the value is greater than 0.05, then the regression model does not experience autocorrelation. In this test result, the Chi-Square(1) Prob. The value of 0.0456 is indeed slightly below the 5% significance level, indicating the presence of autocorrelation. However, when viewed from the F-statistic, which has a probability of 0.0925 (greater than 0.05), the regression model can still be considered feasible and does not show serious autocorrelation problems. Overall, the regression model in this study does not exhibit significant autocorrelation and still meets the classical regression assumptions.

Multiple linear regression test

Multiple linear regression is used to determine the effects of capital structure, proxied by the debt-to-equity ratio (DER), and profitability, proxied by return on equity (ROE), on firm value, proxied by price-to-book value (PBV), at PT. Indocement Tunggal Prakarsa Tbk. for the period 2015–2024. The results of data processing are carried out using the Least Squares method with a total of 10 observations (Tab. In addition to displaying the regression coefficient for each variable, this table also shows results of statistical model testing, such as the coefficient of determination (R^2), F test, and Durbin–Watson value, to assess the validity of the regression model.

Table 1 results of multiple linear regression tests

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.348196	0.681359	6.381650	0.0004
DER	-0.069386	0.017162	-4.043075	0.0049
ROE	-0.021075	0.040917	-0.515066	0.6224
Adjusted R-squared				0.6224
F-statistic			8.416582	0.0137
Durbin-Watson stat			2.885583	

Source: secondary data, processed

Based on the results of the multiple linear regression analysis in Table 1, the following regression equation was obtained: $PBV = 4.348196 - 0.069386 (DER) - 0.021075 (ROE)$. This equation shows that the capital structure variable, proxied by the debt-to-equity ratio (DER), and profitability, proxied by return on equity (ROE), have a negative influence on firm value, proxied by price-to-book value (PBV). The constant value of 4.348196 indicates that if the DER and ROE variables are treated as constant or zero, the PBV is estimated at 4.348196. The partial test results (t-test) indicate that the

DER variable has a coefficient of -0.069386 and a p-value of 0.0049, which is smaller than the significance level of 0.05. These results indicate that capital structure has a negative and significant effect on firm value (H1 is rejected). Meanwhile, the ROE variable has a coefficient of -0.021075 and a p-value of 0.6224, which is greater than 0.05. These results indicate that profitability does not have a significant effect on firm value (H2 is rejected). Simultaneously, the test results show an F-statistic value of 8.416582 with a probability of 0.0137, which is smaller than 0.05. This indicates that the DER and ROE variables together have a significant effect on firm value. In addition, the Adjusted R-squared value of 0.6224 indicates that 62.24% of the variation in firm value can be explained by capital structure and profitability variables, while the remaining 37.76% is influenced by other variables outside this research model, such as liquidity, company size, dividend policy, and macroeconomic conditions.

The influence of capital structure on firm value

The results of the study indicate that capital structure, as measured by the debt-to-equity ratio (DER), has a negative and significant effect on firm value, as measured by price-to-book value (PBV), at PT. Indocement Tunggal Prakarsa Tbk. for the 2015–2024 period. This finding indicates that any increase in DER tends to decrease firm value. These results indicate that excessive debt use has not created added value for the company, but instead has increased investors' perceived risk.

These findings indicate that the company's capital structure was suboptimal during the study period. The year-over-year increase in total corporate debt was not accompanied by an increase in corporate value, as reflected in the decline in share prices and PBV. This condition signals that investors are more sensitive to the financial risks posed by high debt levels than to the potential profits the company could obtain from external financing (Abdeljawad et al., 2024; Bhandari et al., 2022). In practice, investors tend to avoid companies with high debt levels because they are perceived as having a greater risk of default, particularly during times of economic uncertainty or industry slowdowns.

The results of this study align with the trade-off theory, which holds that debt utilization can provide a tax shield, but only up to an optimal level (Esghaier, 2024). If debt utilization exceeds the optimal limit, the costs arising from bankruptcy risk, agency costs, and interest expenses will outweigh the benefits. This condition causes the company's value to decline because investors perceive it as high-risk. Therefore, the results of this study indicate that PT. Indocement Tunggal Prakarsa Tbk. may have experienced excessive leverage, leading the market to respond negatively to the company's increased debt.

