

Comparative Analysis of Liquidity and Abnormal Return Before and After Stock Split (Case Study on the Company Taking Stock Split Period 2013-2014)

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Abstract

This study will analyze the differences of two variables, liquidity and abnormal returns before and after stock split event on the companies listed in Indonesia Stock Exchange period 2013-2014. The method used verification with event study approach. Observations were made for abnormal return average and trading volume activity average for 10 days before, the event date, and 10 days after the event. The population in this study is company that do stock split and listed on Indonesia Stock Exchange (IDX). Hypothesis testing used different test analysis model (T-test Paired Two Sample) with significant level of 5%. The result showed that there was no significant difference between the liquidity and abnormal return before and after stock split event on companies taking stock split at Indonesia Stock Exchange period 2013-2014.

Keywords: Stock Split, Liquidity, Abnormal Return

1. Introduction

According to Indonesia Stock Exchange, Stock is one of the most popular financial instruments. Issuing stock is one of the choices for company's funding also for investor because it offers them an interesting return rate. Stock can be defined as a sign of capital participation of an individual or institution in a company or corporation. By investing in a company, the party has the claim for the company's income, assets, and right to attend the General Meeting of Shareholders. Because of that reasons, Indonesia Stock Exchange got new company listed every years.

In the other side, stock also gives two advantages, which is dividend and capital gain. Dividend is profit sharing given by company and comes from the income. Dividend is given after getting the agreement from shareholders in the General Meeting. The second one is Capital Gain. Capital gain is the different between buying price and selling price. Capital gain is obtained through the trading activities carried out in the secondary market. For example, an investor buys ABCs shares at Rp 3,000 per share and then sells it at Rp 3,500 per share. It means the investor gets capital gain of Rp 500 for every sold share. In beginning of 2013, the investor's volume rising from 369.832 to 408.619 in 2014, and then 488.248 in 2015.

Before investing, accounting information is something that should be known by investors to reduce the risk of investment failure. As said by Scott (Bayu et al) regarding the concept of *decision of usefulness accounting information*, that the information contained in the financial statements must provide value benefits to its users in terms of decision-making, especially making investment decisions for investors. Where one of information

contained in financial statements is corporate action, in this case is the *stock split*.

Tabel 1.1 Trading Volume Before and After Stock Split

No.	Date of Announcement	Shares Code	Trading Volume Before Stock Split	Trading Volume After Stock Split
1.	July 25, 2013	TOWR	21.500	228.000
2.	September 9, 2013	BATA	206.500	958.500
3.	October 1, 2013	JKON	3.045.000	194.000
4.	November 28, 2013	NIPS	655.900	4.704.400
5.	February 17, 2014	INAI	125.500	9.200
6.	February 17, 2014	ALMI	600	300

Source: www.yahoofinance.com (data processed)

Before taking stock split, TOWR only traded by 21.500 in capital market. And then company conducting stock split on July 25, 2013 thus increasing trading volume from 21.500 to 228.000. Similar to BATA that have increased after the stock split on September 9, 2013. Where before the announcement, BATA only able to trade 206 500 shares, then increased after conducting stock split into 958 500 amounted to 958,000. Different from JKON, after conducting stock split, shares decreased significantly from 3.045.000 into 194.000. Furthermore, NIPS also taking stock split on November 28, 2013 and trading volume increased 655.900 into 4.704.400. On February 17, 2014 both company PT. Indal Aluminium Industry (INAI) and PT. Aluminium Light Metal Industry (ALMI) conducting stock split but decreased the trading volume. INAI's shares decreased from 116.300 into 9.200. While stock of ALMI decreased 300 from 600.

