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# Behavior of Initial Return in Indonesia Market

**Adler Haymans Manurung[1], Edhi Juwono[2] and Indra Siswanti[2]**

**Abstract**

This paper aimed to explore the behavior of initial return in Indonesia Market from 2000 to 2017. Initial Return is calculated by closing price on the first day of trading in stock market compared to price of Initial Public Offering (IPO). Furthermore, Completely Randomized Design is used to find the differences of initial return between industries and yearly. The result showed this research found average Initial Return of 31.89% for period 2000 to 2017 that as IPO Company of 355. There is no difference between initial return of industries, but there is difference of initial return in each year (yearly). This research using secondary data. Data Period is 2000 to 2017, and might be found missing data. The people has information to decide buying stocks.

**JEL classification numbers:** G32
**Keywords:** behavior, initial return, Indonesia Market, monthly, Initial Public Offering.

## 1 Introduction

Since Ibbotson (1975) published his research, the initial return of a company that the first time traded in the stock market becomes popular. However, Manurung (2013) stated that empirical research of IPO (Initial Public Offering) has been done before Ibbotson published his paper such as Reilly and Hatfield (1969), Stoll and Curley (1970), Brown (1970), Shaw (1971), McDonald and Fisher (1972), and Logue (1973). Research of Ibbotson's research is popular

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[1] Doctor Research in Management – Bina Nusantara University, Jakarta - Indonesia
[2] Asian Banking Finance and Informatics Institute Perbanas

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as extensive research in IPO and aims to define the concept of initial returns and its methodology.

Ritter (1991) stated that initial return is the first time to show number, and he also documented all data of initial return. He documented initial return of 17.8% from 1980 to 2017 for US Company. Aggarwal et al. (1993) documented the initial return of three countries that are 78.5% for Brazil; 16.7% for Chili; and 2.8% for Mexico. Levis (1993) documented the average initial return of 14.3% in UK from 1980 to 1988. Bildik and Yilmaz documented average initial return of 5.94% from 1990 to 2000 in Istanbul Market.

Research on IPO is various such as Logue (1973) who explored pricing of IPO with underwriter. Then, Neuberger and Hammond (1974) supported Logue and put new variable of the brokerage company. Bear and Curley (1975) found a similar result to previous research, but the result is better in explaining the reason on why stock price is underpricing. Ibbotson and Jaffe (1975) revealed that there is a "hot issue" in IPO activities. Baron and Holmstrom (1980) introduced the role of underwriter with mathematics. Ritter (1984) re-introduced the "hot issue" in IPO activities but also enter the industry company. Rock (1986) introduced IPO model and classified the investor. Michaely and Shaw (1994) did IPO price based on adverse selection and signal theory. Ritter and Welch (2002) answered the question on why a company goes public, and why investor gets return for the first time trading the stock.
Based on previous explanation of previous research, there is limited empirical research on initial return in Indonesia's case. So, this paper wants to explore the behavior of initial return in Indonesia market. This paper will contribute to empirical research of initial return, especially in Indonesia's market.

## 2 Theoretical Review

Reilly and Hatfield (1969) were the first who documented research about IPO. The research compared price offering and to Friday after offering stock and also to fourth Friday. The result found that the first Friday's decision rule showed superior results when compared to the market indicators but was not substantially superior to the original decision rule. The fourth Friday tests showed superior results when compared to the market indicators and also when compared to the results when all new issues were acquired. All tests showed superior short-run and long-run results for the investor in new stock issues. Stoll and Curley (1970) conducted research on new issues especially for small stocks. He found that the price was sharply increased in short-run and it is greater than the index appreciation. There is no equity gap because no investor reluctance to give capital to new small firm. Shaw (1971) researched IPO Performance in Canada. He found that the initial return of IPO is negative in Canada but it is positive in another country. McDonald and Fisher (1972) researched initial return of IPO Company. They found that it has positive high return in the first week when the stock was traded in the Stock Exchange. It also supported market efficiency.

Then, there is more research that added other effects why return become positive. Neuberger and Hammond (1974) did research and added securities company factor as the underwriter to make positive and high initial return on the first day of transaction. Bear and Curley (1975) supported Neuberger and Hammond's findings (1975). They found that the securities company is a risk-averse.

