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Effect Of Trading Halt (Suspension) For The Volatility Of Return, Trading Volume Activity, Bid Ask Spread, Stock Price And Stock Return (Case Studies On Companies Listed In Indonesian Stock Exchange Period 2012-2014)

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Abstract: Suspension is a form of information in Indonesian stock exchange. This announcement relates to the trading suspension at stocks. This research aims to analyze whether or not differences in volatility of return, trading volume activity, bid ask spread, stock price, and stock return before and after the announcement of suspension used different test Wilcoxon signed rank test and paired sample t-test analyze technique. This research also analyzing the effect of volatility of return, trading volume activity, stock price, and stock return to the bid ask spread used multiplier linear regression analyze technique. This research examine the effect of trading suspension at stocks with a unreasonable price by the Indonesian Stock Exchange in the period 2012-2014. The observation period at three trading day before and three trading day after suspension. The sample in this study were 30 companies to 35 times suspension. Different test results showed there was difference significant in the volatility of return, trading volume activity, stock price, and stock return before and after the announcement of suspension, but this different test results showed no difference significant bid ask spread before and after the announcement of suspension. Multiplier linear regression showed that only volatility return and trading volume activity affects significant the bid ask spread, while variable stock return and stock price showed no affects significant the bid ask spread.

Keywords: Suspension, Volatility of Return, Trading Volume Activity, Bid Ask Spread, Stock Price, and Stock Return

INTRODUCTION

The capital market has a large role for the economy of a country because the capital market performs two functions at once, namely the economic function and the financial function. (Darmadji and Fakhruddin, 2006:2).

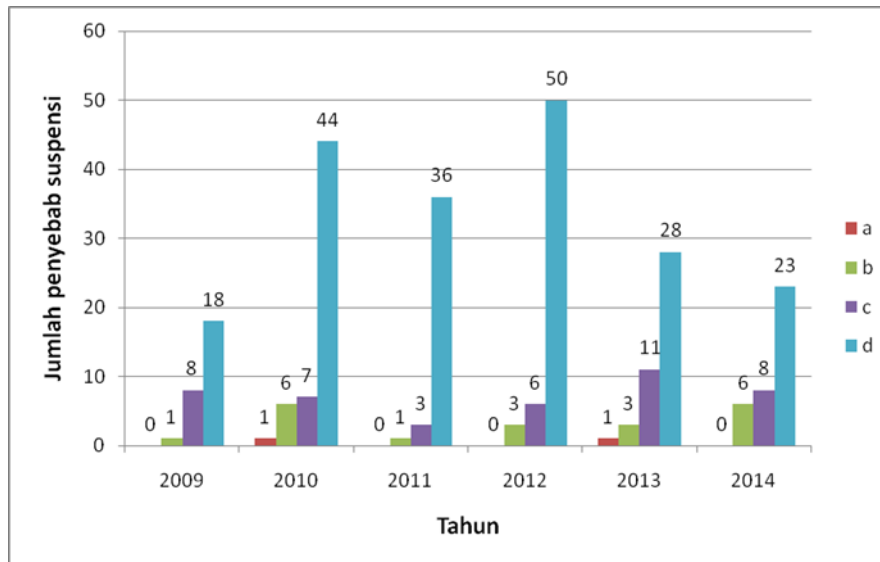
The demand for and supply of shares on the stock exchange is influenced by various relevant information. According to Husnan (2005: 260) an efficient capital market is defined as a market whose securities prices reflect all relevant information. The faster new information is reflected in security prices, the more efficient the capital market is

Suspension is a temporary suspension of the execution of trading on a particular security on the stock exchange if there is an abnormal price movement of the said security (Kep-00071/BEI/11-2013 Regulation Concerning Equity-Type Securities Trading). According to Darmadji and Fakhruddin (2006:133-134) the suspension carried out by the IDX is related



to a significant increase in cumulative prices. The suspension was carried out by the IDX to cool down the market (cooling down period) and provide sufficient time for market participants to carefully consider investment decisions on these shares.

