

# THE UNDERPRICING PHENOMENON IN INITIAL PUBLIC OFFERINGS (IPOS) THROUGH FINANCIAL PERFORMANCE AS A MODERATING VARIABLE IN COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE

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## ARTICLE INFO

### Keywords:

Underpricing, Ownership Structure, Company Size, Financial leverage, Financial Performance.

## ABSTRACT

This study examines the phenomenon of underpricing in the stock market from 2020 to 2022, focusing on companies conducting initial public offerings (IPOs). When the IPO price is lower than the secondary market price, the stock price rises following the IPO. The study's goal is to investigate the factors that influence IPO underpricing as well as the function of financial performance as a moderator in the relationship between these factors and underpricing. Ownership structure, company size, and financial leverage are the independent variables. The study's findings show that ownership structure and financial leverage have a significant impact on underpricing, although firm size has little effect. Furthermore, while financial performance can mitigate the impact of ownership structure and financial leverage on underpricing, it does not affect the impact of firm size on underpricing. This research provides insights into the factors contributing to underpricing in IPOs and identifies financial performance as a potential solution to mitigate the effects of these factors. This information can be beneficial for companies and investors in making investment decisions in the stock market.

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## 1. INTRODUCTION

An initial public offering (IPO) is a firm's first attempt to raise capital from the investing public by selling company shares to the general public [1], [2]. During the initial public offering (IPO) procedure, the firm issues shares to capital market investors for the first time. An IPO is a strategic step for a company to get new cash to promote corporate expansion, eliminate debt, and increase the firm's worth. Aside from that (Brau & Fawcett, 2006) also mention that the primary motive to go public is to assist in acquisitions. If a company's performance after going public is weak or poor, it will impact the stock price in the secondary market or stock exchange, which does not directly reflect the company's worth [4]. When the initial stock price exceeds the initial offering price, this can imply underpricing. According to [5], Determining stock pricing is a critical issue in an IPO, as it can potentially influence investor interest and stock performance after the offering.

Some experts argue that there are factors determining the extent of underpricing and its effect on businesses and investors. One of the factors identified as a determinant of underpricing is the company's ownership structure. Ownership structure refers to how the company owns and controls its shares. The company's ownership structure can consist of major shareholders (insiders), institutional shareholders, and public shareholders. According to [6], ownership structure might influence the extent of underpricing in the IPO process. If major shareholders have complete control over the company, they may be interested in obtaining a higher valuation during the IPO. In this case, they may strive to set a higher IPO price to maximize the company's value and have a lower level of underpricing due to signals of confidence and long-term commitment from major shareholders. However, the desire to obtain fresh funds from the IPO outweighs the desire for a higher valuation. In that case, they may also choose a lower IPO price, potentially resulting in higher underpricing.

Company size is also believed to affect underpricing. According to [7], firm size is a metric that determines business size as measured by total assets. As a result, the size of the company has a

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substantial impact on the extent of underpricing. However, according to research findings [8], firm size has a negative impact on underpricing. According to the research findings [9], business scale positively impacts underpricing. Larger companies have a more established reputation, access to more significant resources, and the ability to attract potential investors more effectively. As a result, larger companies may experience lower underpricing as investors trust them more.

Financial leverage can also play a role in underpricing. The higher the level of a company's financial leverage, the greater its dependence on external parties, resulting in a heavier burden on the company [10]. According to [11], companies with high financial leverage tend to have increased risk if the company ends up with lower profits than fixed costs. This causes underwriters to set the IPO stock price lower to avoid the risk of unsold shares. Therefore, it may require a price discount to attract investors. On the other hand, companies with low leverage may be more attractive to investors because they have lower financial risk.

Research [12] indicated that IPOs have significant potential to influence company performance; one is financial performance due to the potential for a relatively large capital increase, resulting in better company financial performance than before the IPO. The assessment of financial performance is generally conducted through ratio analysis. To connect it with financial performance, we will use several relevant financial ratios, namely profitability ratios, by measuring return on assets (ROA). Return on assets can illustrate how much profit a company can generate from the assets it owns. Investors also commonly use this ratio to consider whether to invest in a company. Because if the company's ROA value is large, the risk that investors will face is likely to be minimal [13]. If a company's ROA is high, it means that the company can generate more profit from the assets it owns. This can increase investor confidence because it shows that the company can provide good returns on its investment.

