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FACTORS FORMING IPO UNDERPRICING IN EMERGING MARKET: INSTITUTIONAL OWNERSHIP MODERATION

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Abstract

Underpricing has been a common occurrence in every initial public offering (IPO) event. From 1993 to 2019, about 80% of IPO businesses on the Indonesia Stock Exchange (IDX) were underpriced. The purpose of this study is to investigate the impact of past financial performance information and institutional ownership as indicators of strengthening or weakening past financial performance information on underpricing dynamics in all sectors of firms that go public on the IDX over the last 28 years. Data gathered from public prospectuses of IPO businesses in all industries at IDX from 1993 to 2019 were analyzed using pure moderation and sub-group regression. The findings show consistently, return on equity, firm age, and institutional ownership significantly reduce underpricing. The relationship between ROE and underpricing also moderated by institutional ownership. These results prove that institutional ownership became most important component in determining stock trading around the IPO event. This article contributes to validating the asymmetric information hypothesis in the contex of IPO by making institutional ownership the most important things and significant determinants of underpricing.

Keywords: Underpricing; Return on Equity; Firm Age; Institutional Ownership, Indonesian Stock Exchange

INTRODUCTION

A common phenomenon that occurs during an IPO is underpricing which causes a company not to get the maximum funds. According to Sembiring et al. (2018) Underpricing is a condition where there is a positive difference in stock prices in the secondary market with the primary market. On the Indonesian stock exchange, the percentage of go public companies that experienced underpricing from 1993-2019 was around 78 percent, 6 out of 8 IPO companies experienced underpricing. Not only in Indonesia, underpricing also occurs in many parts of the world (see Albada et al., 2019; Arora & Singh, 2020; Teti & Montefusco, 2022; Xue & Jiang, 2021).

To explain IPO underpricing, asymmetric information theory, signaling, investor irrationality hypotheses, dispersed ownership hypotheses, and the underwriters risk aversion hypothesis have all been proposed (Ritter & Welch, 2002). Information asymmetry is the main factor causing underpricing in Malaysia (Albada et al., 2019). According to Ritter & Welch (2002), issuing companies can minimize ex-ante uncertainty by signaling, which serves to lessen the amount of information asymmetry around the listing firm's issues. Companies conducting an IPO are required to issue a prospectus in advance which has been established by the Financial Services Authority (OJK). The prospectus contains a general description of the company's condition which contains detailed information about the company's financial condition in the

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form of financial and non-financial report information (Kim et al., 1993). The information disclosed in the prospectus assists investors in making rational decisions regarding the risks and returns of a company which can be calculated using financial variables.

The profitability ratio proxied by the return on equity (ROE) indicator illustrates the extent to which the company generates profits that can be obtained by shareholders. This ratio can be measured by comparing net profit after tax with own capital (Soesetio & Andrian, 2021). When a company has a positive ROE ratio, it can show that the prospects for the company in the future are considered to be getting better, the greater the ROE value, it can also prove that the return expected by investors is also getting bigger. As a result, great profitability will motivate investors to invest in the firm, this will eventually trigger an increase in stock prices. This is consistent with study undertaken by Sembiring et al. (2018) results that underpricing significantly affected by ROE. Compared to Soesetio & Andrian (2021) results that there was no significant relationship between ROE and underpricing.

The solvency ratio is used to measure how much a company is financed by debt (Restianti & Agustina, 2018). In this study the solvency ratio is represented by the debt to asset ratio (DAR), the ratio of total debt to total assets; hence, the smaller the DAR ratio, the greater the ability of assets to service obligations, and vice versa. Because the use of high debt will endanger the company with default. Consistent with Vătavu (2015), they conclude that DAR has a strong influence on underpricing. While research related to the disclosure of DAR on underpricing was carried out by Soesetio & Andrian (2021) results that DAR has no significant effect on underpricing.

