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Abnormal Return of Stocks During Stock Split Announcement (Empirical Study at Indonesia Stock Exchange in 2019)

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ABSTRACT : The purpose of this study is to determine the significant difference in abnormal returns around the stock split event in 2019. The approach used in this study is an event study by observing abnormal returns for three days before the announcement, at the time of the announcement and three days after the announcement. This research was conducted on companies that carried out a stock split on the Indonesia Stock Exchange in 2019. Data was collected using the non-participant observation method. The sample determination method used is the census method, the total sample size is 11 companies listed on the Indonesia Stock Exchange and conducted a stock split in 2019. The data analysis technique used is the One Sample T-test. The results show that there was no abnormal return around the stock split announcement. This means that the lack of information content causes the market to not react, so that the efficient market is not answered.

Keywords: *abnormal return, event study, stock split*

I. INTRODUCTION

The capital market is a market that brings together parties who have funds (investors) with parties who need funds (Nia, 2020). The capital market has an important role as an alternative financing for companies. The capital market is a market for various long-term, tradable securities issued by the government and by the private sector (Pujaastawan & Suarjaya, 2016). The capital market is a means of investing with the most popular instruments, namely stocks. For investors, the objective of investing through the capital market is to obtain an optimal rate of return on investment. Investors can choose which companies they will invest their money or capital for in order to get maximum profit. Investors will channel their funds to companies and to get funds from the capital market, companies must first go public. Investors investing their funds in companies listed on the capital market, of course, will expect returns (Prasetya Wijaya & Sedana, 2020).

Buying stocks means having a portion of the company, the stock owner is entitled to company profits in the form of dividends (Ratih & Candradewi, 2020). Investors in investing in stocks will look for information which is then collected for analysis. This information can be obtained from the past, current period and opinions formed in the market which can later influence stock price movements. Past information such as past financial statements and earnings. Current information has been announced but is still happening, such as stock split, dividend distribution, profit distribution, merger and acquisition announcements (Sudewi & Darmayanti, 2019)

This analysis is important for investors to decide when to buy or sell stock. In addition, investors can also avoid or reduce risks that may occur due to stock price movements. Analysis and interpretation of stock values that have been carried out by investors, may result in stock price movements to new equilibrium prices. When new relevant information appears, it will be analyzed and interpreted by the market so as to create a new price balance. If the market reacts quickly and accurately to reach a new equilibrium price that fully reflects the available information, then this market condition is called an efficient market (Putra & Suarjaya, 2020). An efficient market can be viewed from the availability of information and the sophistication of market players in analyzing information to make decisions (Pramiartini & Sedana, 2021).

The stock price which is considered too high will reduce investors' interest in buying the stock so that the demand for the stock will decrease. If the stock price is low, investors will assume that the company is underperforming. To attract investors' interest, companies need to maintain their stock prices at a reasonable and ideal range according to investors so that the stock is liquid enough to trade (Munthe, 2016)

The company will conduct a stock split when the company's stock price is too high and there is a decrease in the purchasing power of investors in the company (Pendy & Silalahi, 2019). Usually, issuers that do stock splits are companies that have good fundamentals but their stock prices have reached their highest point. Some examples of companies that have conducted stock splits include PT Bank Mandiri (Persero) Tbk. (BMRI); PT Bank Rakyat Indonesia (Persero) Tbk. (BBRI); PT HM Sampoerna Tbk. (HMSP); PT Indofood Sukses

Makmur Tbk. (INDF); PT Unilever Indonesia Tbk. (UNVR). For example, when doing a stock split, the UNVR stock price was IDR. 42,000 on the regular market. UNVR then conducted a stock split with a ratio of 1: 5. After this corporate action, the UNVR price was IDR. 8,400. Stock split is done by dividing the price before the stock split by the split ratio. The split ratio is the ratio of the number of new stock to the old stock. For example, a ratio of 2 to 1 means that 2 new stocks are exchanged for 1 old stock.

Stock split is related to signals regarding the company's prospects to be conveyed to the public as stated in the signaling theory and the expensive stock prices contained in the trading range theory. The trading range theory explains the desire of company managers to increase trade liquidity, while the signaling theory states that a stock split provides a signal to investors about the prospect of a company that is conducting a stock split because the stock price has exceeded the optimal price (Maghfiro & Maslichah, 2018)7).