Several previous studies have shown the influence of these factors on underpricing. According to [14], ownership structure indicates a positive influence that higher underpricing occurs in companies supported by the shareholders. As stated in the research [15], company size negatively influences underpricing. Financial leverage (DER) has a detrimental impact on underpricing, according to [16]. Furthermore, [17] discovered that financial performance (ROA) negatively influences underpricing. Previous research, however, has found that these characteristics do not affect underpricing. According to [18], ownership structure shows no influence on underpricing. Financial leverage, namely the debt-to-equity ratio, does not influence underpricing [19]. Furthermore, the study results by [20] concluded that company size and financial performance (ROA) do not influence underpricing.

In conclusion, prior research has yielded diverse findings regarding the influence of factors related to underpricing in the IPO process. Some studies indicate a connection between ownership structure, company size, financial leverage, and financial performance with underpricing, while others assert no significant influence. This underscores the complexity of understanding the factors affecting underpricing, and further research may be necessary to reveal more apparent relationships in different contexts. Therefore, this study's results conclude the influence of ownership structure, company size, and financial leverage on underpricing in the IPO process and the role of financial performance in connecting these factors with underpricing.

## **Literature Review**

### **Ownership structure**

Ownership structure refers to the distribution of company shares among shareholders. Ownership structure encompasses the distribution of share ownership among major shareholders in a company. According to the findings of [21], institutional ownership is negatively associated with the extent of underpricing in IPOs. This finding indicates that the presence of institutional investors can increase market confidence in the going public company. However, in the study by [22], investors anticipate risks associated with concentrated ownership structures and try to protect themselves by discounting the company's intrinsic value. Meanwhile, research conducted by [23] indicates that the direction of the ownership structure variable shows a curvilinear relationship with underpricing. The company's ownership structure reflects the distribution of share ownership among major shareholders.

### **Company Size**

A company's size reflects an economic entity's operational scale and complexity. The size of a company can be measured using various metrics, including total assets, market equity value, revenue, and the number of employees. The size of a company can serve as an indicator of growth potential, risk, and

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operational capabilities. According to [24], the size of a company can be used to determine the level of uncertainty because larger companies are generally more well-known than smaller-scale companies, making information about larger-scale companies easier for investors to obtain compared to smaller-scale companies. This proxy can also be a consideration for investors to invest their capital in the company because as the size of the company increases, the information provided by the company to investors becomes more easily accessible, reducing uncertainty about the company's value, which will result in a lower level of underpricing.

### **Financial leverage**

Financial leverage is the proportion of cash gained through debt in a company's capital structure. It reflects how much the company relies on debt financing compared to equity financing. Decisions regarding financial leverage can affect the risk and returns faced by shareholders. According to [25], financial leverage is the use of assets with fixed costs with the expectation that using these assets will increase earnings per share (EPS). Companies with a high debt-to-equity ratio are likely to use more debt than equity to achieve firm performance, which might impact investor investment decisions.

### **Financial Performance**

Financial performance is an analysis conducted by a company to assess the extent to which the company has carried out its financial activities by applicable rules and regulations [26]. Examining a company's financial health and operational success through analyzing numerous financial indicators is called financial performance. This variable includes the ROA ratio, which shows how effectively a corporation uses its assets to create revenue. ROA is a financial ratio that assesses a company's ability to create net profit from each unit of assets.

### **Underpricing**

The occurrence of initial public offering (IPO) underpricing in stock markets, particularly in emerging economies, has been noted by [27], [28] as discussed in [29] study. The concept of underpricing refers to the percentage disparity between the offering price of IPO shares in the primary market and the trading price of these shares in the secondary market [30]. According to [31], this underpricing phenomenon can cause companies to lose potential revenue, as offering the shares at a too high price may result in a lack of trust or interest from potential investors. Additionally, according to [32], the detrimental underpricing condition for the going public company can occur due to suboptimal management of public funds, leading the newly listed company owners to minimize the underpricing situation. However, on the positive side, underpricing can be used as a marketing strategy to increase investor interest in investing in the company's shares during the IPO by providing an increased initial return. Therefore, the IPO share price is crucial for the success of the stock offering and investors' confidence in the company. Stock prices are vital information for investors to make decisions [33].

