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Islamic Stock Market Reaction To The Russia-Ukrainian War

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Abstract

This study aims to analyze stock market reaction events preceding and following the proclamation of the Russian invasion of Russia for companies listed on the Indonesia Stock Exchange and indexed by the Jakarta Islamic index. This investigation employs a quantitative approach with an event study methodology. The sample consists of thirty shares of companies listed on the Jakarta Islamic Index. The research sample was selected using the technique of purposive sampling. The research data were analyzed utilizing the paired sample t-test method. The findings of this study indicate that the anomalous return variable affects Jakarta Islamic Index stock prices differently before and after the announcement of the Russian invasion of Ukraine. Before and after the proclamation of the Russian invasion of Ukraine, there is a difference in the trading volume of stocks included in the Jakarta Islamic Index. Investors need to reallocate their assets strategically by developing a hedging strategy to avoid the risk of global uncertainty induced by unpredictability. Investors must invest long-term in anticipating speculators on the capital market, who can cause aberrant returns and abnormal stock trading volatility. To stabilize the stock market, regulators should consider the adverse effects of the financialization/globalization of the stock market in terms of war/conflict. Speculators prey on the uncertainty of global events, which leads to tyranny and abnormal rates of abnormal returns.

Keywords: *Keywords: Abnormal Return, Stock Trading Volume, Stock Price, Jakarta Islamic Index.*

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1. INTRODUCTION

The capital market is a trading platform for various types of securities, such as stocks, debentures, bonds, etc. Stock market activity is determined by the behavior of investors, where investors' actions are based on perception or rationality in determining their decisions, of course by considering the maximum profit and minimal risk (Faozan, 2013). Tuyon et al. (2016) explained that rationality is difficult to define because human behavior is unpredictable, and on the other hand, market instability and inefficiency are caused by behavioral factors. Investors carefully assess the risks and returns of all possible investment options to arrive at the desired target investment portfolio.

Investor perceptions vary depending on internal and external situations, wherein internal factors include education level, employment, investment knowledge and others (Parveen et al., 2020). Meanwhile, external factors can be explained by economic and non-economic events such as legal, social, cultural, security, political, and unpredictable extraordinary events. Investment decisions are often influenced by the media, for example, the tendency to buy rather than sell when the stock is trending (Anh & Gan, 2020; Barber & Odean, 2013).

As a result, high return expectations will depend on good internal and external information, while bad news can generate lower returns, so investors tend to transfer their capital to stocks/assets considered safer and produce. This explanation is supported by research Obi et al. (2023), regarding the pace and effectiveness of market adjustment to new information, his research reveals that market adjustments to circulating information last approximately 40 seconds on the US market and 75-90 seconds on the UK equity market. Likewise, the research of Smales (2015), which measures the rate at which the bond market adjusts to new information, spans the financial crisis years of 2005 to 2010, with

results indicating that the average Australian bond market reaction to new information occurs within 30 seconds. Thus, demonstrates the stock market's sensitivity and performance to the news or events' release. Das et al. (2023) stated that announcements or fresh information about firm performance, dividends, stock prices in other nations, GDP, currency rates, interest rates, demand deposits, money supply, and employment all influence daily stocks.

Other events or announcements that trigger stock price volatility are market and product diversification, mergers and acquisitions, stock splits, media and celebrity support, natural disasters and so on (Quaye et al., 2016). Just like the event that became the subject of discussion at the international and national levels, namely the Russian invasion of Ukraine, as an unexpected event, and put pressure on every layer of society on social, economic and health aspects.

Political events, such as wars between nations, are examples of macroeconomic variables that may impact the stock market. Taking a cue from (Das et al., 2023; Obi et al., 2023; Soraya, 2023; Tajaddini & Gholipour, 2023; Yousaf et al., 2022), Russia attacked Ukraine on February 24, 2022, affecting world politics. That also has a long-term influence on global economic sectors. Russia and Ukraine play significant roles in the world markets for oil, gas, grain, energy, food, and fertilizer. The Southeast Asian region is heavily reliant on Russia for oil supplies. According to the research, war is one of many significant events that may worldwide impact financial markets (Abideen et al., 2023). About a study by Yousaf et al. (2022), stock market aggregates had a huge detrimental influence on the Russia-Ukraine conflict on the day of the incident and beyond. Of course, the invasion shook the world economy's gears, including stock market volatility (Soraya, 2023).

Table 1.

