

# The Effect of PER, DER, Firm’s Age, Firm’s Size, Gross Proceeds and Public Float on Long-Run Stock Performance after IPO with Initial Return as an Intervening Variable

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**Abstract:-** The purpose of this study is to analyze the effect of PER, DER, Firm’s Age, Firm’s Size, Gross Proceeds and Public Float with Initial Return as an intervening variable on the long-run performance of stocks after the IPO. The population in this study amounted to 372 stock issuers. The sample data used in this study is secondary data in the IPO period from 2018 to 2022 consisting of 155 stock issuers taken using the purposive method. The regression analysis used in this study is multiple linear regression to reveal the direct effect while to reveal the indirect effect through the intervening variable using the Preacher-Hayes Bootstrap Test. From the results of the tests carried out, it was found that DER and Gross Proceeds had a direct effect on the long-run performance of stocks after the IPO while other dependent variables had no effect. In addition, from the results of the Preacher-Hayes Bootstrap test that had been carried out, no indirect effect was found on the independent variable through the intervening variable on the dependent variable.

**Keywords:-** Initial Return, Long-Run Performance of Stocks after the IPO, DER, Gross Proceeds, Firm’s Age, Firm’s Size, Public Float, Preacher-Hayes Bootstrap Test.

## I. INTRODUCTION

According data of Asosiasi Penyelenggara Jasa Internet Indonesia [1], in 2022 e number of internet users in Indonesia has reached around 210 million people or around 77.02% of the total population of Indonesia. With the growth of the digital economy and technological advances, it is estimated that the number of internet users in Indonesia will continue to increase in the future. In addition, according to the 2021 digital report published by Hootsuite and We Are Social, Indonesia’s digital economy continues to experience rapid growth. In 2021, the total value of e-commerce transactions in Indonesia reached around US\$ 53 billion, while the value of financial technology (fintech) investment reached around US\$ 2.8 billion, while according to the e-Conomy SEA 2020 report published by Google, Temasek, and Bain & Company, e-commerce in Indonesia experienced rapid growth and is expected to continue to increase in the future. In 2020, the total value of e-commerce transactions in Indonesia reached US\$ 32 billion or around Rp448 trillion. The future of Indonesia’s digital economy, which is expected to increase, is supported by the increasing number of startup companies in Indonesia. According to data published by the Indonesia Tech Startup Report 2020, the number of startups in Indonesia continues to experience rapid growth. In 2020, there were around 2,818 startups in Indonesia, up from 2,227 startups in 2019.

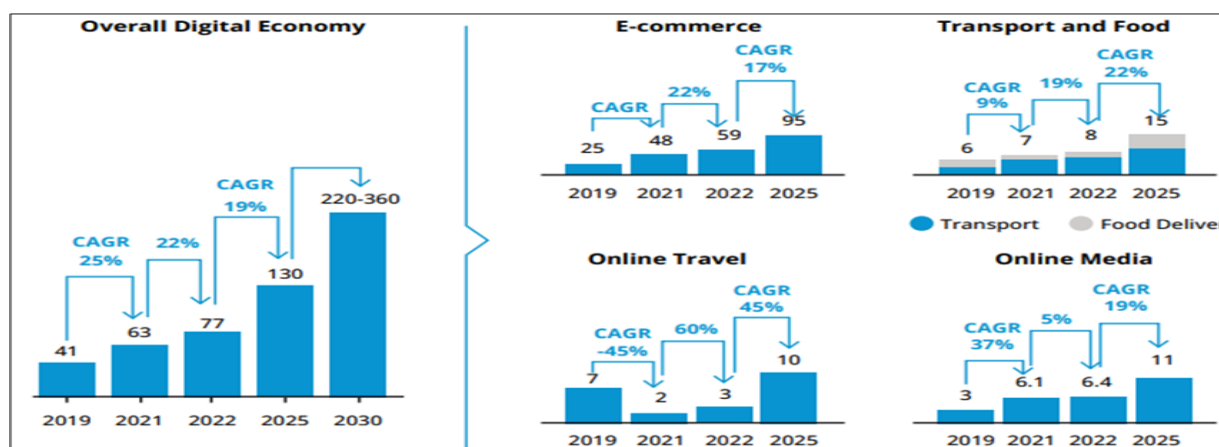


Fig 1 Development of Indonesia's Digital Economy

The development of the digital economy has made the government issue a policy package in making it easier for a company to conduct an IPO in Indonesia. The policy in the form of easy IPO requirements such as a company must have a profit before the IPO is excluded. This encourages many startups to conduct IPOs in the period 2018 to 2022.

Several startups have taken advantage of government policies by seeking funding opportunities from the public by conducting an IPO in the period from 2021 to 2022, namely PT. Bukalapak.com Tbk, PT. GoTo Gojek Tokopedia Tbk and PT. Global Digital Niaga Tbk. by looking at the prospectus of the three issuers, the purpose of the IPO funds generated will be used to increase working capital and increase investment. The IPO by several startups was enthusiastically welcomed by the public, as evidenced by the significant increase in initial sales on the stock exchange. <https://www.cnbc.com>. BUKA's share price increased by 25% on the first day it was traded on the Indonesia Stock

Exchange. No different from BUKA, GOTO, which is a startup in the marketplace, transportation and financial sectors, conducted an initial public offering on April 11, 2022. GOTO's shares experienced a price increase of 9.47% on the first day of sales on the stock exchange. Information about the increase in share prices, news and advertisements spread across various news channels and applications spread very quickly to the public.

The increase in stock price on the first day of sales compared to the stock price at the time of the IPO is called underpricing. According to [2] "underpricing is reflected in price jumps that occur on the date when the shares are first traded in public security markets, underpricing seems to be a universal phenomenon". The underpricing phenomenon occurs almost all over the world, we can see this from the table which reflects the percentage of underpricing in the world from 1990 to 2022:

