THE COMPARATIVE ANALYSIS OF STOCK PRICE TRADING VOLUME ACTIVITY AND ABNORMAL RETURN BEFORE AND AFTER STOCK SPLIT
(Empirical Study on Listed Companies in Indonesia Stock Exchange in 2009-2013)

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ABSTRACT

The purpose of this research are 1) To analyze the differences stock price before and after stock split, 2) To analyze the differences of trading volume activity before and after stock split, 3) To analyze the differences of abnormal return before and after stock split, and 4) To analyze the differences of stock price, trading volume activity, and abnormal return before and after stock split.

The population of the research consists of the listed companies' annual reports at Indonesia Stock Market during the period 2009 up to 2013. All of the companies taken as sample have conducted stock split. To examine the research hypothesis, the author using Paired Sample t-test to analyze the difference on stock price, trading volume activity, and stock abnormal return before and after stock split.

The result of this research showed that 1) There is a difference of stock price before and after stock split, 2) There is a difference of trading volume activity before and after stock split, 3) There is a difference of abnormal return before and after stock split, and 4) There is a difference of stock price, trading volume activity, and abnormal return before and after stock split.

Keywords: stock split, stock price, abnormal return, trading volume activity.

INTRODUCTION

In the anticipation of bearish capital market, many issuers have tried proactive steps to keep the stocks appealing in the market. One of the several methods is through the stock split (Haryani, 2012). This method is conducted by splitting a stock to be several stocks. According to Al Azhar, Emrinaldi and M Alwi (2013), this strategy influences the stock price which is 1/n of the initial stock before the splitting. The purpose of conducting this strategy is to activate stock exchange in the market by lowering the stock price.

Stock split affects the numbers of stocks dispersed in the market without any transactions to affect the investment. After the split, the stock price is around 1/n of the original price before the split. This

strategy is more like a cosmetic, which is intended to polish the stock and to attract investors to buy the stocks. The stock split is about to create fantasy toward investors, the investors will consider of being wealthy of holding more stocks on their hands. Principally, this action does not generate economic values. Yet, there are split stocks in capital market which become necessary device in capital market. When a stock split does not possess economic values, the questions are: Why so many companies and issuers do stock split? What factors do motivate them to do split stock? There are several reasons offered to explain why so many issuers conduct stock split.

Previous research findings have not provided consistent results. Some researchers have concluded that split stock has no significant effect toward the shares. Yet, other researchers have stated that stock split has certain influence toward the shares. According to Baker and Gallagher (quoted from Marwata, 2001), one of the purposes of stock split is to restore the share price at the optimum level to increase liquidity. In the same line, Grinblatt, Masulis, and Titman (1984) state that there is important effect of the stock split for the investor around the split announcement which indicates abnormal stock price performance. This statement contradicts to a theory which avows that stock split is merely a cosmetic which does not have economic values.

The application of stock split is intended to increase trading volume activity used to measure whether individual investors acknowledge any information issued by the companies and use them to buy or to sell the stocks, expecting for return on investment above the normal level. Trading volume is an indicator of stock liquidity on available information in the capital market. Stock trading activity is measured by using trading volume activity before and after the stock split applied by the company.

Market reaction toward stock split decision can be shown by investor's behaviors as one of capital market players by observing the price change of the traded security. According to Hartono (2003:393), market reaction is measured by the use of return as price change value or abnormal return. Using abnormal return, there is an announcement contains the information about abnormal return to the market. On the other hand, an announcement which does not contain any information may not provide abnormal return information to the market. When a test involves the celerity of market reaction in taking the published information, then this is an half compelling market efficiency test.

The company's strategy related to stock split was conducted by PT. Telekomunikasi Indonesia Tbk by 1:5 ratio on 28, August 2013. This strategy was intended to increase stock trading and return per share in the eyes of investors. A stock split was conducted through splitting a share priced Rp250,- to 5 different stocks priced Rp50 per

stock. By this time, the stock price of Telkom was Rp250,- per stock, whereas market or transaction price on average was Rp11,591,- based on the last 30 days on August 2013.

