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Does The Declaration of The Covid-19 Occurrence in Indonesia Affect Abnormal Return and Trading Volume Activity? Research on Jakarta Islamic Index

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ABSTRACT
The Coronavirus, which causes the disease outbreak known as Covid-19, spreads rapidly over the world and attacks the human respiratory system. The Covid-19 in Indonesia on March 2, 2020 has been confirmed by the Indonesian government. The financial market has been impacted by this situation, and stock markets worldwide have declined. The aim of this investigation is to ascertain whether a noticeable discrepancy exists between abnormal return and trading volume activity on the Jakarta Islamic Index (JII) both prior to and subsequent to the declaration of Covid-19 in Indonesia. The results derived from this examination demonstrate that the statistical significance of the Difference Test, which examines the abnormal return on the Jakarta Islamic Index (JII) both prior to and subsequent the Covid-19 announcement in Indonesia, is observed to be 0.024, which is less than the conventional alpha level of 0.05. Furthermore, The statistical significance level of the Difference Test in relation to the trading volume activity on the Jakarta Islamic Index (JII) prior to and following the Covid-19 announcement in Indonesia has been determined to be 0.009, which is less than the commonly accepted threshold of 0.05. The inference that can be drawn from this investigation is that there exist notable discrepancies in the abnormal return and trading volume activity on the Jakarta Islamic Index (JII) prior to and subsequent to the disclosure of Covid-19 in Indonesia.

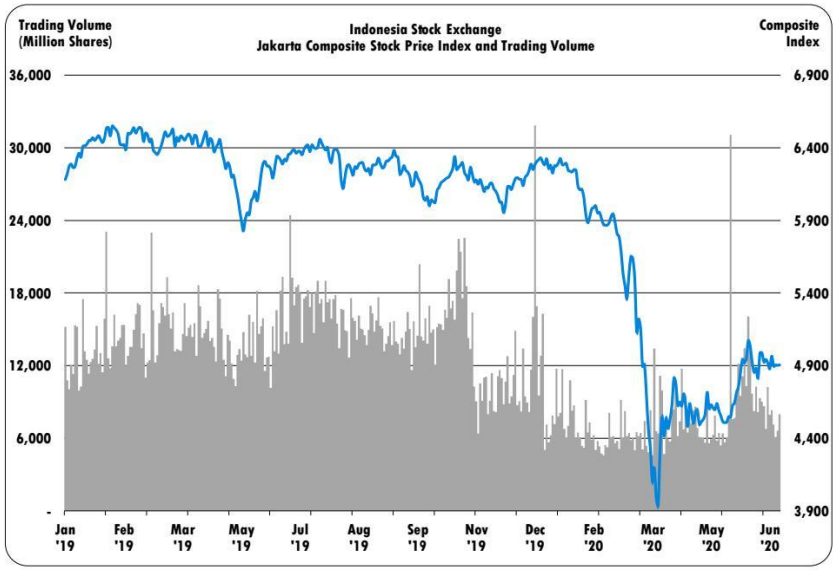
Keywords : *Event Study, Covid-19, Jakarta Islamic Index (JII), Abnormal Return, Trading Volume Activity*

INTRODUCTION

Coronavirus Disease (Covid-19), a disease that claimed many lives towards the end of 2019, horrified the entire world. According to the World Health Organization (WHO), Covid-19 is a disease outbreak brought on by a coronavirus that spreads rapidly and attacks the human respiratory system. The occurrence of Covid-19 occurrences in Indonesia, which was first reported on March 2, 2020, with 2 positive occurrences of Covid-19, had an impact on how the government reacted by enacting various laws like Lockdown and social restrictions. The Covid-19 pandemic not only endangers public health, but also a nation's economy. Many industries are affected by the recession in the economy, but the industrial, tourist, trade, transportation, and investment sectors are particularly affected. The capital markets of many countries that have likewise seen a deterioration are affected by this pandemic condition. The capital market is a regulated setting where a variety of assets are traded, either directly between buyers and sellers, or through brokers (Yuliana, 2010).

