

Stock Market Response to Rising Fuel Prices in 2022

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DOI: <https://doi.org/10.61656/ijospat.v8i1.112>.

ABSTRACT

Purpose: The purpose of this study is to test and analyze the differences in abnormal stock returns and trading volume activity before and after the announcement of the fuel price increase on September 3, 2022. The research focuses on companies listed in the LQ45 index, aiming to determine whether the capital market reacted significantly to this policy change. By examining the behavior of stock prices and trading volumes, the study seeks to provide insights into how investors and the broader market respond to macroeconomic events such as fuel price adjustments.

Method: This study employs an event study methodology with an observation period of ten days, consisting of five days before and five days after the announcement of the fuel price hike. The population includes 45 companies listed in the LQ45 index during the period from August 28, 2022, to September 9, 2022. Data analysis was conducted using a paired sample t-test to evaluate differences in abnormal returns and trading volume activity across the two periods. This approach allows for a rigorous comparison of market behavior surrounding the event.

Findings: The findings indicate that there is no significant difference in abnormal stock returns or trading volume activity before and after the announcement of the fuel price increase among companies listed in LQ45. This suggests that the capital market did not exhibit a strong reaction to the event, and both stock prices and trading volumes remained relatively stable despite the policy change.

Implication: The implications of this study highlight that fuel price hikes, while impactful in broader economic contexts, may not necessarily trigger immediate or significant reactions in the capital market. For policymakers, this suggests that investor sentiment in Indonesia's capital market may be resilient to such adjustments. For investors, the findings provide reassurance that short-term volatility may not always accompany fuel price policy changes.

Originality: The originality of this study lies in its focus on a localized macroeconomic event within the Indonesian context, offering new insights into how emerging markets respond to fuel price policy changes.

Keywords: fuel prices, market reaction, abnormal return, trading volume activity, LQ45 index.

Article info: Received: 6 February 2026; Revised: 20 February 2026; Accepted: 3 March 2026

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Recommended citation:

Nandiwardhana, C. & Sundari, S. (2026). Stock Market Response to Rising Fuel Prices in 2022, *Sustainable Business Accounting, and Management Review*, 8 (1), pp 24-36.

1. INTRODUCTION

Indonesia's economic growth in 2022 was quite good and experienced a significant recovery after the COVID-19 pandemic. This can be seen in the Jakarta Composite Index (JCI). During 2021, the Jakarta Composite Index (JCI) experienced a significant increase of 10.08%. This achievement shows a significantly better performance than the previous year, namely 2020, when the JCI weakened by 5.09%. According to data quoted from Ipotnews, on December 30, 2021, the JCI recorded a closing price of 6,581.48. This figure represents a 10.08% increase compared to the closing price of 5,979.07 on December 30, 2020. At the same time, on December 30, 2020, the Jakarta Composite Index (JCI) weakened by 5.09% compared to the closing price of 6,299.54 on December 30, 2019.



The year of 2021 was a historic year for the JCI, as it reached an all-time high on November 22, 2021, when it reached 6,723.39. Conversely, in 2020, the JCI experienced difficult and worrying times, falling sharply to 3,937.63 on March 24, 2020 ([Adithya, 2021](#)). The JCI's movement over the past two years demonstrates the volatility of the stock market and the influence of various economic factors that can significantly impact the index's performance. This high volatility requires market participants to remain vigilant and prudent in making investment decisions. Furthermore, the JCI's movement also reflects the national economy, which is constantly dynamic and vulnerable to various global and domestic events. Therefore, careful monitoring and analysis are crucial for investors and market participants to achieve optimal investment returns in the future.

The success of pandemic management in various countries is directly proportional to increasing optimism for a stronger global economy in 2022. The IMF, in its July 2021 World Economic Outlook report, projected positive economic growth for that year in developed countries. For example, the United States is estimated to grow 4.9 percent, China 5.7 percent, the European region 4.3 percent, and Japan 3.0 percent ([Khudaykulova et al., 2022](#)). This economic recovery is driving increased demand for raw materials, particularly commodities. The potential for rising commodity prices is a positive factor for Indonesia's economic recovery.

However, hopes and optimism regarding a stronger global economy appeared to be dashed on Thursday, February 24, 2022, when Russian President Vladimir Putin officially announced a military invasion of Ukraine for political reasons. History has proven that military conflict has a significant impact on regional and global economies, including economic devastation, disruptions in trade and the financial sector, and reduced production and labor capacity, resources, and employment. This invasion has created uncertainty in global markets and disrupted economic stability. The potential for widespread negative economic impacts is a matter of grave concern for the international community. Furthermore, escalating political and military tensions could also impact the economic performance of related countries, including Indonesia, due to its interconnectedness in the global economic system. Therefore, it is crucial for Indonesia and other countries to remain cautious and take proactive steps in addressing these changing global conditions. Economic and trade stability are priorities, and joint efforts to address the negative impacts of this situation are necessary. This also requires international cooperation and coordination to find the best solutions and reduce uncertainty in the effort to achieve a sustainable and stable economic recovery in the future.

