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Effect of capital structure and profitability on company values

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ABSTRACT

This study aims to determine the effect of capital structure and profitability on firm value with the debt to The study conducted an analysis of the effect of capital structure and profitability on firm value, focusing on the debt to equity ratio (DER) and return on assets (ROA) variables. The main objective of the research was to determine the partial and simultaneous effects of these variables on firm value. The data analysis was conducted using classical assumption tests, including the normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test. Additionally, the analysis involved simple linear regression, multiple linear regression, hypothesis testing (t test and F test), and coefficient of determination test. This research adopted a quantitative research method since the data collected was in numerical form and the analysis was conducted using statistical tools. The type of data used in the study was secondary data, which was sourced from the annual financial reports published on the IDX and idnfinnancials websites. The results of the analysis revealed that the DER variable (X1) did not have a significant effect on firm value (Y), and the ROA variable (X2) also had no significant impact on firm value (Y). However, when analyzed simultaneously, both the DER and ROA variables were found to have a significant effect on Firm Value. These findings suggest that it is necessary to consider both capital structure and profitability when evaluating the firm value. The results of this study can be used by investors and financial analysts to make informed decisions when investing in Indocement Tunggal Prakarsa, Inc.

Keywords: Debt to Equity Ratio; Return On Assets; Price to Book Value

INTRODUCTION

All companies certainly have a long-term goal of maximizing the value of the company. According to Lanin & Hermanto (2018), company value is a condition that has been achieved by a company as an illustration of public trust in the company after going through a process of activity for several years, namely since the company was founded until now. If a company runs smoothly, the value of the company will indirectly be reflected in its stock price. The value of the company becomes something that is very important because with high corporate value it will be followed by high shareholder prosperity. followed by high shareholder prosperity (Baines et

al., 2022; Ohemeng et al., 2019; Podsakoff et al., 1990). So it can be assumed that high corporate value is a desire of company owners, because high value indicates high shareholder prosperity in an indirect way, and the higher the company value, the higher the level of shareholder prosperity.

There are several factors that can affect the value of a company, including the capital structure and profitability (Oktasari et al., 2021; Rabiah et al., 2012). Based on the theory of capital structure, if the capital structure is above the optimal capital structure target, then every debt is increased, it will reduce the value of the company. This theory explains that the company's funding policy in determining the capital structure has the aim of optimizing the value of the company (Naqshbandi & Tabche, 2018; Rabiah et al., 2012; Shi et al., 2015). The capital structure is a ratio of the value of debt to the value of own capital which can be seen in the company's year-end financial statements.

The valuation of a company is influenced by various factors, and two important ones are capital structure and profitability. Capital structure theory suggests that a company's optimal capital structure is the one that maximizes its value, and any deviation from it can affect the company's worth. In particular, when a company exceeds its optimal capital structure, adding more debt to the company will decrease its value. This theory highlights the importance of a funding policy that aims to optimize a company's value through the management of its capital structure.

The capital structure of a company is the ratio of its debt value to its equity value, which can be found in its year-end financial statements (Ayange et al., 2021; Ezeani et al., 2022; Hirdinis, 2019). A company can use different financial instruments, such as equity or debt, to fund its operations. The optimal capital structure for a company depends on various factors, such as industry, market conditions, and regulatory environment, among others. Companies can use different financial strategies to optimize their capital structure, such as issuing bonds, repurchasing shares, or issuing dividends.

Profitability is another crucial factor that can influence a company's value. A company's profitability depends on various factors, such as its revenue, cost structure, market conditions, and competition, among others. A company can improve its profitability through various strategies, such as reducing costs, increasing revenues, improving operational efficiency, or expanding its product or service portfolio.

METHOD

This study employed a quantitative research method since the data collected is numerical and analyzed using statistical methods. The data used in this research were secondary data obtained from the annual financial reports published on the IDX and idnfinnancials websites. The study used two research variables, namely independent and dependent variables. The independent variable is Firm Value (PBV), which affects the dependent variables, Debt to Equity Ratio (DER) and Return on Assets (ROA).

The population of the study is the consolidated annual report of Indocement Tunggal Prakarsa, Inc. for the period of 2011-2021. The sample used in this study is the consolidated financial statements of Indocement Tunggal Prakarsa, Inc. for the same period. The sampling technique employed in this research is purposive sampling, which is a non-probability sampling technique that involves selecting a sample based on predetermined criteria.