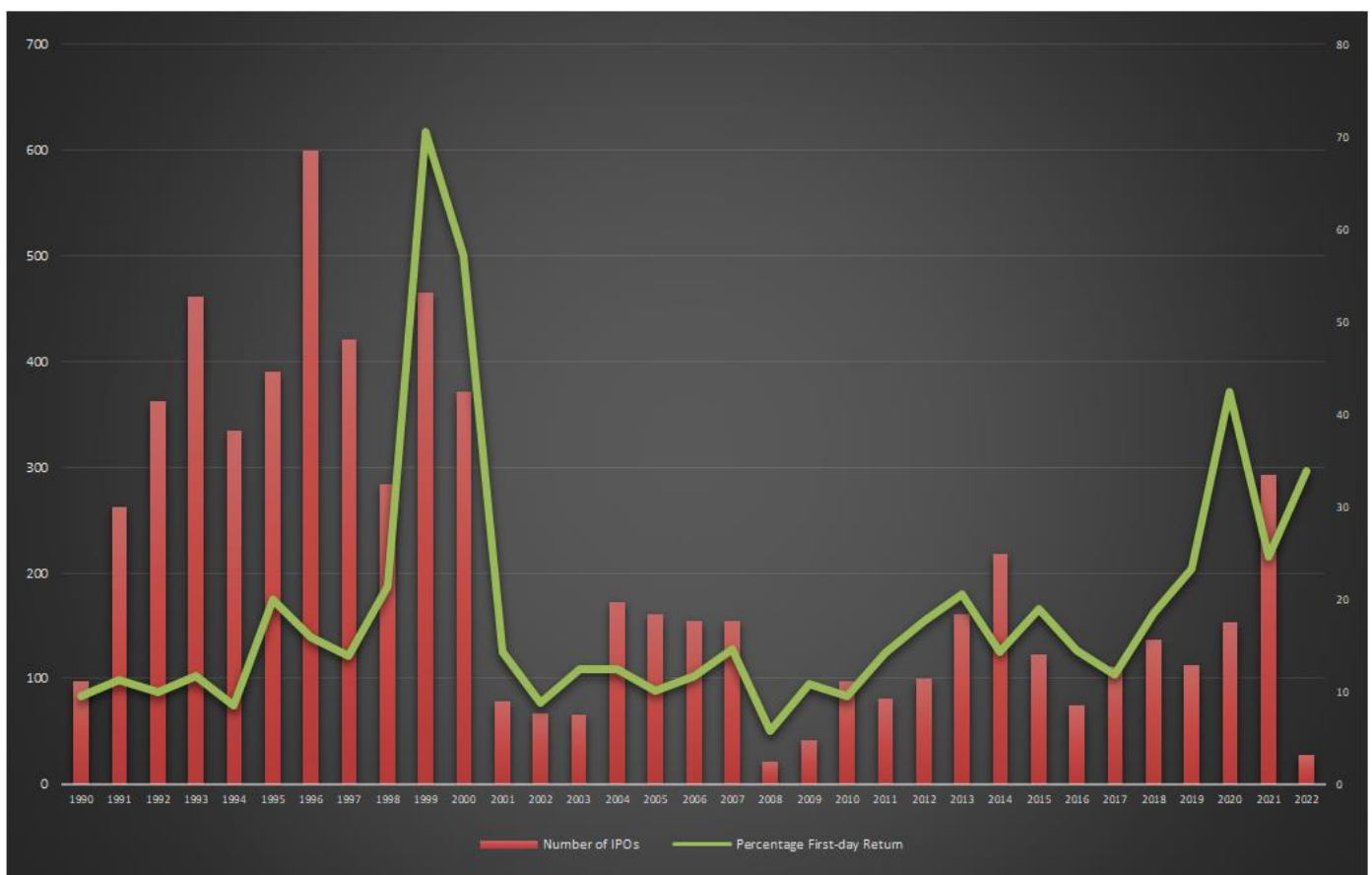


Fig 2 Number of Initial Public Offerings, First-Day Return, 1990-2022

From Figure 2 above, we can see that during 1990 to 2022, there has been an underpricing phenomenon where the average stock price increased by 21.1% on the first day compared to the IPO price. The underpricing phenomenon is a phenomenon that occurs if the initial return is positive. This means that underpricing does not occur if the initial return is negative. People who see the widespread underpricing phenomenon then make purchases because they do not want to be left behind in getting profits. The purchase of these

shares is not because people already know in depth the share they are going to buy but because of FOMO.

If we panic buy and hold GOTO shares on the first day of April 11 and hold the price until March 24, 2023, we will experience a loss of (68.9%). The price of GOTO shares has decreased by (65.98%) since the IPO or almost one year from the IPO price of IDR 338 per share to IDR 115 per share on March 24, 2023, or 235 days after the IPO. The following is a graph of changes in the price of GOTO shares.

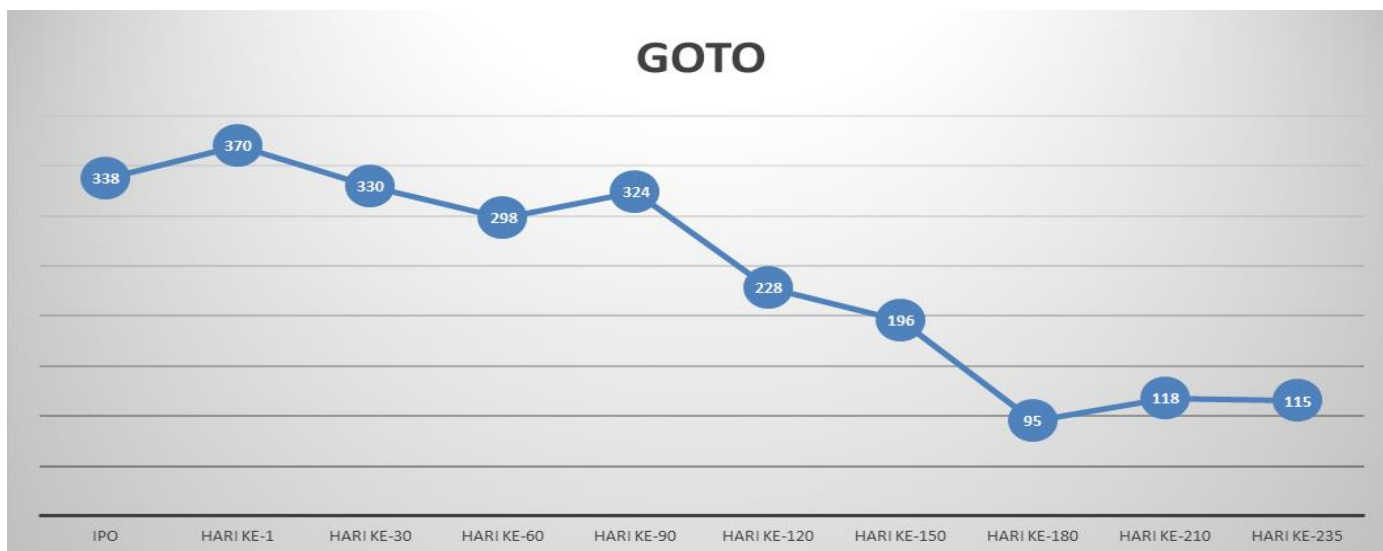


Fig 3 GOTO Stock Price Movement up to 235 Days after IPO

In this research [3] It is stated that stocks that experience the underpricing phenomenon will experience a long-run underperform phenomenon. Long-run underperform is a phenomenon that occurs if the return generated from investment in the stock price at the time of the IPO up to 3 years since the IPO provides a negative return compared to the market return or it can be said that the stock experiences a long-run decline in performance.

This study aims to examine factors that can affect the long-run performance of stocks after IPO and the long term after IPO. These factors are factors related to fundamentals such as PER, DER, and Firm's Size or from non-fundamental factors of the company's business such as Firm's Age, gross proceeds, and public float.

## II. LITERATURE REVIEW

### A. *Efficient Market Theory*

This theory assumes that the stock market efficiently reflects all available information. In the context of an IPO, the IPO stock price is assumed to reflect the true value of the company going public based on the information available at that time. In this theory, the IPO price is based on a rational and efficient evaluation of the company's growth prospects and potential. According to [4] states that in an efficient market, asset or security prices accurately reflect all information available at that time. [3] express the fads (impresario) hypothesis, based on evidence that IPOs make a stock perform poorly in the long run, in addition Ritter argues that abnormal initial returns at IPOs are not due to systematic underpricing but rather to overvaluation of IPOs by investors. In other words, the fads hypothesis argues that IPOs may be priced correctly but investors overvalue new issues in the early aftermarket. Therefore, assuming efficient markets, IPO prices should reach equilibrium prices leading to a negative correlation between initial returns and long-run IPO performance.

### B. *Information Assimetric Theory*

This theory emphasizes that there is an information asymmetry between publicly listed companies and investors. Companies have better information about their business prospects and future performance than investors. Therefore, in determining the IPO price, companies tend to consider how much information they are willing to share with the public to attract investors. On the other hand, investors must estimate the value of the company based on the information available and make offers based on their own judgment. The presence of information asymmetry can cause serious problems in the market, such as adverse selection and price unfairness. In the context of stock markets and IPOs, information asymmetry also plays an important role. Publicly listed companies have better access to inside information about business prospects, financial performance, and company risks compared to general investors. The Information Asymmetry Theory in the context of IPOs assumes that companies have a significant information advantage over investors. This can create an information imbalance where investors do not have equal access to relevant information, and this can affect their investment judgments and decisions.