Signaling theory reveals that the market will react positively if published information indicates a profitable signal. Conversely, the market will react negatively to information that is deemed unfavorable (Jogiyanto, 2009:392) in Firda (2012:2). In general, the Indonesia Stock Exchange carries out suspensions due to unusual price movements, as the graph below shows suspension data based on each cause suspended by the IDX.



Source : Data Search 2022

Figure 1: the number of companies affected by the suspension

Information:

- a: Audited Financial Statements of Listed Companies opinion disclaimer .
- b: The Listed Company is filed for bankruptcy by its creditors
- c: The Listed Company does not disclose information
- d: Unreasonable increase/decrease in price

Based on the background of the problem regarding effect of trading halt (suspension), researchers are interested in conducting research on effect of trading halt (suspension) caused by an abnormal price change. This study uses a different test to test the effect of trading halt (Suspension) with a sample of company shares listed on the Indonesia Stock Exchange that have experienced trading halt due to movements considered significant by the IDX. In addition, this study also uses multiple linear regression tests to examine the variables that affect the bid ask spread. The event windows used are 3 trading days before the announcement of the trading halt of a share and 3 trading days after the announcement of the lifting of the suspension.

Based on the description above, the researcher is interested in conducting research with the title " Effect of Trading Halt (Suspension) for the Return Volatility, Trading Volume Activity, Bid Ask Spread, Stock Prices, and Stock Return (case studies on companies listed in Indonesia Stock Exchange period 2012-2014)".

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Suspension

Suspension is the temporary cessation of trading of a particular security on the stock exchange if there is an abnormal price movement of that security (Regulation Kep-00071/BEI/11-2013 Concerning Equity-Type Securities Trading). Suspension is a form of circuit breaker implemented in the Indonesian capital market where this system can temporarily stop stock trading. Termination of stock trading with this suspension system can

be caused by a number of things, but the focus in this study is the termination of stock trading caused by unreasonable stock price movements either up or down.

Volatilitas of Return

Basically, volatilitas of return is the square of the difference between the return value and the average return. When the average value of returns is close to zero, the variance of returns will approach the squared value of returns. therefore the volatility of returns in this study is measured using squared returns, with the following formula:

$$V_t = (r_{i,t})^2$$

V_t = Volatility on day t

$r_{i,t}$ = return for stock i on day t

Trading Volume Activity

Trading volume activity is an instrument that can be used to see the reaction of the capital market to information through the parameters of the movement of trading volume activity in the market (Suryawijaya, 1998:142) in Lulu (2009:201). According to Ardi and Rochmawati (2013: 74) trading volume is a sum of every transaction that occurs on the stock exchange at a certain time and security.

The formula for Trading Volume Activity in (Foster, 1986:375) in (Sri Dewi, 2009:799) is as follows:

$$TVA_{i,t} = \frac{\text{Companies shares } i \text{ trading at time } t}{\text{Companies shares } i \text{ circulating at time } t}$$

Bid-Ask Spread

Bid Ask Spread is the difference between the highest purchase price offered by the party who will purchase the shares with the lowest selling price from the party willing to sell the shares (Novita, 2013: 156). There are two models of spread, namely the dealer spread and the market spread. The dealer spread is the difference between the bid price and the ask price that causes individual dealers to want to trade securities with their own assets. The market spread is the difference between the highest bid and the lower ask that occurs at a certain time. The type of spread studied at the Indonesia Stock Exchange is market spread, because the IDX is more competitive in the order matching market or known as the order-driven market system where investors are only allowed to submit buy-sell orders and make transactions through brokers. Investors cannot directly make transactions on the floor of the stock exchange (Hamilton in C. Ambar, 2001:44). The market spread can be seen from the difference between the offer price and the bid price on the exchange (Lulu, 2009:202).

The concept of calculating the Bid-Ask Spread can be formulated as follows (Howe, 1992) in Purwanto (2004:74) and (Lulu, 2009:202):

$$Spread = \frac{(Ask - Bid)}{\frac{1}{2} (Ask + Bid)}$$

Stock price

Weston and Copeland (1995:106) in Lulu (2009:200) state that stock price is a company achievement monitoring tool, besides that stock price is also a measure of the company's achievement index, namely how far management has succeeded in managing the company on behalf of the shareholders.

