The Stock Reactions of Energy Sector Stocks in the Sharia Stock Market to the Implementation of the 2022 Jakarta E-Prix Event

[1]Achmad, [2]Faishol Luthfi
[1,2]Universitas Tanjungpura, Jalan Jenderal Ahmad Yani, Kec. Pontianak Tenggara, 78124
Email: [1]achmad@ekonomi.untan.ac.id , [2]faishol.luthfi@ekonomi.untan.ac.id

Abstract

This study is conducted to assess how energy sector stocks within the Islamic stock market react to the Jakarta E-Prix 2022 event. It employs a quantitative approach utilizing the event study method to evaluate the market's response to this event. Market reactions are assessed using abnormal returns (AR) and trading volume activity (TVA) variables. The study focuses on stocks from the energy sector listed in the Jakarta Islamic Index. The Wilcoxon test is applied to the AR and TVA data. The findings indicate significant variations in abnormal returns before and after the Formula E Jakarta 2022 event. Conversely, there were no notable differences in trading volume activity before and after the Formula E Jakarta 2022 event.

Keyword: Jakarta E-Prix, Event Study, and Trading Volume Activity and Abnormal Return

INTRODUCTION

The capital market is a platform where investors can place their funds to invest in various financial instruments. According to Paramartha (2020), the capital market will function efficiently if the stock prices of a traded company accurately reflect the company's value, including its revenue prospects and management quality. Lakoni (2019) explains that there are two functions of the capital market. First, it serves as a source of funding for companies by selling securities in the capital market. Second, it provides a means for investors to invest their funds in safe and profitable financial instruments.

The performance of the capital market is supported by several stock indexes, one of which is the Jakarta Islamic Index (JII). JII is a stock index that consists of stocks that adhere to Islamic financial principles. This Stock Index is created using strict selection criteria to ensure that only stocks compliant with Islamic financial principles are included. It comprises 30 companies with the best performance.

E-Prix is a world-class championship of car racing. This E-Prix car racing event also introduces emission-free vehicles based on electric engines. The lengthy process of the Jakarta E-Prix 2022 event began when the Governor of Jakarta issued the regulation through the Governor's Instruction Number 49 of 2021 concerning the Resolution of Regional Priority Issues for 2021-2022. Formula E electric cars represent a trending vehicle that will reduce carbon emissions in the future. Electric cars have the advantage of not producing exhaust gases, thus not contributing to global warming (carbon footprint) (Aziz et al. 2020). The electric car racing event called Jakarta E-Prix 2022 will be held at the Jakarta E-Prix International Circuit (JIEC) Ancol on Friday, 3rd May 2022. This event will take place as part of the Jakarta E-Prix 2022 series of electric car racing events and will continue until Saturday, 4th June 2022 (Tempo.Com).

The event of hosting the Formula E car race, Jakarta E-Prix 2022, is one of the agendas to introduce electric-powered engines to the entire world. This is related to the ongoing energy transformation taking place in many countries worldwide. This event is expected to significantly impact the stock market, especially the stocks of energy sector companies, at present. To understand how the capital market responds to such information, abnormal return and trading activities in the market or trading volume activity can be used as references. Ayu (2015)

explains that information that provides positive value will influence investors or traders to buy shares of the relevant company. This occurs because the information is considered advantageous and has the potential to yield profits for investors or traders. As the interest in buying shares increases, the trading volume in the stock market will also rise.

The study by Abdillah (2020) on how the Islamic capital market responds to trade balance deficit announcements explains that there is no significant difference in ATVA (Average Trading Volume Activity) and AAR (Average Abnormal Return) before and after the announcement. The research by Ainurrachma (2022) provides a similar explanation concerning the response of the capital market to corporate asset consolidation (merger). The research findings show no significant difference in abnormal returns before or after the announcement. However, in the case of the trading volume activity variable, there is a significant difference in response to the merger announcement. Conversely, the study by Anita (2021) presents a different perspective, stating that there is a significant difference in the Average Trading Volume Activity and Average Abnormal Return before and after the occurrence of the Covid-19 event.

Based on the background, an in-depth analysis will be conducted regarding the reaction of energy sector stocks in the Islamic stock market to the event of hosting Formula E Jakarta 2022. The reaction of the Islamic stock market will be assessed using two measurement variables, namely Trading Volume Activity and Abnormal Return. Therefore, this research is titled "The Reaction of Energy Sector Stocks in the Islamic Stock Market to the Jakarta E-Prix 2022 Event."