The signaling hypothesis is caused by the fact that apart from the overreaction in share purchases after the IPO, according to [5] investors overvalued the shares so that investors bought at a value above their actual value. Several researchers have analyzed the factors that influence this initial return. Several studies look at it from the investor's perspective, such as research [3], [6], and [7] which looks at it from the side of investor decision making. There is also research that sees initial return as a tool to achieve something that is done by a company that is conducting an IPO or from the underwriter's side as one of those assigned to make the IPO a success as in research [8] and [9] who has created a theory stating that companies deliberately carry out underpricing to provide signals to investors. The signaling theory outlined by [9] provides a prediction that an increase in short-run stock performance will be positively correlated to long-run stock performance after the IPO..

The winner's curse hypothesis [9] and [8] "Base their explanation on the information asymmetry between the investors. That is, the informed investors are rewarded, by underpricing of IPOs, for purchasing the securities and revealing private information". Share buyers during the public offering will benefit during the initial sale on the secondary market, where investors who do not get shares during the public offering will compete to buy shares on the first day of the market opening, thus making the share price higher than its actual value.

### C. Sentiment Market Theory

This theory emphasizes the role of market sentiment and investor emotions in determining IPO prices. Positive or negative sentiment towards the market can affect the IPO stock price. If market sentiment is positive, IPO prices tend to increase due to greater investor interest. Conversely, if market sentiment is negative, IPO prices may decrease because investors tend to be reluctant to invest in IPOs.

[10] has conducted research related to investor behavior in Japan in 1987 influenced by information about a major decline in stock prices in America, so that stock prices in Japan also experienced a significant decline due to investor sentiment. [10] "An economic narrative is a contagious story that has the potential to change how people make economic decisions, such as the decision to hire a worker or to wait for better times, to stick one's neck out or to be cautious in business, to launch a business venture, or to invest in a volatile speculative asset". In addition to revealing the movement in stock prices due to negative sentiment, Shiller also compiled a book stating that information in the form of stories via social media can be a consideration in making investments.

### D. Prospect Theory

The prospect theory was expressed by Daniel Kahneman and Amos Tversky in 1979 as stated in the journal [11]. prospect theory states that individuals in assessing and choosing alternative decisions are not always consistent and rational. Investors often buy shares either in the primary market or IPO or in the secondary market or on the stock exchange often not rationally. The existence of information scattered both in the mass media and social media makes some people speculate related to the purchase of a share. This theory reveals the existence of a certainty effect, namely the possibility that people prefer certain outcomes to probabilistic outcomes, even when probabilistic outcomes have higher expected utility. This preference for certainty can lead to risk-averse behavior when faced with potential profits and risk-seeking behavior when faced with potential losses. This assumes that the stock market efficiently reflects all available information. In the context of an IPO, the IPO stock price is thought to reflect the true value of the company going public based on the information available at that time. In this theory, the IPO price is based on a rational and efficient evaluation of the company's growth prospects and potential. According to [4] states that in an efficient market, asset or security prices accurately reflect all information available at that time.

### E. Price Earnings Ratio

Price earnings ratio (PER) is a financial ratio used to assess the valuation of a company's shares by comparing the company's share price with earnings per share (EPS). This ratio provides an overview of how expensive or cheap a company's share price is relative to the profits generated.

### F. Debt Equity Ratio

DER is a financial ratio measure used to measure the proportion between total debt and total equity owned by a company. This ratio describes the extent to which a company uses debt to finance its assets compared to equity capital provided by shareholders. If a company's DER is high, this means that the company has more debt than equity. This could mean that the company is taking greater risks because it depends on debt for funding. However, this could also indicate the potential for higher returns if the company is successful in using debt to generate profits. Investors need to consider DER when making stock investments, this is considering whether the company will use additional capital to cover debt as one of the options in restructuring its debt.

### G. Firm's Age

In young companies such as startups, there tends to be no historical data that can be used to observe the company's resilience in business, so that the company has a high level of uncertainty. According to research [8] Companies that have high levels of uncertainty will tend to experience underpricing. This is supported by research [12] which states that the relationship between the age of the company and the level of initial return has a negative effect, which means that the older a company is, the lower the level of initial return will be. This is also stated by [13] Older companies can be perceived as having been tested so that the risk of uncertainty is smaller and this can attract investors because it is believed that companies that have been established for a long time are more experienced in generating returns for investors. The age of the company is calculated as follows:

$$\text{Company Age} = \text{Year IPO} - \text{Year Establish}$$

### H. Firm's Size

Firm's Size is measured from the total assets owned by the company reported in the company's financial statements in the year before the IPO. According to [14] assets are a representation of the resources owned by the company. Firm's Size is a form that the company has a large economic scale so that the company is an object of attention for both stakeholders such as the government and the community, Firm's Size can be used as a consideration in determining purchasing decisions by investors. This is also expressed in research [13] A large-scale company tends to be better known to the public so that information about the prospects of a large-scale company is easier for small-scale investors to obtain. The level of uncertainty that potential investors will face regarding the company's future can be reduced if they obtain a lot of information.



**I. Gross Proceed**

Gross proceeds are the total funds obtained by a company from selling its shares to the public during the Initial Public Offering (IPO) process. These funds come from selling shares to investors who are interested in buying shares of the company that are offered for the first time on the capital market. Gross proceeds from an IPO are usually used by companies for various purposes, such as business development, debt reduction, investment in research and development, operational expansion, and so on. Gross proceeds are calculated using the formula:

$$\text{Gross Proceed} = \text{IPO Price} \times \text{total share sold during IPO}$$

**J. Public Float**

Public float is the percentage of the number of shares offered by the issuer to investors at the time of the IPO compared to the total shares outstanding. According to [15] public float has a significant negative effect. The larger the portion of shares offered, the greater the indication that the company's existing investors are about to release their influence over a company, investors consider this to be a negative signal. However, no significant relationship was found between the composition of public float and initial return in a study conducted by [16]. The author sees that a large public float can be a sign that the company is experiencing growth and requires large funding, thus the public will likely see it as a stock that will develop in the future so that investors who do not get shares at the time of the IPO will buy them on the first day they are traded on the stock exchange.

**K. Long-Run Performance After IPO**

In research [3] it is stated that stocks that experience the underpricing phenomenon will experience the long-run underperform phenomenon. Long-run underperform is a phenomenon that occurs if the return generated from investment in stock prices at the time of the IPO up to 3 years since the IPO provides a negative return compared to the market return or can be said that the stock experiences a decline in long-run performance. The long-run performance of stocks after the IPO is calculated using the Buy-and-Hold Abnormal Return (BHAR) method, namely by calculating the cumulative return from buying stocks at the beginning of the period and holding them until the end of the period, minus the cumulative return from buying and holding a comparison portfolio (benchmark). In accordance with research [17], [7] and [3]. The price change on the 360th day is compared to the closing price of the stock on the first day after being traded on the stock exchange. In addition to comparing changes in stock prices to obtain abnormal returns, researchers measure it with changes in the price of the composite stock price index in the same period as the stock.  $\overline{BHAR}$  is calculated by comparing the cumulative return of individual stocks with the cumulative return of the benchmark during the specified period. The performance measurement period starts per month up to 12 months.