With the Indonesian Stock Exchange's (IDX) closing price at IDR 3,937.63 on March 24, 2020, the capital market in Indonesia's non-real sector likewise fell to its lowest point. When compared to the closing price of the Indonesian Stock Exchange (IDX), which was IDR 6,299.54,- at the end of 2019, it is noticeably different. The capital market weakens as a result of signals or information spreading throughout society. Market circumstances are significantly influenced by investors' reactions to both positive and negative information, and they will respond in different ways to these signals (Hanafi, 2015). When information is made available to the general public, prices rapidly adapt to reflect the new information (Hanafi, 2015). The market will establish a new pricing equilibrium that represents the applicability and quality of the information if it reacts to it fast and accurately. The capital market efficiency theory explains this. According to the capital market efficiency theory, the capital market is efficient if it can respond promptly and accurately to reach a new price equilibrium that appropriately reflects all available information (Suganda, 2018).

Investors' rates of return or stock returns may alter as a result of changes in the market's new price balance. Stock returns are a measure of an investor's rate of return or profit (Hartono, 2017). Abnormal return can be caused by modifications to the rate of return or stock return. According to Hartono (2014), an abnormal return is one that falls short of investors' expectations. Market conditions are significantly influenced by investor reactions to both positive and negative information because investors engage in a variety of transactions in response to information that's circulating. Stock liquidity could be impacted by this. According to Brealey et al. (2012), stock liquidity refers to the capacity to quickly sell shares at the going rate. A stock is more liquid and easier to purchase and sell when it is traded more frequently (Sunariyah, 2000). For investors, a high stock liquidity level is advantageous because a stock will be simpler to trade the more liquid it is (Sufyati & Anlia, 2021). The trading volume activity that takes place on the trading floor can be used to gauge stock liquidity.



Source: www.idx.co.id (2022)

Figure 1
Movement of IDX (Jan 2019-Jan 2020)

The research conducted by Siswantoro (2020) reveals notable disparities in abnormal return within the hotel sector enterprises prior to and subsequent to the disclosure of the Covid-19 occurrence in Indonesia. As per the investigation conducted by Kusumawati & Wahidahwati (2021), no significant dissimilarity is observed regarding abnormal return in property sector companies both prior to and subsequent the declaration of the Covid-19 occurrence in Indonesia. According to the research carried out by Afrianti et al. (2021), there was no substantial distinction in abnormal returns among enterprises in the gold mining sector both prior to and subsequent the declaration of the Covid-19 occurrence in Indonesia.

According to the investigation conducted by Junaidi et al. (2021), a noteworthy disparity in trading volume engagement among corporations in the telecommunications industry was detected prior to and subsequent to the declaration of Indonesia's Covid-19 situation. As indicated by Siswantoro (2020), a substantial distinction in trading volume activity among corporations in the hospitality sector was observed both prior to and subsequent the declaration of the Covid-19 occurrence in Indonesia. In a research conducted by Kusumawati & Wahidahwati (2021), no substantial dissimilarity was found in the trading volume activity across corporations in the real estate sector both prior to and subsequent the declaration of the Covid-19 occurrence in Indonesia. According to the research executed by Afrianti et al. (2021), no significant variation was observed in trading volume activity among corporations in the gold mining sector both prior to and subsequent the declaration of the Covid-19 occurrence in Indonesia.

Due to the disparity in prior research, there is a necessity to release a comparative analysis of deviant returns and trading volume patterns in Indonesia both prior to and subsequent the declaration

of the Covid-19 occurrence. The target subjects of this research are the stocks enhave been listed on the Jakarta Islamic Index (JII). The Jakarta Islamic Index (JII) is a composite index consisting of 30 companies that adhere to the principles dictated by the sharia law of Islam. The Jakarta Islamic Index (JII), which likewise reached its lowest level on March 24, 2020, at Rp. 393.86,-, is the reason this research uses the JII as a research object. It is a significant difference from the Jakarta Islamic Index (JII) closing price at the end of 2019, which was Rp. 698.09,-. Among the various losses and issues caused by Covid-19, there is another interesting phenomenon that deserves further investigation: the Islamic stock market, which actually expanded during the Covid-19 pandemic. Despite the pandemic, demand and supply in Indonesia's Islamic capital market have remained strong.

These reasons need further investigation to ascertain the facts or the accurate depiction of the impact of the declaration of the Covid-19 occurrence on the Indonesian capital market, specifically the Jakarta Islamic Index (JII). This research aims to determine whether there exist any significant discrepancies in abnormal return and trading volume activity within the Jakarta Islamic Index (JII) prior to and following the declaration of the Covid-19 occurrence in Indonesia.