### **Ownership Structure and Underpricing**

In the study by [34], institutional ownership is a fraction of outstanding shares held by the government or financial institutions. Institutional ownership can enhance oversight of a company's performance. If the percentage or portion of institutional share ownership is high, oversight of the company's management performance will also be high. According to [35], agency theory argues that high institutional ownership can reduce agency problems between management and minority shareholders, thereby reducing asymmetric information risks and increasing market trust, potentially reducing underpricing in IPOs. According to the research conducted by [36], it has been observed that the impact of institutional ownership on initial public offering (IPO) underpricing is more pronounced when institutional ownership levels are low. Consequently, higher levels of institutional ownership exacerbate the primary-agent conflict and diminish the monitoring efficacy of institutional ownership. In this study (Buruji, 2021), ownership structure will be measured by the proportion of institutional ownership in the company going public.

### **Company Size and Underpricing**

The company's size has been a research focus on underpricing in IPOs. According to the study conducted by [38], a negative correlation exists between the size of a company and the degree of underpricing. In other words, larger companies tend to have lower underpricing. A larger company size can reflect stability, reputation, and access to greater resources, thereby reducing investor risk and uncertainty. In the research conducted by , it was observed that there exists a positive correlation between underpricing and the company's size, which is an unexpected finding. Investors may focus on

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more prominent companies, while market capacity is limited. Therefore, larger companies' demand for new shares can result in higher underpricing. Additionally, investors may view companies with higher market capitalization potential as having a more certain opportunity to receive higher short-term returns. Higher underpricing from the investor's perspective is an opportunity for higher returns received from investing in IPOs. Moreover, when a company has the potential to be more innovative, it also provides an opportunity for investors to gain higher short-term returns. However, for IPO companies, high underpricing is a failure because the company could set the offering price at a higher level and raise more capital through the IPO for further development. The measurement of a company's size can be determined through the assessment of its total assets or its market value. The aggregate value of its assets determines the magnitude of a corporation. The magnitude of a company's size is directly proportional to the magnitude of its assets [39]. The efficient market theory states that investors tend to give higher valuations to larger companies because a larger company size reflects stability and a good reputation [40]. This can lead to lower underpricing in larger companies.

#### **Financial Leverage and Underpricing**

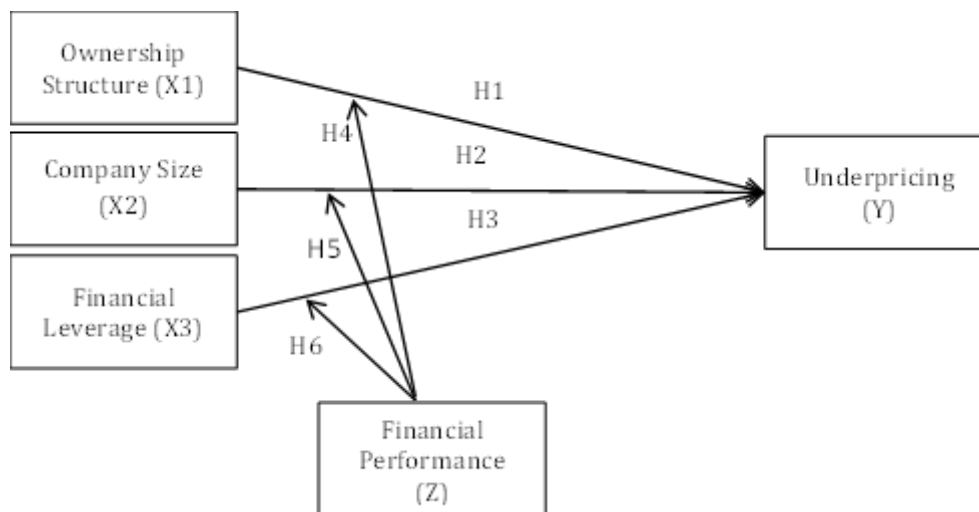
The research conducted by [41] examined the correlation between financial leverage and underpricing in companies' initial public offerings (IPOs). The findings of the study suggest that there is no statistically significant relationship between financial leverage and underpricing. However, the firm's utilisation of borrowed capital does not substantially impact the extent of underpricing observed in initial public offerings (IPOs). The study conducted by [42] examines the concept of financial leverage, which is operationalized through the utilization of the debt-to-equity ratio (DER). The DER level indicates the financial risk associated with a company and its possible inability to fulfil its obligations in repaying debt and loan capital. There is a positive correlation between the DER ratio and the probability of underpricing in the primary market for stocks. The debt-to-equity ratio (DER) is a metric that quantifies the proportion of a company's debt that is backed by equity as a means of financing [43]. This phenomenon might be due to the inherent uncertainty surrounding the future rewards that investors may obtain. Financial leverage pertains to using borrowed capital by a corporation to fund its operational activities or investment endeavours. A company's risk of meeting its long-term obligations is influenced by a high debt-to-equity ratio (DER). According to [44], it can be inferred that DER exerts a detrimental impact on underpricing.