Jakarta Islamic Index Fluctuations Before and After the Russian Invasion of Ukraine

Date	t-n	Index	Point (trends)
Thursday, 17-02-2022	t-7	566,44	(1,28)
Friday, 18-02-2022	t-6	570.55	4,11
Saturday, 19-02-2022	t-5	Holiday	-
Sunday, 20-02-2022	t-4	Holiday	-
Monday, 21-02-2022	t-3	569,26	(1,29)
Tuesday, 22-02-2022	t-2	568,26	(1)
Wednesday, 23-02-2022	t-1	574,83	6,57
Thursday, 24-02-2022	t-event	568,11	(6,72)
Friday, 25-02-2022	t+1	571.41	3,3
Saturday, 26-02-2022	t+2	Holiday	-
Sunday, 27-02-2022	t+3	Holiday	-
Monday, 28-02-2022	t+4	Holiday	-
Tuesday, 01-03-2022	t+5	574,92	3,51
Wednesday, 02-03-2022	t+6	570,70	(4,22)
Thursday, 03-03-2022	t+7	Holiday	-

Source: Indonesia Stock Exchange (IDX)

Based on Table 1 shows the fluctuation of the Jakarta Islamic Index (JII) index, which represents the movement of 30 stocks that meet the halal criteria, where 7 days before the event, the JII index had a significant increasing trend, indications of a slowdown ahead of the event are shown in t-3, where the JII index fell by 1.29 points. Furthermore, 5 days after the incident, the JII index fluctuated, starting with the t+1 period, which experienced an increase of 3.3 points, followed by a minimal increase in t+5 of 3.51 points, and again showing a decrease in t+6 of 4.22 points, which became interesting later when the t-event saw the highest drop of 6.72 points.

As previously explained, dynamics occurred during the Russian invasion of Ukraine, so further analysis is needed in the form of an event study to investigate its data and anomalies. If it contains information, it is hoped that the information will be received when the market reacts. The reactions that occur in the market are indicated by the changing stock price values or abnormal returns and stock trading activities (Al-Qudah & Houcine, 2021; Anh & Gan, 2020; Das et al., 2023; Obi et al., 2023; Saraswati & Mustanda, 2018).

2. METHODS

This study aims to examine and assess the reaction of the Indonesian stock market before and after the announcement of the Russian invasion of Ukraine. This study employs the quantitative method of event studies, beginning with this premise. The event study method is an analysis that examines the market's reaction to an announcement-description-formatted event (Das et al., 2023; Obi et al., 2023; Soraya, 2023; Yousaf et al., 2022). Through this method, the impact of an event that occurred on the Indonesian capital market is analyzed specifically and comprehensively. The independent variables are abnormal returns and stock trading volume, and the dependent variable is stock prices. What is used in this study is the event period, as reflected in Figure 1.

This study focuses on the announcement of the Russian invasion of Ukraine by utilizing the event window (-7.7) to gauge the capital market's reaction. The time of the event is marked as t-0, which is February 24, 2022, the day of the Russian invasion of Ukraine. It is then evaluated 7 days before and 7 days after, for a total of 14 days.

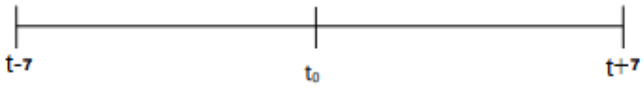

Figure 1. Research Event Window

This study's population consists of firms listed on the Indonesia Stock Exchange. Purposive sampling is a data collection technique that includes 30 companies on the Jakarta Islamic Index (JII) list on the Indonesia Stock Exchange (IDX) in t research that includes secondary daily data, such as daily stock prices (close), index Jakarta Islamic Index -daily, daily trading volume activity, and the number of shares in companies registered and included in the circulating Jakarta Islamic Index index.

The processes for developing a mathematical model of abnormal returns and trading volume activity are shown in Table 2 and are based on research (Agustiawan & Sujana, 2020; Al-Qudah & Houcine, 2021; Anh & Gan, 2020; Obi et al., 2023; Soraya, 2023; Yousaf et al., 2022):

Table 2. Mathematical Model in calculating Abnormal Return and Trading Volume Activity

No	Abnormal Return	Formula	Information
1.	Actual Return	$R_{it} = \frac{Pit - Pit-1}{Pit-1}$	R_{it} : Stock Return i in period t P_{it} : The closing stock price of company i in period t
2.	expected daily return of stock	$E[R_{it}] = \alpha_i + \beta_i(RM_{it})$ $RM_{it} = \frac{JIIit - JIIit-1}{JIIit-1}$	$E[R_{it}]$: expected return of security i in the event period t α_i : intercept for securities i β_i : the slope coefficient of the security i Rmt : return market i in period t JII_{it} : JII stock price index in period t JII_{it-1} : JII stock price index in period t-1
3.	Calculating Abnormal Return, namely the difference between the actual return and the expected return	$AR_{it} = R_{it} - E[R_{it}]$	AR_{it} : abnormal return of security i in the event period t R_{it} : Stock Return i in period t $E[R_{it}]$: expected return of security i in period t

Technical analysis of this research using a difference test between two group means mentioned by Gujarati and Porter (2009), including the assumption test, namely the normality test. The next test is the paired sample t-test in looking at groups on normally distributed data, as well as the Wilcoxon signed ranks test as an alternative test if the data is not normally distributed.