Since Ibbotson (1975) published his paper, many academicians researched IPO. This research is the extensive research and offers a concept of initial return and its methodology. This paper developed RATS Model which combines initial return of each year and securities companies. They concluded that it has positive initial return and fat positive skewness. Then, Ibbotson and Jaffe (1975) introduced "hot issue" in IPO activity. They found that there is spectacular initial return in two months after IPO. The return of second month depends on the first-month return. Reilly (1977) found that the initial return is higher than the market performance. Rock (1986) divided investors into two groups which are the investor with information and the investor with no information when to buy stocks in IPO period.

## 3 Methodology

Based on the research title, first, the methodology will show the calculation of initial return. Then, it will explain the difference of initial return between industries and yearly. Initial Return is calculated as follows:

$$R_{i,t} = (P_{CFD} - P_{IPO}) / P_{IPO} * 100\% \quad (1)$$

where

$R_{i,t}$ = initial Return stock i at period t.

$P_{CFD}$ = stock price of stock i at closing first day

$P_{IPO}$ = stock price of stock i at Initial Public Offering

Then, we also calculate the standard of deviation of initial return as follows:

$$\sigma = \sqrt{\frac{\sum_{i=1}^{n} \{R_i - E(R_i)\}^2}{n-1}} \quad (2)$$

Where

$R_i$ = initial return of stock i

$E(R_i)$ = expected of initial return

n = total sample of stock.

The method to test the difference of initial return between industries and annual period is Completely Randomized Design[3] (RCD) or sometimes mention as follows:

$Y_{i,j} = \mu + \tau_i + \varepsilon_{ij}$

$\mu$ = Overall Treatment

$\tau_i$ = ith treatment effect

$\varepsilon_{ij}$ = random error

| Type of Source | Sum of Square | dof | Mean Square | $F_{test}$ |
|---|---|---|---|---|
| Treatment | $SST = \Sigma\, Y_i^2/r - Y..^2/(t*r)$ | $t - 1$ | $SST / t - 1$ | MST/MSE |
| Error | $SSE = \Sigma\Sigma(Y_{ij} - Y_{i.})^2$ | $n - t - 2$ | $SSE / n - t - 2$ | |
| Total | $SST = \Sigma\Sigma\, Y_{ij}^2 - Y..^2/(t*r)$ | $n - 1$ | | |

Data is collected by PT. Finansial Bisnis Informasi from Indonesia Stock Exchange since 2000 until 2017.

## 4 Results

This research is divided into two parts to see the behavior of initial return in Indonesia Market. First analysis will explain descriptive statistics in Table 1. The minimum return for company that does IPO was -64.79% in 2002, and then -30% in 2001. This initial return has the lowest return because Indonesia has finished the financial crisis period[4]. Respectively in 2008 and 2009, initial return has negative return of 17% and 18.13%, while USA has a financial crisis in this period. The Initial Return of Company listed in Indonesian Stock Exchange always negative except in 2003, 2004, and 2006. This data addressed to be careful to buy stock in the Indonesia Stock Exchange because it might give negative return for the initial return.

The maximum of initial return is more than 25% for all research period. There are two periods that have initial return below 50%. The maximum of initial return in 2003 is 25.93% and 47.62% in 2005. However, other periods have a maximum initial return above 50%. There are two periods that have maximum initial return above 100% (190% in 2000 and 480% in 2001). These

[3] Montgomery, D. C. (2103); Design and Analysis of Experiments; 8th Eds; John Wiley & Sons, Singapore.

[4] Crisis Period is started from August 1997 until to end the Year of 2000.

two periods showed that Indonesia has just finished the financial crisis. Also, these periods explained that Indonesia Stock market does not issue a regulation about the first-day transaction for IPO yet.

The average initial return of company listed stock in the Indonesian Stock Market varies from the lowest of 10.57% to the highest of 80.76%. The lowest return is when USA has a financial crisis, and Indonesia has economic growth of 4.7 (below 5%). The period that has initial return for more than 40 % is 2000, 2001, and 2017. In 2003, 2005, 2009, 2011 and 2013, the initial return is below 20%. Based on the average of initial return, the investor has an opportunity to have good investment return.

