

Investor Behavior Responding to Changes in Trading Halt Conditions: Empirical Evidence from the Indonesia Stock Exchange

Rida RAHIM¹, Desyetti SULAIMAN², Tafdil HUSNI³, Nadya Ade WIRANDA⁴

Received: November 30, 2020 Revised: February 20, 2021 Accepted: March 02, 2021

Abstract

Information has an essential role in decision-making for investors who will invest in financial markets, especially regarding the policies on the condition of COVID-19. The purpose of this study is to determine the market reaction to the information published by the government regarding the policy changes to the provisions of Trading Halt on the IDX in an emergency using the event study method. The population in this study was companies listed on the Indonesia Stock Exchange in March 2020; the sample selection technique was purposive sampling. Data analysis used a normality test and one sample *T*-test. The results of the study found that there were significant abnormal returns on the announcement date, negative abnormal returns around the announcement date, and significant trading volume activity occurring three days after the announcement. The existence of a significant positive abnormal return on the announcement date indicates that the market responds quickly to information published by the government. The practical implication of this research can be taken into consideration for investors in making investment decisions to analyze and determine the right investment options so that investors can minimize the risk of their investment and maximize the profits they want to achieve.

Keywords: Abnormal Return, Trading Volume Activity, Trading Halt

JEL Classification Code: B26, B27, E44, G15

1. Introduction

The most severe international disaster recently was the coronavirus outbreak or the so-called COVID-19. This outbreak first appeared at the end of 2019, to be precise in China in the City of Wuhan. The rapid transmission of the coronavirus has made the World Health Organization (WHO) declare the COVID-19 outbreak a pandemic. This

is because the spread occurred not only in China, but also to various parts of the world. In the past two weeks, the number of COVID-19 cases outside China has increased 13-fold, and the number of countries affected has tripled (World Health Organization, 2020).

This outbreak had a significant economic impact, and global financial markets responded with dramatic stock price movements (Zhang et al., 2020). This pandemic provoked the most dramatic stock market crash in history (Mazur et al., 2021). The fall in global stock markets was caused by stock prices that continued to decline due to investor concerns over the spread of the coronavirus and the reaction of the government implementing several policies such as closing some business activities and prohibiting travel out of the country, which impacted international trade.

The reaction of global financial markets to this pandemic has also affected the performance of Indonesia's financial markets. The drop in the Jakarta Composite Index (JCI) shows this during February 2020, and on February 28, 2020, based on Bloomberg data, the JCI movement continued to decline to its lowest point and closed by 1.50% to the level of 5,452.70, the lowest level since 2017. This condition continued until the JCI underwent correction and closed at the level of 5,361.

¹First Author and Corresponding Author. Lecturer, Department of Management, Faculty of Economics, Universitas Andalas, Indonesia [Postal Address: Limau Manis, Pauh, Padang, West Sumatera, 25175, Indonesia] Email: ridarahim@eb.unand.ac.id

²Lecturer, Department of Management, Faculty of Economics, Universitas Andalas, Indonesia. Email: desyetti@eb.unand.ac.id

³Lecturer, Department of Management, Faculty of Economics, Universitas Andalas, Indonesia. Email: tafdilhusni@eb.unand.ac.id

⁴Assistant Lecturer, Department of Management, Faculty of Economics, Universitas Andalas, Indonesia. Email: nadyaadevirandaa@gmail.com

The JCI has dropped further since Indonesia first confirmed the Covid-19 case on March 2, 2020, which was announced directly by President Joko Widodo, that there were two Indonesians testing positive for corona. The announcement directly infected the capital market and crashed it, which was marked by the dropping of the JCI.

Due to the horrible conditions of the COVID-19 outbreak, several agencies such as the Financial Services Authority and the Indonesia Stock Exchange, formulated a series of policies. One of the policies was to impose new trading hours or what is often called trading halt if there is a significant decline in the JCI rate. The trading halt is part of the protocol enforced by exchange authorities. Following the policy of the Financial Services Authority (OJK), stock exchange trading will be suspended for 30 minutes if the JCI drops 5% or more, as a precautionary measure in reducing sharp fluctuations in the capital market.