3. RESULT AND DISCUSSION

3.1. Result

The descriptive statistical variables in this research include abnormal returns, trading volume, and stock prices, which are based on sample data taken from the financial statements of firms listed in the Jakarta Islamic Index on the Indonesia Stock Exchange. The abnormal return is the actual return minus the predicted return, or that does not materialize discrepancy between actual and predicted returns is another definition (Putri, 2020). According to the descriptive statistics processing findings in table 4.1 below, the smallest abnormal return value is -0.0076, and the highest value is 0.00739, with an average of -0.0000803 and a standard deviation of 0.00543212. Furthermore, trading volume activity is the ratio of a company's number of shares sold divided by the

number of shares outstanding (Biktimirov & Xu, 2019). The number of shares issued by a corporation when it issues shares is the number of issued shares issued by an issuer in a given time.

Counting the number of shares sold is one approach to assess how the market reacts to an announcement deemed key information. The movement of stock trading transaction volume is a method for determining market reaction to information (Karunia et al., 2022). Investor behavior may be observed in the rise in stock trading volume, which occurs when the amount of stock transactions by market participants increases in reaction to announcements. Because the total number of securities traded is very accurate in reflecting the response of investors related to an event or announcement that can affect the capital market, trading volume activity looks at changes in transaction volume that occur and is used as a benchmark or benchmark to see reactions to an announcement in the market (Nugraha & Daud, 2013). According to the descriptive statistical analysis findings below, the lowest trade volume value is 8.7 billion, followed by 2.4 trillion, with an average of 1.37 trillion and a standard deviation of 6.8 billion. Finally, the share price is computed using the present value of predicted future cash flows, which includes two components: (1) the annual dividend and (2) the price investors are expected to get when they sell their shares. The stock market price represents a company's worth. As a result, any firm that issues stock is worried about the market price of its stock. A stock price that is too low often indicates that the company's performance is poor (Barus, 2014). According to descriptive data, the lowest share price is 5292.83, the highest value is 5541.90, with an average of 5424.8370 and a standard deviation of 107.29018.

Table 3. Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Abnormal Return	9	-0.0076	0.00739	-0.0000803	0.00543212
Stock Trading Volume	9	86985000000	2,400,000,000,000.00	1.37E+12	6.861E+11
Stock price	9	5292.83	5541.90	5424.8370	107.29018

Source: Data Processing Results SPSS 20

Classical Assumption Criteria Test

This study employed the classical assumption test so that the results of the various test models could be estimated without bias. In this investigation, certain assumptions influence the results of the various tests, specifically the normality test. The results of the normality test are displayed in figures 2 and 3, as well as table 4:

Table 4. Kolmogorov Smirnov Normality Test

Variabel	Statistic	Sig.
Abnormal Return	0.154	0.200
Volume Perdagangan Saham	0.258	0.085

Source: Data Processing Results SPSS 20

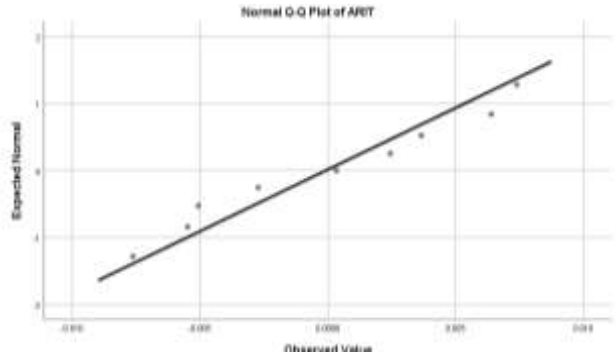

Figure 2. Abnormal Return Normality Test Results

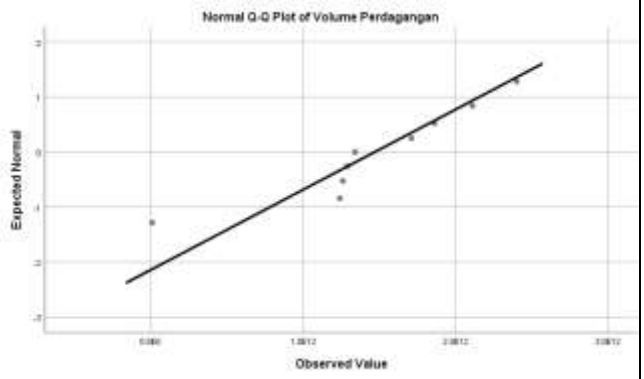

Figure 3. Trading Volume Normality Test Results

Figures 2 and 3 show that the data is normally distributed, as indicated by the plot points' close proximity to the line. In addition, Table 4's normality test results reveal that the value of each anomalous return has a significance of 0.200 > 0.05 and that the stock trading volume has a significance of 0.085 > 0.05, indicating that the data is normally distributed or that there are no indications of data normality. In addition, it can be extended to hypothesis testing, specifically the paired t-test sample.