LITERATURE REVIEW

Capital Market

The capital market, as defined by Mardani (2015) is a place or system where companies and individuals can sell or buy equities or other securities to investors. The Islamic capital market is a market that adheres to economic and financial principles following Islamic principles, avoiding elements of usury, gambling, and speculation in various economic transactions. Financial instruments traded in the Islamic capital market include Shariah-compliant instruments such as Shariah-compliant stocks, sukuk, Shariah mutual funds, and various other Shariah instruments.

Signaling Theory

According to Brigham (2011) Signaling Theory pertains to the issuer's efforts to communicate insights to investors regarding the company's prospective outlook. This theory explains that issuers are motivated to disclose information about the company's financial statements to external parties. The motivation for sharing financial statement information with external parties is based on the presence of information asymmetry between the company's management and external parties (Bergh, 2014). The information provided is highly beneficial as a signal for external parties in managing their investment portfolios. Naturally, the signals provided will lead to the formation of assessments by external parties or investors regarding the issuer. The issue of information asymmetry can be minimized by presenting the company's financial statements as a signal to external parties, containing reliable and trustworthy financial information about the certainty of sustainable development prospects in the future.

Abnormal Return

According to Sambuari (2020) Realized Return or Abnormal Return is the profit or difference between the actual return or realized return and the return expected by investors or expected return. Realized R eturn is the diffe rence between the actual value of an investment and the previously expected or anticipated value. Faizal (2020) explains that abnormal return

conditions occur as an indication triggered by a specific event or phenomenon containing information that impacts the reacting market.

Trading Volume Activity

Trading Volume Activity is the quantity of shares traded within a specific period of time. The higher the volume of shares being traded, the more active the stock is in transaction activities in the capital market. According to Anita (2021), Trading Volume Activity can be used as an essential indicator of market strength or weakness, as well as a tool to identify trends or patterns in stock prices. Brigham (2011) explains that the number of shares traded in a particular period can indicate the level of liquidity of a stock. Liquidity is determined by factors such as the quantity and quality of the shares themselves, as well as the ability to buy or sell shares quickly at a fair price.

REASERCH METHOD

This research examines market reactions using a descriptive quantitative approach through the event study method. The study aims to investigate the impact of an event, specifically the hosting of the E-Prix electric car race in Jakarta, on market reactions.
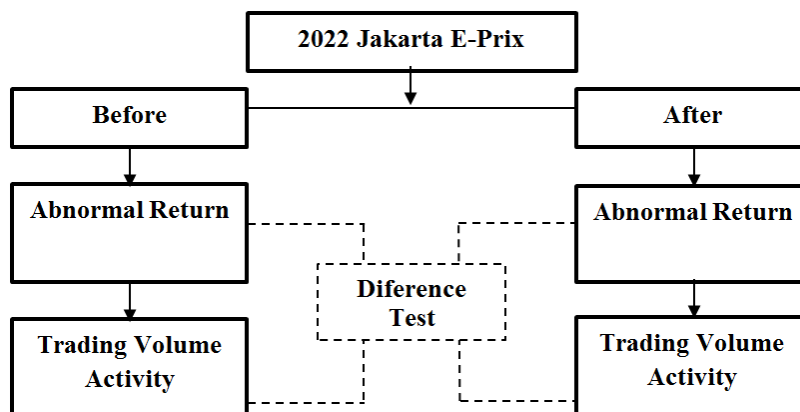

Figure 1. Empirical Model

The hypothesi s proposed in this study is as follows:

H$_1$: A significant distinction can be observed in Abnormal Returns both preceding and subsequent to the Jakarta E-Prix 2022 event.

H$_2$: A substantial variation is present in Trading Volume Activity both antecedent to and succeeding the Jakarta E-Prix 2022 event.

Operational Variable Definition

The *Jakarta E-Prix 2022* event is a world-class car racing championship. The event took place at the Jakarta E-Prix International Circuit (JIEC) Ancol on Saturday, June 4, 2022. This Formula E car racing event is an international event organized in Indonesia. The purpose of this event is to introduce electric-powered engines to the world. This aligns with the green economy trend that is actively promoted by countries worldwide.