Tabel 1.2 Abnormal Return Before and After Stock Split

No.	Date of Announcement	Shares Code	Abnormal Return Before Stock Split	Abnormal Return After Stock Split
1.	July 25, 2013	TOWR	-0,0619	-0,0619
2.	September 9, 2013	BATA	0,2508	-0,0153
3.	October 1, 2013	JKON	0,0475	-0,0079
4.	November 28, 2013	NIPS	-0,0276	0,0343
5.	February 17, 2014	INAI	-0,0177	-0,0115
6.	February 17, 2014	ALMI	-0,0114	-0,0114

Source : www.yahoofinance.com (data processed)

Before taking stock split, TOWR's abnormal return amounted -0,0619 in capital market. Then company conducting stock split on July 25, 2013 but abnormal return not increased, it also happens to INAI which conducting stock split on February, 17 2014. After that, before taking stock split, BATA is 0,2508, but after conducting stock split on September 9, 2013 decreased by 0,2661 into -0,0153. Similar to JKON which is abnormal return decreased after conducting stock split from 0,0475 into -0,0079. Different from the three of the companies before, after conducting stock split, NIPS's abnormal return increased by 0,0619 from -0,0276 into 0,0343. Last, on February 17, 2014 bth company PT. Indal Aluminium Industry (INAI) also conducting stock split and abnormal return has increased.

The company's desire to improve the liquidity with taking stock split is also consistent with the theory presented by Baker and Powell (Jaelani, 2013) who said that stock split intended to attract more investors and stock liquidity increasing due signals a good performance. Pramana and Mawadi (2012) said that liquidity refers to how easy it is to buy and sell or traded shares and liquidity can be seen through trading volume activity (TVA). But in some cases stock split that occurred in Indonesia there is not support this theory, such as the research of Lasmanah and Bagja (2014), Labibah and Dwimulyani (2014), which states that there is no significant difference to stock trading volume and stock returns before and after stock split. While the study result that support the trading range



theory is research conducted by Purnamasari (2013), Akhmad and Ramadiyansari (2013) study result indicate a change in trading volume activity. Thus, their results support the differences are significant trading volume activity before and after stock split event.

The purpose of stock split is also determined due expected positive abnormal return. Brennan and Hughes, (Pramana and Mawardi, 2012) states that investors are interested in investing stocks that gives a positive signal because management will inform the future prospect of both companies to public who do not know. It means companies that do a stock split is a company that has a good financial performance conditions. Not all companies can do a stock split, stock split for cost to be borne and the only company that has a good prospect who can bear the cost. This is why the market reacted positively. Study result conducted by Akhmad dan Ramadiyansari (2013), Wijanarko and Prasetyono (2012), Lasmanah and Bagja (2014) doesn't support this theory. Study result conducted did not find any significant difference abnormal return before and after stock split. But the other study results conducted by Elistarani and Kesuma (2014), and Sadikin (2011) showed that around stock split announcement showed abnormal stock price behavior due to the market participant's response on the Stock Exchange.

Based on this results that indicates inconsistencies conclusion, therefore the author are interested to review about stock split event association with abnormal return and liquidity based on trading volume activity.

2. Literature

2.1 Stock Split

Stock split is an activity splitting a share of stock into n shares. Price per new shares after the stock split is equal to $1 / n$ of the previous price. The reason companies do stock splits is so that stock prices not too expensive and would increase the trading liquidity

2.2 Liquidity

Liquidity is a measure of the stock transactions number in the capital market in a certain period. Where the stock liquidity can be measured by Trading Volume Activity (TVA)

2.3 Trading Volume Activity

Stock trading volume is one of parameters to measured trading activities stock and stock liquidity. Increasingly activity of buying and selling shares also increased trading activity and stock liquidity.

$$TVA = \frac{\text{number of share i traded in t time}}{\text{number of share i outstanding in t time}}$$

2.4 Abnormal Return

Abnormal return is difference between realized return with expected return. Abnormal returns generally into focus in the study were observed price reaction or market efficiency. In other words, abnormal return is excess of realized return to normal return. Abnormal return calculated by the formula:

$$RTN_{i,t} = R_{i,t} - E(R_{i,t})$$

2.5 Relationship between Liquidity and Stock Split

Trading Range Theory stated that management reason do a stock split driven by market behavior which is consistent with the assumption that the stock split, it can keep the stock price that is not too expensive (Labibah and Dwimulyani, 2014). Meanwhile, according to Marwata (Lasmanah and Bagja, 2014) trading range theory will increase stock liquidity Because before taking stock split, stock price was considered too high and causing underactive trading.

