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The Influence of Debt to Equity Ratio, Return on Assets, and Percentage of Stock Offering on IPO Underpricing in the Indonesia Stock Exchange

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Abstract
The aim of this research is to examine and analyze the influence of Debt to Equity Ratio, Return on Assets, and the percentage of stock offering on IPO underpricing. This study employs a quantitative method using secondary data obtained from the official website of the Indonesia Stock Exchange and company prospectuses. The population of this research includes companies that conducted Initial Public Offerings (IPOs) on the Indonesia Stock Exchange during the period of 2020-2022. Sample selection was done through purposive sampling, resulting in 124 processed data samples that met the criteria. The analytical methods used include descriptive statistical tests, classical assumption tests, multiple regression tests, and hypothesis tests. The research findings indicate that the Debt to Equity Ratio has a negative influence on underpricing, suggesting that the higher the debt-to-equity ratio, the lower the level of underpricing observed in stock offerings. Additionally, Return on Assets and the percentage of stock offering do not have a significant effect on the level of underpricing. Nevertheless, collectively, the variables of Debt to Equity Ratio, Return on Assets, and the percentage of stock offering influence underpricing. These results can serve as a crucial guide for market participants and companies planning stock offerings to understand the factors that may affect underpricing and optimize strategies in the stock pricing process.
Keywords: Debt to Equity Ratio, Return on Assets, Share Offering, Underpricing.

INTRODUCTION

In conducting business development, every company requires substantial capital. One way for a company to obtain additional funds is by selling shares to the public, commonly known as Initial Public Offering (IPO) (Muslimah, 2021). There are two types of markets in the IPO process, namely the primary market and the secondary market. In the primary market, the stock price is determined through an agreement between the issuer as the shareholder and the underwriter as the issuing guarantor. Meanwhile, in the secondary market, the stock price is determined based on the demand and supply process of shares by potential investors. Although the stock price in the primary market is determined by a joint decision, the issuer and underwriter have different desires. The issuer as the company owner wants a high stock price to maximize fundraising. Meanwhile, the underwriter as the issuing guarantor wants a low

stock price to minimize the risk it might bear if the shares do not sell by taking advantage of the issuer's unawareness of market conditions. This difference in information is known as information asymmetry and can lead to underpricing (Putri, 2019). Based on data from the Indonesia Stock Exchange (IDX), the number of companies completing IPOs has significantly increased from 2020 to 2022. However, almost all issuers undergoing IPOs experience underpricing. In 2020, all 51 companies that went public experienced underpricing. Then in 2021, 46 out of 54 companies undergoing IPOs experienced underpricing. In 2022, 46 out of 59 companies undergoing IPOs experienced underpricing.

Underpricing is a situation where the stock price in the primary market is lower than the price in the secondary market on the first day. This condition is detrimental to the issuer because they cannot maximize fundraising from the public. On the other hand, investors will be disadvantaged as they do not get the maximum initial return if overpricing occurs, where the stock price in the primary market is higher than the stock price in the secondary market on the first day (Asnaini, 2018). The phenomenon of underpricing occurs due to differences in information held by the issuer and the underwriter. In determining the stock price, certain parties pay close attention to information about the company because the completeness of company information can result in differences in the agreed-upon stock price. The difference in stock prices in the primary and secondary markets can be avoided if the price determiners in both markets have the same data about the company going public.

Previous studies have examined various factors causing underpricing. Among many factors contributing to underpricing, the researcher is interested in testing three factors: Debt to Equity Ratio (DER), Return on Assets (ROA), and the percentage of stock offerings. Debt to Equity Ratio (DER) is a ratio that measures a company's performance in paying its debts with its equity. Return on Assets (ROA) is a ratio that measures a company's ability to generate profit using its assets. The percentage of stock offerings is the percentage indicating how much public ownership is in the company.