In line with the Decree of the Board of Directors of PT Bursa Efek Indonesia Number: Kep-00024 / BEI / 03-2020 dated March 10, 2020, regarding Changes in Guidelines for Handling Trade Continuity on the Indonesia Stock Exchange in Emergency Conditions, initially the JCI decreased from 10% to 5%. The trading halt policy was previously carried out on the IDX; the last trading halt was carried out by the IDX about 11 years ago. Precisely when trading took place on October 8, 2008, as an extraordinary effect of the decline in the JCI along with world stock indexes as a boost from investor panic caused by the economic crisis that was hitting the United States, this policy is able to lower investor panic so that they will not sell their shares irrationally and protect uninformed investors and specialists from excessive levels of asymmetric information (Glosten & Milgrom, 1985; Kyle, 1985).

This paper aims to investigate the impact of the announcement of changes in trading halt conditions on the IDX related to the COVID-19 pandemic on investor behavior. Testing the impact of an announcement, both by internal companies and by external parties, is also called testing the information content of an announcement. If an announcement contains information, it will affect investor behavior in decision-making, and the market will react to the announcement, which is shown by significant changes in stock market prices and significant trading volume activity around the announcement date (Hartono, 2017). An event study is a methodology that is often used to test the information content (market reaction) of an announcement (Peterson, 1989). Event studies can also be used to test the efficiency of the semi-strong form market. According to Chen et al. (2007), market reaction as an information signal of a certain event can affect firm value, as seen from changes in stock prices and trading volume. Price changes can be reflected in an abnormal return. Abnormal return is the difference between the actual return and the expected return.

Various studies on investor behavior toward the COVID-19 pandemic have been carried out since the outbreak with multiple approaches such as descriptive analysis approaches and statistical or econometric approaches. Research on investor behavior in response to trading halt has been carried out by previous researchers (Bacha, 2007; Ekaputra & Dwijayanti, 2008; Jiang et al., 2009; Frino et al., 2011), found mixed results as regards the impact on halt trading policies. Therefore, researchers are interested in conducting research using different events from previous studies. The event in this research is the announcement of changes in trading halt conditions related to COVID-19.

2. Literature Review

In the study of information content, an event is said to contain information if the event can change the investor's assessment of the distribution of returns expected in the future so that an equilibrium change occurs from the current market price and changes the behavior of decision-makers. The study of information content is intended to see the market reaction to an event/announcement. If the announcement contains information, it is expected that the market will react when the announcement is received. This market reaction can be seen from changes in the price and trading volume of security around the announcement. This market reaction can be measured using an abnormal rate of return that is not equal to zero (Beaver, 1968).

This event reflects the efficiency or inefficiency of the capital market based on the information absorbed by the market; if the price of securities quickly and fully reflects all the information available on these assets indicates that the market is efficient. According to Hartono (2017), an efficient market is a market that disseminates information quickly so that the information becomes symmetric; that is, everyone gets the same information. If the capital market is efficient, the price of securities may reflect investors' assessment of the company's future earnings prospects and the quality of its management. The main form of information efficiency can be divided into three types, namely, weak-form market efficiency (Weak Form), semi-strong form market efficiency (Semi-Strong Form), and strong-form market efficiency (Strong Form).

Weak-form market efficiency is a condition where the prices of securities are fully reflected in past information. If the market is efficient in its weak form, then the values of the past cannot be used by investors to predict the current price. This means that investors cannot use past information to obtain abnormal returns in the weak-form efficient market. Semi-strong form market efficiency is a condition where the prices of these market securities fully reflect all published information, including information contained in the financial statements of the issuing company. If the market is efficient in a semi-strong form, then no investor or group of investors

can use the published information to obtain abnormal profits over a long period. Strong-form market efficiency is a condition where the prices of these market securities fully reflect all available information, including private information. If the market is efficient in a strong form, then not a single investor will get an abnormal return because they have private information. Testing an efficient capital market can be done with an event study.

An event study is an analytical tool that is often used to see investor behavior towards an event by observing stock prices around the event (Peterson, 1989). In this study, to see investor behavior in responding to announcements of trading halt policy changes related to COVID 19, an event study methodology is used. Basically, in every event study, there are two periods, namely, the estimation period, which is the period to estimate the expected rate of return on a stock, and the event period, which is centered on the announcement.

According to Chen (2007), abnormal return is the difference between the actual return obtained when an event occurs and the expected return if the event does not occur. In line with opinion of Hartono (2017), abnormal returns or excess returns are the advantages of returns that occur against expected returns. The normal return is the expected return (the return that investors expect). Investors really expect a return received under the sacrifices made. According to (Tandelilin (2010), abnormal return is the difference (positive or negative) from the actual return around the announcement (R_t) with the expected return (R_m).