Abnormal Return

Abnormal Return signifies the variance between the realized stock return and the anticipated stock return. Abnormal Return refers to the stock price movement that deviates from the expected stock return. The form ula for calculating abnormal return is as follows (Samsul, 2006) :

$$AR_{it} = AR_{it} - ER_{it}$$

Information :

AR_{it} = *Abnormal Return* in t period
R_{it} = *Actual Return* of stock in t period
ER_{it} = *Expectedd Return* in t period

Trading Volume Activity

Trading Volume Activity is the number of shares traded within a specific period. Volume can indicate the level of market interest in a particular stock and can be a useful tool for investors to identify market trends (Abdillah, 2020). The formula for stock trading volume is as follows:

$$\text{TVA} = \frac{the\ number\ of\ stocks\ traded\ at\ a\ particular\ time}{the\ number\ of\ stories\ a\ company\ outstanding\ in\ a\ certain\ period}$$

Types and Sources of Data

This research uses secondary data types, including trading volume and stock prices. The data source for this study is from the website www.idx.co.id, and the data was collected using a purposive sampling technique.

The data used in the study are secondary data types consisting of stock prices and trading activity. The secondary data was obtained from the official website, www.idx.co.id. The population and sample in this study are stocks listed in JII (Indonesian Islamic Index) within the energy sector. The technique used is purposive sampling.

Table 1 Penentuan Sampel Penelitian

Variable	Company
Company listing in Jakarta Islamic Index	30
Perusahaan dalam JII yang bergerak di sektor energi	**4** (PTBA,ADRO,ITMG,PGAS)

Source: Processed Data

Table 2 Observation Period

t (Period)	Date
T observation before	23 May – 3 June 2022
Even date	4 June 2022
t observation after	6 – 14 June 2022

Source: Processed Data

This research utilizes data analysis to determine if there is a difference between Trading Volume Activity and Abnormal Return before and after the organization of the E-Prix event in Jakarta in 2022. A normality test will be conducted first to ensure that the data follows a normal distribution. If the data is normally distributed, a Paired Sample T-Test will be used to perform the hypothesis test. However, if the data is not normally distributed, the Wilcoxon test will be used as a non-parametric statistic.

RESULT AND DISCUSSION

Normality Test

The normality test is a method used to examine whether the analyzed data follows a normal distribution. This test is conducted to ensure that the data used for statistical analysis is normally distributed so that the results obtained from the analysis are reliable. If the significance value of the data is greater than 0.05, then the data is considered to have a normal distribution. However, if the significance value of the data is less than 0.05, then the data is considered not to have a normal distribution (Mohd, 2011)

Table 3 Normality Test Result

	Shapiro-Wilk			Note
	Statistic	df	Sig.	
AAR Before	0,912	28	0,022	not normal
AAR After	0,956	28	0,285	Normal
Vol Before	0,839	28	0,001	not normal
Vol After	0,916	28	0,027	not normal

Source: Processed Data

Based on Table 3, indicates that almost all data is not normally distributed, as seen from their significance values being less than 0.05. However, AAR (Abnormal Return) after the event has a significance value greater than 0.05. Therefore, it is necessary to conduct a hypothesis test using a non-parametric statistic, namely the Wilcoxon test.

Wilcoxon Test
The results of the Wilcoxon Difference Test are presented in the following table:

Tabel 4 Wilcoxon Test Result

Variable	Z	Asymp. Sig. (2-tailed)	Note
Abnormal Return after- Abnormal return before	-2,892b	0,04	Significant
Trading volume after - Trading volume before	-0,48b	0,96	Not Significant

Source: Processed Data

Based on Table 4.2 above, there is a significant difference in Abnormal Return both before and after the organization of the E-Prix event in Jakarta 2022. This is indicated by the Asymp. Sig (two-tailed) value, which is smaller than the predetermined probability (a=0.05), at 0.04. The occurrence of Jakarta E-Prix 2022 event contains significant information that can influence the market.

The results of this study indicate that the capital market can be considered a semi-strong market, as the information about the organization of the E-Prix event in Jakarta 2022 has a considerable impact on stock prices in the capital market. This is evident from the Abnormal Return that occurred after the information was announced, showing that the market was able to absorb the information quite well.

The results of this study show similar findings to the research conducted by Anita (2021) and Hirmawan (2020) which explained that there is a significant difference in Abnormal Return before and after the announcement of the event. However, the results of this study do not align with the research conducted by Abdillah (2020) and Marganing (2019) which stated that there is no significant difference in Abnormal Return both before and after the event.

