

Investor Sentiment, Market Volatility, and IPO Initial Returns

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Abstract

This research seeks to determine the impact of investor sentiment and market volatility on IPO initial return when an issuer conducts an Initial Public Offering (IPO). This research lasted ten years, from 2009 to 2020, with a total issuer of 237 conducting Initial Public Offerings (IPOs) on the Indonesia Stock Exchange. The total number of issuers conducting an initial public offering (IPO) met the purposive sampling criteria is 285. Multiple linear regression analysis, with control variables such as Gap of Days, Firm Age, IPO Size, and Firm Size, is used to determine the effect of Investor Sentiment and Market Volatility on IPO Initial Returns. The findings showed that Investor Sentiment and Market Volatility positively affected the IPO Initial Return during the study period. This research aims to increase investor awareness of the importance of IPO stock price, increasing the initial return in the future. In Indonesia, *Otoritas Jasa Keuangan* (OJK) plays a critical role in policies that facilitate Indonesian investors' monitoring of the volatility of stock price changes in the market.

Keywords: Investor Sentiment, Market Volatility, Initial Public Offering (IPO), and Initial Returns.

JEL: M2, M21

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1. INTRODUCTION

Initial Public Offerings (IPOs) are critical development components and can open new doors for businesses (Ayu et al., 2017). Initial Public Offerings (IPO) are significant milestones in the development of a company and a critical stage in its evolution; they mark the first time that the company offers its shares to the public (Kartika & Putra, 2017). This decision will alter the company's entire structure and benefit investors, businesses, and underwriters. IPOs can be critical in allocating resources in a market economy. Companies that access external funding sources through IPOs can obtain the capital necessary for growth and product innovation (Randolph & Jeffery, 1995). Fundraising through IPO is

regarded as an alternative method of obtaining capital, particularly for businesses with large investment needs both now and in the future (Dintha & Supriatna, 2019). Additionally, Initial public offerings (IPOs) can also provide investors with a positive return on their initial investments. This is due to the fact that at the time of the IPO, the price of the shares is relatively lower than the intrinsic price, which usually allows the underwriter to sell the shares (Manurung, 2012).

According to a study by Alanazi & Haitham (2015), underpricing is common during IPOs, particularly in shares of companies from developing countries. Indonesia is one of the countries that frequently suffers from underpricing during IPOs. Between 2009 and 2020, 285 companies conducted IPOs, and approximately 321 of those IPOs experienced underpricing. One of the factors contributing to the underpricing phenomenon is a lack of information and uncertainty about the business prospects and income of issuers conducting IPOs (Mauer et al., 2015). The existence of information asymmetry, defined as the discrepancy in the information received by one investor from another, causes investors to be more sensitive to factors affecting the IPO's initial returns. Among these factors are financial, operational, and other considerations. Additionally, market conditions such as investor sentiment and market volatility are essential considerations.

Investor sentiment represents market trends that may influence investors' buying interest in shares of IPO issuers. Meanwhile, market volatility refers to the fluctuations in stock prices that reflect market uncertainty and risk. According to the investor sentiment theory presented by (Boulton et al. 2009; Ritter & Welch, 2002, Song et al. 2014), investors can make valuable investment decisions based on market trends. When investors believe the overall market is on a positive trend, they increase their demand for IPO in the hopes of earning high positive initial returns. Similarly, when investors anticipate a decline in the overall market, their initial returns will be negative as well.

Nawadali et al. (2019) investigate the impact of investor sentiment and market volatility on the initial returns of IPOs in Sri Lanka. The findings indicate that investor sentiment is positively correlated with initial returns. Viera (2015) discovered that investor sentiment has a detrimental effect on returns. The reason for this is that investors' high expectations cause stock prices to become overpriced. Chen et al. (2019) discovered that while investor sentiment has a positive effect on short-term stock returns in the immediate aftermath of an IPO, it has a negative effect on long-term stock returns following the IPO. Additionally, Song et al. (2014) found a positive correlation between investor sentiment and overpricing but no correlation between investor sentiment and underpricing. According to research conducted by Xiong (2019), in China, sentiment investors typically lose money as a result of their irrational investment decisions, while investor sentiment strategies profit by exploiting investor sentiment.

Several previous studies have produced varying research findings. To contribute to the literature and ensure consistency on the effect of investor sentiment and market volatility on initial returns, we focus on Indonesia, given a large number of underpricing stocks and the growing number of companies conducting IPOs in the country, making this research interesting to do. Additionally, previous studies examined investor sentiment by examining the percentage change in the ASPI one month prior to the IPO using proxy data. We assume that the percentage change in ASPI in the month preceding the IPO does not accurately reflect investor sentiment at the time of the IPO. In this study, we use an average return for the 30 days preceding the IPO as a proxy for investor sentiment in order to determine the optimal relationship between investor sentiment and initial return. As such,

this study seeks to elucidate the effect of investor sentiment and market volatility on the initial returns of companies that list on the Indonesia Stock Exchange between 2009 and 2020.