Russia is one of the world's largest producers and exporters of oil and energy. If the conflict results in international sanctions restricting Russia's oil and gas exports, further escalation in the form of rising energy prices on the global market can be expected. Rising energy prices will only fuel inflation. Consequently, many countries that play a key role in driving the global economy, such as China, Japan, and Europe, which are net energy importers, will see rising oil prices limit global growth. With the exception of the energy-self-sufficient US, high oil prices will shift some income from consumers to producers, ultimately negatively impacting demand ([Liadze et al., 2022](#)).

Furthermore, the impact of this conflict also includes a decline in confidence in financial markets. Increased geopolitical uncertainty and risk can cause investors to be cautious about investing, reducing capital flows and dampening positive sentiment in financial markets. This impacts overall economic stability and growth, as healthy and stable financial markets are key to global economic activity.

International sanctions imposed on Russia could also have a broad impact on the global economy. Especially Russia's major trading partners, such as China, the US, Germany, France, and Italy, which are heavily dependent on Russian imports. These massive trade restrictions and sanctions could disrupt global supply chains and international trade activity, reducing economic growth in the countries involved.

This situation demonstrates that military conflict and geopolitical tensions have the potential to disrupt stability and economic growth globally. Therefore, careful monitoring, analysis, and joint action by the international community are crucial in addressing the economic impacts of these conflicts and finding sustainable solutions for global economic recovery. The Russia-Ukraine conflict has led to rising global fuel prices, resulting in a domino effect on the Indonesian economy, given that fuel is a basic necessity. This has resulted in a continued ballooning of the fuel subsidy budget, leading to unavoidable fuel price increases. On September 3 (see [Table 1](#)), PT Pertamina (Persero) officially raised the prices of subsidized fuels, namely Pertalite and Solar. Furthermore, the price of non-subsidized Pertamina fuel also officially increased. The announcement was made by Minister of Energy and Mineral Resources Arifin Taasfir during a press conference at the State Palace on Saturday, September 3, 2022 ([Afiffah, 2022](#)).

Table 1. Fuel Prices Before and After the Increase, September 3, 2023

Type	Before	After	Ascension Presentation
Pertalite	Rp.7.650	Rp. 10.000	30,72%
Solar	Rp.5.150	Rp. 6.800	32,04%
Pertamax	Rp.12.500	Rp. 14.500	16,00%

Source: Armani, M. (2023). *Ingat, Ini Daftar Harga BBM di Seluruh Indonesia pada September 2023*. Kompas.com. <https://money.kompas.com/read/2023/09/03/093035926/ingat-ini-daftar-harga-bbm-di-seluruh-indonesia-pada-september-2023?page=all>

The rise in fuel prices is a matter of grave concern for all economic segments and investment instruments. Information about these increases is crucial because it can influence investor decisions in the capital market. The impact can be seen in changes in stock prices, trading volume, and other market characteristics. Both increases and decreases in fuel prices have a significant impact on companies operating in the capital market, particularly in various industrial sectors such as the automotive and components subsectors. Fuel is a vital commodity used in various economic activities and remains a primary energy source for diverse industrial sectors.

Companies must face the consequences of these fuel price changes, as their operating costs can increase or decrease depending on the direction of the price change. In this situation, companies may need to adjust their business strategies to remain efficient and competitive in the market. Furthermore, investors should carefully consider the impact of fuel price increases on company performance and potential changes in their stock value. This event will likely lead to significant stock price fluctuations in the capital market, requiring market participants to remain vigilant and anticipate stock price movements and trading volume. These conditions can create both opportunities and risks for investors, so their trading decisions must be based on careful analysis and a deep understanding of market dynamics and the companies affected.

In situations like this, collaboration between the government, companies, and other stakeholders is key to finding appropriate solutions to address the economic challenges caused by changes in fuel prices. Efforts to find alternative energy sources and risk management strategies need to be strengthened to maintain market stability and sustain economic growth. Changes in fuel prices provide important information for capital market players because they can impact the performance and prospects of companies in related sectors. For example, the automotive and component sectors are highly dependent on operational and production costs related to fuel prices. If fuel prices rise, production and operational costs will increase, which can negatively impact companies' profit margins and their performance in the capital market.