The results of this study are also supported by several previous studies that found that capital structure negatively impacts firm value (Arianti, 2022; Rossa et al., 2023). Research by Kalash (2023) shows that excessive debt use can increase financial distress and reduce investor confidence. Furthermore, several empirical studies have shown that a high DER can lead to a decline in stock prices because investors perceive the company as having greater investment risk (Akin & Akin, 2026; Khorshidi et al., 2024; Landi et al., 2022). However, the results of this study differ from several other studies that found a positive effect of capital structure on firm value (Alifian & Susilo, 2024; Kammagi & Veny, 2023; Nurhaliza & Azizah, 2023). These differences may be caused by industry characteristics, economic conditions, a company's ability to generate profits, and its debt management effectiveness.

The reality on the ground shows that the cement industry faced significant challenges during the research period, such as increasingly fierce competition, overcapacity in national cement production, a slowdown in the property sector in several periods, and rising operational costs. These conditions require companies to be cautious in using debt as a financing source. Increasing debt without a commensurate increase in revenue and stable profits can undermine investor confidence in the company's prospects. This is evident in the decline in the share price of PT. Indocement Tungal Prakarsa Tbk. during the research period, even though the company remains one of Indonesia's largest cement producers.

The implications of this research's findings suggest that companies need to manage their capital structure more carefully and optimally to avoid excessive financial risk. Company management needs to balance debt and equity financing so the company can still benefit from external funding without reducing its value. Furthermore, companies need to improve operational efficiency and profitability so that debt can provide more productive benefits for company growth. Going forward, companies are advised to be more selective in adopting debt-based financing policies, especially in unstable economic conditions. Companies also need to strengthen their capital structure by increasing internal capital, improving cost efficiency, and optimizing investments that can generate stable cash flow. For investors, the results of this study can be used to inform risk assessments before making investment decisions. Meanwhile, for future researchers, this study can be expanded by adding additional variables, such as liquidity, company size, sales growth, and dividend policy, to provide a more comprehensive picture of the factors influencing firm value.

The effect of profitability on firm value

The results of the study indicate that profitability, as measured by return on equity (ROE), does not significantly influence firm value, as measured by price-to-book value (PBV), at PT. Indocement Tungal Prakarsa Tbk. for the 2015–2024 period. This finding indicates that changes in profitability levels do not significantly affect firm value during the study period. This finding indicates that although the company can generate profits, the market does not respond positively in the form of an increase in firm value. Profit fluctuations during the study period may be one reason why ROE does not have a significant influence on PBV. Investors seem to focus not only on short-term profitability but also on industry prospects, capital structure, and macroeconomic conditions when assessing companies. The competitive conditions in the cement industry and the tendency to experience demand pressures in some periods make the company's profits insufficient to drive an increase in its market value.

The results of this study align with several previous studies, which also found that profitability does not always have a significant impact on firm value (Dharmaputra et al., 2022; Hidayat & Khotimah, 2022). Several studies have shown that although profitability is an important indicator of financial performance, its influence on firm value can be weakened when external factors, such as capital market conditions and investor sentiment, are more dominant (Candradewi & Rahyuda, 2023; Din et al., 2022; Vuong, 2022). However, these results differ from signaling theory, which states that high profitability should be a positive signal to investors and increase firm value. This difference suggests that under certain conditions, the market may not always directly interpret profitability signals as positive.

In relation to trade-off theory and signaling theory, companies with high profitability should be able to increase investor confidence, thus increasing firm value

(Zhang & Wang, 2022). However, in this case, the insignificant results indicate that the profitability signal is not strong enough to influence investor decisions. This may occur because investors prioritize long-term profit stability over fluctuating annual profits. Furthermore, in the cement industry, external factors such as market demand, production capacity, and industry competition often play a more dominant role in influencing firm value perceptions than profitability alone.

These results are also supported by several previous studies, which found that the effect of profitability on firm value can be insignificant when a company operates in a cyclical industry or faces economic uncertainty (Wijaya & Susilowati, 2024). Under these conditions, investors tend to be more cautious and do not rely on ROE as the sole indicator when assessing a company. Therefore, the results of this study reinforce the view that the relationship between profitability and firm value is not always linear and can be influenced by many other factors. During the study period, the Indonesian cement industry faced challenges including overcapacity, fluctuating demand, and rising production costs. These conditions led to unstable year-to-year profits, so investors did not use ROE as the primary basis for assessing company performance. Even when profitability increases, the market may not respond positively if a clear improvement in growth prospects does not accompany it. This explains why ROE did not significantly influence PBV at PT. Indocement Tunggal Prakarsa Tbk.