$\overline{BHAR}$  adalah return kumulatif dari membeli saham pada awal periode s the cumulative return from buying stocks at the beginning of the period and holding them until the end of the period, minus the cumulative return from buying and holding the benchmark portfolio. Calculation:

$$r_{it} = \frac{\text{Price}_{it}}{\text{Price}_{i0}} - 1$$

$$r_{im} = \frac{\text{Price}_{im}}{\text{Price}_{i0}} - 1$$

$$BHR_{it} = \prod_{t=1}^n (1 + r_{it}) - 1$$

$$BHR_{mt} = \prod_{t=1}^n (1 + r_{mt}) - 1$$

$$BHAR_{it} = BHR_{it} - BHR_{mt}$$

$$\overline{BHAR}_i = \frac{1}{n} \sum_{i=1}^n BHAR_{it}$$

[17]

➤ *Notes:*

- $r_{it}$  : stock returns on day t
- $r_{im}$  : IHSG (benchmark) return on day t
- $BHR_{it}$  : stock performance on day t
- $BHR_{mt}$  : IHSG performance on day t
- $BHAR_{it}$  : Abnormal return on day t
- $\overline{BHAR}_i$  : is the arithmetic mean of abnormal returns on all stock performance

**L. Initial Return**

With a price lower than its fair value, many investors who do not receive stock distribution in the public offering will make purchases during the initial sale on the stock market. Oversubscription of shares causes an increase in price during the initial sale on the secondary market compared to the time of the public offering, this causes a positive initial return or can be called an underprice. According to [3] Initial return is calculated from the offering price compared to the closing price of the stock market on the first day it is traded on the stock exchange. which is measured by calculating the closing price of the first day the stock is traded on the market compared to the IPO price, with the following formulat:

$$\text{Initial Return} = \frac{\text{1st day closing price}}{\text{offering price}} - 1$$

➤ *Framework and Hypothesis*

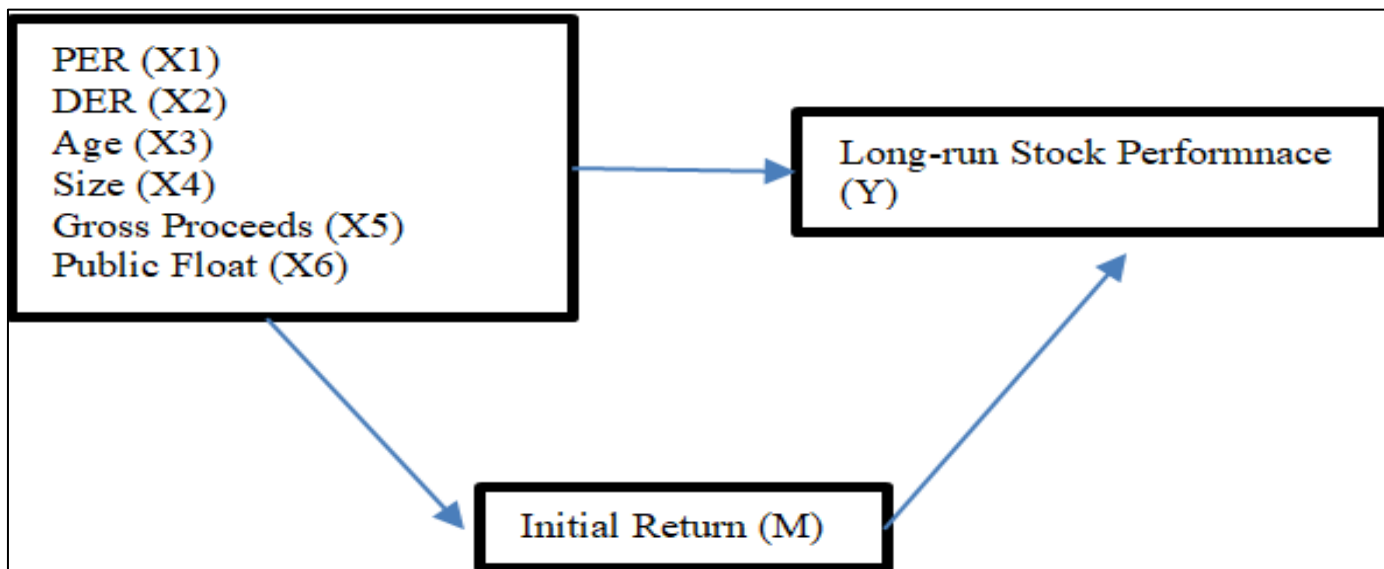


Fig 4 Framework

- H1 : PER has a significant effect on long-run performance of stocks after IPO
- H2 : DER has a significant effect on long-run performance of stocks after IPO
- H3 : Firm’s Age has a significant effect on long-run performance of stocks after IPO
- H4 : Firm’s Size has a significant effect on long-run performance of stocks after IPO
- H5 : Gross Proceeds has a significant effect on long-run performance of stocks after IPO
- H6 : Public Float has a significant effect on long-run performance of stocks after IPO
- H7 : PER has a significant effect on long-run performance of stocks after IPO through initial return as an intervening variable sebagai variabel intervening
- H8 : PER has a significant effect on long-run performance of stocks after IPO through initial return as an intervening variable sebagai variabel intervening
- H9 : PER has a significant effect on long-run performance of stocks after IPO through initial return as an intervening variable sebagai variabel intervening
- H10 : PER has a significant effect on long-run performance of stocks after IPO through initial return as an intervening variable sebagai variabel intervening

- H11 : PER has a significant effect on long-run performance of stocks after IPO through initial return as an intervening variable sebagai variabel intervening
- H12 : PER has a significant effect on long-run performance of stocks after IPO through initial return as an intervening variable sebagai variabel intervening

### III. RESEARCH METHODS

#### A. Population and Research Sample

The population used in this study is all shares that conduct an IPO on the Indonesian stock exchange with the New Economy, Acceleration and Floating listing boards with a total of 372 issuers per year 2022 listed on the Indonesian stock exchange in December 2023. The sampling technique used in this study is purposive sampling. The purposive sampling method is a sampling method based on the subjective considerations of researchers where the requirements used as criteria include shares that were IPOed at least in 2008 and a maximum of 2022 and shares that have complete published financial report data so that they can be used in research:

Tabel 1 Sample Selection Criteria

Desc.	Jumlah
Issuer Popilation 31 Desember 2023	372
IPO under 2018	-210
IPO Period 2018-2022	162
Incomplete Data	-7
<b>Number of Research Samples</b>	<b>155</b>

Source: Processed Secondary Data, 2024

#### B. Collecting Data Method

In this study, the data used is secondary data. Published financial report data and stock price movement data were obtained by accessing the website [www.idx.co.id](http://www.idx.co.id),

[www.tradingview.com](http://www.tradingview.com), [finance.yahoo.com](http://finance.yahoo.com), <https://www.idnfinancials.com/> and the website of each sample stock issuer.

**C. Data Analysis Methods**

This study uses multiple linear regression with the help of SPSS 25 application which has been added with PROCESS extension. The data used is cross-section data that has gone through classical assumption test before regression analysis is conducted. The classical assumption test conducted is in the form of normality test, heteroscedasticity test and multicollinearity test. To test the hypothesis, the researcher uses T statistic test, F statistic test, coefficient of determination test, and added the use of preacher-hayes bootstrap test method to analyze the indirect effect of independent variable on dependent variable through intervening variable.

**D. Metode Analisis Data**

This study uses descriptive statistical methods, panel data regression, and preacher-hayes bootstrap test to analyze the effect of PER (X1), DER (X2), Firm’s Age (X3), Firm’s Size (X4), Gross Proceeds (X5), Public Float (X6) on Long-run Stock Performance after IPO (Y) with Initial Return (M) acting as a mediating variable.