Another method for making reasonable judgments is examine the company's non-financial situation. The proxies employed by researchers in this study included firm age, listing delay, and corporate governance proxies, institutional ownership. Firm age is indicated by how long the company can survive. According to Marofen & Khairunnisa (2015), the age of the issuer's firm indicates how long the company can survive, compete, and capitalize on business possibilities in the marketplace. Companies that have been established longer have the possibility to give more detailed firm information in order to decrease asymmetry information and market uncertainty and ultimately affect underpricing (Linazah & Setyowati, 2015; Mahardika & Ismiyanti, 2021). The result of Buachoom (2018) suggests that the age of the firm has a strong influence on underpricing in companies conducting IPOs. While the research results Linazah & Setyowati (2015) states that the age of the company is meaningless on underpricing.

The next non-financial proxy used is the listing delay, which is the period that separates the offering day from the day when the shares are traded on the secondary market for the first time (Zouari et al., 2011). The length of time for listing is associated with bid uncertainty. The faster the listing company, the more it shows the readiness of the company (Marofen & Khairunnisa, 2015). Conversely, showing that the longer the company makes the offer can prove that the company is not in good condition. Investors prefer to invest their funds in companies that have a short timeframe in making their bids. Study by Marofen & Khairunnisa (2015) found that listing delay has a strong impact on underpricing.

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The practice of good corporate governance cannot be separated from agency theory. Agency theory discusses the existence of a separate ownership relationship with the agent. In this study, we will discuss the effect of GCG proxied by institutional ownership. Shares owned by institutional investors contribute significantly to a company's worth by discouraging management from making poor decisions and acting opportunistically with the resources and talents at their disposal (Gusni et al., 2019; Shleifer & Vishny, 1986; Tihanyi et al., 2003; Velury & Jenkins, 2006). Institutional investors in East Asia contribute in improving enterprises' corporate governance procedures, notably in terms of decreasing conflicts of interest among insider and outsider investors caused by the higher ownership structure (Claessens & Fan, 2002). Sasongko & Juliarto (2014) argues that investor institutional engagement in the firm's ownership structure can help lessen agency issues between major and minority shareholders, hence reducing underpricing.

This study intends to investigate the influence of financial and non-financial information on prospectuses on the development of underpricing during the IPO process in developing countries. As a result, investors, particularly those in developing countries, can act more rationally in order to reduce their reliance on intuition, herding behavior, and heuristic processes when making choices to purchase and sell IPO shares. Part 2 of this research reviews the literature. The data and technique are described in Section 3. Part 4 displays and discusses the empirical data, and Part 5 ends the study outcomes.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Asymmetric Information Theory

Information asymmetry occurs when one of the parties has more and better information than the other party on a transaction (Diantini, 2015). Asymmetric information, according to most research, is the cause for underpricing in the equity market when fresh shares are issued. Information asymmetry may be discovered at several levels. Asymmetric information can occur between issuers, underwriters, and investors (Fabrizio & de Lorenzo, 2001). The first type identified is between issuers and investors. Ibbotson & Jaffe (1975) argued that the issuing company decides to reduce the initial price to "make a favorable impression on investors".

Next, is information asymmetry between informed and uninformed investors, well-known as a winner's curse model, hypothesized by Rock (1986). In winner’s curse model, underpricing is a method of reducing asymmetry of information among investors (Teti & Montefusco, 2022). Last, is information asymmetry between underwriter and the issuer. Loughran & Ritter (2002) reveals the possibility of potential agency issues caused by these two parties' institutional agreement. Baron & Holmström (1980) hypothesized that the underwriter has more information than the issuer. With the information it has, the underwriter tends to give a low price to attract investors and to reduce the risk borne by the underwriter.

Signaling Theory

According to Brigham & Houston (2018), signaling theory is an activity done by a company's management to offer direction to investors on how management views the company's

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prospects. Signaling theory highlights the importance of the firm's information to the investment decisions of parties outside the company. Investors in the capital market require complete, reliable, and timely information as an analytical tool to make investment decisions (Novalia & Nindito, 2016). All forms of actions and events that occur in the company become information used by internal and external parties in making decisions (Ulfah et al., 2019; Zhou et al., 2020).

According to Ritter & Welch (2002), issuing companies can minimize ex-ante uncertainty by signaling, which serves to lessen the amount of information asymmetry around the listing firm's issues. Signaling theory can address the issue of information asymmetry during an IPO since it is fundamentally concerned with eliminating information imbalance between parties (Spence, 2002; Zhou et al., 2020). In the IPO event, the company, as the signaling party, will distribute prospectuses which will be helpful to reduce information asymmetry with potential investors as signal recipients.

