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Islamic Stock Indices and COVID-19: Evidence from Indonesia

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ABSTRACT

The COVID-19 pandemic has paralyzed the economy, affected human health, and claimed human lives in the world. This deadly virus is rapidly affecting every aspect of life in all countries. Almost every area of life, from economics to politics, society to culture, has been affected by the COVID-19 pandemic; of course, this impact cannot be separated from the Sharia stocks sub-sector in Indonesia. This study aims to analyze and test the effects of COVID-19 on the response of Islamic stocks. Moreover, to see the difference between the Jakarta Islamic Index (JII) sharia stocks and the Composite Stock Price Index (IHSG) in observations before COVID-19 and after COVID-19. This event study research aims to see the differences between the Jakarta Islamic Index (JII) sharia stocks and the Jakarta Composite Index (IHSG) in observations before COVID-19 and observations after COVID-19. The data used in this study is secondary data already available and obtained from the Indonesia Stock Exchange (IDX). The results of this study show a significant influence on stock prices before and after the announcement of COVID-19 in Indonesia on the Jakarta Islamic Index (JII). There is no significant effect on stock returns before and after the announcement of COVID-19 in Indonesia on the Jakarta Islamic Index (JII). There is no significant effect on abnormal returns before and after the announcement of COVID-19 in Indonesia on the Jakarta Islamic Index (JII). There was a significant influence on stock trading volume before and after the announcement of COVID-19 in Indonesia on the Jakarta Islamic Index (JII).

Keywords: Stock Response, Sharia Stocks, COVID-19, Event Study
JEL Classifications: G11, G14, G23

1. INTRODUCTION

The COVID-19 pandemic has paralyzed the economy, affected human health, and claimed human lives worldwide (Nurhayati et al., 2021a). This disease first appeared in Wuhan, China, in December 2019 and quickly spread to various countries. Confirmed reports of cases of COVID-19 in Thailand on January 13, 2020. Japan on January 15, 2020, and South Korea on January 20, 2020. All these cases are believed to be imported from Wuhan, the center of transmission. Public attention to this virus confirms that this virus can spread from human to human (Liu et al., 2020). According to data from the World Health Organization (WHO), Coronavirus Disease 2019 is caused by the SARS-CoV-2 virus, first reported in Wuhan, China.

This deadly virus is rapidly affecting every aspect of life in all Countries. Almost every area of life, from economics to politics, society to culture, has been affected by the COVID-19 pandemic (Mulyana et al., 2022; Lalon et al., 2023; Diane and Brijlal, 2024). Meanwhile, the economic sector is among the hardest hit by the COVID-19 pandemic (Maital and Barzani, 2020). This is because business activities and people's lives are limited, resulting in decreased purchasing power and employment termination. After all, many businesses and traders in various countries have their business sectors closed. Even in developing countries, the COVID-19 pandemic has caused social problems (Ricardianto et al., 2023). Since March 2020, the COVID-19 pandemic has caused many people to experience significant financial pressure, an economic crisis, and unemployment (Ozili, 2021). The COVID-19 virus spread to various countries, and as a result, the stock market experienced a decline of more than 30% from before (Fernandez-Perez et al., 2021). Investors experienced panic, and business people closed their businesses in most countries due to the COVID-19 virus. This reaction affects business performance and the stock market dynamics (Okorie and Lin, 2021).

The Composite Stock Price Index (IHSG) on Mar, ch 4, 2019, was at 6,488.42, down by (17.37%) to 5,361.25 on March 2, 2020. Then, when the announcement of COVID-19 on March 3, 2020, was at 5,51,8.63, it fell by (−2.85%) from 5,361.25 at the time of closing on March 2, 2020. 1-year l, after on March 4, 2020, it was still at 5,650.14, an increase of 12.86% to 6,376.76 on March 3, 2021. The decline in the Stock Price Index the Composite Index (IHSG) during COVID-19 was followed by the Jakarta Islamic Index (JII). The Jakarta Islamic Index (JII) on March 4, 2019, was at 70,4.67; on March 2, 2020, it fell (−20.24%) to 562.01. Then, at the time of the announcement on March 3, 2020, it was at 583.01, an increase of 3.60% from 562.01 at the time of closing on March 2, 2020. One year later, on March 4, 2020, it was still at 604.52, an increase of 4.53% to 63194 on March 3, 2021.