Stock returns

Return (return) is the level of profit enjoyed by investors on an investment made (Ang, 1997) in Desy (2012: 5). Husnan (1994) in Desy (2012: 5) also states that stock return is the result obtained from an investment. Investments must really realize that besides getting profits, they do not rule out losses. These gains or losses are strongly influenced by the investor's ability to analyze the condition of the stock price, which is a momentary

assessment that is influenced by many factors including the condition (performance) of the company, external constraints, the supply and demand for shares in the market, as well as the ability of investors to analyze stock investments.

Stock returns can be calculated using the following formula Beaver, 1968 in Sri Dewi.

$$R_{i,t} = \frac{(P_{i,t} - P_{i,t-1})}{P_{i,t-1}}$$

METHODS

This research is included in the category of research that uses event studies. Event windows to see the impact of suspension announcements on return volatility, trading volume activity, bid ask spread, stock prices and stock returns are 3 days before the announcement of the suspension and 3 days after the opening of the suspension. The duration of event windows in this study is based on previous research, namely the research of Yusuf (2006) and Munawarah (2009). This is supported by the research of Hai Chuan Xu, et al (2014) which states that the complexity of the information contained is stable when the announcement of the suspension is more than one day. This is also intended to prevent sample companies from taking corporate action during the research period.

Based on the sampling criteria above, the number of research samples obtained is described in the table below:

Table 1: Research Sample

Keterangan	Jumlah
Companies listed on the Indonesia Stock Exchange and Companies that were suspended by the Indonesia Stock Exchange for the period 2012-2014	195
Companies that experience suspension for causes other than unreasonable price movements	(109)
Shares that are suspended, but during the event window there has been an announcement of the next suspension	(36)
Shares that are suspended, but during the event window there has been an announcement of the next suspension	(9)
Windows stocks experienced corporate action during the event	(2)
Shares that have been suspended and there has been an announcement of the reopening of these shares but there have been no transactions	(4)
Companies listed on the Indonesia Stock Exchange during observation period that can be used as a sample	<u>35</u>

Source : Data Search 2022

Paired Sample t-test

The paired sample t-test aims to test two paired samples. Two paired samples are defined as a sample with the same subject but experiencing two different treatments or measurements (Singgih, 2000: 155).

Decision making is based on a probability of 0.05, as follows (Singgih, 2000:162):

- If probability > 0.05, then H0 is accepted
- If the probability < 0.05, then H0 is rejected

Wilcoxon Signed Rank Test

This nonparametric test is used if the data is not normally distributed. According to (Sunyoto, 2013: 40) the Wilcoxon signed rank test pays attention to the size of the difference in the ranking of the sample data.

The basis for making decisions in this test is as follows:

- If Exact.Sig.(2-tailed) < 0.05, then H0 is rejected.
- If Exact.Sig.(2-tailed) ≥ 0.05, then H0 is accepted.



Significance Test (Hypothesis Test) Simultaneous Significance Test (F Test)

The F test is used to show whether all the independent or independent variables included in the model have a joint effect on the dependent/dependent variable. How to do the F test by comparing the results of the calculated F value with Ftable (Imam Ghazali, 2011: 98).

Test the hypothesis by comparing Fcount with Ftable:

- If F count > Ftable then H0 is rejected and Ha is accepted, meaning that the independent variables simultaneously have a significant influence on the dependent variable
- If F count < Ftable then H0 is accepted and Ha is rejected, meaning that the independent variables simultaneously have a significant influence on the dependent variable

Partial Significance Test (t test)

The t test is used to test the significance of constants and each independent variable (Santoso, 2000:265). The hypothesis used is as follows:

- If probability > 0.05, then H0 is accepted
- If probability < 0.05, then H0 is rejected

Multiple Linear Regression Analysis

The coefficient of determination

The coefficient of determination (Adjusted R2) reflects how much the variation of the dependent variable Y can be explained by variable X. If R2 = 0 then the variation of Y cannot be explained by X at all. If R2 = 1 then the variation of Y as a whole can be explained by X (Nachrowi, 2006: 20).