Furthermore, the instrument 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. Stock trading volume is an indicator of determining stock trading activities. Stock trading volume is the number of shares traded on the exchange at any given time. Trading volume activity is used to see whether individual investors are judging informative financial reports, in the sense that the information makes routine trading decisions. The measure does not separate purchasing decisions, which can be attributed to positive information, from sales decisions, which can be attributed to negative news.

There has been research on the impact of disease outbreaks on economic conditions and the stock market. A case in point the effect of COVID-19 on all stock markets around the world. The world stopped due to the virus outbreak and it pushed the world into the greatest crisis of the century (Alam et al., 2020). In line with previous research, Chen et al. (2005) examined the positive and negative effects of the SARS outbreak examining the industry in Taiwan. Using the event study method, it was found that the seven generally traded hotel companies experienced sharp declines in their earnings and share prices during the SARS outbreak period. On that day and after the SARS outbreak, Taiwan hotels showed a significant impact of negative accumulation on average

abnormal returns, as a substantial impact of the SARS outbreak on the performance of hotel companies in Taiwan.

Chen et al. (2007) conducted a study entitled the impact of the SARS outbreak on hotel performance in Taiwan: an event study approach. The method used is the event study model, where the results obtained used the event study approach with the GARCH process; empirical results show that the SARS crisis did have a negative impact on tourism and wholesale and retail sectors. Furthermore, research by He et al. (2020) found a negative impact of COVID-19 on the stock markets of the affected countries, but this happened in the short term and found no evidence of a negative impact of COVID-19 on the country's stock market; the countries affected are greater than the global average. This argument is supported by Ashraf (2020) that the market reacts negatively to the growth of confirmed cases of COVID-19, and this negative reaction is strong at the onset of the confirmed case and between 40 days to 60 days after the initial occurrence of the confirmed case. This negative reaction indicates that the rate of return on shares will decrease if there is an increase in confirmed cases, and the stock market is more proactive toward the growth of confirmed cases than the growth of death cases. On the other hand, He et al. (2020) found that different industrial stock prices have different reactions to COVID-19. This study found that those sectors negatively affected by the pandemic were the transport, mining, electricity and heating industries, and the environment while the manufacturing, information technology, education, and healthcare industries were resistant to the COVID-19 pandemic.

Meanwhile, Bacha et al. (2007) examined the efficiency of trading halt in developing countries and found that the implementation of trading halt had an impact on positive price reactions, increased sales volume, and increased volatility, but the duration and frequency of trading halt did not affect prices and trading volume. In line with the results of research by Jiang et al. (2009), entitled the information content of trading halts, it is found that trading halt has a significant liquidity impact on stocks that are information related, increasing prices, trade value, and volume significantly. This argument is supported by Frino et al. (2011) regarding trading halt on the Australian Stock Exchange, using the pseudo-halt methodology. Trading halt increases trading volume and price volatility as well as bid-ask spreads. Different results from research by Ekaputra & Dwijayanti (2008), entitled Trading Halts and Intraday Stock Return Volatility on the Indonesia Stock Exchange, found that trading halt cannot be used to reduce information asymmetry, but is only effective to reduce temporary volatility, through not to reduce fundamental volatility.

Based on previous research and theories regarding the impact of disease outbreaks on stock performance, it can be said that the corona outbreak raises concerns on the capital market because there has been a significant decline in stock

performance around the world, especially those experiencing the heaviest impact on stock exchanges in Southeast Asia. Most investors choose to sell the shares they own and wait for the conditions to subside until it becomes truly conducive. Therefore, the capital market is thought to have reacted negatively to the coronavirus outbreak (Chen et al., 2007; Phan & Narayan, 2020; He et al., 2020; Ashraf, 2020), which is reflected by the significant abnormal returns around the date of this COVID-19 outbreak. The government policies, especially the Financial Services Authority and the Indonesia Stock Exchange, plays an important role in suppressing the decline in stocks, which is getting worse, with trading halt policy. Research by Bacha (2007), Jiang et al. (2009), Frino et al. (2011) about trading halt found that trading halt increased stock prices, trading volume, return volatility and bid-ask spread.

Based on these descriptions, the hypotheses formulated in this study are:

H1: *There is a significant positive abnormal return around the announcement date of the change in trading halt terms related to COVID-19 on the Indonesia Stock Exchange (IDX).*

H2: *There is a significant trading volume activity around the date of the announcement of the change in trading halt terms related to COVID-19 on the Indonesia Stock Exchange (IDX).*

3. Research Methods and Materials

3.1. Research Methods, Population, and Sample

This research uses a quantitative approach that belongs to the experimental category, namely, event studies. An event

study is a study that investigates the market reaction to an event whose information is published as an announcement and can trigger a market reaction when the report is received (Chen et al., 2007). In this case, the information received aims to determine market reaction to the trading halt change policy due to the impact of the coronavirus outbreak, which was marked by abnormal returns and significant changes in trading volume activity during the event period.

