

Stock Performance before & after Stock Split on IDX

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Abstract. Stock split is one of the company's actions aimed at making investors and potential investors more interested in a stock issuer. This research is conducted to examine differences in stock performance in companies before and after the stock split. This study uses data of companies registered in IDX for the 2015, 2016 and 2017. During this period, there are different company's data in which there were 8 companies in 2015, 17 companies in 2016 and as many as 21 companies in 2017. The model of data analysis used in this study is a different test model, particularly paired sample test. This study finds a difference in terms of price and liquidity before and after the stock split. In addition, a different performance is not found in term of return.

Keywords: Corporate · Action · Stock Split · Stock · IDX

1 Introduction

Changes in stock prices from year to year always occur either increase or decrease from the value of the initial offering to the public. In certain conditions, it is likely that a good share price will show a continually increase in certain issuers even it becomes greater. Of course, this condition makes certain share prices more expensive to investors. This condition requires the company's management to implement a policy. A common policy done is called breaking down stock prices into some parts. Then, this policy is known as stock split.

Stock split is a stock split activity in certain parts and aims to make stock prices a little cheaper and increase trading liquidity [1]. [2] explains that a stock split is called a procedure of share distribution with the aim of increasing or decreasing the number of shares outstanding without declining the value of the company. [3] who states a stock split is as an action carried out by company's management in order to make the stock price lower and affordable for retail investors. Although some say stock split is only as a sweetener besides it provides an effect on stock performance [4]. [5] mentions the important reason for a stock split because high stock prices lead to be less excited about the high stocks. Therefore, the stock split policy is enacted by the issuers.

Some previous studies had been conducted regarding to the stock split policy. [6] explained how companies do stock split as a bell to remind investors that certain

companies have good prospects. [7] stated policy of doing a company's action provides good news for owners of the company, but each company that carries out company actions does not always provide the same results.

[8] concluded the stock split policy makes the company more liquid when the announcement of the stock split, then it goes back to a decrease. [9] stated the stock split policy on liquidity due to changes in high asset prices becomes lower and this makes the uninformed investors more interested in participating in the transaction.

[10] and [11] explained there is a significant difference in positive abnormal returns after the stock split policy is announced. On the other hand, [12] said it is not only stock split which causes an improvement in stock performance. Even on the contrary, the reverse stock split also provides better stock performance, especially institutional investors. [13] stated a company which only conducts stock split in the short term gives a positive return. Thus, investors do not be complacent with the policy.

[14] said the performance of shares before and after the stock split does not highlight the different results. This is based on the value of EPS/PER which is not statistically significant. [1] who stated there is no significant difference in stock performance before and after a stock split and it is appeared in abnormal returns and market liquidity. [15] and [16] who revealed there is a significant difference before and after a stock split, this is reflected in abnormal returns and market liquidity. [4] who discovered stock split increases the stock performance, although sometimes it can be seen there are no differences in trading volume and return.

Based on the literature reviews aforementioned above, it can be concluded the stock split policy in the capital market is still different. Even stock split as "cotton candy" only provides signals in both the short term and not the long term. Therefore, the purpose of this study is to examine the differences in stock split before and after the stock split policy which has been carried out by the company.

2 Data and Method

This research is conducted on the Indonesia Stock Exchange and takes samples of the issuers who carried out a stock split for periods of 2015 to 2017. The measurement of issuer's stock performance is measured on the price, return and liquidity variables both before and after the stock split activity. All data are collected through the site <http://www.idx.co.id> quarterly, in addition to data on closing prices of shares and trading volume on the website <https://finance.yahoo.com>. The sampling method in this study uses a purposive sampling technique since not all samples have criteria in accordance with those that have been determined.

The sample criteria desired in this study is as follows: The company conducted a stock split on the Indonesia Stock Exchange in the periods of 2015 to 2017. The company does a stock split once for the research period of 2015 to 2017. The company carries out a stock split policy and does not undertake other corporate action policies affecting the market; rights issue, distribution of bonus shares and others. The data are completed to use in this study. Thus, the qualifying samples of this study are:

Table 1. Qualifying Samples.

Criterion	2015	2016	2017	Quantities
Issuers carrying out stock split	9	22	24	55
Issuers carrying out stock split more than once a year for the period of study	-	5	2	7
Issuers undertaking other corporate policies for the period of study	1	-	1	2
Total of Samples				46

The given Table 1 depicts the number of samples in this study are 46 qualifying issuers. But companies that do stock splits are different each year. In analyzing the data of differences before and after a stock split by a stock issuer listed on the Indonesia Stock Exchange is performed using a different test. Moreover, the data is processed using SPSS program. In this case, it is done by using paired sample t-test. This is due to two measurements on the same object. Therefore, the difference test formula is:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2} - 2r\left(\frac{s_1}{\sqrt{n_1}}\right)\left(\frac{s_2}{\sqrt{n_2}}\right)}}$$

Where; \bar{X}_1 = Average sample before treatment;
 \bar{X}_2 = Average sample after treatment;
 s_1 = Standard deviation before treatment;
 s_2 = Standard deviation after treatment;
 n_1 = Number of samples before treatment;
 n_2 = Number of samples after treatment

3 Results and Discussion

3.1 Data Description

This section explains the description of research data before and after the stock split, including: price, return, and liquidity in 2015-2017.