LITERATURE REVIEW

Information Asymmetry Theory

According to Ariyani (2023), the information asymmetry theory explains that each party involved in a company may not necessarily have the same information about the prospects and risks the company possesses. Rock (1986) as cited in Laurus and Setijaningsih (2022) argued that investors with better information would avoid overvalued stocks during IPOs because they have more information compared to other investors.

Signaling Theory
Signaling theory discusses the rise and fall of stock prices, bonds, and other securities in the capital market, affecting investor decisions. How investors respond to signals given by companies, whether positive or negative, will influence the capital market situation (Putri, 2018).

Capital Market in Indonesia
The capital market is a place where various long-term financial instruments are traded, such as bonds, stocks, mutual funds, derivatives, and others. The capital market is where companies or other institutions seek funding and make investments.

Initial Public Offering (IPO)
Initial Public Offering (IPO) is the initial public offering of shares to the public in the capital market. Generally, companies go public to improve capital structure, production capacity, management quality, and expand business relationships.

Underpricing
Underpricing is a common phenomenon in the capital market. The underpricing phenomenon poses different risks for each issuer or investor. When underpricing occurs, the issuer does not benefit because they do not receive maximum funds. However, on the other hand, underpricing benefits investors as they can receive an initial return.

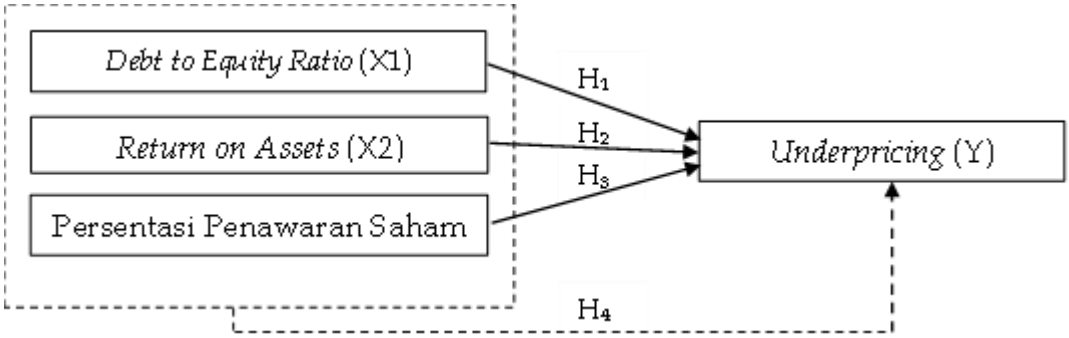
Debt to Equity Ratio (DER)
Debt to Equity Ratio (DER) is one of the debt-to-equity ratios measured by comparing the total debt to the equity of a company. A high DER indicates that the company has significant obligations because the company tends to use debt rather than its equity in expanding its operations (Ariyanti and Isynuwardhana, 2023).

Return on Assets (ROA)
Return on Assets (ROA) is a profitability ratio that calculates how efficiently a company can generate profit from its assets. ROA is used to estimate the net profit that can be obtained from each company's asset (Saputra, et al, 2023). A high ROA value proves that the company has a high ability to generate profit, enabling the company to be considered profitable.

Percentage of Stock Offering
The percentage of stock offerings indicates how much public ownership a company has. The more shares a company offers, the higher the uncertainty the company will have in the future. Therefore, issuers and underwriters will agree to offer a low initial price (Rianttara and Lestari, 2020).

Conceptual Framework.

Figure 1
Conceptual Framework



Source: Processed Primary Data, 2023

Hypotheses
H1: Debt to Equity Ratio (DER) has a negative effect on underpricing.
H2: Return on Assets (ROA) has a positive effect on underpricing.
H3: Percentage of shares offered has a positive effect on underpricing.
H4: Debt to Equity Ratio (DER), Return on Assets (ROA), and percentage of shares offered collectively influence underpricing.