An event study is a method used to measure the market reaction to an event whose information is published. Event studies can be used to test market efficiency in the form of strong, semi-strong and weak. Testing information aims to determine the existence of market reactions when the stock split announcement is published. If the announcement contains information, it will give an abnormal return to the market and if the announcement does not contain information, it will not give an abnormal return to the market. Tests to find out if there is a reaction in the capital market, it is necessary to measure the reaction during the event period. An event can be measured using return as the value of price changes. Abnormal Return (AR) is an indicator that can be used to measure the amount of stock reactions. Abnormal Return is the excess stock received by investors from the previously expected return

Satish & Hermant (2017);Suresha & Chandrashekara (2016); Patel et al. (2016); Nugraha & Setiawan (2020) state that the announcement of a stock split has a significant negative effect on abnormal return stock. Other findings from Ansary & Hussien (2017);Putri & Sihombin (2020); Pangesti et al. (2020); Yuniati et al. (2020); Rohit et al. (2016); Nagendra & Babu (2018); Marisetty et al. (2020) stated that the announcement of a stock split has a significant positive effect on abnormal return stock. The opposite is stated by Adisetiawan (2017); Sen (2017); Agustin et al. (2017); Yustisia (2018) that the announcement of a stock split has no significant effect on the acquisition of abnormal return stock.

Observations of abnormal returns were carried out for 7 days of the event period, 3 days before the announcement of the stock split, the day of the announcement of the stock split and 3 days after the announcement of the stock split using the market-adjusted model estimation model in estimating the expected return. The market-adjusted model is used because it is the simplest technique for estimating expected return. Abnormal returns that occur during the event period reflect that the market reacts to the announcement. The market is said to be efficient in terms of information in a half-strong form if it reacts quickly in absorbing abnormal returns, on the other hand, if the market reacts for a long time and is prolonged, the market is said to be information-inefficient in the form of a half-strong. No abnormal returns are obtained. Investors conclude that the market efficiency is unclear or has not been missed. Based on these results, the following hypothesis is obtained.

H: There is a significant difference in abnormal returns around the stock split.

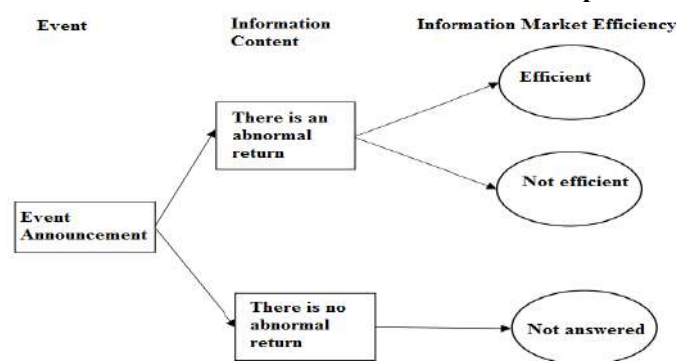


Fig. 1 Conceptual framework

II. RESEARCH METHODS

2.1 Research Design

This study uses a quantitative approach that uses parametric inferential statistical tests to analyze data in testing hypotheses. Parametric statistics are used to test population parameters through statistics, or test population sizes through sample data. This research uses the census method. The number of samples is 11 companies listed on the Indonesia Stock Exchange and conducted a stock split in 2019. The method of collecting data in this study using non-participant observation methods. Data was collected by analyzing historical data in the form of reports, records and archives. The data analysis technique used to analyze the effect

of abnormal returns on the announcement of a stock split is the T-test (one sample t-test) by measuring the level of data significance. This test is used to determine the difference in the significance of the abnormal return on the announcement of the stock split with an error rate of $\alpha = 5\%$. The difference can be said to be significant if the significance value is less than 5% ($\text{sig} < 0.05$) then H is accepted, which means that there is a difference in abnormal returns between before and after the stock split. If the significance value is greater than 5% ($\text{sig} > 0.05$) then H is rejected, which means that there is no difference in abnormal returns between before and after the stock split. The processing method is using the SPSS program (Statistic Product Service Solution) and Microsoft Excel.

2.2 Operational definition of the variable

2.2.1 Calculating actual return

Actual return is the return on the realization of each stock. Realized returns are calculated using historical data. This historical return is useful as a basis for determining the expected return and risk in the future. The calculation of the actual return is carried out during the 7 days of the event period (3 days before the announcement of the stock split, the day of the announcement of the stock split, and 3 days after the announcement of the stock split) on the Indonesian Stock Exchange in 2019. The formula for calculating the actual return is as follows

$$R_{it} = \frac{P_t - P_{t-1}}{P_{t-1}}$$

R_{it} = Return stock on day t.