The population in this study was companies listed on the Indonesia stock exchange, but the sample selected were companies categorized as moderate and severely affected due to the COVID-19 outbreak in Indonesia. The sectors in question are mining, manufacturing, property, infrastructure, and tourism. The selection of these sectors is based on several references, which state that there are significant changes in income and share prices. For example, the composite stock price index fell sharply by 1.7 percent, or 82.59 points, from the previous closing level of trading on April 14, 2020. In addition, more than 50 issuers are experiencing cash flow difficulties due to the coronavirus pandemic.

In this study, sampling was carried out using the purposive sampling method, consisting of the companies affected by COVID-19 on the Indonesia Stock Exchange and were actively trading in the March 2020 period, as shown in Table 1.

Several sectors originating from the hospitality, tourism and transport industries felt a significant impact. The government's move by implementing Large-Scale Social Restrictions (PSBB) that had an impact on traveling or leisure activities. Of course, this will make the performance of these issuers even harder and they will experience a significant decline in revenue. The size of the sample as shown in Table 1 is 52 companies where observations were made five days before and five days after the policy (event).

Table 1: Data Sampling

No	Sample Criteria	Frequency	
1	The company was affected by the COVID-19 incident on the Indonesia Stock Exchange and was actively trading the period February–March 2020.	258	
2	Do not have complete financial data.	(206)	
3	Financial statements are not audited.	(0)	
Total sample		52	
No	Sector	Population	Sample
1	Mining	89	14
2	Property and Real estate	65	11
3	Construction Building	18	10
4	Transportation	45	13
5	Restaurant, Hotel, Tourism	36	3
		258	52

3.2. Data Formula

Abnormal return is the difference between the actual return that occurs and the expected return (Hartono, 2017).

$$AR_{j,t} = R_{j,t} - ER_{j,t}$$

To calculate the expected return, the Single Index Market Model (SIMM) is used. This calculation model was developed by Markowitz.

$$E(R)_{it} = \alpha_i - \beta_i (R_m)_t$$

where:

$$Rm_t = IHSg_{it} - IHSg_{it-1}$$

Trading Volume Activity (TVA) is an instrument that can be used to see the capital market's reaction to information through the parameters of the movement of trading volume activities in the market.

$$TVA = \frac{\text{The number of shares traded at time } t}{\text{The number of shares outstanding at time } t}$$

Calculating the accumulation of observed abnormal returns to draw a comprehensive conclusion with the following formulation.

$$CAR = \sum_{t=-t1}^{t=2} AR$$

Calculating the average abnormal return, with the following formulation.

$$AAR = \frac{1}{N} \sum_{i=1}^N AR$$

4. Results and Discussion

Table 2 shows the statistical value of each variable, which consists of the minimum, maximum, average, and

standard deviation values. For the abnormal return variable it is divided into two, namely, cumulative abnormal return (CAR) and the average abnormal return (AAR).

The minimum value for CAR is –6.9036, which is one day before the halt trading policy occurs, while the maximum value of 2.4099 is obtained five days before the trading halt policy is launched. Meanwhile, the average value after the policy has increased, and the standard deviation has decreased in value.

The AAR was obtained at –0.13276, that is, one day before the trading halt policy occurred, while the maximum value of 0.4634 was obtained five days before the trading halt policy was launched. Meanwhile, the average value after the policy has decreased as well as the standard deviation value.

For the trading volume activity variable, the minimum value was obtained at 0.0009, which is five days after the trading halt policy occurred, while the maximum value of 0.0048 was obtained four days before the trading halt policy was launched. The average value after the policy has decreased and the standard deviation value has increased.

Figures 2, 3, and 4 show clearly the movement of CAR, AAR, and TVA during 11 days of observation, exactly five days before the trading halt policy and five days after the policy. For the CAR and AAR figures, the lowest (minus) value of abnormal returns occurs one day before the policy is implemented, but on the day of trading halt abnormal returns increase. The negative value on the abnormal return illustrates that the stock return received by investors is smaller than the expected return. In addition, the TVA chart shows fluctuating movements, but tends to decline after the implementation of the trading halt policy.