One factor that determines the company's sustainability is the share price and total shares traded. Not only in terms of the total income earned, the company's condition can also be seen from its share price (Harahap et al., 2020). Another factor that also determines the sustainability of a business is the fluctuation in the price of shares of companies on the IDX. There are many offers and requests for shares, ongoing information, or news on the IDX. Company conditions, the country's economy, and current issues are the causes of fluctuating stock prices. COVID-19 attacks various economic sectors in the country, affecting stock prices (Endri et al., 2021).

If the number of shares traded is high, the company performs well. If more and more shares are traded, it shows that investors have put more trust in making stock transactions. The movement of stock prices is also influenced by the high number of shares traded (Riyani et al., 2023). The high number of traded shares influences rising stock prices; investors will put more trust in the company's performance (Nurhayati et al., 2021b). COVID-19 makes economic movements more sluggish and results in a decrease in people's income. The effect is that investors are becoming more selective in investing, which impacts decreasing the number of company shares traded (Riyani et al., 2022).

The reason for conducting this research is because this theme is the latest issue or problem whose impact is felt by almost everyone and is interesting to study. The results of their research generally explain that the stock market response becomes weaker during the event window, and in Indonesia, the sector most affected is the financial sector, followed by trade, service, and investment sectors. The consumer goods and mining industries are still optimistic, while other sectors show negative sentiment. The difference between this research and previous studies can be seen in several aspects. First, the time limit on previous studies will be corrected by adding a follow-up period of twelve months or one year before the first positive case is announced and twelve months later. Second, the stock market under study will focus on selecting the Jakarta Islamic Index (JII) as the basis for observation. Research uses event studies to determine the abnormal return shareholders receive for a particular event (Sayed and Eledum, 2023).

2. LITERATURE REVIEW

Event study is a research method that uses financial market data to measure the impact of certain events on firm value, usually reflected in stock prices and transaction volume (Indupurnahayu et al., 2022). The application of event research is widely used in the financial industry with various kinds of events, such as issuance of shares, mergers, acquisitions, earnings announcements, and new debt or equity, which inform macroeconomic variables such as trade deficits and others. Study events is an empirical financial research technique that allows observers to assess the impact of an event on stock market prices. Event studies are also used by capital market analysts who will look at the impact of policy changes on stock prices and then use the results of these studies along with many other superior methods and tools to predict the outcome of dividend changes, the principle of analysis being able to get higher returns on trades.

The concept of signal theory was initially studied in the context of labor and product markets by Akerlof (1970) and was further developed into signal balance theory by Spence (1974). Signaling theory talks about how the ups and downs of stock prices in the capital market will influence investor decisions. Any information that occurs and originates from the condition of a company's stock will provide a signal, either a positive signal (good news) or a negative signal (bad news). Investors will then capture this signal to influence investment decisions and provide an effect or response. The responses given by investors to these positive and negative signals ultimately affect market conditions (Nurhayati et al., 2021a).

The stock market price is when the market is in progress; if the stock exchange has been closed, the stock market price is the closing price (Sugianto et al., 2020). The stock prices as stock market prices on the stock exchange are the same (Endri et al., 2020). The unit price of shares while the market is in progress is the stock market. Stock prices change quickly, encouraging investors to be more careful about the stocks they buy later. Stock price information is the most needed information by investors for determining their investment decisions. Stock prices can also be used to indicate that the company has succeeded (Yun et al., 2021; Moshood and Durokifa, 2023). Stock return is defined as something that is obtained from an investment (Suryadi et al., 2021). Return, which is calculated using historical data from a stock, is called realized return. The expected return can be calculated from historical return values based on returns that have future expected values.

Abnormal returns are the difference between the actual return or rate of profit and the level of profit expected by investors (Endri et al., 2019). Abnormal returns are often used to evaluate the performance of securities, which can also be used as a basis for testing market efficiency. Abnormal returns are often used to assess security performance, which can also be used to test market efficiency. Trading volume activity is the number of stock assets traded and is used as an indicator to measure the liquidity of an asset at a particular time. Trading volume activity is also an instrument to see the reaction of the capital market to information through the parameters of the movement of trading volume activity in the capital stock market (Chordia et al., 2001).