In this context, signaling theory also applies, which states that certain events will send signals to the capital market and influence market changes. Increases in fuel prices are one such signal that can influence investor sentiment and stock price changes in the capital market (Fithriyana et al., 2014). Therefore, the government's transparent communication of fuel price changes and prior information to the public can help reduce uncertainty in the capital market. Cheryl Tanuwijaya, Head of Research at Jasa Utama Capital Sekuritas, stated that the capital market typically dislikes fuel price increases because they can create uncertainty and negatively impact company performance. However, this time, she assessed that the government had communicated the fuel price changes appropriately beforehand, and the increase was in line with expectations (Puspitasari, 2022).

This can help capital market players adapt to changes in fuel prices, allowing them to better manage their impact. Therefore, changes in fuel prices have important implications for companies in the capital market, particularly those sectors that are heavily dependent on fuel for their operations. Transparency and appropriate communication from the government can help reduce uncertainty in the capital market and enable market players to better respond to changes.

Studies conducted on changes in oil or fuel prices have yielded mixed and inconsistent results. Some studies found a negative impact on stock prices, while others showed no significant effect on abnormal stock returns. Research results also vary depending on the time period and the company sector studied.

Rinda and Ratnawati (2014) found that the fuel price increase in 2013 had a negative impact on stock prices. However, there was no significant effect on abnormal stock returns. Research by Nuriman et al. (2019) found no difference in average abnormal stock returns before and after the fuel price increase in manufacturing and transportation companies. On the other hand, research by Anita and Veronica (2016) found that the fuel price decrease in 2016 negatively impacted stock returns in transportation companies. Meanwhile, research by Indriani and Mariana (2021) showed a significant

difference in average abnormal returns, but no significant difference in average trading volume activity after the enactment of the Job Creation Law.

Based on these studies, the Indonesian stock market does not always respond to changes in fuel prices. Therefore, research on market responses to price changes is still necessary, given the strategic role fuel prices play in the national economy. Fuel price increases typically trigger inflation, increase production costs, and reduce purchasing power, which can impact company performance and investor expectations. The capital market has the potential to reflect how energy policies impact the financial sector. Furthermore, such research helps understand investor sentiment, whether they respond with panic, caution, or demonstrate resilience to policy shocks. From a regulatory perspective, this study provides insight into market stability, allowing the government to assess whether fuel pricing policies generate significant volatility. Academically, this research enriches the literature on event studies in emerging markets, particularly Indonesia, which has distinct characteristics from developed markets. Meanwhile, for investors, the research findings offer practical implications for designing investment strategies that are more adaptive to energy policies. Therefore, although some studies indicate insignificant market reactions, further research remains relevant to ensure a deeper understanding of capital market changes in response to fuel price changes.

2. LITERATURE REVIEW

2.1. Theory of Reasoned Action

Theory of Reasoned Action (TRA) is a theoretical framework that aims to explain the relationship between attitudes and behavior in human action. This theory is primarily used to predict how individuals will behave based on pre-existing attitudes and behavioral intentions. In TRA, an individual's decision to engage in a particular behavior is based on the outcomes they expect to achieve as a result of performing that behavior. Martin Fishbein and Icek Ajzen developed TRA in 1967, drawing inspiration from research in social psychology, persuasion models, and attitude theory.

This theory suggests that a person's attitude toward a behavior is influenced by their beliefs about the outcomes of that behavior and their assessment of those outcomes. Furthermore, behavioral intentions are determined by their attitudes toward the behavior and subjective norms. However, some critics question the effectiveness of attitude theory in predicting human behavior. However, according to [Raman \(2019\)](#), many theories attempt to link attitudes and behavior, but TRA is considered the most effective theory in predicting consumer behavior by measuring beliefs, attitudes, and intentions ([Suryaningrum, 2024](#)).

2.2. Signaling Theory

Signaling Theory is a concept in corporate management that explains a company's efforts to convey specific information or actions to external parties, particularly investors, to provide insights into the company's prospects. [Suryaningrum \(2024\)](#) suggests that signals provide a signal; the sender (the owner of the information) attempts to provide relevant information that can be utilized by the recipient. This theory states that companies use certain signals or signals to convey relevant information to other parties, allowing recipients to take actions or decisions based on their understanding of the signal. In this theory, companies and investors are considered two interacting parties in the capital market. Companies have an interest in achieving optimal stock prices and attracting investors to invest their capital. Meanwhile, investors have an interest in obtaining accurate and relevant information about the company to make informed investment decisions.

With signaling theory, company management is expected to understand how their actions or information can influence investor perceptions and decisions. Furthermore, investors must be able to read these signals carefully and conduct in-depth analysis to make informed investment decisions. Signaling theory is important in the context of the relationship between firms and capital markets, and provides valuable insights into understanding economic behavior and investment decisions ([Nasution et al, 2019](#)).