2. HYPOTHESIS DEVELOPMENT

One of the factors contributing to the underpricing phenomenon is a lack of information and uncertainty about IPO issuers' business prospects and income (Mauer et al., 2015). Information asymmetry manifests itself in the form of an unequal distribution of information between one investor and another. Investor sentiment is one factor that may influence IPO initial returns. Investor sentiment is classified as either positive or negative. When the market is trending upward, investors will increase their demand for IPO shares in the hope of earning a high initial return. Similarly, when investors believe the overall market trend is declining, their IPO initial returns will be lower (Samarakoon, 2010).

According to investor sentiment theory, investor sentiment, or investors' proclivity to buy or not buy shares during IPO in the primary market, has an effect on initial returns. According to Zubairy et al. (2016) and Wong et al. (2017), investor sentiment positively affects IPO initial returns. While investors lack the authority to issue shares, they do possess sentiment and can make investment decisions based on market trends (Welch, 1992). As a result, the following hypothesis is proposed in this study:

H₁: Investor Sentiment has a positive effect on IPO Initial Returns.

In the world of capital markets, this is referred to as a high-risk, high-return strategy. The meaning of the phrase "high risk, high returns" is that the greater the risk, the greater the reward will be. Nawadali et al. (2019) argue that market volatility is used as a proxy for market uncertainty and risk, which is consistent with the risk-return trade-off theory, which states that issuers with a high level of supply risk should also generate high initial returns. Positive initial IPO returns are contingent upon market volatility.

Companies conducting IPOs try to minimize failures in the primary market by offering low initial public offering prices (underpricing) and attracting investors' interest in IPO shares despite market volatility and uncertainty (Al-Hassan et al., 2010). Several previous studies (Badru, 2016) (Alqahtani, 2016) and (Wong et al., 2017) discovered a positive correlation between IPO risk and IPO underpricing. As a result, the following hypothesis is proposed in this study:

H₂: Market volatility has a positive effect on IPO initial returns.

3. RESEARCH METHODS

This study was carried out in Indonesia, with a sample of companies filed for IPOs between 2009 and 2020. In this study, 285 issuers were used as observations. Secondary data from the annual report and the Composite Stock Price Index were used. Data were obtained from the websites www.idx.co.id, www.finance.yahoo.com (Yahoo Finance), and www.e-bursa.com (Bursa). This study employs the multiple linear regression test with the SPSS software. The analysis was conducted using the classical assumptions tests of normality, multicollinearity, heteroscedasticity, and autocorrelation. The t-test was then performed. The independent variable affects the dependent variable if the significant probability value is greater than the level of significance: 1%, 5%, or 10%. Following that, the coefficient of determination (R²) was computed. The following is the model for the research shown in equation 1; furthermore, table 1 is Variable Measurement, consisting of

a specific explanation of the Independent variable, Control Variable, and Dependent Variable.

$$IR_{i,t} = \beta_0 + \beta_1 SENT_t + \beta_2 MVL_t + \ln LAG_t + \ln AGE_t + \ln PROC_t + \ln SIZE_t + \varepsilon_{it} \quad (1)$$

Description:

- β_0 : Constant
- β_1, β_3 : Regression coefficient
- IR_t : Initial Returns
- $SENT_t$: Investor Sentiment
- MVL_t : Market Volatility
- $\ln LAG_t$: Gap of Days
- $\ln AGE_t$: Firm Age
- $\ln PROC_t$: IPO Size
- $\ln SIZE_t$: Firm Size
- ε_{it} : Error term

Table 1. Variable Measurement

Variable	Variable Measurement	Symbol
Independent variables		
Investor Sentiment	JCI's average percentage return for one month (30 days) prior to stock trading on the primary market	SENT
Market Volatility	the standard deviation of the JCI percentage return for the 30 days preceding primary market stock trading	MVL
Control Variable		
Gap of days	Ln (listing date, the first day of secondary market trading for shares - effective date, i.e., the date of the IPO in the primary market)	LAG
Firm Age	Ln (the year in which the issuer conducted the IPO - the year the issuer was established)	AGE
IPO Size	Ln (IPO share price x the total number of shares issued by the issuer)	PROC
Firm Size	Ln - Total Assets of Issuers	SIZE
Dependent Variable		
Initial Return	[(Closing price on the first trading day - the company's issuance price) x the company's offering price for issuance] x 100%	IR