#### **Financial Performance and Underpricing**

The company's financial performance will be assessed through the utilization of profitability ratios, explicitly focusing on the Return on Assets (ROA). The study conducted by [45] highlights that Return on Assets is among the financial characteristics that investors consider when making investment decisions. The study conducted by [46] demonstrates that the financial element of Return on Assets (ROA) has a considerable impact on the amount of underpricing simultaneously. Companies that exhibit solid financial performance are likely to send a favourable indication to the market, thereby decreasing underpricing. The company's robust financial performance reflects its capacity to make substantial profits and effectively handle its liquidity, garnering investor attention and mitigating investor risks.

#### **Conceptual framework**

The present study employs a conceptual framework to depict the interrelation among the variables under investigation, specifically their impact on underpricing, while considering financial performance as a moderating factor.



**Figure 1:** Conceptual Framework of the Study

### Research Hypothesis

Based on the conceptual framework that has been presented, this study proposes the following hypotheses:

- H1: Ownership structure has a significant effect on underpricing.
- H2: Company size has a significant effect on underpricing.
- H3: Financial leverage has a significant effect on underpricing.
- H4: Financial performance moderates the effect of ownership structure on underpricing.
- H5: Financial performance moderates the effect of company size on underpricing.
- H6: Financial performance moderates the effect of financial leverage on underpricing.

## 2. METHOD

### Types of research

This research employs a quantitative method to test the relationships between the identified variables [47], [48]. The quantitative research method allows for systematic and objective data collection, providing more robust insights into the relationships between variables in this study. Data will be gathered from secondary sources to analyze the influence of ownership structure, company size, and financial leverage on underpricing, with financial performance as a moderating variable.

### Location and Time of Research

The present case study will focus on companies undergoing an initial public offering (IPO) and, after that, listing in the capital market within the timeframe spanning from 2020 to 2022. The data for this study will be obtained from various secondary sources, including financial reports and annual reports of publicly traded corporations. The data about initial public offering (IPO) stock prices and closing stock prices on the first day of trading will be acquired from the official website of the Indonesian Stock Exchange.

### Sampling technique

The sample for this research comprises 164 companies that engaged in initial public offerings (IPOs) throughout three years, specifically from 2020 to 2022. The sampling technique employed in this study is purposive sampling, which the following predetermined criteria will utilize: 1) The present study focuses on examining companies that have undertaken initial public offerings (IPOs) on the Indonesia Stock Exchange within 2020–2022. 2) The investigation also encompasses companies that have encountered undervaluation within the period above. Specifically, these companies are characterized by IPO offer prices lower than the closing price observed on the first day in the secondary market after listing. 3) The accessibility of data about the opening and closing prices on the inaugural day of trading in the stock market. 4) The accessibility of prospectus data and financial reports 5) The accessibility of information regarding the listing date on the Indonesia Stock Exchange (IDX) and the initial offering price. The sample utilized in this study was obtained by purposive sampling methodology, comprising 115 firms.

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The researchers plan to utilize moderation regression analysis to investigate the impact of financial performance as a moderating variable on the link between the independent and dependent variables [49]. The present analysis aims to enhance the multiple linear regression analysis equation by incorporating the moderating variable. The equation representing moderation regression analysis can be stated as follows:

$$Y = \beta_0 + \beta_1 \times X_1 + \beta_2 \times X_2 + \beta_3 \times X_3 + \beta_4 \times Z + \beta_5 \times X_1 \times Z + \beta_6 \times X_2 \times Z + \beta_7 \times X_3 \times Z + \varepsilon$$

Explanation:

- Y : Underpricing Level
- X<sub>1</sub> : Ownership Structure
- X<sub>2</sub> : Company Size
- X<sub>3</sub> : Financial Leverage
- Z : Financial Performance
- β<sub>0</sub> : Constanta
- β<sub>1</sub>, β<sub>2</sub>, ... β<sub>7</sub> : Regression coefficients to be estimated
- ε : error term.