RESEARCH QUESTIONS

Based on research background, there are several research questions which can be stated, including:

1. Are there any differences on stock price before and after the implementation of stock split?
2. Are there any differences on trading volume activity activity before and after the implementation of stock split?
3. Are there any differences on abnormal return before and after the stock split?
4. Are there any differences between stock price, trading volume activity, and abnormal return before and after the stock split?

RESEARCH OBJECTIVES

Based on the background of study and research problems, the objectives of the study include:

1. To analyze the differences of stock price before and after the stock split.
2. To evaluate the differences on trading volume activity before and after the stock split.
3. To study the differences on abnormal return before and after the stock split.
4. To examine the differences on stock price, trading volume activity, and abnormal return before and after the stock split.

RESEARCH METHOD

This is a quantitative research which emphasizes on theoretical validation through research variables' measurement on scores along with data analysis via statistic procedure. The purpose of the research is to analyze the comparison of stock price, trading volume activity and abnormal return either before or after stock split (A Study on Listed Companies in Indonesia Stock Exchange 2009 up to 2013).

The population of the research consists of the listed companies' annual reports at Indonesia Stock Exchange during the period 2009 up to 2013. All of the companies taken as sample have conducted stock split. A sample is a part of the total of the population and it gives significant characteristic of the population. Hence, the sample taken should validly represent the presence of a population (Sugiyono, 2004:73). This research is using purposive sampling conducted through taking samples based on specific criteria. The used criteria can be taken based on certain judgment and/or quota. This research uses judgment sampling, a method applied by considering several criteria (Hartono 2010:79). The selection of sample is based on the following judgment criteria, including:

1. The enlisted companies in Indonesian Stock Market

consecutively during 2009 up to 2013.

2. Companies which conducted stock split during 2009 up to 2013.

The data anaylsis method is used to respond the research issues, the author applies descriptive statistic analysis and inferential statistic analysis. The descriptive statistic is applied to provide pictures and/or descriptions on average values, deviation standard, maximum values, and minimum scores of the research (Ghozali, 2006: 19).

Paired sample t-test, To test the research hypothesis, the author uses Paired Sample t-test to analyze the difference on stock price, trading volume, stock abnormal return before and after stock split. The test is accomplished by the use of computer-assisted program, SPSS release 16.0. The following are steps of paired sample t-test: 1) Formulating Hypothesis, Formulation of nil and alternative hypotheses. In this research, the formulation of the hypothesis is in the form of directional hypothesis because it implies the characteristic or the direction among tested variables. Based on the hypothesis analysis, the author draws conclusions. The conclusion drawing is done by comparing Asymptotic Significance (2-tails) with significance degree 5%.

RESEARCH FINDING AND DISCUSSION

Descriptive statistic aims to provide pictures or descriptions of data (Ghozali, 2006:19). This research applies three variables consisting stock price, trading volume activity and abnormal return before and after the stock split. The measurements of descriptive statistic in the study are minimum and maximum scores, the average values, and standard deviation. Table 1 presents descriptive statistic for the whole researched variables.

Table 1

Descriptive Statistic

Description	N	The Lowest	The Highest	*Mean*	*Standard Deviaiton*
The trading volume activity before stock split	36	0,00	129.972.000,00	17.866.048,33	25.842.345,32
Stock price before stock split	36	53,59	17.942,68	2.087,41	3.278,08
Abnormal return before stock split	36	-30,68	22,50	-1,09	8,86
The trading volume activity after stock split	36	0,00	134.670.150,00	17.814.415,71	26.113.121,19
Stock price after stock split	36	196,02	7.355,95	1.665,83	1.788,67
Abnormal return stock split	36	-29,89	47,28	3,63	11,72
Valid N (Listwise)					

Source: Treated Data

On Table 4.1, it is explained that the variable one, trading volume activity before stock split, has average values 17.866.048,33 shares possessing minimum score 0.00 and maximum values 129.972.000,00 shares with standard deviation 25.842.345,32 shares. The trading volume activity after stock split partakes the average values around 17.814.415,71 shares taking minimum score 0.00 shares and maximum values 134.670.150,00 shares with standard deviation for about 26.113.121,19 shares. It means

the comparison between stock trading before and after the stock split indicates the reduction of the average values.