Source: SPSS-processed data

Table 2. Descriptive Research

	N	Minimum	Maximum	Mean	Std. Deviation
IR (%)	285	-17,333	0,700	0,31732	0,268176
SENT (%)	285	-0,328	0,012	0,00017	0,001666
MVL (%)	285	-0,328	2,520	0,984	0,425
LAG	285	1,386	2,398	1,959	0,201
AGE	285	0,693	4,500	2,643	0,842
PROC	285	18,411	29,273	26,054	1,550
SIZE	285	21,742	31,438	27,378	1,658
Valid N (listwise)	285				

1. The average IR (initial returns) of the IPO is 0.3172, with a standard deviation of 0.2681. The minimum value is -17,333, and the maximum value is 0.700.
2. The average value (SENT) of investor sentiment is 0.00017, with a standard deviation of 0.0016. 0.012 is the maximum value, and the minimum value is -0.328.
3. MVL (Market Volatility) average is 0.984 with a 0.425 standard deviation. The minimum and maximum values are respectively -0.328 and 2.520.
4. The average LAG (Gap of Days) is 1.959, with a standard deviation of 0.201. The minimum and maximum values are 1.386 and 2.398, respectively.
5. AGE (Firm Age) has an average value of 2.643 and a standard deviation of 0.842. The minimum and maximum values are 0.693 and 4,500, respectively.
6. PROC (IPO Size) has an average value of 26,054 and a standard deviation of 1,550. The minimum value is 18,411, and the maximum value is 29,273
7. SIZE (Firm Size) has an average value of 27,378 with a standard deviation of 1,658. The minimum and maximum values are 21.472 and 31.438, respectively.

4. RESEARCH FINDINGS

As shown in Table 2, the results of the descriptive test show that there is little variation in the processed data, as indicated by a standard deviation that is lower than the average for all variables except the investor sentiment variable. The standard deviation of investor sentiment is greater than the standard deviation of other variables. This demonstrates a high degree of data variability, implying that investor sentiment is highly variable or inconsistent.

The normality test results for the regression model shown in Figure 1 indicate that the data points cluster around the diagonal line and follow the line on the Normal P-Plot graph. Thus, in this study, the regression model passed the normality test.

Normal P-P Plot of Regression Standardized Residual

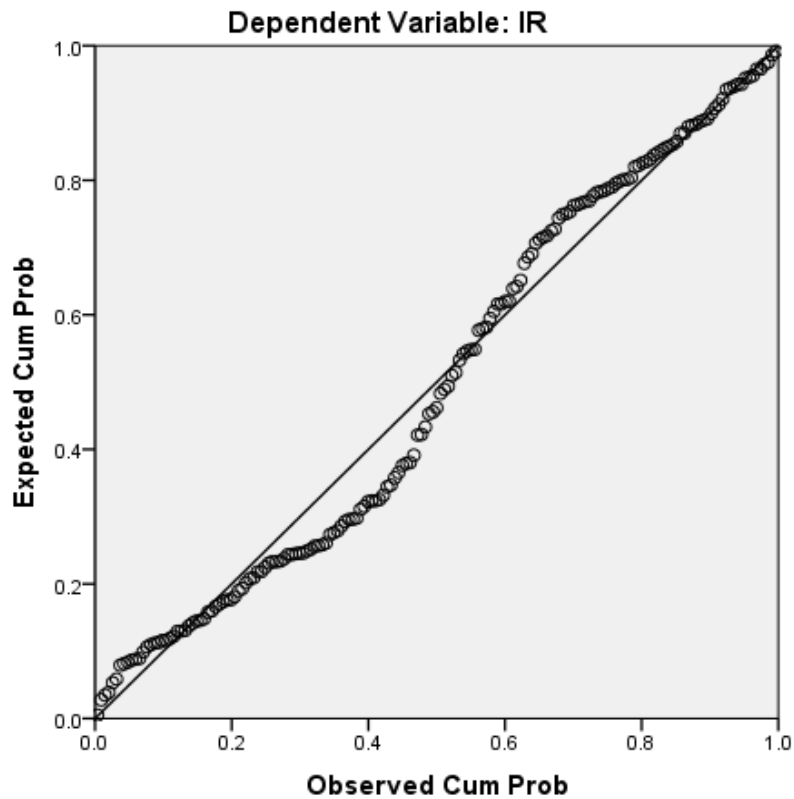


Figure 1. Normality test

Table 3. Multicollinearity test output

Model	Colinearity Statistics		Description
	Tolerance	VIF	
SENT	0,953	1,048	Non Multicollinearity
MVL	0,986	1,033	Non Multicollinearity
LAG	0,968	1,033	Non Multicollinearity
AGE	0,915	1,093	Non Multicollinearity
PROC	0,721	1,387	Non Multicollinearity
SIZE	0,688	1,453	Non Multicollinearity

Source: SPSS-processed data

The VIF and tolerance values represent the multicollinearity test results. The multicollinearity test results for the regression model in Table 3 indicate that the VIF value of all independent variables is ten, and their tolerance value is > 0.1 . As a result, the regression model employed in this research does not indicate multicollinearity.