Multiple Linear Regression Equation

Multiple regression linear test to determine the effect of the independent variables (X1, X2, and X3) on the dependent variable (Y). to do a multiple regression test, first do a classic assumption test. the form of the equation is as follows:

$$Y = a + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + e$$

RESULT AND DISCUSSION

Regression Model Test Analysis

F Test (Simultaneous)

The F test is used to show whether all the independent variables in the model, namely return volatility, trading volume activity, stock prices, and stock returns have a simultaneous effect on the dependent variable, namely the bid ask spread. From the results of statistical analysis using SPSS Version 22, the following results are obtained:

Table 2. anova

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42.484	4	10.621	16.842	.000 ^b
	Residual	93.964	149	.631		
	Total	136.448	153			

Source : Data Research 2022

a. Dependent Variable: LN_BAS

b. Predictors: (Constant), Return_Saham, LN_Harga_Saham, LN_Volatilitas_Return, LN_TVA

The way to do the F test in this study uses a significance level, that is, if sig < 0.05, then H0 is rejected, and also by comparing the calculated F value with the table F value. Based on the ANOVA table above, the sig. value is 0.000 < 0.05. then H0 is rejected and it can also be seen that the value of F table (df:α, (k-1), (n-k) or (df: 0.05, (3), (206)) is obtained at 2.65, because F count (16.842) > F table (2.65) which means that the regression equation model formed is included in the fit criteria which means that simultaneously the independent variables affect the dependent variable.



T test

The t test is used to show whether the independent variables in the model, namely return volatility, trading volume activity, stock prices, and stock returns have a partial effect on the dependent variable, namely the bid ask spread.

Table 3. T test result

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-5.606	.359		-15.607	.000
LN_Volatilitas_Return	.072	.036	.156	1.988	.049
LN_TVA	-.219	.037	-.512	-5.975	.000
LN_Harga_Saham	.069	.057	.100	1.214	.227
Return_Saham	.537	.726	.056	.740	.460

Source : Data Search 2022

From the results of the SPSS output above, the following conclusions is the return volatility variable with a sig value of $0.049 < \alpha = 0.05$ means that it can be concluded that H1 is accepted, which means that return volatility has a significant positive effect on the bid ask spread. This shows that an increase in return volatility means an increase in uncertainty around the announcement date of the suspension. This study is in accordance with the model (Stoll, 1978a; Ho and Stoll, 1981), and research conducted by (Benston and Hagerman, 1974; Branch and Freed, 1977), (Jason Wei, and Jinguo Zheng, 2010) which states that factors Return volatility is the factor that has the most significant influence on the bid ask spread, where high return volatility causes the spread of the bid ask spread (J. Wei, and J. Zheng, 2010: 2898).

The trading volume activity variable with a sig value of $0.000 < \alpha = 0.05$ means that it can be concluded that H2 is accepted, which means that trading volume activity has a significant negative effect on the bid ask spread. The results of this study are in line with the research of Jason Wei, and Jinguo Zheng, 2010, and Cici (2013) which state that trading volume has a negative effect on the bid ask spread. This shows that a large volume of stock trading indicates that the stock is actively traded, so this attracts investors to make transactions immediately, which in turn has an impact on narrowing the bid-ask spread.

The stock price variable with a sig value of $0.227 > \alpha = 0.05$, it can be concluded that H3 is rejected, which means that the stock price has no significant negative effect on the bid ask spread. The results of this study are not in accordance with the theory which states that stock price is the level of success of a company, so that if a high stock price can provide a high return it indicates that the stock is favored by investors so that investors do not need to hold the stock for a long time which will eventually cause narrowing bid ask spread.

The stock return variable with a sig value of $0.460 > \alpha = 0.05$, it can be concluded that H4 is rejected, which means that stock returns do not have a significant negative effect on the bid ask spread, this is contrary to previous research conducted by Halim and Nanik (2014) with the significance value of stock returns is smaller than the level of $\alpha = 5\%$ ($0.026 < 0.05$). There is no effect of stock returns on the bid ask spread around before and after the suspension because market participants apply a cautious strategy in investing to avoid risks from uncertainty.