Return on Equity and Underpricing

The profitability ratio proxied by the return on equity (ROE) indicator illustrates the extent to which the company generates profits that can be obtained by shareholders. This ratio can be measured by comparing net profit after tax with own capital (Soesetio & Andrian, 2021). When a company has a positive ROE ratio, it can show that the prospects for the company in the future are considered to be getting better, the greater the ROE value, it can also prove that the return expected by investors is also getting bigger. So with high profitability it will entice investors to invest their money into the firm, this will eventually trigger an increase in stock prices. This is in line with research that has been conducted by Sembiring et al. (2018) results that ROE has a strong influence on underpricing. Compared to Soesetio & Andrian (2021) results that ROE has no significant effect on underpricing.

Debt to Asset Ratio and Underpricing

The solvency ratio is used to measure how much a company is financed by debt (Restianti & Agustina, 2018). In this study the solvency ratio is represented by the debt to asset ratio (DAR), the ratio of total debt to total assets; hence, the smaller the DAR ratio, the greater the ability of assets to service obligations, and vice versa. Because the use of high debt will endanger the company with default. Consistent with Vătavu (2015), they conclude that DAR has a strong influence on underpricing. While research related to the disclosure of DAR on underpricing was carried out by Soesetio & Andrian (2021) results that DAR has no significant effect on underpricing.

Firm Age and Underpricing

Firm age is indicated by how long it can survive. According to Marofen & Khairunnisa (2015), the age of the issuer's firm indicates how long the company can survive, compete, and capitalize on business possibilities in the marketplace. Companies that have been established longer have the possibility to give more detailed firm information in order to decrease asymmetry information and market uncertainty and ultimately affect underpricing (Linazah & Setyowati,

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Institutional Ownership and Underpricing

Shares owned by institutional investors contribute significantly to a company's worth by discouraging management from making poor decisions and acting opportunistically with the resources and talents at their disposal (Gusni et al., 2019; Shleifer & Vishny, 1986; Tihanyi et al., 2003; Velury & Jenkins, 2006). Institutional investors in East Asia contribute in improving enterprises' corporate governance procedures, notably in terms of decreasing conflicts of interest among insider and outsider investors caused by the higher ownership structure (Claessens & Fan, 2002). Sasongko & Juliarto (2014) argues that investor institutional engagement in the firm's ownership structure can help lessen agency issues between major and minority shareholders, hence reducing underpricing.

In addition, the higher the institutional ownership, the better the company's financial performance (Nilayanti & Suaryana, 2019). Thus, the existence of large institutional ownership will also strengthen the effect of profitability on underpricing.

RESEARCH METHOD

This study intends to investigate the impact of various information in prospectus reports (both financial and non-financial) on underpricing dynamics when firms going public on the Indonesia Stock Exchange (IDX) utilizing all samples and sectors of companies from 1993 to 2019. The population is 634 companies that carried out IPOs on the IDX for 28 years from 1993-2019. Purposive sampling obtained a sample of 416 firms.

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Table 1: Variables Measurement

Variables	Description	Measurement
Dependent variable		
Underpricing (UP)	Measures the difference between the initial price and the closing price	(First day trading price – IPO price) / IPO price
Independent variables		
Return on equity (ROE)	Measures how much the amount of profit earned on the invested capital	Earning after tax / Total equity
Debt to asset ratio (DAR)	Measures how much assets are financed by debt	Total debt divided by total assets
Company age (AGE)	Shows how long the company is able to survive and compete	IPO year - Established year
Listing delay (LD)	Represents the number of days the prospectus was ratified up to the listing date on the capital market	Listing date - Initial offering date
Institutional ownership (INS)	Measures the ratio of shares owned by institutional investors to the number of outstanding shares	(Institutional shares / Listed shares) x 100%