Based on the test results in Table 2, the significance probability value of the one-sample Kolmogorov-Smirnov test and Shapiro Wilk for the observation data of each variable before and after the halt trading policy is greater than the significance level of 0.05. This indicates that the observation data is normally distributed.

Furthermore, an analysis of the abnormal return value and trading volume activity is carried out in the vicinity and

Table 2: Descriptive Statistics

Variable	Notes	N	Minimum	Maximum	Mean	Std. Deviation
CAR	Before	5	–6.90360	2.40987	–0.89854	3.79497
	After	5	–5.73926	–0.87039	–3.70198	1.90789
AAR	Before	5	–0.13276	0.04634	–0.01728	0.07297
	After	5	–0.11037	–0.01674	–0.07119	0.03668
TVA	Before	5	0.00244	0.00480	0.00379	0.00103
	After	5	0.00095	0.00377	0.00182	0.00115

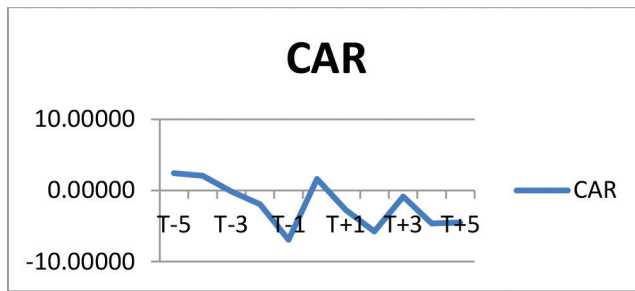


Figure 2: Movement of Cumulative Abnormal Return

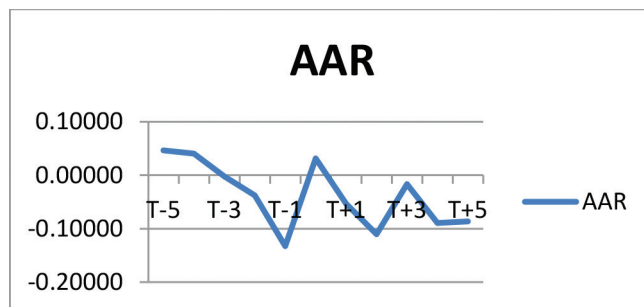


Figure 3: Movement of Average Abnormal Return

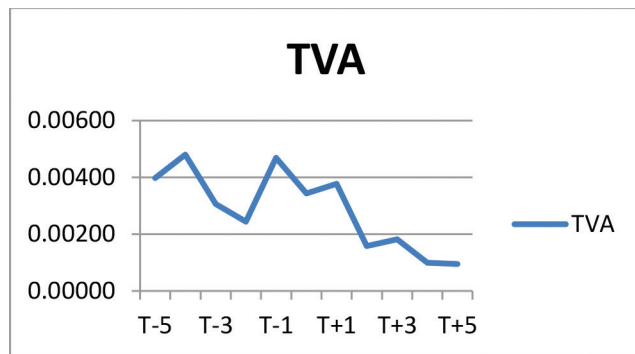


Figure 4: Movement of Trading Volume Activity

on the day of the announcement of the change in trading halt conditions, which are presented in Tables 3 and 4.

Table 4 shows that there was a significant abnormal return around the day of the announcement and implementation of the trading halt policy. Based on the test results in Table 3, the market responds quite significantly at the 5% level. These results are indicated by significant abnormal return values for the periods $T - 5$, $T - 4$, $T - 2$, $T - 1$, T_0 , $T + 1$, $T + 2$, $T + 4$, and $T + 5$. However, the reactions shown by the market during the observation period did not all show a significant response. This response is probably because investors have already obtained or considered other incoming information, so they do not respond more to the trading halt policy.

Table 4 shows that there was significant trading activity around the day of the announcement and implementation of the trading halt policy. Based on the test results in Table 4, the market responds quite significantly at the 5% level. These results are indicated by the significant TVA values for the $T + 2$ and $T + 5$ periods.