There are three regression models used: first, testing the effect of PER, DER, Firm’s Age, Firm’s Size, Gross Proceeds, Public Float on long-run stock performance after IPO; second, testing the effect of PER, DER, Firm’s Age, Firm’s Size, Gross Proceeds, Public Float on initial return; third, testing the effect of PER, DER, Firm’s Age, Firm’s Size, Gross Proceeds, Public Float on long-run stock performance after IPO with initial return as an intervening variable. The F statistical test is used to test whether all independent variables simultaneously have a significant effect on the dependent variable, while the t statistical test is

used to test the partial significance of each independent variable on the dependent variable. The Preacher-Hayes Bootstrap test is used to test the indirect effect of the intervening variable (initial return) on the relationship between PER, DER, Firm’s Age, Firm’s Size, Gross Proceeds, Public Float on the long-run performance of shares after the IPO is:

Equation 1

$$BHAR = \beta_0 + \beta_1 PER + \beta_2 DER + \beta_3 Age + \beta_4 Size + \beta_5 GP + \beta_6 PF + \varepsilon$$

Equation 2

$$INR = \beta_0 + \beta_1 PER + \beta_2 DER + \beta_3 Age + \beta_4 Size + \beta_5 GP + \beta_6 PF + \varepsilon$$

Equation 3

$$BHAR = \beta_0 + \beta_1 PER + \beta_2 DER + \beta_3 Age + \beta_4 Size + \beta_5 GP + \beta_6 PF + \beta_7 INR + \varepsilon$$

**IV. REUSLT AND DISCUSSION**

**A. Descriptive statistics**

Descriptive statistical measurement of variables is needed to see the general picture of the data such as the average value (Mean), highest (Maximum), lowest (Minimum) and standard deviation of each variable. Based on the descriptive statistical analysis, the following sample picture is obtained:

Tabel 2 Descriptive Statistics

Variabel	Min	Maximum	Mean	Std. Deviation
PER	-386,16	128.640,00	1,096,74	10.440,49
DER	,00	78,42	2,34	7,49
Age	1	65	15,79	12,392
Size	1	148213	1833,28	12178,362
Gross Proceeds	8,33	21900,68	420,4702	2153,04956
Public Float	,010	,520	,23771	,088593
INR	-,705	2,543	,48732	,491661
BHAR	-,790	19,467	,76808	2,894969

Source: data results from processing using SPSS 25

The Price Earnings Ratio (X1) variable has a minimum value of -386.16, a maximum of 128,640.00 and an average value of 1,096.74 with a standard deviation of 10,440.49 where the lowest Price Earnings Ratio is in the Issuer PT Maha Properti Indonesia Tbk. (MPRO) which conducted an IPO in 2018 and the highest Price Earnings Ratio is in the issuer PT Isra Presisi Indonesia Tbk (ISAP) which conducted an IPO in 2022. The price earnings ratio is a financial ratio used to assess the valuation of a company's shares by comparing the company's share price with earnings per share (EPS). The lower the PER, the cheaper the share price is when viewed from the net income generated. In the MPRO Issuer which conducted an IPO in 2018, it had a profit after tax of -Rp2.8 billion with a total of 9,942,500,000 shares with an IPO

price of Rp110 per share. While the highest PER was in the ISAP issuer which had a profit after tax of Rp3 million with a total of 4,020,000,000 shares with an IPO price of Rp96 per share.

The debt equity ratio variable (X2) has a minimum value of 0.000, a maximum of 78.42 and an average value of 2.34 with a standard deviation of 7.49. In company analysis, the debt equity ratio (DER) value is a comparative analysis between total liabilities and total equity which indicates how much a company is funded by debt compared to equity owned by shareholders. The lowest DER of issuers is in the issuer PT Optima Prima Metal Sinergi Tbk. (OPMS) which IPO in 2019

and the highest DER is in the issuer PT Satria Antaran Prima Tbk. (SAPX) which IPO in 2018.

The Firm’s Age variable (X3) has a minimum value of 1, a maximum of 65 and an average value of 15.79 with a standard deviation of 12.39. The age of the company describes how long the company has been established before conducting an IPO. The longer it has been established, the more the company has survived various threats and changes in the business environment. The youngest company is Pool Advista Finance Tbk. (POLA) which IPO in 2018 and the oldest is PT Indonesian Tobacco Tbk. (ITIC) which IPO in 2019.

The Firm’s Size variable (X4) has a minimum value of IDR 700 million or rounded to IDR 1 billion, a maximum of IDR 148,213.00 billion and an average value of IDR 1,833.28 billion with a standard deviation of IDR 12,178.36 billion. Firm’s Size is measured from the total value of a company’s assets. The issuer with the smallest Firm’s Size is PT Wira Global Solusi Tbk (WGSB) which IPO in 2021 and the issuer with the largest Firm’s Size is PT GoTo Gojek Tokopedia Tbk (GOTO) which IPO in 2022.

The Gross Proceeds (X5) variable has a minimum value of IDR 8.33 billion, a maximum of IDR 21,900.68 billion and an average value of IDR 420.47 billion with a standard deviation of IDR 2,153.05 billion. Gross proceeds are the total funds obtained by the company at the time of the IPO. The smallest gross proceeds are from the issuer PT Zyrexindo Mandiri Buana Tbk (ZYRX) which IPO in 2021 and the

issuer with the largest gross proceeds is from the issuer PT Bukalapak.com Tbk (BUKA) which IPO in 2021.

The public float variable (X6) has a minimum value of 10%, a maximum of 52% and an average value of 23.77% with a standard deviation of 8.85%. Public float is a measure of how much the total shares offered to the public are compared to the total shares outstanding. The issuer with the smallest public float is PT Damai Sejahtera Abadi Tbk (UFOE) which IPO in 2021 and the largest is Satria Antaran Prima Tbk. (SAPX) which IPO in 2018.

The long-run performance variable of the stock after IPO (Y) has a minimum value of -79.0%, a maximum of 1,946.7% and an average value of 76.8% and has a standard deviation of 289.4%. The issuer with the lowest long-run performance value of the stock after IPO is PT Armada Berjaya Trans Tbk. (JAYA) which IPO in 2019 and the issuer with the highest value is PT Gaya Abadi Sempurna Tbk (SLIS) which IPO in 2019.

The initial return variable (M) has a minimum value of -70.5%, a maximum of 254.3% and an average value of 48.7% and has a standard deviation of 49.2%. The issuer with the lowest initial return value is PT Indointernet Tbk. (EDGE) which IPO in 2021 and the issuer with the highest value is Dafam Property Indonesia Tbk. (DFAM) which IPO in 2018.

*B. Classic Assumption Test*

➤ *Normality Test*

Table 3 Results of the Normality Test of Independent Variables on Dependent Variables through Intervening Variables

<b>One-Sample Kolmogorov-Smirnov Test</b>		
		Unstandardized Residual
N		155
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	2.79763376
Most Extreme Differences	Absolute	.283
	Positive	.283
	Negative	-.191
Test Statistic		.283
Asymp. Sig. (2-tailed)		.000 <sup>c</sup>
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

Source: data results from processing using SPSS 25

In the results of the normality test of the independent variable against the dependent variable through the intervening variable with a sample size of 155 in table 4.4 above, a significant value of 0.000 or <0.05 was produced,

which means that H0 is rejected and H1 is accepted or it can be said that the data is not normally distributed, therefore the researcher carried out elimination on the outlier so that the following test results were obtained:



Table 4 Results of the Normality Test of Independent Variables on Dependent Variables through Intervening Variables after Elimination of Outlayers

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		119
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	.29521111
Most Extreme Differences	Absolute	.064
	Positive	.064
	Negative	-.041
Test Statistic		.064
Asymp. Sig. (2-tailed)		.200 <sup>c,d</sup>
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		
d. This is a lower bound of the true significance.		