H1 : There is a significant difference between liquidity before and after stock split on the company taking

2.6 Relationship between Abnormal Return and Stock Split

According to Jaelani (2013), based on signaling theory, that stock split will give positive signal to investor. Although stock split lacked for quite expensive cost, then only company with a good prospect that can do it. Good prospect expected to provide a big return in the future, so market will react positively from stock split positive signal, because market assumes that company has good prospects in the future. Thus, stock split can be used as an attempt to be attractive for investors to participate in the capital market.

H2 : There is a significant difference between abnormal return before and after stock split on the company taking stock split in Indonesia Stock Exchange period 2013-2014

Based on theory and literature, the framework of this research are:

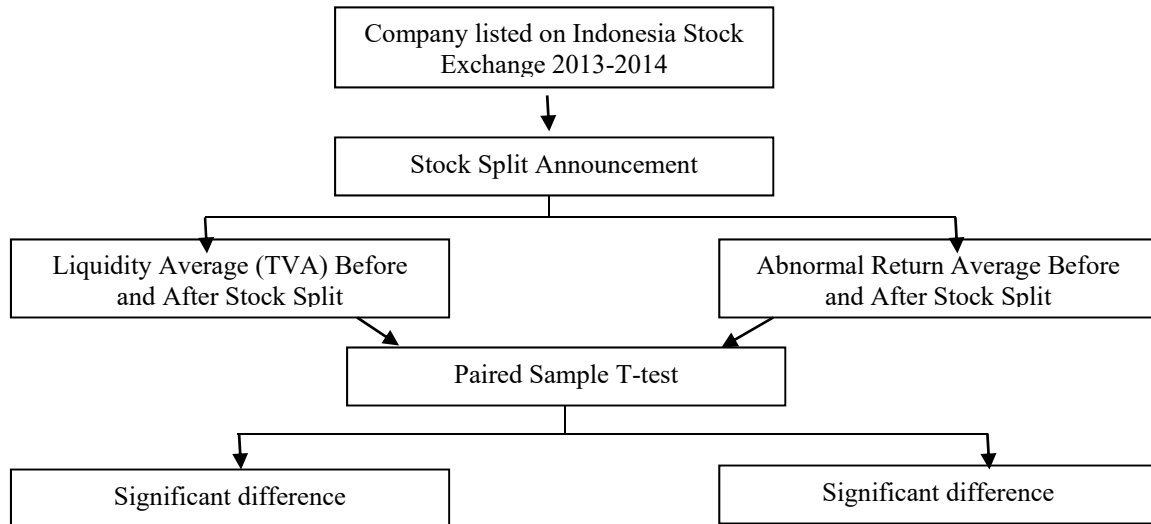


Fig. 2.1 Framework



3. Method

This research is using event study approach. Event study method to determine market reaction can be indicated by the change in stock price is increased or decreased after or before event. The event in this study is stock split announcement were carried out by issuer during period 2013-2014 in IDX (Indonesia Stock Exchange). While the research method used is a comparative method that aims to compare the abnormal stock returns and trading volume on the stock split companies in Indonesia Stock Exchange. This research will do a comparison of the two variables. The first variable is liquidity represented by the average trading volume activity (XTVA). The second variable is the abnormal return represented by the average abnormal return (AART) while expected return will measured by Market Adjusted Model. Where these two variables will be compared between before and after the stock split for 10 days prior to the stock split, the announcement days and 10 days after stock split. As for population in this study all of companies that do stock splits during study period, as many as 16 companies. From population taken samples by purposive sampling method. Criteria set out in the sampling withdrawal is only company did a stock split policy and other policies do not perform as rights issue, stock dividend, and other announcement. So that became the study sample there were 6 companies. Statistical data analysis for hypothesis testing used different test analysis (T-test Paired Two Sample) with significance level (α) 5%, to test whether there is any difference in abnormal returns and trading volumes around each stock split announcement date.