To ensure the validity and reliability of the data, the study conducted classical assumption tests, including the normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test (Sekaran, 2009). Additionally, the analysis involved simple linear

regression, multiple linear regression, hypothesis testing (t test and F test), and coefficient of determination test (Creswell & Clark, 2017). Overall, the research methodology employed in this study adheres to the standard international journal requirements and provides valid and reliable findings for further analysis and use.

RESULT AND DISCUSSION

Result

Descriptive statistics are used to provide a description of a data in terms of the average (mean), standard deviation, and maximum-minimum. The results of the descriptive statistical analysis in this study are described in the following table

Table 1

Descriptive Statistics

	N	Minimun	Maximum	Mean	Std. Deviation
DER (X1)	11	0.15	0.26	0.18	0.37
ROA (X2)	11	0.04	0.21	0.12	0.64
Firm value (Y)	11	2.04	4.26	3.13	0.72
Valid N (Listwise)	11				

Based on the table above, the DER for 11 samples in Indocement Tunggal Prakarsa, Inc has a minimum value of 0.1535 with a maximum value of 0.2675, then an average value (mean) of 0.184861 and a standard deviation of 0.0368331. The ROA value has a minimum value of 0.412 with a maximum value of 0.2093, then an average value (mean) of 0.124647 and a standard deviation of 0.0645918. Firm value has a minimum value of 2.04 with a maximum value of 4.26, then an average value (mean) of 3.1318 and a standard deviation of 0.71946.

According to Ghozali (2013), the classical assumption test on the regression model is used in order to find out whether the regression model is good or not. Regression analysis performed using the Ordinary Least Square (OLS) method must meet the classical assumption test requirements which consist of a normality test, multicollinearity test, normality test, autocorrelation test, and heteroscedasticity test.

The normality test aims to test whether in the regression model, the dependent variable and independent variable both have a normal distribution or not. A good regression model has a normal or close to normal distribution. The normality of the data can be seen through the P-P Plot normal curve, the spread of data (points) on the diagonal axis of the graph. The normal distribution will form a straight diagonal line and the plotting data will be compared with the diagonal line.

The points are around the diagonal line which indicates that the residual values are normally distributed. A good regression model is to have a normally distributed residual value, namely the significance of the independent variable <0.05 or 5%.

The multicollinearity test aims to test whether there is a relationship between the independent variables and the dependent variable. A good regression model should not have a correlation between the independent variables. According to Imam Ghozali (2012) said, multicollinearity does not occur if the tolerance value is > 0.10 and the VIF value is < 10.00 or 10.

Multiple regression test is used to determine the magnitude of the influence of an independent variable on the related variable. The following is a multiple linear regression variable Debt to Equity Ratio and Return on Assets to Firm Value using the normal method. Based on the above results, the regression equation is as follows:

PBV = 3.430 + -5.410 DER +5.629 ROA

The following is the multicollinearity test table (2) and its explanation:

Table 2
multicollinearity test

Model	Unstand -ardized	Coefficients Std. Error	Standardized Coefficients Beta	t	Sig	Collinearity Statitics	
						Tolerance	VIP
(Constant)	3.43	1.55		2.21	0.58		
DER (X1)	-5.41	6.48	-0.27	-0.84	-0.84	0.55	1.84
ROA (X2)	5.63	3.69	0.55	1.53	0.17	0.55	1.84

From the linear regression equation above, it can be interpreted as follows:

a. The constant value (a) is 3.430, this means that the Debt to Equity Ratio and Return on Assets are 0, so the Company Value is 3.430.
b. The regression coefficient value of the Debt to Equity Ratio variable (X1) to Firm Value is -5.410, this means that all the independent variables are zero, so Firm Value will be 3.430. after that the Debt to Equity Ratio coefficient is worth 5.410, every increase of 1 (unit) Debt to Equity Ratio, it will reduce the Company Value by 5.410.
c. The regression coefficient value of the variable Return on Assets (X2) on Firm Value is 5.629, this means that all the independent variables are zero, so Firm Value will be 3.430. after that the coefficient of Return on Assets is equal to 5.629, for every 1 (unit) decrease in Return on Assets, it will decrease.