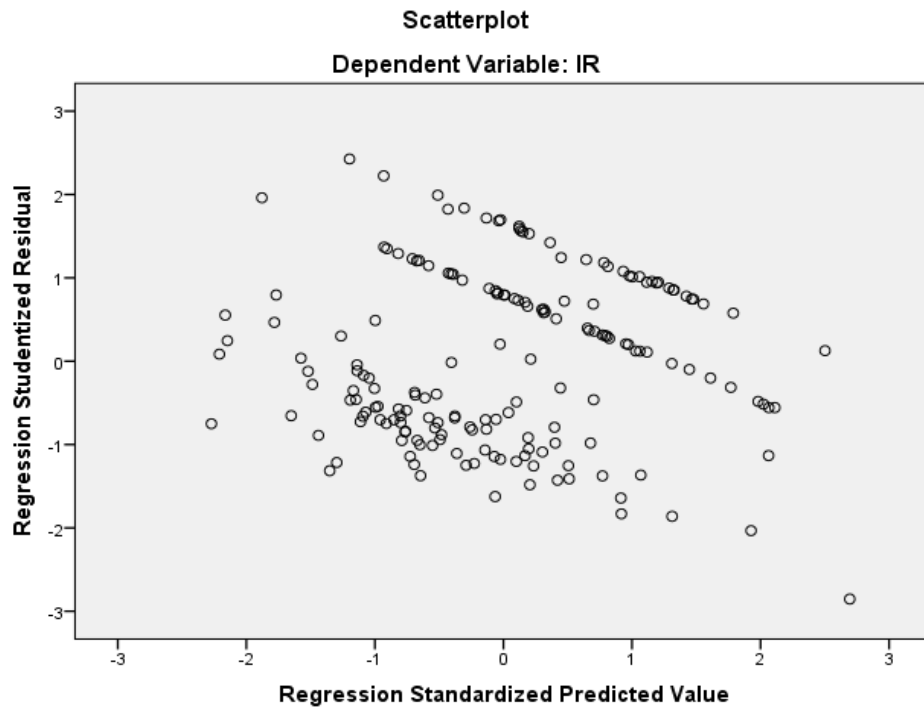


Figure 2. The output of the Heteroscedasticity Test

As shown in Figure 2, the heteroscedasticity test for the multiple linear regression model proves no variance inequality between the residuals of one observation and those of another because the scatter plot points are randomly distributed above and below zero y-axes on the scatter plot. Thus, it can be concluded that there is no evidence of heteroscedasticity in the regression model.

Table 4. The output of the Autocorrelation Test

Model	Durbin-Watson
1	1,577

Source: SPSS-processed data

The autocorrelation test in table 4 reveals that the Durbin-Watson value is 1.577. When the Durbin-Watson value of 1.577 is compared to the table of significance values of 5%, the number of samples of 285 (n), and the number of independent variables 2 (k=2), it becomes greater than the upper limit (du) 1.7706 and less than 2 - 1.944 (2 - du). As a result, no autocorrelation exists.

The test is carried out using multiple linear regression to prove the concurrent relationship between investor sentiment and market volatility on initial returns for this research. The results indicate that when sentiment data is measured from 30 days prior to the IPO and a control variable, i.e., firm size, the relationship between investor sentiment and market volatility positively affects initial return, as shown in table 5.

Firm size reflects the issuer's size, which shows a negative effect on IPO initial returns. The larger the issuer's asset base, the lower the initial returns of IPO received by investors. The issuer's asset base can help alleviate uncertainty about the company's value. It allows investors to see the issuer's future prospects, increasing investors' willingness to purchase IPO shares at premium prices during the primary market offering. The larger the

firm size, the lower the IPO initial returns received by investors. The findings of this study corroborate those of Riyadi et al. (2014).