Based on the information above, the Initial Return of all company since 2000 until 2017 has return on average of 31.89%. In those periods, 355 companies are going public. The initial return will give the highest return compared to other countries. Moreover, this initial return gives an opportunity for smart investor to invest their fund in Indonesia Market.

Then, this paper analyzed the industry with the most negative return from 2000 to 2017. Sector in the stock exchange was divided into nine sectors such as agriculture, mining, basic industry and chemical, variety industry, infrastructure, utilities and transportation, trade, services and investment, property and real estate, and banking and finance. As mentioned before, the initial return of - 64.79% is the highest negative return in 2002. It happened because Indonesia has just passed the financial crisis, and it has the second highest company that is going public. The highest negative initial return came from Property and Real Estate sector in 2002. The second highest negative initial return came from Trade, Service, and Investment sector in 2001.

This research found that Banking and Finance, and Property and Real Estate are the highest negative initial return. Then, Mining, Infrastructure, and Utility and Transportation sectors are the second highest negative initial return. The investor should be careful to this industry when they want to buy stock in the stock exchange.

Regarding the hypothesis test, data was arranged to fulfill CRD method to test difference mean among industries or yearly. The result showed $p < 0.01$ of yearly return. It means that the hypothesis is rejected because the hypothesis stated there is no difference between initial return each year. Based on this result, the investor should monitor the year that will give high result. Economic growth might be one of the most factors in making a high initial return.

Then, the paper also tested the difference of initial return among industries. Data was arranged to fulfill CRD method. The result showed $p > 0.05$. It means there is no difference between industries. So, the investor can buy stock in the stock exchange without seeing the company industry.

| Table 1: Deskriptive Statistics for Initial Return Indonesian's IPO | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| Minimum | -0.83 | -30.00 | -64.79 | 0.00 | 0.00 | -5.13 | 3.85 | -12.86 | -17.00 | -18.13 | -6.58 | -18.00 | -0.51 | -17.27 | -13.33 | -3.13 | -8.74 | -9.00 |
| Maximum | 190.00 | 480.00 | 70.00 | 25.93 | 68.00 | 47.62 | 79.17 | 70.00 | 70.00 | 57.27 | 70.00 | 66.67 | 69.52 | 69.44 | 70.00 | 70.00 | 70.00 | 70.00 |
| Average | 55.41 | 80.76 | 27.77 | 13.14 | 18.28 | 14.35 | 37.28 | 36.43 | 28.88 | 10.57 | 28.92 | 11.08 | 25.48 | 16.15 | 23.38 | 26.00 | 24.62 | 41.97 |
| Stdev | 55.23 | 107.64 | 41.41 | 12.00 | 21.09 | 17.50 | 25.02 | 29.93 | 27.20 | 22.65 | 24.42 | 21.84 | 22.32 | 24.10 | 25.58 | 25.69 | 29.15 | 28.40 |
| N | 19 | 31 | 17 | 5 | 12 | 8 | 12 | 22 | 19 | 13 | 23 | 25 | 26 | 32 | 23 | 18 | 15 | 35 |
| Jakarta Stock Index | 416.32 | 392.04 | 424.94 | 691.89 | 1000.2 | 1162.64 | 1805.52 | 2745.83 | 1355.4 | 2534.4 | 3703.51 | 3821.99 | 4316.69 | 4274.18 | 5296.71 | 4593.01 | 5296.7 | 6355.65 |
| Growth Economic (%) | 4.90 | 3.60 | 4.50 | 4.80 | 5.00 | 5.70 | 5.50 | 6.30 | 7.40 | 4.70 | 6.40 | 6.20 | 6.00 | 5.60 | 5.00 | 4.88 | 5.03 | 5.07 |
| Interest Rate (%) | 14.53 | 17.62 | 12.93 | 8.32 | 7.43 | 12.75 | 9.75 | 8 | 9.25 | 6.5 | 6.5 | 6.5 | 5.75 | 7.5 | 7.75 | 7.5 | 4.75 | 4.25 |
| Market Cap (US$ Bn) | 26.81 | 23 | 30.07 | 54.6 | 73.25 | 81.43 | 138.89 | 211.69 | 98.76 | 214.94 | 360.33 | 390.11 | 428.22 | 346.67 | 422.13 | 353.27 | 425.77 | 483.1 |
| Source: processing by writer | | | | | | | | | | | | | | | | | | |