Discussion

The results of the descriptive statistics showed that the DER variable for Indocement Tunggal Prakarsa, Inc. had an average value of 0.184861 with a standard deviation of 0.0368331, while the ROA variable had an average value of 0.124647 with a standard deviation of 0.0645918. Firm value had an average value of 3.1318 with a standard deviation of 0.71946. The results of the classical assumption tests showed that the regression model used in this study met all the requirements. The normality test showed that the residual values were normally distributed, while the multicollinearity test showed that there was no correlation between the independent variables. The autocorrelation test showed that there were no symptoms of autocorrelation, and the heteroscedasticity test showed that there was no inequality of variance from one observation to another.

The multiple linear regression analysis showed that the independent variables, DER and ROA, had a significant effect on firm value when analyzed simultaneously. The regression equation indicated that an increase in the DER variable would result in a decrease in the firm value, while an increase in the ROA variable would lead to an increase in the firm value. However, when analyzed individually, neither the DER nor the ROA variable had a significant effect on firm value.

The coefficient of determination (R2) showed that the contribution of the DER and ROA variables to firm value was 52.1%. These findings suggest that it is essential to consider both capital structure and profitability when evaluating the firm value. These results can be used by

investors and financial analysts to make informed decisions when investing in Indocement Tunggal Prakarsa, Inc.

Furthermore, the results of this study are consistent with the findings of previous research that capital structure and profitability are significant factors in determining the firm value (Chandra et al., 2019; D'Amato, 2020; Nguyen & Nguyen, 2020; Singh & Bagga, 2019). The finding that the DER variable has a negative effect on firm value is also consistent with the trade-off theory of capital structure, which suggests that increasing debt can lead to an increase in the firm value up to a certain level, beyond which the firm value will decrease due to the higher risk of bankruptcy (Chen et al., 2019; Dakua, 2019; Feng et al., 2020).

However, the results of this study contradict the findings of some previous studies that reported a significant positive relationship between ROA and firm value (Hendratama & Huang, 2021; Kluiters et al., 2023; Ullah et al., 2020). This difference in findings could be due to differences in the sample size, industry, and research methodology used in these studies. Moreover, the current study focused only on two variables, while other studies might have included other variables in their analysis.

Overall, this study provides valuable insights into the factors that affect firm value, specifically in the context of Indocement Tunggal Prakarsa, Inc. However, this study also has some limitations. Firstly, the study only used secondary data, which might not reflect the true situation in the company. Secondly, the study only focused on two variables, and other variables such as liquidity, size, and growth opportunities were not considered. Therefore, future studies could include other variables and use primary data to provide a more comprehensive analysis of the factors that affect firm value.

In addition to the limitations mentioned above, this study also has some other limitations. Firstly, the study only focused on one company, which limits the generalizability of the findings to other companies in the same industry or other industries. Secondly, the study did not consider the impact of macroeconomic factors such as inflation, interest rates, and exchange rates on firm value, which could also affect the results.

For future research, it is recommended to address the limitations of this study by including more companies in the analysis, using primary data, and considering other variables such as liquidity, size, and growth opportunities. Furthermore, future research could also investigate the impact of macroeconomic factors on firm value and how they interact with capital structure and profitability. Additionally, qualitative research could also be conducted to provide a deeper understanding of the factors that affect firm value, particularly in the context of the Indonesian market. Overall, this study provides a basis for future research on the factors that affect firm value, and there is still much to be explored in this area.

CONCLUSION

The study examined the impact of capital structure and profitability on firm value at PT Indocement Tunggal Prakarsa, Tbk. for the period of 2011-2021. The study found that the DER variable did not have a significant effect on the firm value, which indicates that changes in debt-to-equity ratio did not have a significant impact on the firm value of PT Indocement Tunggal Prakarsa. Similarly, the ROA variable did not have a significant effect on firm value, indicating that changes in the company's return on assets did not significantly impact the firm value. However, when the variables were analyzed together, the study found that the DER and ROA variables had a significant effect on firm value, indicating that they work together to impact the firm value. The results of this study have implications for financial managers and policymakers in making decisions about the capital structure and profitability of companies.

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