### 3. RESULT AND DISCUSSION

#### Descriptive Statistical Analysis

**Table 1.** Descriptive Statistical Analysis Results

	X1	X2	X3	Y	Z
Mean	0.611001	26.55938	2.134671	0.284380	0.049478
Median	0.671398	26.25815	0.919866	0.341176	0.031917
Maximum	3.048317	32.62967	71.29452	1.000000	0.781385
Minimum	0.006500	23.00533	0.016720	0.006667	-0.520131
Std. Dev.	0.335555	1.771559	6.931713	0.167477	0.115832

**Source:** Secondary data processed using Eviews 13

The descriptive statistical analysis results on ownership structure (X1) indicate that the distribution has a negative skew, with a mean of 0.611001, slightly below the median of 0.671398. There is also a significantly higher maximum value than the mean, indicating the presence of outliers in the data. Second, company size (X2) has a similar mean and median value, suggesting little skewness and a low standard deviation, indicating limited variability. Meanwhile, Financial Leverage (X3) shows a significant positive skew, with the mean far above the median and the presence of outliers in the maximum value. Fourth, the variable Underpricing (Y) exhibits negative skewness with a median higher than the mean and the company of cases with very high underpricing. Finally, financial performance (Z) has a pronounced positive skew, with the mean more elevated than the median and the presence of cases with negative financial performance.

#### Results of Classic Assumption Tests

##### Normality Test

**Table 2.** Normality Test Results

Mean	-1.29e-16
Median	0.076785
Maximum	1.373786
Minimum	-1.491734
Std. Dev.	0.560764
Skewnewss	-0.548600
Kurtosis	3.174051
Jarque-Bera	5.913591
Probability	0.051985

**Source:** Output of normality test, 2023

The Jarque-Bera test was conducted to assess the normality of the data. The obtained probability value of 0.051985, which is greater than the significance level of 0.05, suggests that the data can be assumed to follow a normal distribution. This implies that the data displays statistical characteristics that resemble a normal distribution. The utilization of this methodological approach enhances the process of

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data interpretation, improves the application of statistical analysis based on the assumption of a normal distribution, and permits the extrapolation of analysis findings to a broader population. Hence, based on the available statistical information, there is ample support to retain the premise that the data adheres to a normal distribution. Put differently, the outcome of the normality test yields a p-value exceeding 0.05, suggesting that the data can possess a satisfactory assumption of conforming to a normal distribution.

### Multicollinearity Test

**Table 3.** Multicollinearity Test Results

Variable	Centered VIF
C	NA
X1	1.051336
X2	1.128758
X3	1.077298

**Source:** Output of multicollinearity test, 2023

The result of the multicollinearity test, which shows VIF (Variance Inflation Factor) values for all independent variables (<10.00), indicates that there is no significant multicollinearity in the regression model. This means that the model's independent variables are relatively independent, allowing for a more confident interpretation of regression coefficients, enhancing model reliability, and facilitating decision-making in regression analysis.

### Heteroskedasticity Test

**Table 4.** Heteroskedasticity Test Results

F-statistic	0.720081	Prob. F(15,99)	0.7590
Obs*R-squared	11.31262	Prob. Chi-Square(15)	0.7301

**Source:** Output of heteroskedasticity test, 2023

Based on the findings of the heteroskedasticity test, which yielded a probability value of Obs\*R-Squared equal to 0.7301 (>0.05), it may be concluded that there is insufficient statistical evidence to support the existence of heteroskedasticity in the regression model. Hence, it may be inferred that the regression model fulfils the requirement of homoskedasticity, thereby enabling a more accurate interpretation of regression coefficients and facilitating dependable analysis and model comparisons.