2.3. Investment

Investment is the act of allocating funds or other resources now, with the aim of gaining future profits. According to [Tandililin \(2017\)](#), investment involves committing a certain amount of funds with the expectation of future profits. The form and type of investment can influence and support future goals,

although the expected returns cannot be guaranteed with certainty. Therefore, investment always carries risk or uncertainty. There are several reasons why people invest:

1. To improve their standard of living in the future. Prudent individuals strive to improve their standard of living over time, at least to maintain their income levels so that they do not decline in the future.
2. To mitigate inflationary pressures. Through investment, individuals can protect their wealth or assets from depreciation due to inflation.
3. To reduce the tax burden. Some countries provide tax incentives to individuals who invest in certain business sectors to encourage investment growth in society.

Uncertainty about the future creates risks that must be faced in investing. Risk is defined as the discrepancy between expected and actual results and is usually positively correlated with the rate of return. In investing, the higher the expected return, the higher the risk, and conversely, the lower the expected return, the lower the risk.

In the world of investing, risk-taking must be balanced with careful assessment and prudent management. Investors must consider their goals, risk tolerance, and investment timeline to make informed decisions and achieve desired future returns. By understanding and managing risk, investing can be an effective tool for achieving long-term financial goals.

2.4. Stock Return

Return on investment, also known as return, is the ratio of money earned or lost on an investment, relative to the amount invested. In the investment context, this return can be in the form of interest or profit if there is a gain, or loss if there is a loss. Other terms often used are assets, capital, principal, or the cost basis of the investment. Return on investment is often calculated in annual or compounded units, and is often expressed for a calendar or fiscal year. This facilitates comparisons between different investments that are difficult to compare using direct monetary values.

The primary goal of an investor in investing is to gain profits, both in the near term and in the future. Investment returns can come from results that have already occurred (realized) or from expected future profits (expected) in accordance with the investor's expectations. According to [Jogiyanto Hartono \(2017: 283\)](#), investment returns are the results obtained from investment activities. Investment returns can be in the form of realized profits or profits that have not yet occurred but are expected by the investor in the future.

Research on capital market reactions to fuel price hikes can be developed into hypotheses using the Theory of Reasoned Action (TRA) and Signaling Theory. TRA explains investor behavior as rational responses based on beliefs and intentions, while Signaling Theory highlights how policy changes act as signals that influence investor perception. Recent studies confirm mixed evidence on abnormal returns and trading volume activity around fuel price events. [Figure 1](#) shows the conceptual framework of this research.

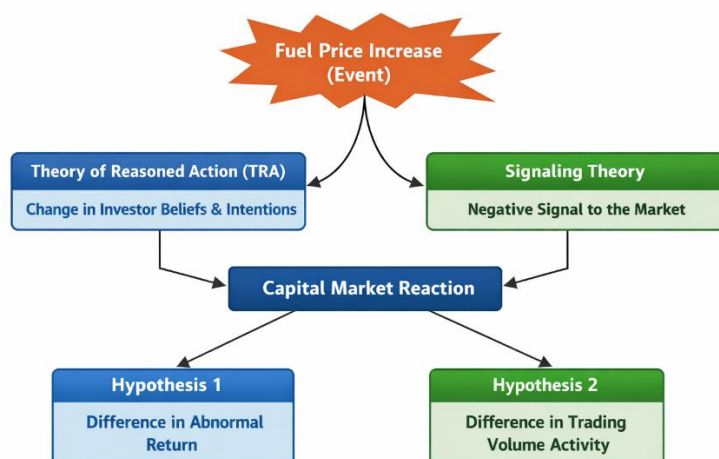


Figure 1. Research Framework

Source: Researcher idea, generate by AI (Copilot)

Based on [Figure 1](#), the research framework illustrates the relationship between the Theory of Reasoned Action (TRA) and Signaling Theory in explaining investor behavior toward fuel price changes. The event of a fuel price increase acts as a macroeconomic shock that triggers investor responses in the capital market. According to TRA, investors form intentions and decisions based on their beliefs and attitudes toward the event; when they perceive fuel price hikes as detrimental to corporate performance, their trading behavior and return expectations may shift. Meanwhile, Signaling Theory interprets the announcement of fuel price increases as a negative signal, suggesting potential declines in profitability and purchasing power. These theoretical perspectives converge to explain the capital market reaction, which is reflected in two measurable outcomes: differences in abnormal returns and differences in trading volume activity before and after the event. The framework thus integrates behavioral and informational perspectives to capture how investors respond to policy-driven economic signals.