The parametric one sample t test is carried out to test for an abnormal rate of return around the announcement date of the change in trading halt terms. It can be explained for the first hypothesis that on the day of the announcement of the change in trading halt terms (T_0), namely March 10, 2020, there is a significant level of positive abnormal return. This shows that the market reacts positively to announcements related to trading halt. The positive reaction occurred because the market had an expectation that the new regulation on trading halt was implemented, namely, that the stock exchange would conduct trading halt if the JCI dropped by 5% it would protect their wealth from falling share prices in large numbers. The existence of a significant positive abnormal rate of return at the time of the announcement indicates that the announcement of changes in trading halt conditions contains information so that it can change investor behavior in making decisions on the shares it owns. This indicates that the market is fast in responding to the information received. This result is in line with Hongsakulvasu & Liammukda (2020) to find the dynamic

Table 3: Normality Test

Variable	Notes	Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	Df	Sig.
CAR	Before	0.192	5	0.200*	0.891	5	0.363
	Before	0.262	5	0.200*	0.934	5	0.627
AAR	Before	0.192	5	0.200*	0.891	5	0.363
	Before	0.262	5	0.200*	0.934	5	0.627
TVA	Before	0.207	5	0.200*	0.914	5	0.492
	Before	0.303	5	0.152	0.811	5	0.100

Table 4: One Sample *T*-Test (Abnormal Return)

Period	Mean	Sig	Notes
T_{-5}	0.04634	0.000	Sig
T_{-4}	0.04006	0.000	Sig
T_{-3}	-0.00244	0.061	Not Sig
T_{-2}	-0.03760	0.000	Sig
T_{-1}	-0.13276	0.000	Sig
T_0	0.03117	0.000	Sig
T_{+1}	-0.05315	0.000	Sig
T_{+2}	-0.11037	0.000	Sig
T_{+3}	-0.01674	0.597	Not sig
T_{+4}	-0.08921	0.000	Sig
T_{+5}	-0.08650	0.000	Sig

Table 4: One Sample *T*-Test (Trading Volume Activity)

Period	Mean	Sig	Notes
T_{-5}	0.00398	0.325	Not Sig
T_{-4}	0.00480	0.302	Not Sig
T_{-3}	0.00306	0.250	Not Sig
T_{-2}	0.00244	0.421	Not Sig
T_{-1}	0.00468	0.214	Not Sig
T_0	0.00343	0.082	Not Sig
T_{+1}	0.00377	0.174	Not Sig
T_{+2}	0.00158	0.017	Sig
T_{+3}	0.00181	0.289	Not Sig
T_{+4}	0.00099	0.992	Not Sig
T_{+5}	0.00095	0.031	Sig

movement between risk and return in four major oil markets during COVID-19 pandemic and 2020 oil price war with GARCH model found a significant and positive risk-return relationship in Brent, West Texas, Singapore, and Dubai.

In the 5-day period before and after the announcement, the return rate was significant except in the 3-day period before and after the announcement. It can be explained that the existence of a significant negative abnormal rate of return in the period before and after the announcement is not because the market reacts to the announcement, but rather is caused by the availability of other information from both the global financial market and the Indonesian financial market. The significance of abnormal returns in the T_{-5} and T_{-4} periods (3 March 2020 and 4 March 2020) was due to the drop in the JCI because the government announced the first

confirmation of a COVID-19 case in Indonesia on March 2, 2020. Since the government's announcement, market players immediately responded by engaging in panic selling, which caused the JCI to drop.

The regulators have tried hard by implementing various policies, but they were still unable to prevent the collapse of the Composite Stock Price Index and continued until the next day, March 3, 2020 (T_{-5}) and March 4, 2020 (T_{-4}) due to negative sentiment and profit taking as a result of the spread of COVID-19 to various countries, the trade war, and the Brexit factor, which affects the stock price index on global exchanges and the JCI. There is no significant negative abnormal rate of return at T_{-3} (March 5, 2020) because on this date the global stock market strengthened due to the stimulus of the governments to deal with the corona virus outbreak, but the JCI was still slipping, which caused market players to wait and see. Significant negative abnormal returns in the T_{-2} (March 6, 2020) and T_{-1} (March 9, 2020) periods were due to the impact of the weakening global stock market, especially on March 9, 2020, which is also known as Black Monday. The weakening of global stock markets on March 9 was due to falling world oil prices and this affected the JCI.

Significant negative abnormal returns after the announcement period are also not due to market reaction to the announcement of the new trading halt conditions, but by other information after the announcement on March 10, 2020. In the period T_{+1} (March 11, 2020), negative abnormal returns due to this date WHO declared the coronavirus outbreak a pandemic and the US President issued a travel ban for 30 days. The WHO declaration was responded negatively by market players both at global and domestic levels by conducting panic selling for fear of the uncertainty of this pandemic. March 12, 2020, was Black Thursday in America due to investors' distrust of the US President and due to the influence of the COVID-19 outbreak. In the Indonesia Stock Exchange on March 12, 2020, trading halt was carried out in session 2 as a result of the 5% drop in the JCI and on March 13, 2020, session 1 was again carried out trading halt and at the closing session the JCI experienced a rebound. However, the JCI rebound did not have a significant impact on the abnormal returns on that date. On March 16 and March 17, 2020, (period T_{+4} and T_{+5}) negative abnormal returns were caused by the influence of the weakening global stock market due to Black Monday 2 and JCI closed in the red zone. This continued until March 17, JCI was still in the red zone.