The variable stock price before stock split has average value around Rp2.087,41 which has minimum value Rp53,59 and maximum value Rp. 17.942,68 with standard deviation around Rp3.278,08. The stock price after the stock split has average value for about Rp1.665,83 and has minimum value around Rp196,02 and maximum value approximately Rp7.355,95 with standard deviation around Rp1.788,67. It means the stock price comparison before and after the stock split shows the decreasing average rates.

Furthermore, variable of abnormal return before stock split has average value around -1,09% and taking minimum score around -30,68% and maximum value 22,50% with standard deviation approximately 8,86%. The abnormal return after the stock split has average value around 3,63% where minimum score approximately -29,89% and maximum value 47,28% with standard deviation 11,72%. This implies that the abnormal return divergence after stock split shows the increasing average values.

The Results of Inferential Statistic Test

The Analysis Result on Difference of Stock Prices Before and After the Stock Split

In this part, the researcher will analyze the data used in the study. The objectives are to find out the difference of stock price before and after stock split. And, then the author uses paired sample test. The data on research finding will be processed through the use of SPSS program 13.00 to promote the average values of stock price before and after the stock split which are presented on Table 2.

Table 2

The Average Values of Groups on Paired Samples Statistics

	Mean	N	*Std. Deviation*	*Std. Error Mean*
Stock price before stock split	2.087,41	36	3.278,09	546,35
Stock price after stock split	1.655,83	36	1.788,67	298,11

Source. Treated Data

Based on Table 2, it shows the statistic summary of the two samples, the price stock before stock split around Rp.2.087,41 and stock price after the stock split around Rp.1.665,83.

Meanwhile, the result on correlation analysis between stock price and stock split is presented on the following Table 3.

Table 3

The Correlation Analysis Result between Stock Price and *Stock Split*
Paired Samples Correlations

Description	N	*Correlation*	Sig.
Stock price before and after *stock split*	36	0,078	0,650

Source: Treated Data

The correlation result between two variables yields paired sample correlation value around 0.078 with probability score above 0.05. This indicates that the average of stock price before and after the stock split taking weak correlation. The point of stock price average before and after stock split is positive. It means the higher stock price before stock split, the higher stock price after stock split will be.

The result on paired sample test is applied to discern the difference on stock price before and after the stock split as presented on Table 4.

Table 4

The Result of Significance Testing
Paired Samples Tests

Description	T	df	Sig. (2-tailed)
Sock price before and after the stock split	0,701	35	0,488

Source: Treated Data

The probability is 0,488 (Sig. 2 tailed). The score is < 0.05 means that H0 is accepted. The feasible statement quoted for this result is no difference on average stock price, either before or after the stock split.

The Result Analysis of trading volume activity before and after the stock split

In this part of the research, the writer performs data analysis used in the study. The purpose is to find out the trading volume activity before and after the stock split through paired sample test. The average value of trading volume activity before and after the stock split is presented on Table 5.

Table 5

The Value of Group Average on
Paired Samples Statistics

	Average	N	*Std. Deviation*	*Std. Error Mean*
The trading volume activity before the stock split	17.866.048,33	36	25.842.345,31	4.307.057,55
The trading volume activity after the stock split	17.814.415,71	36	26.113.121,19	4.352.186,86

Source: Treated Data

Based on table 4.5, there is shown statistic summary of the two samples: the trading volume activity before the stock split is 17.866.048,33 shares, and the trading volume activity after the stock split is 17.814.415,71 shares. The correlation for analysis result on trading volume activity before and after the stock split is presented on the following table 6.