Coefficient of Determination (R-square)

The coefficient of determination (R-Square) aims to determine the degree of accuracy of the multiple linear regression analysis which shows the magnitude of the variation in the contribution of all independent variables to the dependent variable.



Table 4. R-square test result

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.558 ^a	.311	.293	.79412	1.552

Source : Data Search 2022

Based on table 4, the magnitude of the influence of the independent variables is indicated by the value (R-Square) = 0.311, meaning that the variable return volatility, trading volume activity, stock prices, and stock returns can explain the bid ask spread variable of 31.1% and the remaining 68.9% explained by other variables not included in this study, such as assets size, leverage, dividend payout ratio, margin purchase, and short sales.

Table5. Multiple Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
(Constant)	-5.606	.359	
LN_Volatilitas_Return	.072	.036	.156
LN_TVA	-.219	.037	-.512
LN_Harga_Saham	.069	.057	.100
Return_Saham	.537	.726	.056

Source : Data Search 2022

From the table above it can be formulated a regression equation to determine the effect of return volatility, trading volume activity, stock prices, and stock returns on the bid ask spread is as follows: $Y = -5,606 + 0,072 \text{ LNX1} - 0,219 \text{ LNX2}$

Results of Different Tests on Volatility of return, Trading Volume Activity, Bid Ask Spread, Stock Prices, and Stock Returns Before and After Trading Halt

Wilcoxon signed rank test different test results on volatility of return

	VR_SS - VR_SB
Z	-5.501 ^b
Asymp. Sig. (2-tailed)	.000

Based on the results of the table above, the p-value (Sig.2-tailed) is 0.000. With a significance level of $\alpha = 0.05$ (5%), the p-value < level of significance, so that H0 is rejected. From these results it can be concluded that there is a significant difference between the volatility of returns before and after the temporary suspension of securities trading (suspension).

Based on the average, the suspension causes a decrease in return volatility. The results of this study are not in accordance with previous research conducted by Yong H. Kim, Yose Yague, and J. Jimmy Yang (2008) which stated that volatility remained the same after an announcement of a suspension, but this study was in accordance with previous research conducted by Sally (2006) which states that overall suspension can reduce return volatility.

The difference in return volatility before and after the suspension refers to trading activities that are triggered by uninformed traders, so that when one of the investors does not have good information to make a transaction, it will cause a price to form which drives the change in the stock price movement.

Trading volume activity is not normally distributed, so to find out whether there is a difference before and after the temporary suspension of securities trading (suspension) a non-parametric Wilcoxon signed rank test is performed. Following are the results of

statistical testing of trading volume activity before and after suspension:ading volume activity sebelum dan sesudah suspensi:

Wilcoxon signed rank test different test result on Trading Volume Activity

	TVA_SS - TVA_SB
Z	-4.148 ^b
Asymp. Sig. (2-tailed)	.000

Based on the results of the table above, the p-value (Sig.2-tailed) is 0.000. With a significance level of $\alpha = 0.05$ (5%), the p-value < level of significance, so that H0 is rejected. From these results it can be concluded that there is a significant difference between trading volume activity before and after the temporary suspension of securities trading (suspension).

The average trading volume activity after the suspension has decreased. The results of this study are in accordance with previous research conducted by Dariuosh Damoori and Mahboobe Zarei (2013) which stated that suspension did not increase trading activity on the Iran Stock Exchange. This occurred due to a negative market reaction to the suspension event so that market players (investors) anticipated this event by not rushing to carry out stock buying and selling activities.

Bid ask spread is not normally distributed, so to find out whether there is a difference before and after the temporary suspension of securities trading (suspension) a non-parametric Wilcoxon signed rank test was performed. Following are the results of statistical testing of bid ask spread before and after the suspension.

Wilcoxon signed rank test different test result on Bid Ask Spread

	BAS_SS - BAS_SB
Z	-1.826 ^b
Asymp. Sig. (2-tailed)	.068

Based on the value above the p-value (Sig.2-tailed) of 0.068. With a significance level of $\alpha = 0.05$ (5%), then the p-value > the level of significance, so that H0 is accepted. From these results it can be concluded that there is no significant difference between the bid ask spread before and after trading halt (suspension).