Source: www.idx.co.id (2022)

Figure 2
Movement of JII (Des 2018-Jun 2020)

Literature Review

Abnormal Return

The abnormal return pertains to the rate of return or profit gained by investors on investments that diverge from the anticipated rate of return or profit. The abnormal return represents the disparity between the actual return achieved by a particular stock and its projected return (Suganda, 2018). The return is deemed to be ordinary when it corresponds to the investors' anticipations, while it is regarded as anomalous when there exists a disparity between the factual return and the projected return (Suganda, 2018). Abnormal return can either be positive or negative. A positive abnormal return is defined as a situation in which the realized return exceeds the anticipated return, while a negative abnormal return occurs when the realized return falls short of the expected return (Hartono, 2016). Investor responses to current information or events can be assessed by analyzing the fluctuations in abnormal return (Suganda, 2018). The method used to compute abnormal return can be expressed by the following formula:

$$AR_{i,t}=R_{it}-E[R_{i,t}]$$

Description: $AR_{i,t}$: Abnormal return of shares *i* on day *t*; $R_{i,t}$: Actual return of shares *i* on day *t*; $E[R_{i,t}]$: Expected return of shares *i* on day *t*; *i* : Specific issuer; and *t* : Time period

Trading Volume Activity

The measurement of the number of shares traded in the market, known as trading volume activity, serves as an instrument to observe the response of the capital market to information (Sufyati & Anlia, 2021). Utilized as a quantitative measure, trading volume activity aids in the evaluation and examination of the capital market's reactions to information or events that occur within the market. Furthermore, it functions as a tool to assess the liquidity of an issuer (Suganda, 2018). In order to compute the level of trading volume activity, it is necessary to assemble information regarding the volume of stock trading and the quantity of outstanding shares (Suganda, 2018). The subsequent equation can be employed to compute the level of trading volume activity:

$$TVA_{it} = \frac{\sum \text{shares } i \text{ traded at time } t}{\sum \text{shares } i \text{ outstanding at time } t}$$

Description: TVA_{it} : Trading volume activity; i : Specific issuer; t : Time period

Signalling Theory

Signaling theory is a theory that explains how company management conveys unequal information to shareholders and stakeholders who seek insight into the company's future prospects. In accordance with signaling theory, the existence of information asymmetry in the market motivates managers to rectify this imbalance by undertaking tangible actions that serve as a distinctive signal setting the company apart from its competitors (Tandelilin, 2010). Investor's responses to both negative and positive information wield a considerable influence on market conditions, prompting them to react in diverse manners to these signals (Hanafi, 2015).

Capital Market Efficiency Theory

The concept of capital market efficiency posits that a market is deemed efficient when it is able to swiftly and accurately establish a new equilibrium that faithfully reflects the existing information. Market efficiency can be classified into three categories: weak form efficiency, semi-strong form efficiency, and strong form efficiency (Hanafi, 2015). In the event that the market is inefficient, it implies that prices are determined based on prior information. Conversely, if the market is semi-strong form efficient, it signifies that prices are established on the basis of current published information. Lastly, if the market is strong form efficient, it denotes that prices are derived from information that has not been disclosed or is even confidential, and is solely known by insiders.

METHODS

This research employs a descriptive research design and an event study implemented through a quantitative methodology. The event study undertaken in this investigation is centered around the declaration of the Covid-19 occurrence in Indonesia. Given that the research data is numerical in nature and subjected to statistical analysis, a quantitative approach was embraced for this research. The target population for this research encompassed the companies that have been have been listed on the Jakarta Islamic Index (JII) in the year 2020, totaling 30 companies. Employing the purposive sampling technique, this research employed a sample selection method that is guided by specific considerations or criteria (Sugiyono, 2017). By adhering to the pre-established criteria, all shares of the Jakarta Islamic Index (JII) members in 2020 satisfied the stipulated requirements, thus rendering them eligible for selection as the sample consisting of 30 companies for this research.

The data employed in this investigation is derived from secondary data sources. The principal data source employed in this research was the Indonesia Stock Exchange (IDX), which was accessed via its official website at www.idx.co.id. Moreover, scholars made use of finance.yahoo.com, which provided supplementary secondary data in the form of daily closing prices and daily trading volume of shares that have been have been listed on the Jakarta Islamic Index (JII) in the year 2020. Additionally, the yearly financial reports of companies that are have been listed on the Jakarta Islamic Index (JII) in 2020 were also employed to acquire data concerning the total shares outstanding for each respective company.

