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Market Reaction to the Announcement of Stock Split (Study on Companies Listed on the Indonesia Sharia Stock Index)

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Abstract*: A stock split is one of the corporate actions that a company can take. A corporate action is an action taken by a company that has a direct impact on share ownership of shareholders. This study aims to examine the market reaction to the announcement of a stock split, to see if the difference between abnormal returns before and after the stock split announcement. The population in this study are companies that are listed in the Indonesian Sharia Stock Index and conducted a stock split in 2019. This study used eight companies that met the criteria as samples. This study used the analysis method of paired-sample t-test and Wilcoxon signed ranks test, using SPSS software to process data. The results of this study indicate that there is no difference in abnormal returns before and after a stock split in the Indonesian Sharia Stock Index in 2019. The result shows that there is no information contained on the stock split announcement or there is information content on the stock split, but the market does not react to the announcement.*

Keywords: *Stock Split, Event Study, Abnormal Return, Mean-Adjusted Model, Market Model, Market-Adjusted Model.*

INTRODUCTION

A stock split is an example of an existing event study. An event study is part of the concept of the efficient market hypothesis introduced by Fama in 1991. Event studies are used to test the information content of an announcement and can also be used to test the efficiency of the semi-strong form market. Market efficiency refers to adjusting the price of a security to a new equilibrium price, in response to new incoming information. An efficient market is a market in which the prices of all traded securities reflect all available information. If the market is inefficient, securities will generate a higher return than their average return, which is called an abnormal return (Tandelilin, 2010)

If the announcement contains information, it is expected that the market will react when the market receives the announcement. This reaction can be measured using return as the value of price changes or using abnormal returns. If an abnormal return is used, an announcement can be said to contain information if it provides an abnormal return to the market. Conversely, those that do not contain information on an announcement will not give an abnormal return to the market (Ala & Asandimitra, 2017). Abnormal return is the return received by investors is not the same as the return they expected because there is information leakage (Yunawati, 2019).

Hence, this study aims to examine the effect of the stock split announcement on abnormal return before and after the event using an event study. To identify whether there is a difference in abnormal returns and whether if there is information content regarding the stock split announcement.

The results showed that there are no significant differences in abnormal return between pre and post-split. This research is in line with research conducted by A'la & Asandimitra (2017), Alexander & Kadafi (2018), and Yunawati (2019). Meanwhile, different research results are shown by Fauzi, Suhadak, & Hidayat (2016), Munthe (2017), and Puspita & Yuliari (2019) which state that there is a significant difference in abnormal return before and after a stock split.

More explanation of the results of this study will be presented in section 3 and 4. Section 2 describes the data and methods used in this study, while section 5 presents the conclusions of the research. Last but not least, section 6 explains the limitations and suggestions.

METHOD

Using the purposive sampling method, we obtained a sample of 8 companies. The type of data used for this research is secondary data, which consists of the daily stock closing price. This research uses the analysis method of paired-sample t-test and Wilcoxon signed ranks test, using SPSS software to process data.

To measure the return, we used three methods, which are the mean-adjusted model, market model, and market-adjusted model. The formulas are as follows:

Table 1. The formula of Abnormal and Expected Return

	Formula
Abnormal Return	$RTNit = Rit - E(Rit)$
Mean-Adjusted Model	$E[Rit] = \frac{\sum_{j=t1}^{t2} Rit}{T}$
Market Model	$Rit = \alpha i + \beta i + RMt + \varepsilon it$ $E(Rit) = \alpha i + \beta i + RMt$
Market-Adjusted Model	$E(Rit) = RMt$

RESULT

Descriptive Statistics Analysis

Table 2. Descriptive Statistics Mean-Adjusted Model

		Minimum	Maximum	Mean	Std. Deviation
AAR presplit		-.00151	.01516	.0086445	.00679681
AAR postsplit		-.00912	.01149	.0020280	.00970786

Source: Processed data

The results of descriptive statistics in table2 above the average abnormal return before the stock split (AAR preslit) have an average value of .0086445, with a maximum value of .01516 and a minimum value of -.00151, and with a standard deviation of .00679681. The average abnormal return after the stock split (AAR postsplit) has an average value of .0020280, with a maximum value of .01149 and a minimum value of -.00912, and with a standard deviation of .00970786.

Table 3. Descriptive Statistics Market Model

		Minimum	Maximum	Mean	Std. Deviation
AAR presplit		-.00180	.01717	.0071500	.00714194
AAR postsplit		-.00579	.02999	.0031080	.01508384

Source: Processed data

The results of descriptive statistics in table 3 above the average abnormal return before the stock split (AAR presplit) have an average value of .0071500, with a maximum value of .01717 and a minimum value of -.00180, and with a standard deviation of .00714194. The average abnormal return after the stock split (AAR postsplit) has an average value of .0031080, with a maximum value of .02999 and a minimum value of -.00579, and with a standard deviation of .01508384.

Table 4. Descriptive Statistics Market-Adjusted Model

		Minimum	Maximum	Mean	Std. Deviation
AAR presplit		-.00276	.01673	.0080982	.00843804
AAR postsplit		-.01144	.01322	.0027477	.01155448

Source: Processed data

The results of descriptive statistics in table4 above the average abnormal return before the stock split (AAR presplit) have an average value of .0080982, with a maximum value of .01673 and a minimum value of -.00276, and with a standard deviation of .00843804. The average abnormal return after the stock split (AAR postsplit) has an average value of .0027477, with a maximum value of .01322 and a minimum value of -.01144, and a standard deviation of .01155448.