Many studies have discussed COVID-19 and its impact on the economy in various countries, especially in the stock market. Endri et al. (2021) prove that COVID-19 has dramatically dropped stock prices. Investors responded directly to COVID-19 by selling their shares so that the abnormal return became negative. JCI volatility is proven to have a unidirectional relationship with abnormal returns during COVID-19. Nurhayati et al. (2021b) revealed that COVID-19 negatively impacts the stock market, resulting in many investors experiencing losses in their portfolios. He et al. (2020) found that COVID-19 had a negative but short-term effect on stock markets in affected countries. Nomran and Haron (2023) show that stock market volatility reacts positively to the increase in confirmed cases of COVID-19. Saleem et al. (2021) revealed that the COVID-19 era has created an atmosphere of uncertainty, which significantly impacts Sharia stock investment in the Sharia capital market.

3. RESEARCH METHODS

This type of research uses quantitative research to test the hypotheses that have been prepared. Quantitative research uses many numbers, starting from collecting data, interpreting the data obtained, and presenting the results. This quantitative research uses an experimental approach. The experimental approach is an approach that aims to determine the causal relationship between the independent variables and the dependent variable. In this study, the authors wanted to find a causal relationship in the form of differences in stock prices, stock returns, abnormal returns, and sharia trading volumes registered on the Jakarta Islamic Index (JII) before and after the announcement of the COVID-19 pandemic in Indonesia.

The event study approach was also chosen because it is very relevant to this study, which discusses the effects of a particular event/phenomenon. The event study approach in this study was carried out to analyze differences in stock prices, returns, abnormal returns, and trading volume of 30 Islamic stocks registered with the Jakarta Islamic Index (JII) before and after the announcement of the COVID-19 pandemic in Indonesia. The researchers usually determine the research period in the event study by mapping the time into three parts: pre-event, event day, and post-event. The pre-event period must be the same as the post-event because this relates to clarity in measuring the effect of an event under study. The determination of the research period in this study was based on previous research and paid attention to aspects of the confounding effect or mixing of information.

In this study, it used as many as 720 days. The timing of this research is the announcement of a pandemic. COVID-19 first appeared in Indonesia on March 2, 2020, as t=0 (event day). The event window period is divided into 2, namely t-360 (360 days before the announcement of the COVID-19 pandemic in Indonesia and t+360 (360 days after the announcement of the COVID-19 pandemic in Indonesia). The operational definition of a variable is a trait or value of an object with certain variations that have been determined by the researcher to be studied and conclusions drawn. In this study, the authors used stock prices, stock returns, abnormal returns, and trading volume as the variables to be used in this study.

4. RESULTS

In the previous normality test results, it is known that the residual value of stock prices, stock returns, abnormal returns, and stock trading volume is not normally distributed, so the test used in this method is non-parametric namely the Wilcoxon Signed Ranks Test. The Wilcoxon Signed Ranks Test determines differences in stock prices, stock returns, abnormal returns, and stock trading volume before and after the announcement of COVID-19 in Indonesia. The results of the Wilcoxon Signed Rank Test on stock prices in this study can be seen in Table 1.

Based on the results of the Wilcoxon Signed Ranks Test above, the Sig can be seen. 0.000, which value is <0.05. It can be concluded that this value indicates that Ha1 is accepted and H01 is rejected, which means that there is a significant difference in stock prices before and after the announcement of COVID-19 in Indonesia.

The Wilcoxon Signed Rank Test results on stock returns in this study can be seen in the Table 2 below.

Based on the Wilcoxon Signed Ranks Test above, the Sig can be seen. 0.230, which value is >0.05. So, this value shows that Ha is rejected and H0 is accepted, which means the hypothesis is rejected. So, there is no significant difference in stock returns before and after the announcement of COVID-19 in Indonesia.

The results of the Wilcoxon Signed Rank Test on abnormal returns in this study can be seen in Table 3.

Based on the Wilcoxon Signed Ranks Test above, the Sig can be seen. 0.930, which value is >0.05. So, this value shows that Ha is rejected and H0 is accepted, which means the hypothesis is rejected. So, there is no significant difference in abnormal returns before and after the announcement of COVID-19 in Indonesia.

The results of the Wilcoxon Signed Rank Test on stock trading volume in this study can be seen in Table 4.

Based on the Wilcoxon Signed Ranks Test above, the Sig can be seen. 0.000, which value is <0.05. So, it can be concluded that this value indicates Ha is accepted and H0 is rejected, which means the hypothesis is accepted. So, there are significant differences in stock trading volume before and after the announcement of COVID-19 in Indonesia.