The lack of difference can be attributed to the fact that the market had already factored in the event. The market had already anticipated the occurrence of the E-Prix racing event, especially since the event had been promoted for a considerable period and stock prices or portfolios had adjusted according to the market's expectations of the event. In this case, there would be no change in stock prices or portfolios after the E-Prix event, resulting in no abnormal return difference after the event occurred.

The results of the Wilcoxon test in Table 4 above indicate that Trading Volume Activity does not have a significant difference before and after the organization of the Formula E event in Jakarta. This is evidenced by the sig. (two-tailed) value of 0.96, which is greater than the 5% probability value.

The findings of this research show that Trading Volume Activity did not experience a significant increase or decrease in stock purchase volume. This suggests that the information about the organization of the Jakarta E-Prix 2022 event does not contain useful information for investors or traders in making decisions.

These results align with the research conducted by Abdillah (2020), Alexander (2018), and Marganing (2019) which also demonstrated the absence of a significant difference in Trading Volume Activity before and after the event. However, other studies such as those conducted by Anita (2021), Hirmawan (2020) and Komang (2019)reported significant differences in Trading Volume Activity before and after the event.

The existence of such differences is due to market participants considering that the E-Prix event provides important information. This certainly impacts market participants, leading to buy and sell responses from investors and traders in related stocks. This activity will naturally increase trading volume activity. Short-term investors take advantage of this opportunity to gain Capital Gain from trading activities.

CONCLUSION

From the results of the discussions and analyses conducted, it can be concluded that Abnormal Return has a significant difference before and after the organization of the E-Prix event in Jakarta 2022, with a significance value of 0.04, which is greater than 0.05. On the other hand, Trading Volume Activity shows that there is no significant difference before and after the organization of the Formula E event in Jakarta 2022, with a significance value of 0.96, which is also greater than 0.05.

ADVACE

Abnormal Return can be used to measure the success of an investment strategy or other financial decisions. Trading Volume Activity can be used to gauge investor interest in a particular stock or sector. Understanding the difference between these two concepts can help researchers better grasp the dynamics of the financial market and make more accurate decisions. Researchers can use both variables to examine the impact of a specific event on stock performance or other potentially influential variables.

REFERENCES

Abdillah, Ichwan, and Puji Sucia Sukmaningrum. 2020. "Reaksi Pasar Modal Syariah Terhadap Pengumuman Defisit Neraca Perdagangan." *Jurnal Ekonomi Syariah Teori dan Terapan* 7(9): 1646.

Ainurrachma, Mirna, and Imron Mawardi. 2022. "Reaksi Pasar Saham Terhadap Merger Bank Syariah Milik Negara." *Jurnal Ekonomi Syariah Teori dan Terapan* 9(1): 92–105. https://e-journal.unair.ac.id/JESTT/article/view/27504 (October 5, 2022).

Alexander, Alexander, and M. Amin Kadafi. 2018. "Analisis Abnormal Return Dan Trading Volume Activity Sebelum Dan Sesudah Stock Split Pada Perusahaan Yang Terdaftar Di Bursa Efek Indonesia." *Jurnal Manajemen* 10(1): 1–6. https://journal.feb.unmul.ac.id/index.php/JURNALMANAJEMEN/article/view/3803 (December 19, 2022).

Anita, Nur, Chandra Putri, and Andika Martin. 2021. "Event Study : Reaksi Pasar Modal Sebelum Dan Sesudah Adanya Covid-19 (Studi Pada Perusahaan Non-Perbankan Yang Terdaftar Di BEI Sebagai Anggota LQ45)." *AKURAT | Jurnal Ilmiah Akuntansi FE UNIBBA* 12(3): 64–73. https://unibba.ac.id/ejournal/index.php/akurat/article/view/672 (October 5, 2022).

Ayu Devi Nurmalasari, Shinta et al. 2015. "Analisis Pengaruh Perubahan Arus Kas Terhadap Return Saham." *Management Analysis Journal* 4(4). https://journal.unnes.ac.id/sju/index.php/maj/article/view/8881 (October 5, 2022).

Aziz, Mochammad et al. 2020. "Studi Analisis Perkembangan Teknologi Dan Dukungan Pemerintah Indonesia Terkait Mobil Listrik." *TESLA: Jurnal Teknik Elektro* 22(1): 45–

55. https://journal.untar.ac.id/index.php/tesla/article/view/7898 (October 5, 2022).