The trading volume activity around the announcement in the 5 days before and 5 days after (except in the T_{+2} and T_{+5} periods) was insignificant because, even though much selling caused the composite stock price index to drop, the trading volume activity was the little. This can be seen from the very small trading volume value below 1%.

This can be explained by the panic selling carried out by investors as a result of the collapse of the global stock market due to the coronavirus pandemic; the volume is not too large. This shows that investors still hope that capital market conditions will gradually recover, so that they do not sell all their shares. The significance of trading volume activity in the $T + 3$ (March 12, 2020) and $T + 5$ (17 March 2020) periods can be explained by the phenomena that occur on global stock exchanges, namely, the occurrence of Black Thursday and Black Monday 2 around that date. The occurrence of Black Monday 1, Black Thursday and Black Monday 2 in the near future was caused by the collapse of the global stock market due to COVID-19 and the decline in oil prices, causing foreign investors to take a big sell-off on that date as investors' concern about the declared corona virus outbreak become a world pandemic by WHO. But the other research by (Khanthavit, 2020) have a different result. The results show that foreign investors' abnormal trading volume is negative and significant. An analysis of the abnormal trading volume with stock returns reveals that foreign investors are not positive-feedback investors, but rather, they self-herd.

The results of this study, in which investors tend to anticipate trading during times of crisis, also found that abnormal returns do not have a significant effect even though stock prices tend to be lower, because investors have other information to consider. The results of this study also support research conducted by Phan et al. (2020), He et al. (2020), Ashraf (2020) that the coronavirus outbreak has a negative impact on stock returns, and research by Ekaputra & Dwijayanti (2008) that trading halt cannot used to reduce information asymmetry. It does not support the research by Bacha (2007), Jiang et al. (2009), Frino et al. (2011) who found that trading halt can increase stock prices, stock volatility, bid-ask spread, and trading volume. Based on the results of this study, it can be said that the Indonesian capital market is not yet efficient in its semi-strong form because it still obtains abnormal returns from using information. The results of his research show that the Indonesia stock exchange is already efficient, in a half-strong form.

5. Conclusion

The rapid spread of COVID-19 has had a dramatic impact on financial markets around the world, with falling share prices causing investors to suffer significant losses in a very short period. Our research finds that the market reacts quickly to the announcement of trading halt policy changes on the IDX, which is characterized by a significant positive abnormal return at the time of the announcement. This means that the market reacts positively to the information because investors believe that the stock price will not drop dramatically if the market is in an emergency. Negative and significant abnormal returns before and after the

announcement were not due to investors' reaction to the IDX announcement, but were investors' reactions to the spread of the coronavirus and reactions to the drop in oil prices and stocks on the global market resulting in panic selling by selling on shares owned. Even though there was a sell-off, trading volume activity was not significantly affected. This study shows that stock price movements on the IDX result from the impact of the spread of the coronavirus and the fall in stock prices on global exchanges. The study also proves that the Indonesian capital market is inefficient in its semi-strong form.