5. DISCUSSION

Based on the results of data analysis in this study, there are significant differences in stock prices before and after the announcement of COVID-19 in Indonesia. The results of this study are in line with previous research conducted by Mujib and Candraningrat (2021)

Table 1: Wilcoxon signed ranks test stock price hypothesis test

	N	Mean ranking	Sum of ranks
HS_after-HS_BEFORE			
Negative Ranks	226a	126,46	28579.50
Positive Ranks	14b	24,32	340.50
ties	0c		
Total	240		
Statistics test			
	HS_after -HS_BEFORE		
Z	−13.114b		
asymp. Sig. (2-tailed)	0.000		

Table 2: Stock return hypothesis test

	N	Mean ranking	Sum of ranks
RS_SEDUDE-RS_BEFORE			
Negative Ranks	111a	118.63	13168.00
Positive Ranks	129b	122,11	15752.00
ties	0c		
Total	240		
Statistics test			
	RS_SEDUDE - RS_BEFORE		
Z	−1,200b		
asymp. Sig. (2-tailed)	0.230		

Table 3: Abnormal return hypothesis test

	N	Mean ranking	Mean ranking
AR_after-AR_BEFORE			
Negative Ranks	120a	119.71	14365.00
Positive Ranks	120b	121,29	14555.00
ties	0c		
Total	240		
Statistics test			
	AR_after - AR_BEFORE		
Z	-0.088b		
asymp. Sig. (2-tailed)	0.930		

Table 4: Stock trading volume hypothesis test

VP_AFTER-VP_BEFORE	N	MeanRanking	Sum of Ranks
Negative Ranks	22a	63,61	1399.50
Positive Ranks	218b	126,24	27520.50
ties	0c		
Total	240		
Statistics test			
	VP_AFTER-VP_BEFORE		
Z	−12.131b		
asymp. Sig. (2-tailed)	0.000		

and Herwany et al. (2021) that there was a significant difference in stock prices before and after the announcement of the first case of COVID-19 in Indonesia. JII's share price tends to decrease. For example, the 30 sample companies showed, on average, a very significant price reduction after the announcement of COVID-19 in Indonesia. The government's appeal for people to stay at home and limit all activities outside, of course, has an impact on the performance of companies, which causes a decrease in income. This decrease in income even made employees laid off. This is a terrifying thing for investors because it is very likely that they will not receive dividends or even experience capital losses. The results of this study are supported by previous research by Nurmasari (2020), where there is a significant difference between the Impact of COVID-19 on Changes in Share Prices and Transaction Volume.

Based on the Wilcoxon Signed Ranks Test results, this study proves that there is no significant difference in stock returns before and after the announcement of COVID-19 in Indonesia. The results of this study align with research conducted by Sholikhah et al. (2023), who found no significant difference in stock returns before and after the announcement of the COVID-19 case in Indonesia. Significant events can significantly affect stock returns, especially with the condition of the COVID-19 pandemic, where this virus is a new virus that spreads very quickly, resulting in extraordinary uncertainties that impact stock returns (Basuony et al., 2022). Tremendous panic or uncertainty in the respective stock market ultimately impacts uncertainty on the stock market. It increases volatility in the financial market so that it has an impact on stock returns (Uddin et al., 2021). Some factors cause no difference in stock returns before and after the announcement of COVID-19 in Indonesia, including the possibility that information regarding COVID-19 has leaked so that the market responds appropriately to information regarding circulating announcements.

Like stock returns in this study, the data analysis and test results show the same thing as stock returns; that is, there is no significant difference in abnormal returns before and after the announcement of COVID-19 in Indonesia. This research is in line with research conducted by Widyarti et al. (2021), who found no significant difference in abnormal returns before and after the Ramadhan Effect. The test results show no market reaction to the announcement of COVID-19 in Indonesia. This indicates that investors are not interested in investing throughout the period and must respond to the COVID-19 event. Investors get negative abnormal returns. Things like this show that investors are more inclined to sell securities, which causes stock prices to fall. Testing the overall market reaction showed no significant differences before and after the announcement of COVID-19 in Indonesia. This research also aligns with the efficient capital market theory, namely, market efficiency in the semi-strong form. Hidayat et al. (2022) state that an efficient market is a market in which security prices reflect all information and have been fully and quickly distributed to market participants so that a market participant will find it difficult or unable to obtain abnormal returns.