These findings imply that company management cannot focus solely on increasing short-term profitability; it must also ensure the sustainability of long-term profitability. Companies need to improve operational efficiency, maintain revenue stability, and strengthen business strategies to ensure more consistent profits and gain investor confidence. Furthermore, companies need to consider other factors that can increase firm value, such as dividend policy, expansion strategy, and risk management. Going forward, companies are advised not only to pursue higher ROE but also to focus on the quality of the profits they generate to ensure stability and sustainability. For investors, this study's results illustrate that profitability alone is insufficient as the primary basis for investment decisions, requiring consideration of additional, more comprehensive variables. Meanwhile, for future researchers, this study can be expanded by adding additional variables, such as dividend policy, company growth, liquidity, and macroeconomic factors, to provide more in-depth insights into the factors influencing firm value.

Conclusions

This study shows that capital structure has a negative and significant effect on firm value, while profitability has no significant effect on firm value at PT. Indocement Tunggal Prakarsa Tbk. for the period 2015–2024. Simultaneously, both variables have a significant effect on firm value, but partially, only capital structure has a significant effect. These results indicate that increasing debt usage tends to decrease firm value, while changes in profitability have not had a significant impact on firm value.

The implications of this study indicate that capital structure management is a crucial factor in increasing firm value, requiring companies to be more cautious in determining the debt-to-equity ratio to avoid excessive financial risk. In terms of contribution, this study strengthens empirical evidence that, in the cement industry, capital structure plays a more dominant role than profitability in influencing firm value. However, this study has limitations, namely the use of only two independent variables, a 10-year research period, and a focus on a single company. Therefore, the results cannot be generalized to the entire cement industry or other sectors.

Future research is recommended to include other variables that can influence firm value, such as dividend policy, liquidity, company size, sales growth, and macroeconomic factors. Furthermore, future research could expand the research object by using multiple companies in the same industry or different sectors to make the results more comprehensive and generalizable. The use of more complex analytical methods, such as panel data, could also be considered to obtain more accurate and in-depth results.

References

- Abdeljawad, I., Alia, M. A., & Demaidi, M. (2024). Financing constraints and corporate investment decision: evidence from an emerging economy. *Competitiveness Review: An International Business Journal*, 34(1), 208–228. <https://doi.org/10.1108/CR-02-2023-0033>
- Akin, I., & Akin, M. (2026). Behavioral finance impacts on US stock market volatility: an analysis of market anomalies. *Behavioural Public Policy*, 10(2), 337–361. <https://doi.org/10.1017/bpp.2024.13>
- Alarussi, A. S., & Gao, X. (2023). Determinants of profitability in Chinese companies. *International Journal of Emerging Markets*, 18(10), 4232–4251. <https://doi.org/10.1108/IJOEM-04-2021-0539>
- Alifian, D., & Susilo, D. E. (2024). Pengaruh Profitabilitas, Likuiditas, Ukuran Perusahaan Dan Struktur Modal Terhadap Nilai Perusahaan. *Owner*, 8(1), 46–55. <https://doi.org/10.33395/owner.v8i1.1914>
- Arianti, B. F. (2022). Pengaruh Struktur Modal, Pertumbuhan Penjualan Dan Keputusan Investasi Terhadap Nilai Perusahaan. *Gorontalo Accounting Journal*, 5(1), 1–10. <https://doi.org/10.32662/gaj.v5i1.1845>
- Ayem, S., & Ina, C. R. T. (2023). Struktur Modal Dan Likuiditas Terhadap Nilai Perusahaan : Ukuran Perusahaan Sebagai Variabel Moderasi. *Jurnal Literasi Akuntansi*, 3(1), 47–57. <https://doi.org/10.55587/jla.v3i1.48>
- Bhandari, A., Kohlbeck, M., & Mayhew, B. (2022). Association of related party transactions with sensitivity of investments and external financing. *Journal of Corporate Finance*, 72, 102146. <https://doi.org/10.1016/j.jcorpfin.2021.102146>
- Brusov, P., & Filatova, T. (2023). Capital Structure Theory: Past, Present, Future. *Mathematics*, 11(3), 616. <https://doi.org/10.3390/math11030616>
- Bui, T. N., Nguyen, X. H., & Pham, K. T. (2023). The Effect of Capital Structure on Firm Value: A Study of Companies Listed on the Vietnamese Stock Market. *International Journal of Financial Studies*, 11(3), 100. <https://doi.org/10.3390/ijfs11030100>
- Candradewi, M. R., & Rahyuda, H. (2023). The Effect of Macroeconomic Indicators on Profitability and Firm Value. *Ekuitas: Jurnal Pendidikan Ekonomi*, 11(2), 171–184. <https://doi.org/10.23887/ekuitas.v11i2.68672>
- Dharmaputra, I. G. N. A., Rustiarini, N. W., & Dewi, N. P. S. (2022). Pengaruh Profitabilitas, Leverage, Ukuran Perusahaan, Likuiditas, Dan Pertumbuhan Perusahaan Terhadap Nilai Perusahaan. *KARMA (Karya Riset Mahasiswa Akuntansi)*, 2(1), 2141–2149. <https://e-journal.unmas.ac.id/index.php/karma/article/view/5362>
- Din, S. U., Khan, M. A., Khan, M. J., & Khan, M. Y. (2022). Ownership structure and corporate financial performance in an emerging market: a dynamic panel data analysis. *International Journal of Emerging Markets*, 17(8), 1973–1997. <https://doi.org/10.1108/IJOEM-03-2019-0220>
- Dina, D. A. S., & Wahyuningtyas, E. T. (2022). Pengaruh Profitabilitas, Leverage, Dan