RESEARCH METHODS
This research employs a quantitative method to analyze data using measurements, formula calculations, and numerical data or statistical calculations to test hypotheses. The population used consists of companies that conducted Initial Public Offerings (IPOs) on the Indonesia Stock Exchange (IDX) from 2020 to 2022, totaling 164 companies. Sample selection was conducted using purposive sampling with specific criteria representing the population, resulting in a sample of 124 companies. The data is quantitative and measured on a numerical scale obtained from the official IDX website and company prospectuses.

In this study, several statistical analyses were conducted to gain a deep understanding of the collected data. Firstly, descriptive statistical analysis was used to provide a general overview of data distribution, including statistical summaries such as mean, median, and standard deviation. Subsequently, classical assumption tests were employed to ensure that the sample data used in the research was not affected by disturbances such as abnormal distribution, multicollinearity, heteroskedasticity, and autocorrelation. This test is crucial to ensure the validity of the analysis results. Furthermore, multiple linear regression was applied to evaluate the relationship between independent and dependent variables. This analysis helps determine the direction and extent of the influence of independent variables on the dependent variable. In the context

of this research, multiple linear regression assists in identifying whether variables such as Debt to Equity Ratio (DER), Return on Assets (ROA), and the percentage of share offers have a significant impact on underpricing.

Determinant coefficient tests were also conducted to measure how much the dependent variable, in this case, underpricing, is influenced by the identified independent variables. The determinant coefficient provides an overview of how well the independent variables can explain variations in the dependent variable. Finally, hypothesis tests were performed both partially and simultaneously. Partial hypothesis testing helps determine the individual influence of each independent variable on the dependent variable separately, while simultaneous hypothesis testing provides information about the combined influence of all independent variables on the dependent variable. All these steps collectively provide a robust foundation for analysis and reliable research results.

RESULT AND DISCUSSION

Descriptive Statistical Analysis Test

Table 1
Results of Descriptive Statistical Analysis

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
DER	124	0.02	14.52	1.4001	1.78095
ROA	124	0.01	78.14	5.5399	9.16475
PPS	124	1.06	40.00	20.8028	7.57626
UPR	124	0.01	0.70	0.2957	0.16611
Valid N (listwise)	124				

Source: Output SPSS, 2023

Based on the results of descriptive statistical analysis, Table 1 indicates that the Debt to Equity Ratio (DER) variable has a mean value of 1.4001 with a standard deviation of 1.78095. The Return on Assets (ROA) variable has a mean value of 5.5399 with a standard deviation of 9.16475. The variable Percentage of Share Offers (PPS) has a mean value of 20.8028 with a standard deviation of 7.57626. Finally, the underpricing variable (UPR) has a mean value of 0.2957 with a standard deviation of 0.16611.

Classical Assumption Test

Normality Test

Based on Table 2, it can be seen that the Asymp. Sig value is 0.070, which is greater than 0.05. Therefore, the sample data in this study is normally distributed.

Table 2
Results of Normality Test

One-Sample Kolmogorov-Smirnov Test			
			Unstandardized Residual
N			40
Normal Parameters[a,b]	Mean		0.0000000
	Std. Deviation		0.00308740
Most Extreme Differences	Absolute		0.133
	Positive		0.080
	Negative		-0.133
Test Statistic			0.133
Asymp. Sig. (2-tailed)[c]			0.070
Monte Carlo Sig. (2-tailed)[d]	Sig.		0.065
	99% Confidence Interval	Lower Bound	0.059
		Upper Bound	0.072

Source: Output SPSS, 2023

Multicollinearity Test

Table 3
Results of Multicollinearity Test

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	0.355	0.002		160.327	0.000		
	DER	-0.003	0.001	-0.659	-5.061	0.000	0.952	1.050
	ROA	-6.588	0.000	-0.072	-0.559	0.580	0.975	1.025
	PPS	0.000	0.000	-0.199	-1.526	0.136	0.945	1.059