References

- Alam, M. N., Alam, M. S., & Chavali, K. (2020). Stock Market Response during COVID-19 Lockdown Period in India: An Event Study. *Journal of Asian Finance, Economics and Business*, 7(7), 131–137. <https://doi.org/10.13106/jafeb.2020.vol7.no7.131>
- Ashraf, B. N. (2020). Stock markets' reaction to COVID-19: cases or fatalities?. *Research in International Business and Finance*, 54, 1–7. <https://doi.org/10.1016/j.ribaf.2020.101249>
- Bacha, O. I., Rashid, M. E. S., & Ramlee, R. (2008). The efficiency of trading halts: Emerging market evidence. *International Journal of Banking and Finance*, 5(2), 125–148. <http://epublications.bond.edu.au/ijbf/vol5/iss2/7>
- Beaver, W. H. (1968). The information content of annual earnings announcements. *Journal of accounting research*, 6, 67–92. <https://doi.org/10.2307/2490070>
- Chen, C.D., Chen, C.C., Tang, W.W., & Huang B. Y. (2005). The Positive and Negative Impacts Of The SARS Outbreak: A Case Of Taiwan Industries. *The Journal of Developing Areas*, 43, 281–293. <https://www.jstor.org/stable/40376284>
- Chen, M.H., Soo, C. J., & Woo, G. K. (2007). The Impact of The SARS outbreak on Taiwanese Hotel Stock Performance: An Event Study Approach. *Hospitality Management*, 26, 200–212. <https://doi.org/10.1016/j.ijhm.2005.11.004>
- Ekaputra, I. A., & Dwijayanti, S. (2008). Trading Halts and Intraday Stock Return Volatility on the Indonesia Stock Exchange. *Economics and Finance in Indonesia*, 56, 261–274. <https://doi.org/10.47291/efi.v56i3.25>
- Frino, A., Lecce, S., & Segara, R. (2011). The impact of trading halts on liquidity and price volatility: Evidence from the Australian Stock Exchange. *Pacific-Basin Finance Journal*, 19(3), 298–307. <https://doi.org/10.1016/j.pacfin.2010.12.003>
- Glosten, L. & Milgrom, P. (1985). Bid, Ask and Transaction Prices in a Specialist Market with Heterogeneously Informed Traders. *Journal of Financial Economics*, 14(1), 71–100. [http://www.sciencedirect.com/science/article/pii/0304-405X\(85\)90044-3](http://www.sciencedirect.com/science/article/pii/0304-405X(85)90044-3)
- Hartono, J. (2017). *Portfolio Theory and Investment Analysis* (11th ed). Yogyakarta, Indonesia: BPFE.
- He, P., Sun, Y., Zhang, Y., & Li, T. (2020). COVID-19's Impact on Stock Prices Across Different Sectors—An Event Study Based

- on the Chinese Stock Market. *Emerging Markets Finance and Trade*, 56(10), 2198–2212. <https://doi.org/10.1080/1540496X.2020.1785865>
- He, Q., Liu, J., Wang, S., & Yu, J. (2020). The impact of COVID-19 on stock markets. *Economic and Political Studies*, 8(3), 275–288. <https://doi.org/10.1080/20954816.2020.1757570>
- Hongsakulvasu, N., & Liamukda, A. (2020). The Risk-Return Relationship in Crude Oil Markets during COVID-19 Pandemic: Evidence from Time-Varying Coefficient GARCH-in-Mean Model. *Journal of Asian Finance, Economics and Business*, 7(10), 63–71. <https://doi.org/10.13106/jafeb.2020.vol7.no10.063>.
- Jiang, C., McNish, T., & Upson, J. (2009). The information content of trading halts. *Journal of Financial Markets*, 12(4), 703–726. <https://doi.org/10.1016/j.finmar.2009.06.002>
- Khanthavit, A. (2020). Foreign Investors' Abnormal Trading Behavior in the Time of COVID-19. *Journal of Asian Finance, Economics and Business*, 7(9), 63–74. <https://doi.org/10.13106/jafeb.2020.vol7.no9.063>
- Kyle, A. (1985). Continuous Auctions and Insider Trading. *Econometrica*, 53(6), 1315–1335. <https://doi.org/10.2307/1913210>
- Mazur, M., Dang, M., & Vega, M. (2021). COVID-19 and the march 2020 stock market crash. Evidence from S&P1500. *Finance Research Letters*, 38, 1–8. <https://doi.org/10.1016/j.frl.2020.101690>
- Phan, D. H. B., & Narayan, P. K. (2020). Country responses and the reaction of the stock market to COVID-19—A preliminary exposition. *Emerging Markets Finance and Trade*, 56(10), 2138–2150. <https://doi.org/10.1080/1540496X.2020.1784719>
- Peterson, P. (1989). Event Studies: A Review of Issues and Methodology. *Quarterly Journal of Business and Economics*, 28(3), 33–66. <http://www.jstor.org/stable/40472954>
- Tandelilin, E. (2010). *Portfolio and Investment Theory and Applications* (1st ed.). Yogyakarta: Kanisius.
- World Health Organization. (2020). *WHO Director-General's opening remarks at the media briefing on COVID-19*. Retrieved March 11, 2020, from: WHO. <https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19-11-march-2020>
- Zhang, D., Hu, M., & Ji, Q. (2020). Financial markets under the global pandemic of COVID-19. *Finance Research Letters*, 36, 1–6. <https://doi.org/10.1016/j.frl.2020.101528>