- Ukuran Perusahaan Terhadap Nilai Perusahaan (Studi Empiris Pada Perusahaan Lq45 Pada Bursa Efek Indonesia Periode 2018-2020. *Accounting and Management Journal*, 6(1), 36–49. <https://doi.org/10.33086/amj.v6i1.2821>
- Dobrowolski, Z., & Drozdowski, G. (2022). Does the Net Present Value as a Financial Metric Fit Investment in Green Energy Security? *Energies*, 15(1), 353. <https://doi.org/10.3390/en15010353>
- Esghaier, R. (2024). The dynamic trade-off theory of capital structure: evidence from a panel of US industrial companies. *Studies in Economics and Finance*, 41(4), 902–922. <https://doi.org/10.1108/SEF-04-2023-0200>
- Gupta, S., Tuunanen, T., Kar, A. K., & Modgil, S. (2023). Managing digital knowledge for ensuring business efficiency and continuity. *Journal of Knowledge Management*, 27(2), 245–263. <https://doi.org/10.1108/JKM-09-2021-0703>
- Hanlon, M., & Heitzman, S. (2022). Corporate Debt and Taxes. *Annual Review of Financial Economics*, 14(1), 509–534. <https://doi.org/10.1146/annurev-financial-101221-103806>
- Hidayat, I., & Khotimah, K. (2022). Pengaruh Profitabilitas dan Ukuran Perusahaan terhadap Nilai Perusahaan sub sektor kimia. *Jurnal Ilmiah Akuntansi Kesatuan*, 10(1), 1–8. <https://doi.org/10.37641/jiakes.v10i1.1175>
- Kalash, I. (2023). The financial leverage–financial performance relationship in the emerging market of Turkey: the role of financial distress risk and currency crisis. *EuroMed Journal of Business*, 18(1), 1–20. <https://doi.org/10.1108/EMJB-04-2021-0056>
- Kalbuana, N., Suryati, A., & Pertiwi, C. P. A. (2022). Effect Of Company Age, Audit Quality, Leverage And Profitability On Earnings Management. *International Journal of Economics, Business and Accounting Research (IJEBAR)*, 6(1), 305. <https://doi.org/10.29040/ijebar.v6i1.4796>
- Kammagi, N., & Veny, V. (2023). Pengaruh Struktur Modal, Profitabilitas, Ukuran Perusahaan Dan Pertumbuhan Perusahaan Terhadap Nilai Perusahaan. *Jurnal Akuntansi Bisnis*, 16(1). <https://doi.org/10.30813/jab.v16i1.4030>
- Khorshidi, D., Khoeini, B., & Yousefvand, D. (2024). The Effect of Investors Emotional Tendencies on The Relationship Between the Systematic Risk and Corporate Stocks. *Journal of Organizational Behavior Research*, 9(1), 79–97. <https://doi.org/10.51847/dFVCa3K5p8>
- Landi, G. C., Iandolo, F., Renzi, A., & Rey, A. (2022). Embedding sustainability in risk management: The impact of environmental, social, and governance ratings on corporate financial risk. *Corporate Social Responsibility and Environmental Management*, 29(4), 1096–1107. <https://doi.org/10.1002/csr.2256>
- Lestari, I. D., Anggraeni, Y. P., & Octavia, A. N. (2023). Pengaruh Return On Assets, Return On Equity Dan Ukuran Perusahaan Terhadap Nilai Perusahaan. *Solusi*, 21(2), 153–165. <https://doi.org/10.26623/slsi.v21i2.6355>
- Nurhaliza, N., & Azizah, S. N. (2023). Analisis Struktur Modal, Kepemilikan Manajerial, Pertumbuhan Perusahaan, Dan Profitabilitas Terhadap Nilai Perusahaan. *Jurnal Riset Keuangan Dan Akuntansi*, 9(1), 31–44. <https://doi.org/10.25134/jrka.v9i1.7593>
- Panjaitan, T. W. S., Dargusch, P., Wadley, D., & Aziz, A. A. (2023). A study of management decisions to adopt emission reduction measures in heavy industry in an emerging economy. *Scientific Reports*, 13(1), 1413. <https://doi.org/10.1038/s41598-023-28417-2>
- Rossa, P. A. E., Susandya, A. A. P. G. B. A., & Suryandari, N. N. A. (2023). Pengaruh