### Moderated Regression Analysis

**Table 5.** Regression Analysis Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.832095	0.937033	-3.022406	0.0032
X1	0.548040	0.219316	2.498861	0.0141
X2	0.047800	0.035044	1.363971	0.1756
X3	-0.049363	0.016766	-2.944247	0.0040
Z	12.65652	7.757884	1.631440	0.1059
X1Z	-5.560179	2.432700	-2.285600	0.0244
X2Z	-0.379544	0.294864	-1.287184	0.2010
X3Z	-0.687146	0.232420	-2.956486	0.0039

**Source:** Output of regression coefficient estimation, 2023

From the regression results, the regression equation model used in this study can be formulated as follows:

$$Y = -2.832095 + 0.548040X_1 + 0.047800X_2 - 0.049363X_3 + 12.65652Z - 5.560179X_1Z - 0.379544X_2Z - 0.687146X_3Z$$

### Results of Hypothesis Testing

#### Partial Test (t-Statistical Test)

The statistical analysis reveals that the first hypothesis (H1) is supported since variable X1 demonstrates a statistical value of 2.498861 and a significance level of 0.0141 (< 0.05). This finding suggests that the ownership structure greatly influences the level of underpricing. This indicates a positive relationship between ownership structure and the extent of underpricing. Nevertheless, the second hypothesis (H2) must be invalidated as the variable X2 exhibits a statistical value of 1.363971 at a significance level of 0.1756, which exceeds the threshold of 0.05. This suggests that the company's size does not substantially impact the degree of underpricing.

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Furthermore, the third hypothesis (H3) is accepted, with variable X3 having a statistical value of -2.944247 and a significance level of 0.0040 ( $< 0.05$ ). This indicates that financial leverage significantly influences the level of underpricing. This means that as financial leverage increases, the level of underpricing decreases. The fourth hypothesis (H4) is also accepted, with variable X1Z having a statistical value of -2.285600 and a significance level of 0.0244 ( $< 0.05$ ), showing that financial performance can moderate the influence of ownership structure on the level of underpricing.

Nevertheless, the fifth hypothesis (H5) is invalidated due to the statistical value of variable X2Z being -1.287184 and the significance level being 0.2010, more significant than the predetermined threshold of 0.05. This suggests that financial performance cannot moderate the impact of firm size on the extent of underpricing. The sixth hypothesis (H6) is deemed valid, as variable X3Z exhibits a statistical value of -2.956486 and a significance level of 0.0039, below the conventional threshold of 0.05. This finding suggests that financial performance can reduce the impact of financial leverage on the degree of underpricing.

### Simultaneous Test (F-Statistical Test)

**Table 6.** Simultaneous Test Results

F-statistic	9.210343
Prob(F-statistic)	0.000000

**Source:** Output of simultaneous test results (F-statistical test), 2023

The simultaneous test (F-statistic) yielded a statistically significant F-statistic value with a probability (F-statistic) of 0.000000 ( $< 0.05$ ), indicating that the regression model employed is both appropriate and statistically significant in elucidating the interrelationships among the variables in the simultaneous analysis. This implies that the model adheres to statistical assumptions, is applicable in explaining the investigated phenomenon, and possesses adequate explanatory power about the observed data. Otherwise, this model can be employed with increased certainty when examining and forecasting the connections between the variables.

### Coefficient of Determination

**Table 7.** Determination Coefficient Results

R-squared	0.542437
Adjusted R-squared	0.483542

**Source:** Output of Coefficient of Determination Results, 2023

The coefficient of determination yields an R-squared value of 0.542437 and an adjusted R-squared value of 0.483542. This finding suggests that the degree of underpricing observed in the study can be accounted for by factors such as ownership structure, company size, financial leverage, and the interplay between financial performance and these variables above, collectively explaining 48.35% of the observed underpricing. The remaining 51.65% of the underpricing is attributed to other variables not included in the research model.

### Discussion

The findings from the initial hypothesis (H1) testing in this study suggest that the ownership structure substantially impacts the degree of underpricing. The results of this investigation are consistent with the research conducted by [14]. The study conducted by [18] demonstrates a contrasting outcome, as it reveals that the ownership structure does not substantially influence the degree of underpricing. The findings of the study show a significant association between the extent of institutional ownership and the degree of underpricing observed in initial public offerings (IPOs). This implies that there exists a positive correlation between the degree of institutional share ownership and the extent of underpricing. The research findings indicate that institutional ownership, held mainly by majority shareholders, exerts a substantial influence on the studied samples. Conversely, minority shareholders in the sample are predominantly comprised of managerial and foreign shareholders. In the samples, the average share of institutional ownership is 68.30%. The remaining portion of the sample is under the ownership of managerial and foreign shareholders. The presence of substantial institutional share ownership may indicate a notable level of interest from institutional investors in companies undergoing the process of being publicly traded. Institutional investors may perceive companies pursuing initial public offerings as having promising growth prospects or significant potential for short-term profitability. Consequently, there is a greater propensity for investors to offer a higher price during the initial public offering (IPO), thereby potentially augmenting the degree of underpricing. Underpricing may arise when the initial