Looking at the average results, the bid ask spread narrowed or decreased after the suspension. The absence of a difference in the Bid Ask Spread before and after the suspension occurred because there was no interest in transacting market participants after the suspension was due to the uneven distribution of information so as to avoid investment risk market participants adopted a wait and see strategy. The results of this study contradict previous studies conducted by Christine Jiang, Thomas McInish, and James Upson (2009) which stated that suspensions had a significant impact on liquidity related to spreads.

Stock prices are not normally distributed, so to find out whether there is a difference before and after the temporary suspension of securities trading (suspension) a non-parametric Wilcoxon signed rank test was performed. Following are the results of statistical tests for stock price before and after suspension.

Wilcoxon signed rank test different test result on stock price

	HS_SS - HS_SB
Z	-3.530 ^b
Asymp. Sig. (2-tailed)	.000

Based on the results of the table above, the p-value (Sig.2-tailed) is 0.000. With a significance level of $\alpha = 0.05$ (5%), the p-value < level of significance, so that H0 is rejected.

From these results it can be concluded that there is a significant difference between stock prices before and after the temporary suspension of securities trading (suspension).

The results of the stock price test using the Wilcoxon signed rank test method show that there are differences in stock prices before and after suspension. This happened because the information was spread evenly so that investors responded to the announcement of the suspension. The IDX's policy to suspend these shares is seen by investors as good news or the information content contained in the suspension gives a positive signal which results in a positive market reaction, so that investors buy and sell their shares, but the increase in share prices and buying and selling is very slight. so that the liquidity in the market is still low.

Stock returns are not normally distributed, so to find out whether there is a difference before and after the temporary suspension of securities trading (suspension) a non-parametric statistical test, the Wilcoxon signed rank test, is performed. Following are the results of statistical tests for abnormal returns before and after suspension.

Wilcoxon signed rank test different test result on stock return

	RS_SS - RS_SB
Z	-4.774 ^b
Asymp. Sig. (2-tailed)	.000

Based on the results of the table above, the p-value (Sig.2-tailed) is 0.000. With a significance level of $\alpha = 0.05$ (5%), the p-value < level of significance, so that H0 is rejected. From these results it can be concluded that there is a significant difference between stock returns before and after trading halt (suspension).

The results of testing stock returns using the Wilcoxon signed rank test method show that there are differences in stock returns before and after suspension. Information on the announcement of this suspension is spread evenly among market participants, but the information on the suspension of the shares is seen by investors as bad news or the information content contained in the suspension gives a negative signal which results in a negative market reaction, so that investors anticipate or apply a wait and see strategy. see the buying and selling of shares to avoid the risk of such suspension.

CONCLUSIONS

Based on the analysis and discussion regarding trading halt (suspension) on return volatility, trading volume activity, bid ask spread, stock prices, and stock returns it can be concluded that:

1. Based on multiple linear regression testing conducted to analyze the effect of return volatility, Trading Volume Activity (TVA), stock prices, and stock returns on the bid ask spread, the results show that the return volatility variable has a significant positive effect on the bid ask spread, trading volume activity has an effect significant negative effect on the bid ask spread, while stock price and stock return variables have no significant effect on the bid ask spread.
2. Based on testing the return volatility variable using the non-parametric Wilcoxon signed rank test, it was found that there was a significant difference between the return volatility before and after trading halt (suspension).
3. Based on testing the Trading Volume Activity (TVA) variable with the non-parametric Wilcoxon signed rank test, it was found that there was a significant difference between Trading Volume Activity (TVA) before and after trading halt (suspension).
4. Based on the Bid Ask Spread (BAS) test with the non-parametric Wilcoxon signed rank test, it was found that there was no significant difference between the Bid Ask Spread (BAS) before and after trading halt (suspension).
5. Based on testing the stock price variable using the non-parametric Wilcoxon signed rank test, it was found that there was a significant difference between stock prices before and after trading halt (suspension).



6. Based on testing the stock return variable using the non-parametric Wilcoxon signed rank test, it was found that there was a significant difference between stock returns before and after trading halt (suspension).

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