Source: data results from processing using SPSS 25

➤ *Multikolenaritas Test*

Table 5 Results of Multicollinearity Test of Independent Variables and Intervening Variables on Dependent Variables

Coefficients <sup>a</sup>									
		Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta				Tolerance	VIF
1	(Constant)	-.367	.201			-1.824	.071		
	PER	-2.569E-6	.000	-.097		-1.066	.289	.953	1.049
	DER	.009	.004	.198		2.084	.039	.879	1.137
	Age	.000	.003	.004		.048	.962	.891	1.122
	LN Size	.041	.023	.228		1.753	.082	.466	2.146
	Gross Proceed	-2.824E-5	.000	-.220		-2.136	.035	.748	1.337
	Public Float	-.202	.428	-.059		-.472	.638	.508	1.969
	INR	-.016	.073	-.021		-.216	.830	.817	1.224

a. Dependent Variable: Long-run stock performance after IPO

Source: data processing results using SPSS 25

All variables have a tolerance value of more than 0.1 and a VIF value of less than 10, so the assumption of multicollinearity has been met or there are no symptoms of multicollinearity.

➤ *Heteroskedastisitas Test*

Table 6 Results of Heteroscedasticity Test of Independent Variables on Dependent Variable through Intervening Variable

Coefficients <sup>a</sup>							
Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	
	B	Std. Error	Beta				
1	(Constant)	.103	.116			.883	.379
	PER	-1.260E-6	.000	-.084		-.905	.368
	DER	-.003	.002	-.142		-1.468	.145
	Umur Perusahaan	-.001	.002	-.079		-.817	.416
	LN Ukuran Perusahaan	.017	.013	.168		1.257	.211
	Gross Proceed	-1.092E-5	.000	-.150		-1.430	.155
	Public Float	.134	.247	.069		.544	.588
	INR	.068	.042	.161		1.598	.113

a. Dependent Variable: ABS2

Source: data results from processing using SPSS 25

From the results of the Glejser test above, it was found that the significance value of all variables against the absolute value of the residual was above the predetermined significance level, namely greater (> 0.05), so the data can be said to be free from heteroscedasticity.

C. Inferensial Statistics

➤ F Test

Researchers conducted a feasibility test of the regression model by performing an F test. The following are the results of the F test for the 3 proposed regression equations:

Tabel 7 F Statistic Test Results for Equation 1

ANOVA <sup>a</sup>						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.442	6	.240	2.617	.021 <sup>b</sup>
	Residual	10.288	112	.092		
	Total	11.730	118			

a. Dependent Variable: Long-run stock performance after IPO

b. Predictors: (Constant), Public Float, Age, PER, Gross Proceed, DER, LN Size

Source: data processing results using SPSS 25

Tabel 8 F Statistic Test Results for Equation 2

ANOVA <sup>a</sup>						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.851	6	.642	4.174	.001 <sup>b</sup>
	Residual	17.223	112	.154		
	Total	21.075	118			

a. Dependent Variable: INR

b. Predictors: (Constant), Public Float, Age, PER, Gross Proceed, DER, LN Size

Source: data results from processing using SPSS 25

Tabel 9 F Statistic Test Results for Equation 3

ANOVA <sup>a</sup>						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.447	7	.207	2.231	.037 <sup>b</sup>
	Residual	10.284	111	.093		
	Total	11.730	118			

a. Dependent Variable: Long-run stock performance after IPO

b. Predictors: (Constant), INR, LN Size, DER, PER, Age, Gross Proceed, Public Float

Source: data results from processing using SPSS 25

All test results for all regression equations have met the expected significance, which is greater than 0.05. In addition, the calculated F value is greater than the F table. This means that all independent or free variables together have a significant effect on the dependent variable.

➤ Coefficient of Determination ( $R^2$ )

Tabel 10 Determination Coefficient Test for Equation 1

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.351 <sup>a</sup>	.123	.076	,303079

a. Predictors: (Constant), Public Float, Age, PER, Gross Proceed, DER, LN Size

Source: data results from processing using SPSS 25

From the SPSS output results in the table above, the coefficient of determination ( $R^2$ ) of the regression model is 0.123 or 12.3%.

Tabel 11 Determination Coefficient Test for Equation 2

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.427 <sup>a</sup>	.183	.139	,392149

a. Predictors: (Constant), Public Float, Age, PER, Gross Proceed, DER, LN Size

b. Dependent Variable: INR

Source: data results from processing using SPSS 25

From the SPSS output results in the table above, the coefficient of determination ( $R^2$ ) of the regression model is 0.183 or 18.3%.

Tabel 12 Determination Coefficient Test for Equation 3

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.351 <sup>a</sup>	.123	.068	.304377
a. Predictors: (Constant), INR, LN Size, DER, PER, Age, Gross Proceed, Public Float				
b. Dependent Variable: Long-run stock performance after IPO				

Source: data results from processing using SPSS 25

From the SPSS output results in the table above, the magnitude of the determination coefficient ( $R^2$ ) of the regression model with intervening is 0.123 or 12.3%.

➤ *Direct Influence Analysis with Individual Parameter Significance Test (t-Statistic Test)*

The direct influence of the independent variable on the dependent variable and the independent variable on the intervening variable is carried out using regression analysis on equations 1 and 2. The following are the regression results for each equation:

Table 13 Regression Model Output for Equation 1

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.358	.196		-1.827	.070
	PER	-2.487E-6	.000	-.094	-1.049	.296
	DER	.009	.004	.200	2.127	.036
	Umur Perusahaan	.000	.003	.004	.043	.966
	LN Ukuran Perusahaan	.039	.022	.221	1.763	.081
	Gross Proceeds	-2.776E-5	.000	-.216	-2.139	.035
	Public Float	-.239	.392	-.070	-.610	.543
a. Dependent Variable: Long-run stock performance after IPO						

Source: data results from processing using SPSS 25

Based on the results of the first equation regression test presented in Table x, the calculation results can be explained as follows:

$$BHAR = -0,358 - 2.487E - 6 * PER + 0,009 * DER + 0,00 * Umur + 0,039 * LN_{Ukuran} - 2.776E - 5 * GP - 0,239 * PF + \epsilon$$

The long-run performance disclosure variable has a negative constant value of -0.358.

The regression coefficient value of the Price Earnings Ratio variable is -2.487E-6 with a significance value of 0.296. Thus, the regression coefficient value shows that if the Price Earnings Ratio increases by one unit, the value of Mutual Fund Performance will decrease by -2.487E-6, while the others remain the same.

The regression coefficient value of the debt-to-equity ratio variable is 0.009 with a significance value of 0.036. Thus, the regression coefficient value shows that if the debt-to-equity ratio increases by one unit, the value of Long-run Stock Performance will increase by 0.036, while the others remain the same.

The regression coefficient value of the Firm's Age variable is 0.000 with a significance value of 0.966. Thus, the regression coefficient value shows that if the Firm's Age increases by one unit, the value of Mutual Fund Performance will increase by 0.000, while the others remain the same.

The regression coefficient value of the Firm's Size variable is 0.039 with a significance value of 0.081. Thus, the regression coefficient value shows that if the Firm's Size increases by one unit, the value of the Long-run Performance of the stock will increase by 0.039, while the others remain the same.

The regression coefficient value of the gross proceeds' variable is -2.776E-5 with a significance value of 0.035. Thus, the regression coefficient value shows that if gross proceeds increase by one unit, the value of the Long-run Performance of the stock will decrease by -2.776E-5, while the others remain the same.

The regression coefficient value of the public float variable is -0.239 with a significance value of 0.543. Thus, the regression coefficient value shows that if the public float increases by one unit, the value of the Long-run Performance of the stock will decrease by -0.239, while the others remain the same.