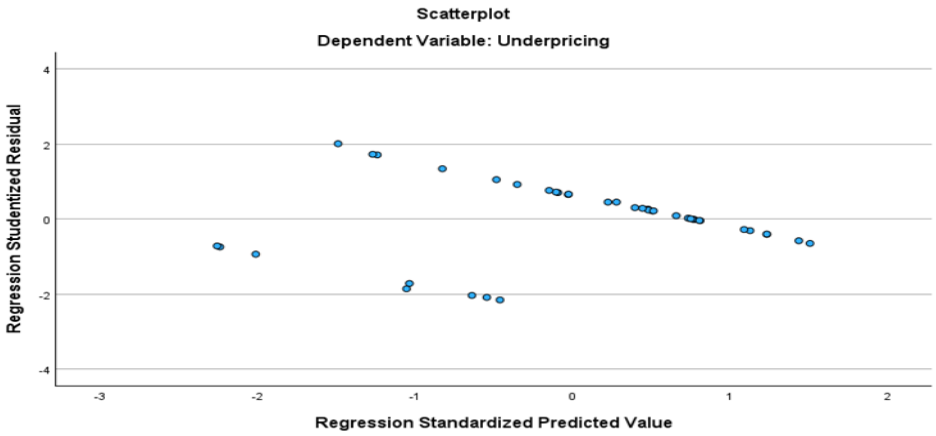
Source: Output SPSS, 2023

The results of the multicollinearity test in Table 3 show that all variables have tolerance values > 0.1 and VIF values < 10. Thus, it can be said that the sample data in this study does not exhibit multicollinearity symptoms.

Heteroskedasticity Test

The results of the heteroskedasticity test in Figure 2 indicate that the points are scattered above and below the number 0. It can be stated that this study does not experience heteroskedasticity symptoms.

Figure 2
Results of Heteroskedasticity Test



Source: Output SPSS, 2023

Autocorrelation Test

Table 4
Results of Autocorrelation Test

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.647[a]	0.419	0.371	0.00321	2.122

Source: Output SPSS, 2023

The DU value in the Durbin-Watson table (DW) with k=3 and n=40 is 1.658, then the 4-DU value is 2.3411. So, 1.658 < 2.122 < 2.3411. It can be stated that this study does not experience autocorrelation.

Multiple Linear Regression Test

Table 5
Results of Multiple Linear Regression Test

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.355	0.002		160.327	0.000
	DER	-0.003	0.001	-0.659	-5.061	0.000
	ROA	-6.588	0.000	-0.072	-0.559	0.580
	PPS	0.000	0.000	-0.199	-1.526	0.136

Source: Output SPSS, 2023

Based on the results of the multiple linear regression test in Table 5, the regression equation is obtained as follows:

Y = 0.355 – 0.003 DER – 6.588 ROA + 0.000 PPS + e

Coefficient of Determination Test (R2)

Table 6
Results of Coefficient of Determination Test (R2)

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.647[a]	0.419	0.371	0.00321	2.122

Source: Output SPSS, 2023

The results of the coefficient of determination test (R2) in Table 6 indicate that the independent variables Debt to Equity Ratio (DER), Return on Assets (ROA), and the percentage of stock offerings can explain the dependent variable Underpricing by 37.1%, with the remaining 62.9% being explained by other variables.

Hypothesis Testing

Partial Test (t-test)

Table 7
Results of Partial Test (t-test)

Coefficients[a]						
Model		Unstandardized Coeffiicients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.355	0.002		160.327	0.000
	DER	-0.003	0.001	-0.659	-5.061	0.000
	ROA	-6.588	0.000	-0.072	-0.559	0.580
	PPS	0.000	0.000	-0.199	-1.526	0.136

Source: Output SPSS, 2023

The results of the hypothesis test, conducted partially in Table 7, indicate that the Debt to Equity Ratio (DER) variable has a significance value of 0.000 < 0.05, thus H1 is accepted. With a Unstandardized Coefficients beta value of -0.003, it can be stated that DER significantly negatively influences underpricing. This implies that, to attract investor interest, companies with a high DER deliberately signal underpricing to investors, leading them to believe they will receive a high initial return. This will result in a decrease in underpricing. However, the Return on Assets (ROA) and the percentage of stock offerings have significance values greater than 0.05, so H2 and H3 are rejected, indicating

that both variables do not affect underpricing. This means that, in making investment decisions, investors consider not only the value of ROA and the amount of stock offered by the company but also other factors such as Earnings per Share, Price Earning Ratio, company value, company size, and others.