P_t = The stock price on day t is now relative

P_{t-1} = Previous stock price

2.2.2 Calculate the expected return

Expected return is the expected return or expectation of investors in the future. In contrast to realized returns which have already occurred, expected returns have not yet occurred. The calculation of expected return is carried out during the 7-day event period (3 days before the stock split announcement, the day of the stock split announcement, and 3 days after the stock split announcement) on the Indonesian Stock Exchange in 2019. The formula for calculating the expected return is as follows

$$E[R_{it}] = RM_t$$

$E[R_{it}]$ = The expected return of the I security in the event period t.

RM_t = Market return in the t-event period.

The formula for calculating the market return is as follows.

$$R_{Mt} = \frac{IHSg_t - IHSg_{t-1}}{IHSg_{t-1}}$$

RM_t = Return of the market index in the event period t.

$IHSg_t$ = composite stock price index for a certain period in the event period t.

$IHSg_{t-1}$ = composite stock price index in the previous period

2.2.3 Calculating abnormal returns for each issuer

Abnormal return is an abnormal return obtained by investors by utilizing stock split announcements. An abnormal return is the difference between the actual return that occurs with the expected return. Abnormal return will be positive when the actual return is greater than the expected return. Abnormal returns will be negative when the actual return is smaller than the expected return. The calculation of abnormal returns is carried out during the 7-day event period (3 days before the stock split announcement, the day of the stock split announcement, and 3 days after the stock split announcement) on the Indonesian Stock Exchange in 2019. The formula for calculating abnormal returns is as follows

$$RTN_{i,t} = R_{i,t} - E[R_{i,t}]$$

$RTN_{i,t}$ = Abnormal return for the i-th security in the t-event period.

$R_{i,t}$ = Realized return that occurred for the i-th security in the t-event period.

$E[R_{i,t}]$ = The expected return of the i-th security in the event period t.

Calculate the average abnormal return

$$RRTN_t = \frac{\sum_{i=1}^k RTN_{it}}{k}$$

RRTN_t = Average abnormal return on day t.

RTN_{it} = Abnormal return for the i on day t.

k = The number of event who are affected by the announcement.

Calculate the standard error of estimate

$$KSE_t = \sqrt{\frac{\sum_{i=1}^k (RTN_{it} - RRTN_t)^2}{(k-1)}} \cdot \frac{1}{\sqrt{k}}$$

KSE_t = Standard error estimate for day t in the event period.

RTN_{it} = Abnormal return of the i- for day t in the event period.

RRTN_t = Average abnormal return for day t in the event period.

k = The number of securities.

Calculating the significance of the abnormal return that occurs with the t-test statistical test

$$t = \frac{\beta}{S}$$

t = t-count

S = Estimated Standard Error

β = Average daily abnormal return

III. RESULTS AND DISCUSSION

Table 1 shows that there were 11 companies implementing a stock split policy in 2019, the table also presents the name of the issuer, stock code, stock split date, and split ratio of each company. The sample of this study used the census method, there were 11 companies listed on the Indonesia Stock Exchange and implemented a stock split policy in 2019.

Table 1. List of Companies Conducting Stock Split in 2019

Stocks		Date	Ratio
PT.MarkDynamics Indonesia,Tbk.	MARK	February 11, 2019	1:5
PT.KapuasPrimaCoal,Tbk.	ZINC	April 4, 2019	1:5
PT.TobaBaraSejahtera,Tbk.	TOBA	May 31, 2019	1:4
PT.BintracoDharma,Tbk.	CARS	June 11, 2019	1:10
PT.PelayaranTamarinSamudra,Tbk.	TAMU	June 25, 2019	1:10
PT.SatNusapersada,Tbk.	PTSN	July 4, 2019	1:3
PT.Temas, Tbk.	TMAS	July 18, 2019	1:5
PT.SkyEnergiIndonesia,Tbk.	JSKY	August 16, 2019	1:2
PT.MerdekaCopperGold,Tbk.	MDKA	October 18, 2019	1:5
PT.AndiraAgro,Tbk.	ANDI	November 5, 2019	1:5
PT.TowerBersamaInfrastructure,Tbk.	TBIG	November 14, 2019	1:5

Before the announcement of the stock split, the actual return value tends to change. Three days before the event (t-3), there were 7 stocks that received a positive actual return value, 1 stock that received zero actual return value, and 3 stocks that received a negative actual return value with an average actual return of 0.01784. Two days before the event (t-2) there were 5 stocks that received a positive actual return value, 3 stocks that received a zero actual return value, and 3 stocks that received a negative actual return value with an average actual return of 0.01922. One day before the event (t-1), there were 4 stocks that received a positive actual return value, 3 stocks that received a zero actual return value, and 4 stocks that received a negative actual return value with an average actual return of 0.00147. On the event day (t0), there are 7 stocks that get a positive actual return value, 1 stock that gets a zero actual return value, and 3 stocks that get a negative actual return value with an average actual return of 0.01289.