2.5. Hypothesis Development

Hypothesis 1: Abnormal Return Differences

Based on the Theory of Reasoned Action (TRA), investors form intentions and behaviors according to their beliefs about market events ([Suryaningrum, 2024](#)). A fuel price increase is perceived as a macroeconomic shock that may raise production costs and inflation, influencing investor expectations of firm performance. Consequently, investors may adjust their trading behavior, leading to differences in abnormal returns before and after the event. From the perspective of Signaling Theory, the announcement of a fuel price hike serves as a negative signal to the market, suggesting potential declines in profitability and consumer purchasing power. Prior studies, such as [Tampubolon et al. \(2023\)](#), found that bid-ask spreads significantly affect abnormal returns during fuel price adjustments, reflecting liquidity and investor sentiment shifts. Therefore, it is hypothesized that there are significant differences in abnormal returns before and after the fuel price increase.

Hypothesis 2: Trading Volume Activity Differences

Trading volume activity reflects investor reactions to new information. According to TRA, investors who perceive fuel price hikes as detrimental may reduce trading activity, while those anticipating opportunities may increase it. Signaling Theory suggests that the announcement of fuel price increases signals uncertainty, prompting investors to reassess their positions, which can lead to fluctuations in trading volume. Empirical evidence from [Puspitaningtyas \(2019\)](#) shows that market reactions to dividend announcements, interpreted as signals, resulted in abnormal returns and changes in trading activity. Similarly, [Alamgir & Amin \(2021\)](#) demonstrated that oil price shocks influence stock market dynamics in South Asia. Thus, it is hypothesized that there are significant differences in trading volume activity before and after the fuel price increase.

3. RESEARCH METHOD

3.1. Research Design

This type of research is an event study. An event study is a research methodology often used to measure the impact of a specific event on a company's value. This method typically utilizes financial market data, such as stock prices and transaction volume, to analyze the event being researched.

The primary objective of an event study is to understand how a specific event, such as a corporate action announcement (e.g., a merger or acquisition), a dividend announcement, or other events such as elections or natural disasters, affects the value of the company involved in the capital market. This method allows researchers to observe market and investor reactions to these events. As stated by [Jogiyanto \(2017\)](#), event study research focuses on analyzing the capital market's reaction to an event announced through an announcement.

3.2. Procedures in Event Study

Event studies are used to examine the content of announcements and test market efficiency in semi-strong form. This type of event study research can be applied to various events such as elections, political unrest, terrorist attacks, wars, or corporate actions undertaken by companies such as rights issues, stock splits, bonus shares, dividend distributions, initial public offerings, share conversions, and other events. The steps in conducting an event study are as follows:

1. Determine the event to be the object of the study. Events that are the object of research in an event study can focus on a variety of topics, for example, corporate actions such as mergers and

acquisitions, rights issues, dividend announcements, stock splits, or other events such as elections, terrorist attacks, natural disasters, and so on. However, in this study, the main focus is the announcement of a fuel price increase.

2. Determine the research period within an event window. When determining the research period in an event study, researchers must exercise careful consideration. Various previous empirical studies have used different research periods. The longer the research period used, the more information can be observed, but there is a risk of bias due to the influence of other events. Therefore, this study focuses primarily on the fuel price hike announcement. The researchers chose to exclude samples involved in other policies, such as rights issues, stock splits, mergers, and acquisitions, to focus the analysis on specific and relevant events. The event window used was 11 days, starting five trading days before the fuel price hike announcement and extending five trading days afterward.
3. Establish specific criteria required for an event study. The criteria required for an event study include the necessary data and the sample of companies to be studied. In this study, the sample consisted of 45 companies that met the predetermined criteria.
4. Design a testing framework. The testing framework includes determining the hypotheses to be tested and the statistical techniques to be used to analyze the research results.
5. Conduct the necessary measurements to assess the impact of the event.
6. These measurements involve abnormal returns and trading volume activity before and after the event.

3.3. Data analysis and Hypothesis Testing

The hypothesis testing in this study uses a paired sample t-test to examine differences in market reactions before and after the fuel price increase. This statistical method is appropriate when comparing two related samples — in this case, the same group of companies observed across two time periods: five days before and five days after the event. The test evaluates whether the mean differences in abnormal returns and trading volume activity are statistically significant.

According to [Gujarati and Porter \(2021\)](#), the paired t-test is effective for detecting short-term market reactions in event studies because it accounts for the correlation between paired observations. The approach assumes that investors respond rationally to new information, consistent with the Theory of Reasoned Action (TRA), where behavioral changes reflect shifts in beliefs and intentions. Meanwhile, Signaling Theory suggests that the fuel price announcement acts as a signal influencing investor sentiment and trading behavior. If the test results show no significant difference, it implies that the market perceives the event as neutral or already anticipated. Conversely, a significant difference would indicate that the event triggered new information affecting investor decisions. This method provides a robust way to assess how policy-driven economic events influence market dynamics, particularly in emerging markets like Indonesia, where external shocks often reveal the sensitivity of investor behavior.