The method of data collection employed in this research was the utilization of documentation technique. This choice was made due to the fact that the data source used in this research is a

secondary one. Consequently, the data collection process involved the act of searching for and gathering existing data. More specifically, the data that was gathered encompassed the daily closing prices of the Indonesian Stock Exchange (IDX), the daily closing prices of company shares have been listed on the Jakarta Islam Index (JII) in the year 2020, as well as the daily stock trading volume during the period of 7 days prior to and 7 days subsequent to the declaration of the Covid-19 occurrence in Indonesia. These active days of the Indonesia Stock Exchange spanned from February 19, 2020 to March 10, 2020.

The data that has been collected is subsequently subjected to analysis through the use of descriptive statistical methods. This analysis is conducted with the purpose of determining various aspects of the data such as the highest and lowest values, the average, the daily increase, and the overall growth. Moreover, to further evaluate the distribution of the data, a normality test is employed in this research. Specifically, the Kolmogorov-Smirnov test is utilized for this purpose. If the resulting value from the Kolmogorov-Smirnov test is found to be significant and exceeds 0.05 (or 5%), it can be inferred that the data follows a regular distribution. Conversely, if the significant value obtained from the Kolmogorov-Smirnov test is less than 0.05 (or 5%), it signifies that the data does not adhere to a regular distribution.

The Wilcoxon Signed Rank Test was subsequently utilized to compare two related samples in order to evaluate disparities based on the ranking of the calculation outcomes. If the significant value of the Wilcoxon Signed Rank Test is greater than 0.05 (more than 0.05 or exceeding 5%), H_0 is acknowledged and H_1 is dismissed. Conversely, if the significant value of the Wilcoxon Signed Rank Test is below 0.05 (less than 0.05 or lower than 5%), H_1 is acknowledged and H_0 is dismissed.

RESULTS

Table 1
Wilcoxon Signed Rank Test on Trading Volume Activity

	***Abnormal Return* After - *Abnormal Return* Before**
Z	-2.252[b]
Asymp. Sig. (2-tailed)	0.024

Source: Data Processed

According to the data presented in Table 1, the statistical analysis utilizing the Wilcoxon Signed Rank test demonstrated a notable outcome, with a significance level of 0.024. This observed value is found to be lower than the conventional threshold of 0.05 (or 5%), thereby leading to the logical deduction that H_1 is accepted, while H_0 is rejected. In more precise terms, it can be inferred that a substantial disparity exists in the abnormal stock returns of the companies have been listed on the Jakarta Islam Index (JII) prior to and subsequent to the declaration of the Covid-19 occurrence in Indonesia.

According to the theory of signaling, the declaration of the Covid-19 occurrence in Indonesia is perceived as a signal or novel information by investors. The concept of signaling theory suggests that the presence of information asymmetry in the market motivates managers to rectify this imbalance through tangible actions that serve as distinguishing signals from other organizations (Tandelilin, 2010). The information obtained from the condition of a company's shares consistently influences investment decisions made by investors. Both positive and negative information elicit significant reactions from investors, consequently impacting market conditions (Hanafi, 2015). Investors respond unfavorably to the declaration of the Covid-19 occurrence in Indonesia, leading to negative reactions and consequent abnormal returns. The fluctuations in abnormal returns serve as indicators to assess investor responses to current information or events (Suganda, 2018).

The findings of this research are in accordance with the findings of prior research undertaken by Siswantoro (2020), which propose that there exist disparities in the stock prices of hotel, restaurant, and tourism corporations enhave been listed on the Indonesia Stock Exchange prior to and subsequent to the proclamation of the Covid-19 occurrence in Indonesia. Consequently, stock prices have experienced a decline and investors have observed a reduction in their anomalous returns. Junaidi *et al.* (2021) also conducted inquiries on analogous subjects and revealed noteworthy dissimilarities in stock price fluctuations among telecommunications sub-sector corporations enhave

been listed on the Indonesia Stock Exchange prior to and throughout the Covid-19 epidemic in Indonesia.