Table 2. Average values and standard deviations.

Statistics	Price Before	Price After	Return Before	Return After	TVA Before	TVA After
Mean	11.051	1.464	5,4200	0,4266	0,0004	0,0013
Std. Deviation	71.606	2.741	22,8135	6,8152	0,0009	0,0055

The Table 2 depicts the state of the data of all variables used is not so good, this can be interpreted that data in this study is still having a high difference except for the trading volume activity variable. In addition, the data can also be explained the average

price before the stock split is of 11,051 with a standard deviation of 71,606. After the stock split, the price is 1.464, which is lower with a standard deviation of 2.741. Furthermore, the return variable before stock split, return is 5.4% and the standard deviation of 22,813 and after the stock split becomes 0.42% and the standard deviation of 6,815. However, the different things do not happen in trading volume activity.

3.2 Correlation Analysis

The correlation analysis is performed to analyze the relationship of correlation levels between variables before and after stock splits. The variables used in this study are stock price, stock return and trading volume activity (TVA). The given table 3 below describes the variable of prices before and after the stock split have respectively values of 0.212 and 0.222 and significant as many as 1 percent.

Table 3. Correlation Analysis.

Pair	stock split variable	N	Correlation.	Sig.
Pair 1	stock price before & stock price after	460	0.212	0.000
Pair 2	stock return before & stock return after	460	0.019	0.690
Pair 3	TVA before & TVA after	460	0.222	0.000

In addition, the trading volume activity variable does not possess a significant relationship before and after the stock split.

3.3 Analysis of Different Tests

After analyzing the descriptive and correlation, the different test is examined. The testing of different tests is done in all and annually (Table 4).

Table 4. Results of different test using paired test.

PAIR	Stock Split Variable: Price	N	Correlation.	Sig.
Pair 1	stock price before & stock price after (all)	460	.212	.000
Pair 2	stock price before & stock price after 2015	80	.961	.000
Pair 3	stock price before & stock price after 2016	180	.402	.000
Pair 4	stock price before & stock price after 2017	200	.071	.321
PAIR	Stock Split Variable: Return	N	Correlation.	Sig.
Pair 1	Return before & Return after (all)	460	.244	.102
Pair 2	Return before & Return after 2015	80	-.025	.826
Pair 3	Return before & Return after 2016	180	-.063	.398
Pair 4	Return Before & Return After 2017	200	-.027	.699
PAIR	Stock Split Variable: TVA	n	Correlation.	Sig.
Pair 1	TVA before & TVA after (all)	460	.599	.000
Pair 2	TVA before & TVA after 2015	80	.465	.000
Pair 3	TVA before & TVA after 2016	180	.046	.543
Pair 4	TVA before & TVA after 2017	200	.400	.000

The Table 4 shows there are 460 observations as a whole, but if it is seen annually, there are different things. In 2015, there were 80 observations, 180 observations in 2016 and 200 observations in 2017.

Moreover, the paired t test is tested. The test results show that after the stock split policy is carried out, overall the price and trading volume prove that there is a difference and the relationship between before and after the stock split. Furthermore, if it is looked at the testing per year proves that there is year with no difference in performance before and after the stock split policy is performed. This occurred in 2017 for prices and 2016 for trading volume activity, in which there was no significant value for those years. On the other hand, returns happening on companies that carry out stock split show no difference either before and after the policy is done. This can be seen statistically in both overall and yearly statistics such as 2015, 2016 and 2017.

The results of the study indicate that the company's policy of taking stock split action only provides a little prospect for investors. This can be seen in terms of prices and trading volumes, that there are differences before and after the stock split policy. Instead, it is not with the desired return for investors.

This finding is in accordance with the research conducted by [14]; [1]; [4] [9] and [6]. They stated the stock split policy is only a sweetener in the company and on the performance side there is no difference. This stock split policy is only used by the issuers as an effort of company to attract small investors or retails to transact at the issuer.

4 Conclusion

This research examines differences in stock performance after stock split. Stock split is one of the ways carried out by companies to attract investors. Because if a stock split is done, as if the performance will be better and cheaper price in the sides of investors. The analyzed performance includes: stock prices, stock returns and trading volume activity (TVA).

This study finds that price side highlights a significant price difference before and after the stock split. However, if it was seen per year for the study period of 2015, 2016 and 2017, only in 2017 did not have price differences after a stock split. The stock returns show that there is no difference in returns either overall or annually. There is no significant difference in stock returns since the investors are less interested in terms of stock split conducted by stock issuers. Yet the trading volume activity was only in 2016, in which there is no difference in company's performance before and after a stock split. Overall, there are differences in stock performance and it happened again in 2015 and 2017, however.

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