4. RESULTS AND DISCUSSION

4.1. Results

Hypothesis 1 Results

Before testing hypothesis 1 for the abnormal return (AR) variable, it is necessary to first determine the normality of the data ([Table 2](#)) before and after the increase in fuel prices.

Table 2. Abnormal Return Normality Test Results

		AR-before	AR-after
N		45	45
Normal Parameters ^{a,b}	Mean	-.0010367	.0004616
	Std. Deviation	.00887311	.00692447
Most Extreme Differences	Absolute	.070	.134
	Positive	.047	.134
	Negative	-.070	-.070
Kolmogorov-Smirnov Z		.467	.902
Asymp. Sig. (2-tailed)		.981	.390

^a Test distribution is Normal. ^b Calculated from data.

Source: Data processed.

Based on Table 2, the Asymp. Sig. (2-tailed) value for AR before the event is 0.981, and the Asymp. Sig. (2-tailed) value for AR after the event is 0.390. Both values are greater than 0.05 (5%), which means that the AR data before and after the event have a normal distribution. Thus, it can be concluded that the AR data meets the requirements for use in testing hypothesis 1, because it is normally distributed. Therefore, the test method used to test hypothesis 1 is the paired sample t-test method (Table 3).

Table 3. Paired Sample t-Test Results for Hypothesis 1

Pair		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
1	AR-before AR-after	-.00149822	.00956762	.00142626	-.00437265	.00137621	- 1.050	44 .299	

Source: Data processed.

Based on the results of Table 3, the paired sample t-test for hypothesis 1 yielded a significance value of 0.299, or greater than 0.05. Therefore, hypothesis 1 was rejected, indicating no significant difference in average abnormal returns between before and after the fuel price hike announcement for LQ45 companies.

Hypothesis 2 Results

Before testing hypothesis 1 for the trading volume activity (TVA) variable, it is necessary to first determine the normality of the data (Table 4) before and after the increase in fuel prices.

Table 4. Trading Volume Activity Normality Test Results

		TVA-before	TVA-after
N		45	45
Normal Parameters ^{a,b}	Mean	.6872576	.6713027
	Std. Deviation	.70340703	.67576706
	Most Extreme Differences		
	Absolute	.213	.221
	Positive	.213	.221
	Negative	-.175	-.174
Kolmogorov-Smirnov Z		1.431	1.485
Asymp. Sig. (2-tailed)		.033	.024

^a Test distribution is Normal. ^b Calculated from data.

Source: Data processed.

Based on Table 4, Asymp. Sig. (2-tailed) TVA before the event is 0.033 or less than 0.05 and Asymp. Sig. (2-tailed) TVA after the event is 0.024 or more than 0.05 which can be interpreted that the TVA data before and after the event is less than 0.05 (5%) so it is concluded that the TVA data is not normally distributed. Therefore, to test hypothesis 2, the Wilcoxon signed-rank test is used (Table 5).

Table 5. Wilcoxon Signed-Rank Test Results for Hypothesis 2.

		N	Mean Rank	Sum of Ranks
TVA-after - TVA-before	Negative Ranks	25 ^a	23.24	581.00
	Positive Ranks	20 ^b	22.70	454.00
	Ties	0 ^c		
	Total	45		

a. TVA-after < TVA-before

b. TVA-after > TVA-before

c. TVA-after = TVA-before

		TVA-after - TVA-before
Z		-.717 ^b
Asymp. Sig. (2-tailed)		.474

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

Source: Data processed.

Based on [Table 5](#), the second hypothesis test using the Wilcoxon signed-rank test showed a significance value of 0.474, which is greater than the alpha value (0.05). Therefore, the second hypothesis is rejected, indicating no significant difference between the average trading volume activity before and after the fuel price increase announcement for LQ45 companies.

4.2. Discussion

Abnormal Return Before and After the Fuel Price Changes

The finding that there is no significant difference in abnormal returns before and after the fuel price increase can be interpreted through the Theory of Reasoned Action (TRA) and Signaling Theory. According to TRA, investors act rationally based on their beliefs and intentions; if they perceive the fuel price hike as an anticipated or manageable event, their investment behavior remains stable. This suggests that investors had already incorporated expectations of the fuel price adjustment into their decision-making, leading to minimal market reaction. From the perspective of Signaling Theory, the announcement may not have been perceived as a strong negative signal, possibly because the market considered it part of routine government policy rather than unexpected news. Thus, the absence of significant abnormal returns reflects a neutral interpretation of the signal, indicating that investors did not revise their expectations about firm performance or profitability in response to the event.