Source: Data Processed, 2023

Secondary data for this study was obtained from PT KSEI, the Indonesia Capital Market Institute, and the Indonesia Stock Exchange in the form of company prospectus reports issued during the initial offering of shares during the research period, as well as closing prices at the start of trading on the secondary market. Because the data was in the form of cross sections, pure moderation regression utilizing the ordinary least squares (OLS) stepwise regression approach was utilized as an analytical tool to answer hypotheses. For robustness test, we also use sub-groups regression. The regression model employed:

$$UDP_i = \alpha + \beta_1 ROE_i + \beta_2 DAR_i + \beta_3 AGE_i + \beta_4 LD_i + \varepsilon_i \quad (1)$$

$$UDP_i = \alpha + \beta_1 ROE_i + \beta_2 DAR_i + \beta_3 AGE_i + \beta_4 LD_i + \beta_5 INS_i + \beta_6 ROExINS_i + \varepsilon_i \quad (2)$$

RESULTS AND DISCUSSION

Descriptive Statistics

Based on table 2, it can be concluded that the mean underpricing is 0.380 or 38% with a maximum value that investors of 2.708 or 270.8% can obtain. This illustrates that the price of shares sold on the first trading day was 270.8% higher than those purchased during the IPO. Based on the company's past information in all industrial sectors, the mean ROE is 18% followed by a minimum value of -2.898. This means that not all companies that carry out IPOs are companies that have made profits in the past but still provide positive initial returns to investors. The company's leverage variable has an average value of 0.689 or 68.9%.

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Table 2: Descriptive statistics of study variables

Variables	Obs	Mean	Std. Dev.	Min	Max
UP	416	0.380	0.390	0.003	2.708
ROE	416	0.180	0.381	-2.898	4.571
DAR	416	0.689	0.451	0.002	6.088
LD	416	12.923	15.390	2	278
AGE	416	17.714	16.231	1	144
INS	416	0.019	0.071	0.002	0.990

Notes: UP = Underpricing; ROE = Return on equity; AGE = Company age; LD = Listing delay; INS = Institutional ownership

The mean value of listing delay was 13 days, which means that the preparation required by the company in the IPO process was approximately 2 weeks. The mean value of the company age (AGE) in this study is 17.714, indicating a relatively mature company. The average value of the institutional ownership variable in this study was 0.019.

Hypotheses Testing Results

Table 3 shows the results of the profitability, leverage, age, and listing delay regressions, which consistently have a significant effect on the dynamics of underpricing formation. At the same time, table 3 places the institutional ownership status as a moderator of the relationship between ROE information and underpricing dynamics using the pure moderation technique. ROE, AGE, INS has a significant negative effect on underpricing. DAR and LD have no significant effect on underpricing.

Table 3: Pure Moderation

	(1)	(2)
Variables	**UP**	**UP**
ROE	-0.092*	-0.082*
	(0.050)	(0.049)
DAR	-0.047	-0.029
	(0.034)	(0.035)
AGE	-0.003***	-0.003***
	(0.001)	(0.001)
LD	0.000	0.001
	(0.002)	(0.001)
ROExINS		-1.624**
		(0.632)
Constant	0.481***	0.471***
	(0.040)	(0.039)
Observations	416	416
R-squared	0.029	0.034

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Notes: *, **, *** significant at 10%, 5%, 1%. UP = Underpricing; ROE = Return on equity; AGE = Company age; LD = Listing delay; INS = Institutional ownership

INS purely acts as a moderator variable. Furthermore, INS has a negative coefficient (-), which means that the the greater institutional ownership weakens the influence of profitability information on the dynamics of underpricing.

DISCUSSION

Profitability has a persistent inverse connection direction and drives underpricing dynamics. This condition demonstrates that profit ratio information is utilized by issuers and underwriters to determine the first stock price, as well as by investors to make stock investment decisions during IPO events. Simultaneously, the company's profit information becomes a key concern for investors' decision-making since it gives information regarding the company's future commercial continuity (Biswas et al., 2015; Soesetio et al., 2022). The greater the ROE value can also prove that the return expected by investors is also greater. So with high profitability it will attract investors to invest in the company, this will eventually trigger an increase in stock prices. This result support Sembiring et al. (2018) which proves that ROE significantly have strong impact on underpricing. But this result contradicts Soesetio & Andrian (2021) who found that ROE is not a determinant of underpricing.