Table 14 Regression Model Output for Equation 2

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.562	.254		-2.215	.029
	PER	-5.195E-6	.000	-.146	-1.694	.093
	DER	-.006	.005	-.099	-1.098	.275
	Age	.001	.004	.022	.239	.811
	LN Size	.079	.029	.333	2.747	.007
	Gross Proceed	-2.994E-5	.000	-.174	-1.783	.077
	Public Float	2.308	.507	.502	4.556	.000

Source: data results from processing using SPSS 25

The results of data processing produce model equation results as shown in the table above, as follows.

$$\begin{aligned}
 INR = & -0,562 - 5.195E - 6 * PER - 0,006 * DER \\
 & + 0,001 * Age + 0,079 * LN_{Size} - 2.994E \\
 & - 5 * GP + 2,308 * PF + \varepsilon
 \end{aligned}$$

The initial return disclosure variable has a negative constant value of -0.562

The regression coefficient value of the Price Earnings Ratio variable is -5.195E-6 with a significance value of 0.093. Thus, the regression coefficient value shows that if the Price Earnings Ratio increases by one unit, the value of the Initial Return will decrease by -5.195E-6, while the others remain the same.

The regression coefficient value of the debt-to-equity ratio variable is -0.006 with a significance value of 0.275. Thus, the regression coefficient value shows that if the debt-to-equity ratio increases by one unit, the value of the Initial Return will decrease by -0.006, while the others remain the same.

The regression coefficient value of the Firm's Age variable is 0.001 with a significance value of 0.811. Thus, the regression coefficient value shows that if the Firm's Age increases by one unit, then the value of the Initial Return will increase by 0.001, while the others remain the same.

The regression coefficient value of the Firm's Size variable is 0.079 with a significance value of 0.007. Thus, the regression coefficient value shows that if the Firm's Size increases by one unit, then the value of the Initial Return will increase by 0.079, while the others remain the same.

The regression coefficient value of the gross proceed variable is -2.994E-5 with a significance value of 0.077. Thus, the regression coefficient value shows that if gross proceeds increase by one unit, the value of Initial Return will decrease by -2.994E-5, while the others remain the same.

The regression coefficient value of the public float variable is 2.308 with a significance value of 0.000. Thus, the regression coefficient value shows that if public float increases by one unit, the value of Initial return will increase by 2.308, while the others remain the same.

➤ *Indirect Effect Analysis with Preacher-Hayes Bootstrap Test*

In the book "Introduction to Mediation, Moderation, and Conditional Process Analysis" which is explained by [18] In the context of mediation analysis, intervening (mediating) variables play an important role in explaining the relationship between the independent variable and the dependent variable. Mediation occurs when the intervening variable connects the independent variable and the dependent variable, bringing the effect of the independent variable to the dependent variable. The relationship measured from the presence of the intervening variable is an indirect relationship on the relationship of the independent variable to the independent variable through the intervening variable.

Researchers use indirect influence tests with the Preacher-Hayes bootstrap test method in accordance with the research [19] o be able to determine whether there is an indirect relationship between PER (X1), DER (X2), Firm's Age (X3), Firm's Size (X4), gross proceeds (X5), and public float (X6) with long-run performance after IPO (Y) through the intervening variable initial return (M). The preacher-hayes bootstrap test method is carried out by calculating using SPSS which has been added with an extension and then calculating the coefficient of variable X on the relationship of variable X to variable M (a), the coefficient of variable M on the relationship of variable X to variable Y through M (b), the coefficient of variable X on the relationship of variable X to variable Y through M (c) and the coefficient of variable X on the relationship of variable X to variable Y (c'). (c') is obtained from the analysis of the results of the regression equation of the independent variable against the dependent variable as in table 13.

In the relationship between the PER variable and the long-run performance variable of shares after the IPO through the initial return variable, no indirect influence of value was found (a x b = 0.000001) and had an initial interval of 0 - 0, the type of mediation in the relationship between these variables is in accordance with [19], namely no-effect nonmediation because apart from the absence of an indirect influence, there is also no direct influence which is explained by the significance value in table 13 of 0.296, more than 0.05.



In the relationship between the DER variable and the long-run performance variable of shares after the IPO through the initial return variable, no indirect influence of value was found ( $a \times b = -0.00000391$ ) and had an initial interval of 0 - 0, the type of mediation in the relationship between these variables is in accordance with [19] namely direct-only nonmediation due to the direct influence of the DER variable on the long-run performance variable of shares after the IPO which is explained by the significance value in table 13 of 0.036 which is smaller than 0.05.

In the relationship between the Firm's Age variable and the long-run performance variable of shares after the IPO through the initial return variable, no indirect influence of value was found ( $a \times b = -0.00000736$ ) and had an initial interval of -0.0008 - 0.0007, the type of mediation in the relationship between these variables is in accordance with [19] namely no-effect nonmediation because apart from the absence of an indirect influence, there is also no direct influence which is explained by the significance value in table 13 of 0.966, more than 0.05.

In the relationship between the Firm's Size variable and the long-run performance variable of shares after the IPO through the initial return variable, no indirect influence of value was found ( $a \times b = 0.00000144$ ) and had an initial interval of -0.003 - 0.0039, the type of mediation in the relationship between these variables is in accordance with [19] namely no-effect nonmediation because apart from the

absence of an indirect influence, there is also no direct influence which is explained by the significance value in table 13 of 0.081, more than 0.05.

In the relationship between the gross proceeds variable and the long-run performance variable of shares after the IPO through the initial return variable, no indirect influence of value was found ( $a \times b = -0.00000001$ ) and had an interval of 0 - 0, the type of mediation in the relationship between these variables is in accordance with [19] namely direct-only nonmediation because there is a direct influence of the gross proceeds variable on the long-run performance variable of shares after the IPO which is explained by the significance value in table 13 of 0.035 which is smaller than 0.05.

In the relationship between the public float variable and the long-run performance variable of shares after the IPO through the initial return variable, no indirect influence of value was found ( $a \times b = 0.04298088$ ) and had an initial interval of -0.1885 - 0.2445, the type of mediation in the relationship between these variables is in accordance with [19] namely no-effect nonmediation because apart from the absence of an indirect influence, there is also no direct influence which is explained by the significance value in table 13 of 0.543, more than 0.05.

The following are the results of hypothesis testing using the Preacher-Hayes bootstrap test method:

Table 15 Indirect Impact Analysis Results

Keterangan	PER	DER	Age	Ln Size	Gross proceeds	Public float
a	0,00001000	0,00170000	0,00320000	0,00120000	0,00001000	1,35160000
b	-0,00950000	-0,00230000	-0,00230000	0,00120000	-0,00690000	0,03180000
c	0,00001000	0,00800000	0,00200000	0,03230000	0,00001000	-0,46870000
c'	-0,00000249	0,00900000	0,00001000	0,39000000	-0,00002776	-0,23900000
(a x b)	-0,00000010	-0,00000391	-0,00000736	0,00000144	-0,00000007	0,04298088
(a x b x c)	-0,00000000	-0,00000003	-0,00000001	0,00000005	-0,00000000	-0,02014514
Effect	-	-	-	-	-	0,04290000
Mean Indirect Effect Lower	-	-0,00670000	-0,00080000	-0,00300000	-	-0,18850000
Mean Indirect Effect Upper	-	0,00670000	0,00070000	0,00390000	-	0,24450000
Sig. c'	0,29600000	0,036	0,966	0,081	0,03500000	0,543
Conclusion Direct Effect	Not Significant	Significant	Not Significant	Not Significant	Significant	Not Significant
Conclusion Indirect Effect (note: lower to upper 0 value included, that so indirect effect si not significant)	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
Relationship Classification	no effect nonmediation	direct-only nonmediation	no effect nonmediation	no effect nonmediation	direct-only nonmediation	no effect nonmediation

Source: data results from processing using SPSS 25

#### D. Discussion

##### ➤ *The Influence of PER on Long-Run Performance of Stocks after IPO*

Price earnings ratio (PER) does not have a significant influence on the variable of long-run performance of stocks after IPO. One of the fundamental factors of company finance, namely PER at the time of IPO, is likely not seen by investors, considering the limitations of this study which analyzes companies that are not on the main stock board, this is likely because investors see other factors such as the future of the company such as market share or company growth or other external factors such as economic and political factors.