This result aligns with several recent studies that found limited market reactions to fuel price changes. [Tampubolon et al. \(2023\)](#) reported that abnormal returns around the 2022 fuel price increase in Indonesia were statistically insignificant, suggesting that investors had already anticipated the policy. Similarly, [Alamgir & Amin \(2021\)](#) found that oil price shocks in South Asia did not consistently affect stock market performance, implying that macroeconomic factors were already priced in. In contrast, [Puspitaningtyas \(2019\)](#) observed that only unexpected signals tend to trigger significant market responses. Collectively, these studies support the notion that when information is predictable or well-communicated, market participants exhibit rational and stable behavior, consistent with TRA's assumption of reasoned decision-making and Signaling Theory's emphasis on information interpretation.

The absence of significant differences in abnormal returns implies that Indonesia's capital market demonstrates resilience and rationality in responding to government policy changes. For policymakers, this suggests that transparent communication and gradual implementation of fuel price adjustments can mitigate market volatility. For investors, the finding reinforces the importance of long-term strategies rather than reactive trading based on short-term policy events. Academically, this outcome contributes to the understanding that market efficiency in emerging economies may improve as information dissemination becomes more effective. It also highlights the evolving maturity of investor behavior in Indonesia, where decisions are increasingly guided by fundamental analysis rather than speculative reactions to policy signals.

Trading Volume Activity Before and After the Fuel Price Changes

The finding that there is no significant difference in trading volume activity before and after the fuel price increase can be explained through the Theory of Reasoned Action (TRA) and Signaling Theory. TRA suggests that investors make decisions based on rational beliefs and intentions; if they perceive the fuel price hike as anticipated or already incorporated into their expectations, their trading behavior remains unchanged. In this case, investors may have considered the policy adjustment as part of routine government measures, thus not altering their trading volume significantly. From the perspective of Signaling Theory, the announcement did not act as a strong negative signal, meaning that investors did not interpret the event as new or disruptive information. Consequently, the stability in trading volume activity reflects a neutral market response, where investor sentiment remained steady despite the policy change.

This result is consistent with recent studies that highlight limited market reactions to fuel price adjustments. [Tampubolon et al. \(2023\)](#) found that trading volume activity around the 2022 fuel price increase in Indonesia did not show significant changes, indicating that investors had anticipated the event. Similarly, [Alamgir & Amin \(2021\)](#) reported that oil price shocks in South Asia did not consistently affect trading activity, suggesting that markets often absorb such information without major fluctuations. In addition, [Rahmawati et al. \(2020\)](#) emphasized that investor reactions are more pronounced when events are unexpected, while routine policy changes tend to generate muted responses. These findings collectively support the idea that predictable signals, such as fuel price hikes, do not necessarily trigger significant trading volume shifts in emerging markets.

The absence of significant differences in trading volume activity implies that Indonesia's capital market demonstrates resilience and rationality in responding to government policy changes. For policymakers, this suggests that transparent communication and gradual implementation of fuel price adjustments can help maintain market stability. For investors, the findings highlight the importance of focusing on long-term fundamentals rather than reacting to short-term policy events. Academically, this outcome contributes to the literature on market efficiency, showing that emerging markets like Indonesia are increasingly capable of absorbing macroeconomic signals without excessive volatility. It also underscores the maturity of investor behavior, where trading decisions are guided more by rational expectations than speculative reactions to government announcements.

These results indicate that the fuel price increase on September 3, 2022, did not have a significant impact on the capital market. This is likely due to the circulation of information about the planned fuel price increase since August, which led market participants to anticipate it. Furthermore, news regarding the fuel price increase was also disclosed by Sri Mulyani, who stated that the government was facing a significant budget burden. Despite the significant fuel price increase on that date, the capital market did not show a significant reaction. This may be because market participants had already adjusted to the situation and anticipated the impact of the fuel price increase. Therefore, this study concludes that the fuel price increase on September 3, 2022, did not have a significant impact on stock prices in the capital market.

5. CONCLUSION

This study concludes that the capital market in Indonesia did not exhibit significant reactions to the fuel price increase announced on September 3, 2022. Both abnormal returns and trading volume activity among companies listed in LQ45 remained relatively stable before and after the event. These findings suggest that investors had anticipated the policy change and incorporated it into their expectations, leading to muted market responses. The results also highlight the rationality of investor behavior, consistent with the Theory of Reasoned Action, and the neutral interpretation of signals, as explained by Signaling Theory. By demonstrating the absence of short-term volatility, the study provides evidence of market resilience in the face of macroeconomic policy adjustments. This outcome enriches the understanding of how emerging markets respond to government interventions. Overall, the research underscores the importance of transparency and predictability in policy communication to maintain capital market stability.