In this study, investors assume that the announcement of COVID-19 in Indonesia needs better information (bad news) that cannot provide good prospects for the company. Investors considered the announcement of COVID-19 to be unable to increase stock prices in the future, so they could not raise funds that the company would use in developing its business. This makes investors less confident that COVID-19 will provide good performance for the company going forward. The results of this study are also supported by previous research from Muzzammil and Rizki (2020), which shows no significant difference in Abnormal Returns before and after the work cabinet reshuffle policy announced by President Jokowi. This aligns with research from Liu et al. (2020), where the abnormal return results show no significant differences in countries affected by COVID-19. However, it is different and inversely proportional to the volume of stock trading at JII, which in this study shows a significant difference in the volume of stock trading before and after the announcement of COVID-19 in Indonesia. The results of this study are also in line with previous research conducted by Nurmasari (2020), who found significant differences in stock trading volume before and after the announcement of the COVID-19 case in Indonesia.

According to the results of research by Yunus (2021), there are differences in trading volume before and after the COVID-19 event. Nurmasari (2020) stated that there was a difference in trading volume before and after the first case of COVID-19 in Indonesia. In addition, it is also supported by the research of Chen et al. (2009), who found a difference in negative trading volume after 20 days of the SARS outbreak compared to 10 days before the SARS outbreak. Also supported by Liu et al. (2020) stated that there were differences in trading volume in the 10 days of stock trading volume before and after the outbreak in Chinese and Asian stock markets, which significantly decreased negative CAR in all periods of the event window (Liu et al., 2020). This research is also in line with the signaling theory. According to him, the signal gives a signal to the information owner who is trying to provide relevant information; investors can utilize this as the recipient (Campbell and Kracaw, 1980). Suppose the analysis results of this information are in the form of sound signals. In that case, it will affect increasing stock trading volume because good prospects in the future are one of the reasons for the good signals in the company.

The increase in stock trading volume after the announcement of COVID-19 in Indonesia was caused by many investors who carried out stock buying and selling activities in automotive industry companies. Unfortunately, this increase in trading volume was not followed by an increase in stock prices; this shows that panic selling has occurred among investors. Many investors are selling their shares because they are worried that they will suffer losses from the impact of the COVID-19 pandemic. This condition also encourages investors' pessimism to invest in companies. This pandemic has also made investors more selective in choosing stocks as their investment vehicle.

6. CONCLUSIONS

The results of this study show differences between the four research variables examined; in the variable stock prices and trading volume, there is a significant influence before and after the announcement of COVID-19 in Indonesia on the Jakarta Islamic Index (JII) at home. Limiting all activities outside, of course, impacts the performance of companies, which causes a decrease in income. This decrease in income even made employees laid off. This is a terrifying thing for investors because it is very likely that they will not receive dividends or even experience capital losses. Meanwhile, there was no significant effect on the stock return and abnormal return variables before and after the announcement of COVID-19 in Indonesia on the Jakarta Islamic Index (JII). This is because, among other things, there is a possibility that information regarding COVID-19 has leaked, so the market responds appropriately to information regarding circulating announcements. This indicates that investors are not interested in investing throughout the period and need to respond to the events of COVID-19. Investors get negative abnormal returns. Things like this show that investors are more inclined to sell securities, which causes stock prices to fall. So, the market responded infrequently to information regarding announcements in circulation; this indicated that investors were not interested in investing throughout the period and did not respond to the COVID-19 event. Investors get negative abnormal returns. Things like this show that investors are more inclined to sell securities, which causes stock prices to fall. So, the market responded infrequently to information regarding announcements in circulation; this indicated that investors were not interested in investing throughout the period and had yet to respond to the COVID-19 event. Investors get negative abnormal returns. Things like this show that investors are more inclined to sell securities, which causes stock prices to fall.

The researcher realizes that in conducting this research, there are still many things that could be improved and improved. Some of these deficiencies can be corrected with several suggestions that can be used as a reference for further research to improve the resulting research. In subsequent studies, we can increase the research sample and extend the research period to make the results more accurate. In addition, future researchers can also use other different test methods such as the Anova test, Mann Whitney, or others. Investors need to increase literacy regarding stock investment to broaden their horizons and better understand various kinds of problems in the investment world. For Muslim investors, it is essential to do primary research before investing in the stock market. This is important to do so that transactions in the capital market do not violate sharia principles.

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