A different thing happens after the announcement of the stock split, the actual return obtained by investors tends to be negative. One day after the event (t + 1) there were 2 stocks that received a positive actual return value, 1 stock that received a zero actual return value, and 8 stocks that received a negative actual return value with an average actual return of -0.01956. Two days after the event (t + 2), there were 3 stocks that received a positive actual return value, 3 stocks that received a zero actual return value, and 5 stocks that

received a negative actual return value with an average actual return of -0.02716. Three days after the event ($t + 3$), there were 3 stocks that received a positive actual return value, 2 stocks that received a zero actual return value, and 6 stocks that received a negative actual return value with an average actual return of -0.01908.

Overall, there are 77 actual return values during the event period. As many as 31 or 40.26% of actual returns are positive, this means that there has been an increase in the previous stock price towards day t . The actual return with zero value is 14 or 18.18%, this means that there is the same stock price on the previous day as the t -day. Actual return is negative as much as 32 or 41.56%, which means that the previous stock price decreased towards day t . When viewed from the average per day, during the event period the actual return tends to be positive.

Three days before the event ($t-3$), there were 6 stocks that received a positive expected return value and 5 stocks that received a negative expected return value with an average expected return of 0.00183. Two days before the event ($t-2$) there were 5 stocks with a positive value of expected return and 6 stocks with a negative value of expected return with an average expected return of 0.00091. One day before the event ($t-1$) there were 4 stocks that received a positive value of expected return and 7 stocks that received a negative value of expected return with an average expected return of 0.00063. During the event day (t_0), 9 stocks received a positive expected return value and 2 stocks received a negative expected return value with an average expected return of 0.00364.

One day after the event ($t + 1$) there were 5 stocks that received a positive value of expected return and 6 stocks that received a negative value of expected return with an average expected return of 0.00009. Two days after the event ($t + 2$), 3 stocks received a positive expected return value and 8 stocks received a negative expected return value with an average expected return of -0.00108. Three days after the event ($t + 3$), 7 stocks received a positive expected return value and 4 stocks received a negative expected return value with an average expected return of 0.00074. Overall, there are 77 values of expected return during the event period. As many as 39 or 50.65% of expected returns are positive, this indicates that the JCI has increased from the previous day to the t -day. The expected return is negative as much as 38 or 49.35%, which means there is a decrease in the JCI from the previous day to the t -day. Positive expected returns are almost the same as those with negative values, there is only a difference of 1 or 1.3%. The average per day of expected returns during the event period tends to be positive.

During the stock split announcement, the abnormal return value tends to be negative. Three days before the event ($t-3$) there were 7 stocks that received a positive abnormal return value and 4 stocks that received a negative abnormal return value with an average abnormal return of 0.01601. Two days before the event ($t-2$) there were 7 stocks that received a positive abnormal return value and 4 stocks that received a negative abnormal return value with an average abnormal return of 0.01831. One day before the event ($t-1$) there were 4 stocks that received a positive abnormal return value and 7 stocks that received a negative abnormal return value with an average abnormal return of 0.00084. On the day of the event (t_0) there were 6 stocks that received a positive abnormal return value and 5 stocks that received a negative abnormal return value with an average abnormal return of 0.00925.

One day after the event ($t + 1$) there were 2 stocks that received a positive abnormal return value and 9 stocks that received a negative abnormal return value, with an average abnormal return of -0.1965. Two days after the event ($t + 2$), 5 stocks received a positive abnormal return value and 6 stocks received a negative abnormal return value, with an average abnormal return of -0.02608. Three days after the event ($t + 3$), 5 stocks received a positive abnormal return value and 6 stocks received a negative abnormal return value, with an average abnormal return of -0.01982.

Overall, there are 77 abnormal return values during the event period. In the event period, there are more negative abnormal returns than positive abnormal returns. Positive abnormal returns are 36 or 46.75%. This means that there is a 46.75% return that has occurred which is greater than the expected return. Positive abnormal returns indicate an event that brings good news. The negative abnormal return value was 41 or 53.25%. This means that there is a 53.25% return that has occurred which is smaller than the expected return. Negative abnormal returns indicate an event that brings bad news. When viewed from the average per day, during the event period the abnormal return tends to be positive.