Table 6

The Result of Correlation Analysis of Trading volume activity and Stock Split through
Paired Samples Correlations

Description	N	*Correlation*	Sig.
Trading volume activity before and after the stock split	36	0,602	0,000

Source: Treated Data

The correlation result of two variables yield significance score around 0,000 below 0,05. This indicates a correlation between the trading volume activity before and after the stock split is stronger and significant with correlation value 0,602. The correlation direction of trading volume activity before and after the stock split is positive. It means the higher trading volume activity before the stock split; the

higher is the trading volume activity after the stock split.

The result of paired sam test significance used to find out difference between trading volu activity before and after the stc split is presented on Table 7.

Table 7

The Result of Significance Testing
Paired Samples Tests

Description	t	df	Sig. (2-tailed)
Trading volume activity before and after the stock split	0,013	35	0,989

Source: Treated Data

To discover the difference on trading volume activity before and after the stock split, it is done through significance level. The probability (Sig. 2 tailed) is 0.989. The probability value is above 0.05, then H0 is accepted. It means, the stock split policy does not generate average trading volume activity, either before or after the stock split, different.

The analysis result on abnormal return divergence before and after the stock split

In this section, the author will analyze the applied data of the study to find out the abnormal return, either before or after the stock split, by using paired sample test. SPSS released 13.00 program will be used to analyze the data just like presented on the following Table 8.

Table 8

The Group Average Value
Paired Samples Statistics

	Mean	N	*Std. Deviation*	*Std. Error Mean*
Abnormal return before the stock split	-1,091	36	8,859	1,477
Abnormal return after the stock split	3,627	36	11,716	1,953

Source: Treated Data

Based on the result presented on Table 4.8, there is a conclusion of the two samples, abnormal return before the stock split around -1,091% and abnormal return after the stock split 3,627%. Meanwhile, the correlation analysis on abnormal return before and after the stock split is provided by Table 9.

Table 9

The Result of Correlational Analysis between Abnormal Return and Stock Split
Paired Samples Correlations

Description	N	*Correlation*	Sig.
Abnormal return before the *stock split* and *abnormal return* after the *stock split*	36	0,254	0,135

Source: Treated Data

The correlation result analysis between the two variables show paired sample correlation 0,254 by the probability score above 0.05. This point indicates weak yet not significant correlation between the average abnormal return before and after the stock split.

The correlation trend between abnormal return, either before or after the stock split, is negative. It means the higher abnormal return before the stock split; the weaker is abnormal return after stock split.

The significance of paired sample test applied to find out the

difference on abnormal return, either before or after the stock split, is presented on the following Table 10.

Table 10

The Result of Significance Testing
Paired Samples Tests

Description	T	df	Sig. (2-tailed)
Abnormal return before and after the stock split	-2,218	35	0,33

Source: Treated Data

In order to reveal whether there is significantly different on abnormal return, either before or after the stock split, the author conducts significance degree testing. It can be seen that the probability (Sig. 2 tailed) is 0,33. The probability > 0.05, then H0 is accepted. This indicates that the stock split policy does not influence the average of abnormal return, either before or after the stock split.

From the testing, it can be concluded that the first hypothesis (H_1) states the refusal of stock price difference, either before or after the stock split. This research finding supports the previous research conducted by Fortuna (2010) which stated that there was no difference on stock price before and after the stock split. In the same line, the testing indicates stock split policy determined by the company has not provided the increase on stock price as offered to existing and potential investors. From the analysis, the agreed stock split policy by the company has not been able to generate investors' reactions to purchase the offered stocks. This condition does not influence the offered stocks, either before or after the stock split.

The absence of differences in stock prices before and after the stock split shows the average price of a company's stock will go up not long after the company announced a stock split. If a company announced a stock split, the share price will tend to rise. However, if during the next few months the company did not announce an increase in earnings, then the share price will fall back to the level before. Price increases caused by the fact that investors treat stock split as a sign of future earnings higher than their desire for the stock split. Because that would tend to do a stock split is management who were thinking that the situation and circumstances look good, then the announcement of the stock split is regarded as a sign that profits were likely to rise. Thus, price increases associated with the stock split is probably the result of signals would the prospect of lucrative profits and dividends, and not because the interest on stock splits itself.