5.1. Limitations

This study has several limitations. First, the observation period was limited to ten days, which may not capture longer-term market reactions to fuel price changes. Second, the analysis focused only on companies listed in LQ45, potentially excluding broader market dynamics. Third, the study relied on abnormal returns and trading volume activity as indicators, while other measures such as volatility or liquidity could provide additional insights. Fourth, external factors such as global oil prices or political developments were not controlled, which may have influenced investor behavior. These limitations suggest that the findings should be interpreted cautiously and within the specific context of the study.

Future research can address these limitations by extending the observation period to capture medium- and long-term effects of fuel price adjustments. Expanding the sample beyond LQ45 companies would provide a more comprehensive view of market reactions. Researchers could also incorporate additional variables such as market volatility, liquidity, or investor sentiment indices to enrich the analysis. Comparative studies across different emerging markets would help identify whether similar patterns exist in other contexts. Moreover, examining the role of global energy prices and macroeconomic indicators could clarify external influences on capital market behavior. By adopting these approaches, future studies can provide deeper insights into the complex relationship between energy policy and financial market dynamics.

5.2. Contributions

Theoretical Contribution

Theoretically, this study contributes to the literature on event studies by integrating the Theory of Reasoned Action and Signaling Theory to explain investor behavior in emerging markets. The absence

of significant differences in abnormal returns and trading volume activity demonstrates that predictable policy events may not generate strong market signals. This finding supports TRA's assumption that investors act rationally when information is already embedded in their beliefs and expectations. It also refines Signaling Theory by showing that not all announcements function as disruptive signals; some may be interpreted as routine adjustments. By applying these theories to the Indonesian context, the study expands their relevance beyond developed markets. This theoretical integration provides a framework for future research examining how investor rationality and signal interpretation interact in shaping market outcomes. Thus, the study strengthens the conceptual link between behavioral theories and empirical capital market analysis.

Practical Contribution

The findings offer valuable insights for investors and market participants. The stability of abnormal returns and trading volume activity suggests that short-term trading strategies based on fuel price announcements may not yield significant gains. Investors can instead focus on long-term fundamentals and portfolio diversification to mitigate risks from macroeconomic shocks. For financial analysts, the results highlight the importance of distinguishing between anticipated and unexpected events when evaluating market reactions. The study also provides evidence that Indonesian investors are increasingly rational, reducing susceptibility to speculative behavior. This maturity in trading practices enhances confidence in the capital market. Overall, the practical contribution lies in guiding investors toward more informed and resilient strategies in the face of policy-driven economic changes.

Policy Contribution

From a policy perspective, the research underscores the importance of transparent communication in implementing fuel price adjustments. The absence of significant market reactions indicates that clear and predictable announcements can help maintain investor confidence. Policymakers can use these findings to design energy policies that minimize financial market disruptions. By ensuring that information is disseminated effectively, governments can reduce uncertainty and prevent unnecessary volatility. The study also suggests that gradual implementation of fuel price changes may further stabilize market responses. For regulators, this evidence supports the need to strengthen disclosure practices and enhance investor education. Ultimately, the policy contribution lies in demonstrating that well-managed communication strategies can align economic policy with capital market stability.

This study examines the Indonesian capital market's response to the September 3, 2022 fuel price increase by analyzing abnormal returns and trading volume activity among LQ45 companies. Using event study methodology and paired sample tests, the results show no significant differences before and after the announcement. The findings suggest that investors acted rationally, consistent with the Theory of Reasoned Action (TRA), and interpreted the policy as a routine adjustment rather than a disruptive signal, in line with Signaling Theory. Theoretically, the study contributes to event study literature by demonstrating that predictable policy events may not generate strong market reactions in emerging markets. Practically, it guides investors to focus on long-term fundamentals rather than short-term speculation. From a policy perspective, the results highlight the importance of transparent communication and gradual implementation of fuel price adjustments to maintain market stability and investor confidence.

Generative AI Statement

The authors declared that Generative AI was used in the creation of this manuscript. The authors affirm that, while generative AI (Copilot) was used to support the drafting process, all intellectual contributions, data interpretation, and final revisions were undertaken by the authors. Responsibility for the accuracy, originality, and integrity of the content rests solely with the authors.

Abbreviations

JCI – Jakarta Composite Index
 IMF – International Monetary Fund
 TRA – Theory of Reasoned Action
 AR – Abnormal Return
 TVA – Trading Volume Activity

Authors' Contribution

All authors equally contribute to the research and writing the manuscript, with SS as the supervisor during this study.

Conflict of Interest

The authors declare no conflicting interest in this study.

Funding

This research received no external funding.

Availability of data and materials

All data are secondary data and available in IDX for LQ45 index or companies' website.

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