Table 2. T-count and Significance of Abnormal Return in the Event Period

Day	MeanAbnormalReturn	KSE	T-count	Sig
-3	0,01601	0,01508	1,06167	0,313
-2	0,01831	0,01522	1,20302	0,257
-1	0,00084	0,01122	0,07487	0,942
0	0,00925	0,03260	0,28374	0,782
1	-0,01965	0,03165	-0,62085	0,549
2	-0,02608	0,02341	-1,11405	0,291

3	-0,01982	0,01441	-1,37543	0,199
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The significance value during the event period was greater than 0.05. A significance value greater than 0.05 indicates that there is no significant abnormal return around the stock split event. The absence of significant abnormal returns indicates **no reaction given by the capital market to the announcement of the stock split in 2019.**

3.1 Discussion

This study is to see the significance of abnormal returns as a result of the announcement of the stock split which aims to see the efficient market conditions in a semi-strong form of information. The acquisition of abnormal returns in the 11 companies sampled experienced ups and downs, both positive and negative values. If the abnormal return is positive, it means that the stock split brings good news. Conversely, if the abnormal return is negative, it means that the stock split event brings bad news. Investors will catch a signal that the stock split news provides information about a profitable abnormal return. Different results were obtained in this study, where there was no significant difference in abnormal returns either in the period before, day-d or after the stock split event. The news of the stock split was unable to change the investor's decision on his investment. An insignificant abnormal return indicates that **no investor enjoyed an abnormal return during the period of the stock split event.** An announcement that does not because abnormal returns means that the efficient market is unclear and unanswered. All investors use published information including information contained in financial reports to analyze and predict stock returns. As a result, no investor can use this information to get an abnormal return that is detrimental to others.

Stock splits do not provide good profits; this is because the stock split by the company does not provide new information which causes investors to be attracted to the stock. Stock splitting by the issuer is not able to increase investment because investors think that the expected return on return is the same as the actual return obtained. The results of the market efficiency test are semi-strong; the form of market efficiency is unclear or unanswered. Stock split contains information when market participants respond to the information. This stock split information is considered to have information content and becomes meaningful when the information is responded to by investors. The existence of abnormal returns around the stock split event shows a significant market reaction shown by market players.

3.2 Research Implications

This study provides information about the impact of stock split announcements on abnormal stock returns. The results showed that there was no significant abnormal return, both before, the day of the day and after the company announced the stock split in 2019. This indicates that the company does not have to focus on doing stock splits in increasing company value. Companies are advised to focus on improving the company's performance so that potential investors are interested in buying the company's stock, because if the company has a good performance, the company will appear to have good prospects in the future. The results of this study provide practical implications in making investment decisions when there is an announcement of a stock split and corporate action policy making in the form of a stock split. This research is expected to be able to assist investors in sorting, analyzing information and calculating relevant risk and return for consideration in making investment decisions in the future. This research is also expected to help companies (issuers) in determining the stock split policy at the right time.

IV. CONCLUSION

4.1 Conclusion

The stock split announcement has no significant effect on abnormal return stock on the Indonesia Stock Exchange in 2019. The test results show that there is no significant difference in abnormal returns at the 5% or 0.05 level. This means that the hypothesis is rejected. A situation where there is no abnormal return may indicate that the market is in an information inefficient condition in a semi-strong form. The absence of abnormal returns when testing market efficiency in an information manner makes the market unpredictable in other words, the market efficiency is missed or unclear

4.2 Suggestions

For investors, it is hoped that this can become a consideration in making investment decisions. Information that is published should be analyzed carefully, because the more information obtained, the better, especially information concerning market conditions. For issuers, it is expected to provide information, such as reports, files and records required by investors when the stock split announcement will take place. Issuers are also expected to maintain the company's performance so that potential investors will be interested in buying the company's stock when the stock split is announced.

4.3 Research Limitations

This study only uses a period of one year, so the results of this study are not necessarily generalizable with the data of companies that did stock splits in other years of observation. This study only uses the mean-adjusted model in estimating expected return, so this research needs to be developed to get a different perspective from other models, namely the mean-adjusted model or the market model.

4.4 Further Research

It is hoped that you can use different years and other models in estimating expected returns, such as the mean-adjusted model or the market model to see research results from various perspectives.

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