Based on the testing, it may be determined that the second hypothesis (H_2), there is a difference on trading volume activity before and after the stock split, rejected. The research finding reinforces the previous research done by Lubis (2010) who has stated that stock split did not influence the volatility of stock liquidity (Trading Volume Activity). The analysis signifies the

company's success in applying stock split by the increase of trading volume activity. Nonetheless, the company's efforts do not significantly influence the potential investors to generate investment. Hence, there is no significant effect on company's trading volume activity. This shows that stock split policy has not gained positive market reaction.

Trading volume activity is one tool that can be used to see whether or not the market reaction to a particular event, to see the effect of the stock split on stock trading volume seen from the relevant trading activity as measured by Trading Volume Activity (TVA). Trading Volume Activity (TVA) is the ratio between the number of shares traded at certain times the number of shares outstanding during the period. To determine whether the activity of the stock split could affect the volume of stock trading, the use of testing with two different test average, which is an average TVA before the stock split with the average TVA after the stock split. If there are significant differences will mean a stock split affect the volume of stock trading. The analysis showed no difference trading volume before and after the stock split, which suggests that the stock split policy cannot deliver impact for long periods of time so that does not distinguish the level of trading volume.

It can be summarized that the third hypothesis (H_3) which states there is a difference between abnormal return before and after the stock split is rejected. The result is also emphasized by Hartono (2003); the market reaction is measured through a return as price alteration value or using abnormal return. When abnormal return is used, the released financial statement may generate abnormal return to the market.

The analysis also states that the market always reacts to stock split announcement concerning on price variation from the related security. This price changing is a return, frequently called abnormal return, because the value is higher than the normal return. When there is no difference on the value, the stock split has not yet supported market on the increase of abnormal return.

Only companies that really have appropriate conditions to those given a positive signal. Companies that do a stock split are usually large companies that have a high stock price, to maintain the liquidity of the company shares, the company conducts a stock split policy, which caused the stock price to be low due to breakdown, this will lead to a positive market reaction even though the value of such shares does not change the economy, but investors will be interested in investing their funds to the company in hopes of getting a return from the stock split information. No difference abnormal stock returns before and after the stock split indicates the absence of

the company's ability to manage the shares offered to investors.

From the testing, it may be concluded that the fourth hypothesis (H_4) which states a difference on stock price, trading volume activity and abnormal return, either before or after the stock split, is rejected. The research finding emphasizes the previous study by Lubis (2010) who has stated that the stock split negatively affects the stock liquidity (or bid ask spread) significantly, and the stock split does not influence the stock liquidity (or Trading Volume Activity).

From the analysis, the company's policy on stock split has not received market reaction to significantly influence the stock price difference, trading volume activity and abnormal return, either before or after the stock split.

CONCLUSION AND SUGGESTION

Based on the research finding and the discussion, the writer may conclude the research as follows: 1) There is a difference of stock price, either before or after the stock split. 2) There is a stock trading volume difference, either before or after the stock split. 3) There is a differentiation on stock abnormal return before and after the stock split. 4) There are differences on stock price, stock trading volume and stock abnormal return, either before or after the stock split.

The researcher delivers several good suggestions for the companies and the succeeding researches, including: 1) It is important for the company which decides the stock split policy to pay attention on several aspects, including market condition analysis and investors' affordability. These efforts are done to avoid negative impacts toward the company's goal. 2) To minimize the stock split impacts toward the company, it is vital to analyze the market fluctuations. Hence, the stock split policy becomes feasible alternative for the investors to generate maximum outcome. 3) The stock split as a policy should consider competition and capability of the company. This policy is done to gain market and potential investors. 4) For the next researches, the author suggests to enhance the samples and observation periods to find out the real condition of the market.

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