Normality Test

Table 5.One-Sample Kolmogorov-Smirnov Test Mean-Adjusted Model

		AAR presplit	AAR postsplit
N		5	5
Normal Parameters[a,b]	Mean	.0086445	.0020280
	Std. Deviation	.00679681	.00970786
Most Extreme Differences	Absolute	.290	.236
	Positive	.169	.236
	Negative	-.290	-.231
Test Statistic		.290	.236
Asymp. Sig. (2-tailed)		.197[c]	.200[c,d]

Source: Processed data

Table 5 shows that the average abnormal return (AAR) before and after a stock split has a normal distribution. The result can be seen from the Asymp value. Sig (2-tailed) of the number 0.197 is for AARpresplit and 0.200 is for AARpostsplit, and the number is more than 0.05.

Table 6.One-Sample Kolmogorov-Smirnov Test Market Model

		AAR presplit	AAR postsplit
N		5	5
Normal Parameters[a,b]	Mean	.0071500	.0031080
	Std. Deviation	.00714194	.01508384
Most Extreme Differences	Absolute	.180	.441
	Positive	.180	.441
	Negative	-.153	-.278
Test Statistic		.180	.441
Asymp. Sig. (2-tailed)		.200c,d	.002c

Source: Processed data

Table 6 shows that the average abnormal return (AAR) before the stock split was normally distributed and AAR after it was not normally distributed. The result can be seen from the Asymp value. Sig (2-tailed) at 0.200 is for AARpresplit, which is greater than 0.05 as a guideline for concluding that the data is normally distributed. While AARpostsplit a value of 0.002, which is smaller than 0.05, meaning that the data is not normally distributed.

Table 7.One-Sample Kolmogorov-Smirnov Test Market-Adjusted Model

		AAR presplit	AAR postsplit
N		5	5
Normal Parametersa,b	Mean	.0080982	.0027477
	Std. Deviation	.00843804	.01155448
Most Extreme Differences	Absolute	.210	.257
	Positive	.163	.218
	Negative	-.210	-.257
Test Statistic		.210	.257
Asymp. Sig. (2-tailed)		.200c,d	.200c,d

Source: Processed data

Table7 shows that the average abnormal return (AAR) before and after stock split is normally distributed. This result can be seen from the Asymp value. Sig (2-tailed) at 0.200 is for AARpresplit and 0.200 is for AARpostsplit. This figure is more than 0.05 as a guideline for the conclusion that the data is normally distributed.

Hypothesis Testing

Paired Sample t-Test

Table 8.Paired Samples Test Mean-Adjusted Model

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
air 1	AARpresplit - AARpostsplit	.00661648	.01497341	.0066963 1	-.01197547	.02520843	.988	4	.379

Source: Processed data

Table8 shows that there is no difference in abnormal stock returns before and after the stock split. This result can be seen from the Sig. (2-tailed) that the number is 0.379, which is smaller than 0.05. Accordingly, the conclusion is no significant difference between before and after the stock split (> 0.05 Ha is rejected).

Table 9.Paired Samples Test Market-Adjusted Model

		Paired Differences						df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	AARpresplit - AARpostsplit	.00535052	.01801586	.00805694	.01701912	.02772016	.664	4	.543

Source: Processed data

Table 9 shows that there is no difference in abnormal stock returns before and after the stock split. This result can be seen from the Sig. (2-tailed) at 0.543. The number is less than 0.05. Hence, there is no significant difference between before and after the stock split (> 0.05 Ha rejected).

Wilcoxon Signed Ranks Test

Table 10.Wilcoxon Signed Ranks Test Market Model

		N	Mean Rank	Sum of Ranks
AARpostsplit - AARpresplit	Negative Ranks	4a	2.50	10.00
	Positive Ranks	1b	5.00	5.00
	Ties	0c		
	Total	5		

Source: Processed data

Table 10 shows that four days experienced a decrease in abnormal returns from pre-split to post-split; this can be seen from the negative ranks. Positive ranks explain that there is only one day that experiences an increase in abnormal returns from pre-split to post-split. Ties that are worth 0 indicates that there is no equal value between the AAR before and after the stock split.

Table 11.Test Statistics Market Model

	AARpostsplit - AARpresplit
Z	-.674b
Asymp. Sig. (2-tailed)	.500

Source: Processed data

Table 11 above shows that there is no difference in abnormal stock returns before and after the stock split. This result can be seen from the Asymp value. Sig. (2-tailed) is at 0.500, which is more than 0.05 so that it can be concluded no significant difference between before and after the stock split (> 0.05 Ha is rejected).

DISCUSSION

The result of the paired-sample t-test and the Wilcoxon signed ranks test used in it is research showed that there are no significant differences in abnormal return between pre and post-split. This research is in line with research conducted by A'la & Asandimitra (2017), Alexander & Kadafi (2018), and Yunawati (2019).

CONCLUSIONS

It can be concluded that there is no difference in abnormal returns before and after the stock split in the Indonesian Sharia Stock Index in 2019. This result shows that there is no information contained in the stock split announcement or there is information content on the stock split, but the market does not react to the announcement.

LIMITATIONS AND RECOMMENDATIONS

The sample used in the study was only one year, so the implications can be different if the sample period is extended. This study only uses abnormal returns as a variable. For further research, it is advisable to use other variables to measure the effect of a stock split.

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