4. Result

Normality test used is One-Sample Kolmogorov Smirnov Test. The first step that must be done is to determine the hypothesis testing, namely:

H0: Data is normally distributed.

Ha: The data is not normally distributed.

If the data processing One Sample Kolmogorov-Smirnov Test generate significance below 5% (0.05) means that H0 is rejected or data variables are not normally distributed. If the yield above 5% significance (0.05) means that Ha is rejected or data normally distributed.

Table 4.1 One Sample Kolmogorov Test (TVA)

		TVA Sebelum Pengumuma n	TVA Saat Pengumuma n	TVA Sesudah Pengumuma n
N		6	6	6
Normal Parameters ^a	Mean	.002628895	.000049274	.00069307
	Std. Deviation	.0040078762	.0000585941	.001242222
Most Extreme Differences	Absolute	.349	.321	.329
	Positive	.349	.321	.329
	Negative	-.262	-.219	-.289
Kolmogorov-Smirnov Z		.855	.785	.806
Asymp. Sig. (2-tailed)		.457	.568	.534

a. Test distribution is Normal.

Source: data processed in 2016

Based on table 4.1, note that value of Sig (2-tailed) are 0,457 ; 0,568 and 0,534 > 0,05 means that data are normally distributed.

Table 4.2 One Sample Kolmogorov Test (AR)

One-Sample Kolmogorov-Smirnov Test

		AR Sebelum Pengumuma n	AR Saat Pengumuma n	AR Sesudah Pengumuma n
N		6	6	6
Normal Parameters ^a	Mean	.001835659	-.746152190	.000119844
	Std. Deviation	.0092730544	.2484451460	.0079359628
Most Extreme Differences	Absolute	.408	.255	.187
	Positive	.408	.255	.187
	Negative	-.203	-.229	-.161
Kolmogorov-Smirnov Z		1.000	.625	.458
Asymp. Sig. (2-tailed)		.270	.829	.985

a. Test distribution is Normal.

Source: data processed in 2016

Based on table 4.2, note that value of Sig (2-tailed) are 0,270 ; 0,829 and 0,985 > 0,05 means that data are normally distributed.

Furthermore, the hypothesis will be tested by using a different test for related samples (paired sample t-test) with a significance level of 5% (0.05). If the t-test is less than 0.05 then Ha1 is accepted, which means there are significant differences in liquidity or abnormal return of companies that conduct a stock split at the Stock Exchange in 2013-2014.

Table 4.3 Paired Sample Test (TVA)

Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	TVA Sebelum Pengumuman - TVA Sesudah Pengumuman	.0019358213	.0027891053	.0011386475	-.0009911652	.0048628079	1.700	5	.150

Based on table 4.3, note that value of Sig (2-tailed) is 0,150 > 0,05. Therefore, H0 is accepted because H0 : Sig. > 0.05 (0,150 > 0,05). This shows that there is no significant difference between liquidity before and after stock split on the company taking stock split period 2013-2014.

Table 4.4 Paired Sample Test (AR)

Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	AR Sebelum Pengumuman - AR Sesudah Pengumuman	.0017158154	.0053403734	.0021801983	-.0038885628	.0073201936	.787	5	.467



Based on table 4.3, note that value of Sig (2-tailed) is $0,467 > 0,05$. Therefore, H_0 is accepted because $H_0 : \text{Sig.} > 0,05$ ($0,150 > 0,05$). This shows that there is no significant difference between abnormal return before and after stock split on the company taking stock split period 2013-2014.

5. Conclusion

Stock liquidity of the company taking stock split period 2013-2014 gave a negative responses due to lower overall trading volume. Nevertheless, the observation period (t-0) shows that liquidity is positive, it indicates that the market response to the stock split policy.