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public offering (IPO) cost exceeds the intrinsic value or the value expected by the market. The presence of a greater degree of underpricing in firms characterized by significant institutional share ownership can also be attributed to the market's assumption that companies enjoying substantial backing from institutional investors are more likely to possess favorable growth prospects. Nevertheless, the escalation in the degree of underpricing could also be attributed to the heightened initial public offering (IPO) price, resulting in an augmented expense for acquiring shares at the first offering.

The findings about the second hypothesis (H2) examined in this research indicate that the magnitude of the firm does not have a statistically significant impact on the degree of underpricing. The above findings' analysis supports the study conducted by [20]. In contrast, the research undertaken by [15] demonstrates a notable correlation between the size of a company and the extent of underpricing. In general, larger-scale organisations are expected to possess a higher level of public recognition compared to lesser-sized companies, resulting in a greater abundance of information available about larger companies as opposed to smaller ones. Nevertheless, examining the firm size variable about the level of underpricing reveals no statistically significant influence on company size. Hence, the lack of statistically significant impact from the firm size variable implies that knowledge regarding the magnitude of a company needs to offer discernible guidance to investors. This means the size of the company does not impact the investment decisions made by investors, and as a result, it does not affect the degree of underpricing. In conclusion, investors should emphasize the evaluation of a company's performance rather than its size when making decisions.

The findings pertaining to the third hypothesis (H3) examined in this research demonstrate a substantial relationship between financial leverage and the degree of underpricing. The research findings presented in this study provide support for the findings reported in the study by [16]. In contrast, the research conducted by [19] demonstrates that there is no substantial impact of financial leverage on the degree of underpricing. The findings of the study suggest a negative relationship between the debt-to-equity ratio (DER) and the extent of underpricing observed in initial public offerings (IPOs). The debt-to-equity ratio (DER) is a metric that quantifies the relative amount of debt employed by a firm in relation to its equity. A high DER ratio signifies a greater proportion of debt relative to equity, hence indicating a heightened degree of leverage within the financial framework of the organization. Companies that employ a significant amount of leverage are typically burdened with the responsibility of paying interest and repaying debt. Consequently, investors tend to view initial public offerings (IPOs) of companies with a high debt-to-equity ratio as carrying more significant risk. As a result, the organization is compelled to offer shares at a reduced price in order to generate investor attention, leading to a diminished degree of underpricing. Hence, the observed decline in underpricing levels in relation to an escalation in the debt-to-equity ratio (DER) might be construed as the company's endeavor to mitigate risk perceptions linked to a substantial debt burden.

The findings of the fourth hypothesis (H4) examined in this research demonstrate that the interaction variable involving ownership structure and financial performance exerts a substantial impact on the extent of underpricing. The findings of the study indicate a statistically significant inverse relationship between the degree of underpricing observed in initial public offerings (IPOs) and the interaction effect of the return on assets (ROA) ratio and institutional share ownership. The return on assets (ROA) ratio serves as an indicator of a company's profitability, with a higher ROA ratio suggesting greater efficiency in generating profit from its assets. A higher return on assets (ROA) ratio enhances the appeal of a company to institutional investors due to the prospect of a greater potential return on their investment. The observed inverse relationship between the interaction variable and the degree of underpricing suggests that when a company exhibits both great profitability and a significant level of institutional share ownership, there is a tendency for the level of underpricing to be reduced. In the context of investment, institutional investors who perceive a firm as a lucrative opportunity exhibit a greater propensity to provide a price that aligns closely with the company's intrinsic value. This inclination ultimately leads to a reduction in the degree of underpricing observed. Therefore, this study demonstrates that the concurrent presence of elevated firm profitability and a substantial degree of institutional share ownership has a reciprocal influence on mitigating the extent of underpricing observed in initial public offerings (IPOs). This analysis aids in comprehending the various aspects that exert influence on stock price in the context of the initial public offering (IPO) process, as well as their

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consequential impact on the extent of underpricing. The findings suggest that the impact of institutional share ownership on the degree of underpricing is considerably influenced by financial performance.