- Likuiditas, Profitabilitas, Pertumbuhan Perusahaan, Ukuran Perusahaan dan Struktur Modal terhadap Nilai Perusahaan Perusahaan Perbankan di BEI 2019-2021. *Kumpulan Hasil Riset Mahasiswa Akuntansi (KHARISMA)*, 5(1), 88–99. <https://e-journal.unmas.ac.id/index.php/kharisma/article/view/6330>
- Safaruddin, S., Nurdin, E., & Indah, N. (2023). Pengaruh Struktur Modal Dan Ukuran Perusahaan Terhadap Nilai Perusahaan Yang Terdaftar Di Bursa Efek Indonesia. *Jurnal Akuntansi Dan Keuangan*, 8(1), 166–179. <https://jak.uho.ac.id/index.php/journal/article/view/71>
- Spence, M. (1973). Job Market Signaling. *The Quarterly Journal of Economics*, 87(3), 355. <https://doi.org/10.2307/1882010>
- Vuong, N. B. (2022). Investor sentiment, corporate social responsibility, and financial performance: Evidence from Japanese companies. *Borsa Istanbul Review*, 22(5), 911–924. <https://doi.org/10.1016/j.bir.2022.06.010>
- Wahyuni, N., & Gani, A. A. (2022). Reviewing the Firm Value in terms of Profit, Debt, and Growth. *Jurnal Manajemen*, 26(1), 121–139. <https://doi.org/10.24912/jm.v26i1.843>
- Wijaya, L. H., & Susilowati, C. (2024). Pengaruh Ukuran Perusahaan, Pertumbuhan Perusahaan, Leverage dan Profitabilitas terhadap Nilai Perusahaan. *Jurnal Edukasi (Ekonomi, Pendidikan Dan Akuntansi)*, 12(1), 105. <https://doi.org/10.25157/je.v12i1.14167>
- Yildiz, F., Dayi, F., Yucel, M., & Cilesiz, A. (2024). The Impact of ESG Criteria on Firm Value: A Strategic Analysis of the Airline Industry. *Sustainability*, 16(19), 8300. <https://doi.org/10.3390/su16198300>
- Zhang, J., & Wang, Y. (2022). How to Improve the Corporate Sustainable Development?—The Importance of the Intellectual Capital and the Role of the Investor Confidence. *Sustainability*, 14(7), 3749. <https://doi.org/10.3390/su14073749>