##### ➤ *The Influence of DER on Long-Run Performance of Stocks after IPO*

Debt will affect the company's performance fundamentally because it will have implications for interest expenses that have an impact on the decline in company profits. So fundamentally and technically a high DER ratio can result in underperformance of shares after the IPO, but the results of the study show that DER has a positive effect on the long-run performance of shares. Leverage in the form of income that can be seen from the DER value can be used by companies to generate revenue, in addition, the value of interest returns is relatively small compared to the value of returns expected by investors so that business funds can be reused for business development. This is in accordance with research [15] which found that DER has a positive effect on the long-run performance of shares, but is different from several other studies such as research [13] and [7] which found a negative effect of DER on long-run performance.

##### ➤ *The Influence of Firm's Age on Long-Run Performance of Stocks after IPO*

Firm's Age in this study did not have a significant effect. The results of this study are in accordance with studies [12], [20], and [6] which found that there was no significant effect of Firm's Age on long-run stock performance. This is different from [13], [7], [21], and [22] which found that Firm's Age had a significant positive effect on long-run stock performance.

##### ➤ *The Influence of Firm's Size on Long-Run Performance of Stocks after IPO*

Firm's Size does not have a significant effect on long-run stock performance. This study is in accordance with [22], [20], and [21] which show that long-run stock performance after an IPO is not significantly influenced by Firm's Size, but this study is different from the study [15] which states that Firm's Size measured using total asset value before the IPO has a significant positive effect on long-run stock performance after the IPO.

##### ➤ *The Influence of Gross Proceeds on Long-Run Performance of Stocks after IPO*

Gross Proceeds has a significant negative effect on long-run performance. The results of this study are in accordance with research [3] which shows that the amount of funds generated at the time of the IPO, the more negative the long-run performance of the shares. The results of this study differ

from research by [21] and [15] which found that the greater the gross proceeds, the more positive the long-run performance after the IPO.

##### ➤ *The Influence of Public Float on Long-Run Performance of Stocks after IPO*

Public float does not significantly affect the long-run performance of shares after the IPO. The results of this study are supported by research [7] which found that public float does not significantly affect the long-run performance of shares after the IPO, however, these results differ from the results of research [23] which examined the influence of several variables including public float on the long-run performance of shares after the IPO in Europe, finding that the greater the percentage of shares offered to the public, the less the performance of a share in the long term.

##### ➤ *The Effect of PER on Long-Run Stock Performance after IPO with Initial Return as an Intervening Variable*

There is no indirect influence on the relationship between the PER variable and the long-run performance variable of shares after the IPO through initial return. The type of influence that exists in the relationship between these variables is in accordance with [19] namely no-effect nonmediation because in addition to the absence of indirect influence, there is also no direct influence which is explained by the significance value in table 13 of 0.296 more than 0.05.

##### ➤ *The Effect of DER on Long-Run Stock Performance after IPO with Initial Return as an Intervening Variable*

There is no indirect influence on the relationship between the DER variable and the long-run performance variable of shares after the IPO through initial return. The type of influence that exists in the relationship between these variables is in accordance with [19] namely direct-only nonmediation because the DER variable can directly influence the long-run performance variable of shares after the IPO, which is explained by the significance value in table 13 of 0.036, which is smaller than 0.05.

##### ➤ *The Effect of Firm's Age on Long-Run Stock Performance after IPO with Initial Return as an Intervening Variable*

There is no indirect influence on the relationship between the Firm's Age variable and the long-run performance variable of shares after the IPO through initial return. The type of influence that exists in the relationship between these variables is in accordance with [19] namely no-effect nonmediation because in addition to the absence of indirect influence, there is also no direct influence which is explained by the significance value in table 13 of 0.966 more than 0.05.

##### ➤ *The Effect of Firm's Size on Long-Run Stock Performance after IPO with Initial Return as an Intervening Variable*

There is no indirect influence on the relationship between the Firm's Size variable and the long-run performance variable of shares after the IPO through initial returns. The type of influence that exists in the relationship between these variables is in accordance with [19] yaitu no-effect nonmediation karena selain tidak adanya namely no-effect nonmediation because in addition to the absence of

indirect influence, there is also no direct influence which is explained by the significance value in table 13 of 0.081 more than 0.05.

➤ *The Effect of Gross Proceeds on Long-Run Stock Performance after IPO with Initial Return as an Intervening Variable*

There is no indirect influence on the relationship between the gross proceeds' variable and the long-run performance variable of shares after the IPO through initial returns. The type of influence that exists in the relationship between these variables is in accordance with [19] namely direct-only nonmediation because the gross proceeds variable can directly influence the long-run performance variable of shares after the IPO, which is explained by the significance value in table 13 of 0.035, which is smaller than 0.05.

➤ *The Effect of Public Float on Long-Run Stock Performance after IPO with Initial Return as an Intervening Variable*

There is no indirect influence on the relationship between the public float variable and the long-run performance variable of shares after the IPO through initial return. The type of influence that exists in the relationship between these variables is in accordance with [19] namely no-effect nonmediation because in addition to the absence of indirect influence, there is also no direct influence which is explained by the significance value in table 13 of 0.542 more than 0.05.

## V. CONCLUSION

Based on the results of the research and discussion that has been done, it can be concluded that the DER and gross proceeds variables directly affect the long-run performance of stocks after the IPO. Meanwhile, for the direct influence of the independent variable on the intervening variable, only the Firm's Size and public float variables were found to have a direct influence.

The study on the indirect influence of the independent variable on the dependent variable through the intervening variable did not find an indirect influence.

For the government, in this case the authority holder in stock trading, it is better to be able to carefully select the head of the authority to ensure that the company that will go public with an IPO has a level of sustainability. This is considering that many issuers have been suspended or delisted from stock trading which can affect the level of public trust in investing in stocks. From the results of the study, it was found that DER has a positive influence on the long-run performance of stocks after the IPO, which means that the level of solvency measured using DER does not have to be the only concern of the government in evaluating companies that will conduct an IPO.

For investors who want to invest in companies that will conduct an IPO, short-term investment is by taking advantage of the IPO offering period by booking the purchase of shares and selling when the shares are listed on the stock exchange

or the first day the shares are sold on the secondary market. This is because most companies that conduct IPOs obtain a positive initial return value with a percentage value of 84% of the 155 population, 130 stock issuers were found to be underpriced. Investors need to be careful when holding stocks from the time of purchase at the IPO to one year because 45% or 69 issuers out of 155 issuers experienced underperformance. The results of the study found that Firm's Size and public float or the percentage of shares offered to the public compared to founders' shares have a significant positive effect. Which means that the greater the assets of the company that will be IPO and the greater the percentage of funds owned by the company by the public, the shares tend to experience underpricing or an increase in initial return. Investors need to look at gross proceeds or the total amount of funds generated from the issuance of shares at the IPO, from the results of the study it was found that there was a significant negative effect on the long-run performance of shares after the IPO. The greater the amount of funds raised, the greater the possibility that stocks will underperform

The sample used was only on stock mutual funds with a span of only 5 years from 2018 to 2022. For further research, the research observation year should use a time span of more than 5 years. The study uses the latest year range, so that it can see the current IPO development. And it is better if the sample used is not only stocks that have a listing board for accelerated development or new economy but needs to be expanded to major stocks.

The research variables carried out are only limited to the variables PER, DER, Firm's Age, Firm's Size, gross proceeds, and public float while there are still many other fundamental factors such as ROA, ROE, etc. or external such as interest rates, inflation rates, economic conditions, etc., which can be taken to be used as research variables.

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