The outcome was that various sectors of companies encountered a decline in revenue and performance, resulting in a reduction in the share price of said companies. Amidst the pandemic, investors displayed a preference for preserving their wealth in the form of cash rather than shares. This inclination stemmed from the notion that cash was perceived as a more secure and dependable asset for meeting daily needs while adhering to lockdown policies. Consequently, the act of investors selling off stocks contributed to the decrease in stock prices and a decline in the abnormal return acquired by investors. A research conducted by Suwito and Yanti (2021) lends support to these findings, as it revealed a noteworthy disparity in the average cash holdings of investors prior to and during the pandemic, with an increase being observed during the pandemic.

Table 2
Wilcoxon Signed Rank Test on Trading Volume Activity

	***Trading Volume Activity* After - *Trading Volume Activity* Before**
Z	-2.602[b]
Asymp. Sig. (2-tailed)	0.009

Source: Data Processed

Based on the information provided in Table 2, the outcome of the t-test utilizing the Wilcoxon Signed Rank test produced a level of significance of 0.009. This specific value is lower than 0.05 (or 5%), consequently resulting in the determination that H_2 is accepted while H_0 is rejected. Put differently, it can be deduced that there is a noteworthy disparity in the trading volume activity of shares for companies have been listed in the Jakarta Islam Index (JII) both prior to and subsequent the declaration of the Covid-19 occurrence in Indonesia.

According to Signalling Theory, the declaration of the Covid-19 occurrence in Indonesia triggers various emotions among investors, which could potentially affect the conditions of the capital market. The responses of investors to both negative and positive information carry substantial weight in shaping market conditions, and they will react in diverse manners to these signals (Hanafi, 2015). The measurement of trading volume activity serves as a tool to quantify and analyze the responses of the capital market to information or events that transpire within it, as well as to evaluate the liquidity of an issuer (Suganda, 2018). The outcomes of this research expose an upsurge in trading volume activity due to investor reactions to the dissemination of information through aggressive selling or purchasing of shares. Certain information or events may also have an impact on changes in stock prices as well as on the supply and demand (Suganda, 2018).

The outcomes of this investigation coincide with the conclusions of previous inquiries conducted by Siswantoro (2020). The investigation has revealed disparities in the level of trading volume activity among hotel, restaurant, and tourism enterprises that are have been listed on the Indonesia Stock Exchange prior to and subsequent to the initial occurrence of the Covid-19 occurrence in Indonesia. Additionally, Junaidi *et al.* (2021) have also undertaken a prior examination and found noteworthy variations in the level of trading volume activity within the telecommunications subsector enterprises that are have been listed on the Indonesia Stock Exchange prior to and during the Covid-19 pandemic in Indonesia.

The rise in trading volume activity in relation to active stock sales by investors can be attributed to the psychological impact experienced by investors, particularly their pessimism or fear regarding potential losses resulting from the declaration of the Covid-19 occurrence in Indonesia. When faced with a pandemic, investors tend to prioritize the security of their capital by opting for cash holdings rather than shares, perceiving it as a safer option. As a result, they actively sell their shares, leading to an increase in trading volume activity. This phenomenon is supported by the findings of a research conducted by Suwito and Yanti (2021), which revealed a significant disparity in the average cash holdings of investors before and during the pandemic, showcasing an increase.

CONCLUSION

There exists a noticeable discrepancy in the abnormal returns on stocks of companies that are have been listed on the Jakarta Islam Index (JII) both both prior to and subsequent the declaration of

the Covid-19 occurrence in Indonesia. The divergence in abnormal return seems to decrease from the period preceding the declaration to the period following the declaration of the Covid-19 occurrence in Indonesia. Consequently, a significant disparity arises in the level of trading volume activity for shares of companies have been listed on the Jakarta Islamic Index (JII) prior to and subsequent to the declaration of the Covid-19 occurrence in Indonesia. The deviation in trading volume activity tends to amplify from the period before the declaration to the period after the declaration of the Covid-19 occurrence in Indonesia. It is intended that the findings of this research would be useful to investors in making investment decisions, as well as in paying greater attention to all facts or policies linked to an event that occurs and not rushing into investment decisions. This research can be used as one of the earlier studies that discuss abnormal return and trading volume activity by future researchers. For researchers working on similar topics, they can adjust the observation period so that it does not overlap with other events, resulting in more accurate research results, and they can add other variables that are affected by the Covid-19 occurrence declaration, such as the level of stock risk and changes in exchange rates.

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