Leverage proxied by DAR consistently has no significant effect on underpricing. These results explain that the DAR variable is not a determinant of the level of underpricing. With an increase in a company's DAR, it does not guarantee that a company conducting an IPO will set an initial price that is too low. Thus, a high DAR does not affect investors' decisions in investing in IPOs. These results support previous studies by Soesetio & Andrian (2021) who found that DAR has no major impact on underpricing, but it is the opposite with Vătavu (2015).

The age of the firm indicates an adverse pattern, showing that the more experience a company has and its capacity to handle risk properly could reduce the dynamics of early profits received by investors. Companies with a lengthy history of success will attract investors due to the reduced amount of business risk that investors will experience (Xu et al., 2017). Furthermore, more experienced organizations have been shown to manage and preserve their going-concern status and have a better potential to offer long-term returns in the form of dividends to investors. Companies with a longer history also publish more thorough performance reports to reduce information asymmetry (Arora & Singh, 2020). As a result, the IPO price set by issuers and underwriters is similar to what investors expect. This result supports Huyghebaert & Quan (2009), Mahardika & Ismiyanti (2021), who discovered that firm age had a negative correlation with underpricing. However, in contrast to Rathnayake et al. (2019), Teti & Montefusco (2022), show that the age of the firm has no major influence on underpricing.

Listing delay consistently does not affect the dynamics of underpricing. Although study by Marofen & Khairunnisa (2015) explained that listing delay is related to company readiness to conduct an IPO, in this study listing delay is not the main determinant of underpricing. Companies with longer listing delays do not guarantee that companies conducting an IPO will

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set an initial price that is too low. Thus, a long listing delay does not affect investors' decision to invest in IPOs. This result is in contrast to Marofen & Khairunnisa (2015) which proves that listing delay significantly can reduce underpricing.

The results imply that institutional ownership negatively moderates the association between profitability and underpricing. The results indicate that the underpricing of companies that have big institutional ownership tends to be smaller than companies that have small institutional ownership. The greater the institutional ownership, the smaller the effect of profitability on underpricing. Shares owned by institutional investors contribute significantly to a company's worth by discouraging management from making poor decisions and acting opportunistically with the resources and talents at their disposal (Gusni et al., 2019; Shleifer & Vishny, 1986; Tihanyi et al., 2003; Velury & Jenkins, 2006). Institutional investors strengthen corporate governance procedures, lowering information asymmetry at all levels. Therefore, if the company has large institutional shareholders, then even if the company's profitability is high or low, the profitability information becomes meaningless.

Table 4: Sub-Group Regression

Variables	Big Institutional Ownership	Small Institutional Ownership
	UP	UP
ROE	-0.048	-0.091*
	(0.133)	(0.048)
Constant	0.186***	0.432***
	(0.039)	(0.024)
Observations	63	353
R-squared	0.002	0.008

Notes: *, **, *** significant at 10%, 5%, 1%. UP = Underpricing; ROE = Return on equity

Table 4 is a robustness test between profitability information on underpricing with the sub-group regression output technique based on the institutional ownership: big institutional ownership and small institutional ownership. Consistent with pure moderation output, the results imply that institutional ownership moderates the association between profitability and underpricing. In companies with large institutional ownership, profitability has no significant effect on underpricing, and vice versa.

CONCLUSION

The purpose of this research is to determine the influence of financial and non-financial information on IPO underpricing. Financial and non-financial information in the form of profitability measures, firm age, and institutional ownership continuously and significantly impact the dynamics of underpricing in the pre-IPO period. This underlines the fact that prospectus information, both financial and non-financial, is used as a policy consideration by management, underwriters, and investors. Furthermore, this study demonstrates that institutional ownership is the most relevant and important information to use as a starting point for investors trading around the IPO event. This study has impact for firms that will go through

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the IPO process to offer institutional investors greater consideration as they become effective corporate governance.

This study has limitations to using pure moderation and/or sub-group regression without taking consideration of moderated regression analysis. In addition, the primary limitations of this work is the use of small sample size. The number of samples was limited due to country-specific factors. Future research may employ moderated regression analysis, as well as additional prospectus data such as investment fund allocation, intellectual capital, warrant inclusion, and earnings management. Thus, the prospectus information may be utilized to review and analyze managers' performance in order to make more sensible judgments. Furthermore, during an IPO, investors must avoid making heuristic decisions based on intuition, such as overconfidence and herding, which would harm them.

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