Test Result

The paired t-test with abnormal returns and trading volume variables on stock prices is used to test the hypothesis.

Table 5. Paired Sample T-Test Results

Variabel	T-Test	Sig.
Abnormal Return – Stock Price	-151-684	0.000
Trading Volume – Share Price	6.422	0.000

Source: Data Processing Results SPSS 20

The paired sample t-test difference test results show that the variable abnormal return differs before and after the announcement of the Ukrainian invasion on stock prices in the Jakarta Islamic Index (JII) on the Indonesia Stock Exchange. Trading volume differs before and after the announcement of the Russian invasion of Ukraine on stock prices in the Jakarta Islamic Index (JII) on the Indonesia Stock Exchange, with each a significance value of 0.000 Abnormal Return <0.05 and Stock Trading Volume 0.000 <0.05.

3.2. Discussion

The Paired T-Test findings show that the abnormal return variable differs before and after the announcement of the Russian invasion of Ukraine at stock prices in the Jakarta Islamic Index (JII) on the Indonesia Stock Exchange with a sig. 0.000<0.05. This research is in line with the findings Yousaf et al. (2022) at the time of the announcement of the Russian invasion of Ukraine. Using the anomalous return variable also resulted in a negative and statistically significant difference between the stock market sample in the G20 countries and the sample from the Russian stock market. Overall, Yousaf et al. (2022) state that when constructing a portfolio based on international equities, investors should consider the risk of war or conflict. While formulating policies to stabilize the stock market, policymakers are advised to consider the negative effects of financialization/globalization on the stock market in the event of war or conflict. Furthermore, this research also strengthens the research Obi et al. (2023), where the results of the event study or event study indicate that the anomalous loss during the initial phase of the conflict is greater for the G7 stock markets than for the African stock markets. Before the event, abnormal returns are negative and statistically significant, with the G7 stock markets experiencing the largest losses. The study examined aberrant behavior preceding this event as evidence that it was partially anticipated. In the post-announcement period, the G7 markets exhibited lethargic pricing behavior, raising questions about the markets' ability to assimilate news of crises. An abnormal price increase is unquestionably advantageous for speculators with long positions but disastrous for those with short positions. The effect of these high prices was exacerbated by the sharp increase in the value of the U.S. dollar during this period, which was also the denominated currency for trading commodities. As a result, when the value of the U.S. dollar rose, commodity prices skyrocketed after the declaration of the war crisis.

Before and after the proclamation of the Russian invasion of Ukraine, the trading volume at the stock prices included in the Jakarta Islamic Index (JII) on the Indonesia Stock Exchange differed with a significance level of 0.000<0.05. This study's findings strengthen Das et al. (2023), where the volatility of stock trading during the Ukraine-Russia conflict negatively affected stock returns on European stock markets. In addition, the results demonstrate that the Ukraine-Russia conflict has a negative effect on stock returns across all industries. Due to Russia's direct involvement in the war, the Ukraine-Russia conflict has significantly impacted Russian stock market stock returns. Therefore, volatility dynamics demonstrate that long-term asset allocation decisions must consider the transmission of risks from uncertainties such as conflict and other unnatural conditions.

4. CONCLUSION

The conclusion of this study shows that overall the variable abnormal returns and trading volume have differences before and after the announcement of the Russian invasion of Ukraine. There are implications from the study of this research, including practically, for investors the need for strategic reallocation by creating a hedging strategy to avoid the risk of global uncertainty caused by things beyond predictions. Furthermore, investors need to invest long-term in anticipating speculators in the capital market, which can cause abnormal returns and abnormal stock trading volatility. Academically, this research can be a reference for future researchers and academics to develop studies on the stock market using different methods and events. The period used can be extended by looking at existing events so that it can fill the limitations of this research. Regulators are advised to consider the adverse effects of the financialization/globalization of the stock market in terms of war/conflict while making policies to

stabilize the stock market. This research has opened the horizons and reveals that speculators play on the uncertainty of global events, which cause tyranny and abnormal rates of abnormal returns.

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