Simultaneous Test (F-test)

Table 8
Results of Simultaneous Test (F-test)

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.000	3	0.000	8.659	.000[b]
	Residual	0.000	36	0.000		
	Total	0.001	39			

Source: Output SPSS, 2023

The results of the simultaneous hypothesis test in Table 8 obtained a significance value of 0.000 > 0.05. Thus, it can be stated that the independent variables consisting of Debt to Equity Ratio (DER), Return on Assets (ROA), and the percentage of stock offerings simultaneously influence the dependent variable underpricing. This means that the difference in information held by investors influences investors' decisions to invest in IPO stocks that are underpriced.

Companies with a high debt-to-equity ratio tend to indicate a specific strategy in their stock offering processes. A high debt ratio suggests that the company relies largely on borrowed funds to support their operations and expansion, as opposed to using their own capital. In the context of stock offerings, a high debt ratio can serve as a signal to potential investors that the company is striving to provide lucrative investment opportunities. Companies may intentionally send an underpriced signal, offering shares at a lower price than their actual value, with the aim of attracting investor interest (Damanik et.al., 2020).

The expectation behind this action is to captivate and encourage potential investors to participate in the stock offering (Irawan et.all., 2023). By providing a low IPO price, the company hopes to create an opportunity for investors to gain a significant initial return, thus drawing interest for investment in the company's shares. If successfully implemented, this phenomenon has the potential to reduce the underpricing value in stock offerings, as stocks are valued more realistically according to the company's performance and prospects. Therefore, a high debt-to-equity ratio not only reflects the financial structure of the company but can also be part of a marketing strategy to attract investor interest in the capital market (Kasmad et.all., 2021).

The research findings indicate that Return on Assets (ROA) and the number of shares offered by a company do not have a significant influence on stock underpricing. This outcome illustrates that when investors make investment decisions, they do not solely consider ROA and the quantity of shares offered by the company as primary factors. Additional factors such as Earnings per Share (EPS), Price Earnings Ratio (PER), company valuation, and company size also play a crucial role in investors' assessment of stocks. This suggests the complexity and diversity of considerations accommodated by investors in evaluating the potential returns and risks of an investment. Consequently, investor strategies tend to encompass variables beyond ROA and the number of shares, aiming for a more holistic and informational investment decision-making process (Mahardika et.all., 2021).

The research findings indicate that the differences in information possessed by investors have a significant impact on their decisions to invest in stocks offered through Initial Public Offering (IPO) with prices classified as underpriced. These results provide further insights into the dynamics of the capital market, specifically how information becomes a determinant in shaping investors' perceptions of the value of IPO stocks. Corporate strategies in managing information, whether through specific signals or deliberate marketing tactics, seem to play a quite significant role in influencing how investors assess investment opportunities. This discovery contributes to understanding the complexity of interactions between information, investor perceptions, and the dynamics of the capital market.

CONCLUSION

From the above research results, it can be concluded that the Debt to Equity Ratio (DER) has a negative effect on underpricing, while Return on Assets (ROA) and the percentage of stock offerings do not affect underpricing. Due to the limitations of the sample and variables in this study, future researchers are expected to improve the research quality by testing or adding other variables believed to influence stock underpricing during IPO. Based on the findings of this study, for investors looking to buy stocks in the primary market, it is recommended to predict investment returns by paying more attention to operational factors of companies going public to obtain optimal returns. Additionally, based on the results of this study, for companies planning to go public, it is advised to consider how to trade their stocks and the factors that can make their stock prices perceived as high. Knowing the right time to market stocks in the primary market is also crucial.

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