Table 5. Results of Multiple Linear Regression Analysis Dependent Variable: Initial Return (IR)

Model	B	Std. Error	T	Sig.
(Constant)	199,750	27,644	7,226	0,000***
SENT	1,708	0,367	4,654	0,000***
MVL	0,002	0,002	0,747	0,456
LAG	-9,425	0,088	-1,422	0,156
AGE	-2,105	0,022	-1,189	0,236
PROC	-5,260	0,013	-4,901	0,000***
SIZE	-0,333	0,013	-2,953	0,004***
R ²	0,245			
Uji F	15,060			
N	285			

Source: SPSS-processed data. *** level of significance (α) 1% ; ** level of significance (α) 5% ; * level of significance (α) 10%

5. DISCUSSION

The Effect of Investor Sentiment on IPO Initial Returns

As shown in Table 5, investor sentiment (SENT) positively affects IPO Initial Returns. This means that the greater investor interest in initial public offering (IPO) shares, the greater the Initial Returns earned by investors. This is consistent with a study by Nawadali et al. (2019), which demonstrates that investor sentiment theory can be used to account for the effect of investor sentiment on initial returns. Additionally, this study corroborates the findings of Zubairy et al. (2016) and Wong et al. (2017), who discovered a positive relationship between investor sentiment and initial public offering (IPO) returns. Nawadali et al. (2019) explain that when investors believe the overall market trend is positive, they increase their demand for IPO shares, resulting in generally high IPO initial returns. Meanwhile, if investors believe that the overall market trend is declining, IPO initial returns will decline as well. This is consistent with the findings of Nawadali et al. (2019), who discovered that Investor Sentiment had a positive effect on IPO initial returns.

Positive investor sentiment suggests that investors anticipate the overall market trend to continue upward, which will result in an increased demand for initial public offering (IPO) shares in the primary market. As a result, the stock price increased on its first day of secondary market trading. Thus, the increase in secondary market share prices benefits investors who purchase IPO shares in the primary market at a reduced rate to the stock's first trading day price on the secondary market. As for investors, negative sentiment implies that investors expect the market to decline in the short term, which affects the lack of enthusiasm for IPO shares on the first trading day, preventing the stock price from increasing due to a lack of public demand in the secondary market. When investors have negative sentiment, they purchase shares in the primary market at an excessively high price (overpricing) in comparison to the stock's first trading day price, which can be detrimental to investors.

Effect of Market Volatility on the IPO Initial Returns

As shown in table 5, Market Volatility (MVL) has no discernible effect on IPO initial returns (IR). This implies that Market Volatility has no effect on Initial Returns (IR) earned by investors. These findings contradict previous studies (Alqahtani, 2016; Badru, 2016; Wong et al., 2017), which discovered a positive correlation between IPO risk and IPO underpricing. When market volatility takes place, there is an element of uncertainty about the market return, which can lead IPO initial returns to an increase or underpricing (Nawadali et al., 2019). The Indonesian market is an exception to this rule. The findings indicate that market volatility does not affect the initial return. This demonstrates that investors in Indonesia do not take market uncertainty into account when investing in IPOs.

6. CONCLUSION

This study demonstrates the impact of investor sentiment and market volatility on IPO initial return. Instead of using return data from the time of the IPO compared to 30 days before the IPO, we measure investor sentiment from 30 days before the IPO. Due to the highly volatile market conditions, the 30-day data is more representative of real investor sentiment. Additionally, this study uses the size control variable, which is based on total assets, representing the firm size, which can describe the company's sustainability and influence investor behavior when making decisions, unlike previous studies that used the number of shares sold at the IPO.

The findings revealed that investor sentiment has a positive effect on IPO initial returns. This demonstrates that the higher the Investor Sentiment, the greater the investor's interest in purchasing IPO shares, resulting in increased stock prices in the secondary market and positive IPO initial returns. Suppose investor sentiment is positive, in which investors expect the overall market trend to improve. In that case, it will increase demand for IPO shares, which will result in an increase in stock prices on the first day of secondary market trading due to the public's enthusiasm for newly traded shares.

Market volatility does not affect IPO initial returns. It implies that market volatility, represented as changes in stock prices in response to market uncertainty and risk, does not affect the initial return, in contrast to previous research that indicated a negative relationship. This is because investors in Indonesia make investment decisions without regard for market uncertainty. The purpose of this research is to raise investor awareness in Indonesia about the significance of looking at a company's stock price at the time of IPO. The initial return on investment will increase in the long run if investors pay more attention to and analyze changes in stock prices in the market. The Financial Services Authority (OJK) plays a critical role in establishing policies that facilitate investors' monitoring of the volatility of stock price changes in the market. This study recommends future research to determine why market volatility affects initial returns and what factors investors should consider when making investment decisions.

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