Bergh, Donald D., Brian L. Connelly, David J. Ketchen, and Lu M. Shannon. 2014. "Signalling Theory and Equilibrium in Strategic Management Research: An Assessment and a Research Agenda." *Journal of Management Studies* 51(8): 1334–60. https://ideas.repec.org/a/bla/jomstd/v51y2014i8p1334-1360.html (October 5, 2022).

Brigham, and Houston. 2011. *Dasar-Dasar Manajemen Keuangan*. Edisi 11. Jakarta.: Salemba Empat.

Faizal Hafidz, Maulana, and Universitas Negeri Surabaya. 2020. "Analisis Komparatif Abnormal Return Dan Trading Volume Activity Berdasarkan Political Event (Event Study Pada Pengesahan RUU KPK 2019)." *Jurnal Ilmu Manajemen* 8(3): 829–38. https://journal.unesa.ac.id/index.php/jim/article/view/8694 (October 5, 2022).

Hirmawan, Andri. 2020. "Analisis Perbandingan Abnormal Return Dan Trading Volume Activity Sebelum Dan Sesudah Stock Split Periode 2015-2016." *AKSES: Jurnal Ekonomi dan Bisnis* 13(2). https://publikasiilmiah.unwahas.ac.id/index.php/AKSES/article/view/3240 (December 19, 2022).

Komang Diantriasih, Ni et al. 2019. "Analisis Komparatif Abnormal Return, Security Return Variability Dan Trading Volume Activity Sebelum Dan Setelah Pilkada Serentak Tahun 2018." *JIMAT (Jurnal Ilmiah Mahasiswa Akuntansi) Undiksha* 10(1): 2614–1930. https://ejournal.undiksha.ac.id/index.php/S1ak/article/view/20529 (December 19, 2022).

Lakoni, Idham, and Melvi Yansi. 2019. "Reaksi Pasar Modal Syariah Dan Konvensional Terhadap Event Politik Di Bursa Efek Indonesia." *Creative Research Management Journal* 2(2): 41–55. https://journals.unihaz.ac.id/index.php/crmj/article/view/1112 (October 5, 2022).

Mardani. 2015. *Aspek Hukum Dan Lembaga Keuangan Syariah Di Indonesia*. Edisi Pert. Jakarta.: Kencana.

Marganing Sih, Tias, Tatang Ary Gumanti, and Hadi Paramu Jurusan Manajemen. 2019. "Analisis Perbedaan Abnormal Return Dan Trading Volume Activity Pada Sekitar Cum Dividend Date." *e-Journal Ekonomi Bisnis dan Akuntansi* 6(2): 159–63. https://jurnal.unej.ac.id/index.php/e-JEBAUJ/article/view/11161 (December 19, 2022).

Mohd Razali, Nornadiah, and Yap Bee Wah. 2011. "Power Comparisons of Shapiro-Wilk, Kolmogorov-Smirnov, Lilliefors and Anderson-Darling Tests." *Journal of Statistical Modeling and Analytics* 2: 21–33.

Paramartha, Gede, and Daisuke Matsuzawa. 2020. "Perbedaan Reaksi Pasar Terhadap Pelantikan Presiden Dan Wakil Presiden Negara Indonesia Tahun 2019." *E-Jurnal Akuntansi* 30(10): 2514–24. https://ojs.unud.ac.id/index.php/akuntansi/article/view/57772 (October 5, 2022).

Sambuari, Inri B., Ivonne S. Saerang, and Joubert B. Maramis. 2020. "Reaksi Pasar Modal Terhadap Peristiwa Virus Corona (Covid-19) Pada Perusahaan Makanan Dan Minuman Yang Terdaftar Di Bursa Efek Indonesia." *JMBI UNSRAT (Jurnal Ilmiah Manajemen Bisnis dan Inovasi Universitas Sam Ratulangi).* 7(2): 407–15. https://ejournal.unsrat.ac.id/index.php/jmbi/article/view/30668 (October 5, 2022).

Samsul. 2006. *Pasar Modal Dan Manajemen Portofolio*. Cetakan Pe. Jakarta: Erlangga.

Tempo.Com, Sport. "Jadwal Siaran Langsung Formula E Jakarta Dan Klasemen Pembalap - Sport Tempo.Co." *Sport.tempo.co.* https://sport.tempo.co/read/1597857/jadwal-siaran-langsung-formula-e-jakarta-dan-klasemen-pembalap (October 5, 2022).