The analysis findings indicate no statistically significant impact on the amount of underpricing from the interaction variable involving firm size and financial performance, as hypothesized in H5. This implies that the impact of firm size on the degree of underpricing is not significantly mitigated by financial performance. This finding suggests that as the scale of a company increases, increasing levels of profitability do not have a significant impact on reducing uncertainty. The study results indicate a negative association between the degree of underpricing observed in initial public offerings (IPOs) and the interaction variable involving the return on assets (ROA) ratio and the company's size. The observed negative connection indicates a tendency for underpricing levels to be lower when firm profitability is high and company size is considerable. Nevertheless, due to its lack of statistical significance, it can be inferred that the impact of this particular combination of variables on the extent of underpricing cannot be robustly or definitively quantified. To clarify, there exists a tendency towards reduced underpricing when there is a confluence of elevated return on assets (ROA) and a substantial company size. However, it is essential to note that the strength of this association is not adequately established within the confines of the research sample employed. The findings of this study suggest that while there are indications of a potential relationship between solid profitability and a large firm size with the reduction of underpricing in initial public offerings (IPOs), it is essential to consider other characteristics like the sample size as potential influencers of the level of underpricing. Additional, comprehensive study and research are required to gain a better understanding of the impact of these variables on the degree of underpricing and to explore the potential influence of additional variables on the obtained outcomes.

The present study's findings indicate that the sixth hypothesis (H6), which examines the impact of the interaction between financial leverage and financial performance, has a statistically significant effect on the degree of underpricing. This implies that financial performance can significantly influence the impact of financial leverage on the extent of underpricing. The study's findings demonstrate a noteworthy inverse relationship between the interaction variable encompassing the return on assets (ROA) ratio and financial leverage and the extent of underpricing observed in initial public offers (IPOs). The observed negative correlation suggests that when the interaction variable increases, a corresponding decrease in underpricing is observed during initial public offerings (IPOs). The experimental negative connection indicates that when the company's profitability increases and its debt level decreases, there is a tendency for the amount of underpayment to drop. Investors commonly perceive organizations that maintain controlled debt levels while demonstrating efficiency in profit generation, as indicated by a high return on assets (ROA), as appealing and relatively reliable investment opportunities. In the case of initial public offerings (IPOs), investors exhibit a greater propensity to provide a price that aligns closely with the intrinsic value, leading to diminished underpricing levels. The findings of this study offer valuable insights into the possible impact of a strategic mix of solid profitability and responsible debt management on mitigating underpricing in the initial public offering (IPO) process. Hence, companies should prioritize enhancing operational efficiency and proficiently managing their financial structure before initiating an initial public offering (IPO) to mitigate the risk of potential underpricing.

#### 4. CONCLUSION

The research findings and subsequent discussions indicate that ownership structure and financial leverage exert a noteworthy impact on the degree of underpricing. The study's results suggest that a significant presence of institutional ownership and a higher degree of financial leverage mitigate the extent of underpricing observed during a firm's initial public offering. Hence, the company's strategy or issuer must implement measures that result in a substantial allotment of shares to institutional ownership to mitigate underpricing. Furthermore, it is imperative to exercise caution while pursuing elevated levels of financial leverage since it can impact investor sentiment and their inclination to allocate funds towards investment opportunities. The study's findings also suggest that the company's size is relatively small in the amount of underpricing. However, the impact of institutional ownership and financial leverage on reducing underpricing can be enhanced by considering the financial performance as projected by the return on assets (ROA). Hence, it is imperative to give due consideration to share allocation rules and financial leverage management during the strategic planning of initial public offerings (IPOs), as the size of the firm does not substantially influence the resolution of underpricing.

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This study necessitates a reevaluation of various constraints it encountered. The utilized research model demonstrates a limited explanatory power of around 48.35% about the extent of underpricing. The remaining portion, roughly 51.65%, is attributable to unaccounted variables that needed to be encompassed within the scope of this study. In addition, it should be noted that the study's reliance on a restricted set of variables presents a restriction, as several other variables exert a significant influence on underpricing but were not incorporated into the research. The study also needed to distinguish between the various industrial sectors in which the companies operate, potentially impacting the underpricing analysis's accuracy and validity. Hence, it is imperative to consider these constraints when implementing the research findings to ensure that the conclusions reached are more thorough and correct.

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