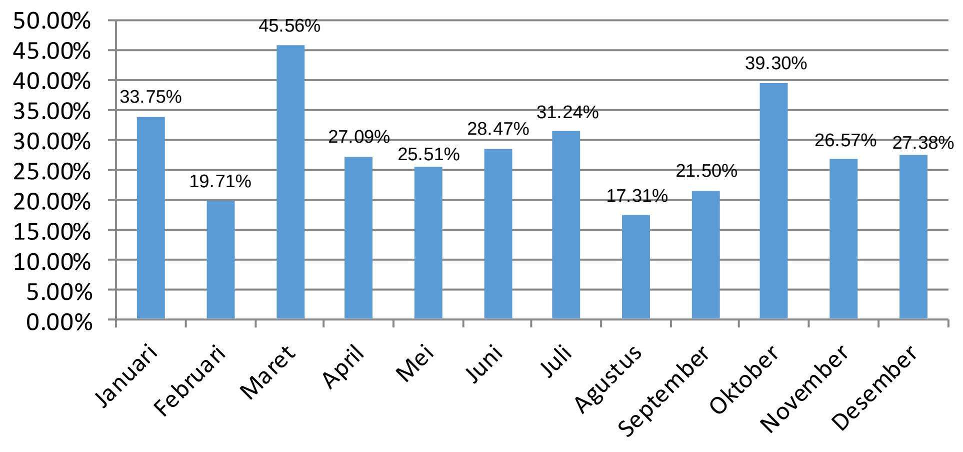
Then, this paper also calculated average monthly return for period 2000 – 2017. Results found that average of initial return are January of 33,75%, February f 19.71%, March of 45.56%, April of 27.03%, May of 25.51%, June of 28.47%, July of 31.24%, August of 17.31%, September of 21.5%, October of 39.3%, November of 26.57% and December of 27.38%. It means that the highest average initial return is on March and August is the lowest average initial return.

Table 2: Sector of Highest Negative Initial Return

| Year | The Sector of Highest Minimum Return | The Sector of Second Highest Minimum Return | Total IPO Company | % of Negative IR |
|---|---|---|---|---|
| 2000 | Property and Real Estate | - | 19 | 5.26% |
| 2001 | Trade, Services and Investment | Infrastructure, Utility and Transportation | 31 | 12.90% |
| 2002 | Mining | Trade, Services and Investment | 17 | 17.65% |
| 2003 | | - | 5 | 0.00% |
| 2004 | | - | 12 | 0.00% |
| 2005 | Banking and Finance | - | 8 | 12.50% |
| 2006 | | - | 12 | 0.00% |
| 2007 | Property and Real Estate | Property and Real Estate | 22 | 9.09% |
| 2008 | Banking and Finance | Mining | 19 | 15.79% |
| 2009 | Basic Industry and Chemical | Mining | 13 | 30.77% |
| 2010 | Infrastructure, Utility and Transportation | - | 23 | 4.35% |
| 2011 | Property and Real Estate | Infrastructure, Utility and Transportation | 25 | 28.00% |
| 2012 | Mining | - | 27 | 3.70% |
| 2013 | Trade, Services and Investment | Agriculture | 32 | 18.75% |
| 2014 | Infrastructure, Utility and Transportation | Banking and Finance | 23 | 8.70% |
| 2015 | Variety Industry | - | 18 | 5.56% |
| 2016 | Banking and Finance | - | 15 | 6.67% |
| 2017 | Variety Industry | Property and Real Estate | 35 | 8.57% |
| Sources: Writer calculating and Process | | | | |

This research supports Shaw's research (1971) by about negative initial returns. This paper also supports other previous studies that initial return is mostly positive. The results of average return also support previous study (Ritter, 1991) which is even higher than their results.

**Figure 1: Monthly Initial Return**




## 5 Conclusion

This paper concluded that: (1) the Initial return has mostly negative result for the minimum return, but there are positive initial returns for period 2003, 2004 and 2006; (2) this research found the average initial return of 31.89% from 2000 to 2017 that based on 355 IPO companies; (3) Banking and Finance sector, and Property and Real Estate sector are the highest negative initial return in 2000 – 2017; and (4) there is difference of initial return each year from 2000 to 2017, but there is no difference of initial return among industries from 2000 to 2017.

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