Then, based on the descriptive test, at (t-3) and (t + 3), PT. Nipress experienced the highest trading volume compared with the other companies, with value 0.0290712 and 0.007258. This may be due to a project undertaken by PT.Nipress with BUMN to produce the first lithium batteries made in Indonesia in 2013, so investors have the confidence to invest in the shares NIPS (Nipress.com). However, PT. Indal Aluminium Industry, Tbk experienced the lowest value of trading volume activity in (t-6), (t-7), (t-8), (t-9), (t-10) with zero value, and (t -0) with value 0.0000037 and (t + 10), (t + 9), (t + 8), (t + 6), (t + 5) with zero value.

Generally, stock split will be followed by further policy like dividend. The lack of trading volume activity of PT. Indal Aluminium at the time of observation can be caused because investors have absorbed the information regarding the dividend as investors bought shares at before the announcement, so investors prefer not to buy or sell the stock.

Abnormal return of the company taking stock split period 2013-2014 gave negative responses due to a decrease in abnormal return. This can be determined based on the negative descriptive test. PT. Indal Aluminium Industry, Tbk experienced a positive return on (t-2) with the highest value 0.0897704, and decreased in (t-1) becomes -0.1154793 then increased back to the (t-0) although it is negative for -0.4344093. This occur because of market reaction, where if the information is a good news like stock price rise, many investors were forced to sell. Otherwise, if the information is bad news like stock price goes down then there are two possibilities that will happen: is investors want to buy when low cost or cut loss to rescue a prolonged decline in prices.

Reference

Akhmad, Arifin., and Ramadiyansari, Rika. (2013). Analisis Perbandingan *Abnormal Return*, Volume Perdagangan Saham, dan Likuiditas Sebelum dan Sesudah *Stock Split* Pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia. Sumatera Utara University Journal.

Bayu et all. (2014). Perilaku Investor Saham Individual Dalam Pengambilan Keputusan Investasi: Studi Hermeneutika-Kritis. e-Journal Business Economy and Accounting, 1 (1) : 16-31.

Indonesia Stock Exchange. (2010). Visi Misi Bursa Efek Indonesia. [online]. <http://www.idx.co.id/id-id/beranda/tentangbei/visidanmisi.aspx>

Indonesia Stock Exchange. (2010). Saham dan Keuntungan Saham Bagi Investor. [online]. <http://www.idx.co.id/id-id/beranda/produkdanlayanan/saham.aspx>

Eduardus,Tandelilin.(2010). Portofolio dan Investasi (First Edition). Kanisius: Yogyakarta.

Jaelani. (2013). Stock Split Policy on Signal and Liquidity Motive with Implications to Retail Investor. International Journal of Science and Research. India Online ISSN: 2319-7064, 2(6).

Jogiyanto. (2013). Teori Portofolio dan Analisis Investasi (8th Edition). BPFE: Yogyakarta.

Labibah, Mazra Iffah., and Dwimulyani, Susi. (2014). Analisis Harga Saham, Likuiditas Saham, Earning Per Share, dan Price Earning Ratio Antara Sebelum dan Sesudah Stock Split. .E-Journal Faculty of Accounting and

Economics. ISSN : 2339-0832. 1(2):33-48.

Lasmanah., dan Bagja, Bambang. (2014). Abnormal Return and Trading Volume Analysis on the Company Taking Stock Split at Indonesia Stocking Exchange Period 2010-2013. International Journal of Science and Research. ISSN (Online): 2319-7064, 2(4).

Nipress (2013). Indonesia Miliki Pabrik Baterai Lithium Pertama [online]. Available: <http://www.nipress.com/indonesia-miliki-pabrik-baterai-lithium-pertama/?lang=idmiliar>

Pramana, Andi., and Mawardi, Wisnu. (2012). Analisis Perbandingan Trading Volume Activity dan Abnormal Return Saham (Studi kasus pada perusahaan yang terdaftar di Bursa Efek Indonesia periode 2007-2011). Diponegoro Journal Management. 1(1) 2012 : 1-9.

Sekaran, Uma. (2011). Metodologi Penelitian untuk Bisnis Jilid I. (4th Edition). Jakarta : Salemba Empat

