



From Chaos to Opportunity: Can Investors Make Abnormal Profit During Political & Economic Uncertainty? Evidence From Pakistan Stock Exchange

Anum Muhammad Nasirⁱ, Muhammad Asad Aliⁱⁱ, Muhammad Mubeenⁱⁱⁱ & Shujaat Saleem^{iv}

i) Research scholar, Department of Commerce, University of Karachi

ii) Assistant Professor, Shaheed Zulfikar Ali Bhutto Institute of Science and Technology, Karachi

iii) Assistant Professor, Department of Business Administration, IQRA University, Karachi

iv) Associate Professor, Department of Business Administration, IQRA University, Karachi

ARTICLE INFO

Keywords:

Event study, Pakistan Stock Exchange, Mean-adjusted return model, Investor behaviour, Efficient Market Hypothesis.

ABSTRACT

The objective of this study is to examine whether investors in the Pakistan Stock Exchange react rationally or emotionally during significant political and non-political events. The proxy for the market returns in the study is the daily returns of KSE-100 index. The study focuses on twelve major political and non-political events occurred between June 2014 and Feb 2024. To accommodate the 300-day estimation window for calculating expected returns, the study period spans from August 2013 to February 2024, ensuring sufficient historical data for each event. This research Employs the mean-adjusted return model and event study methodology. It explores the debate around market efficiency, particularly in the context of political and economic uncertainty, by analysing the market's response to twelve major events including the Operation Zarb-e-Azb (2014), the Peshawar School Attack (2014), the Panama Papers Leak (2016), Nawaz Sharif's disqualification (2017), FATF Grey Listing (2018), General Elections (2018), Azadi March (2019), Covid-19 lockdown (2020), the Ouster of Imran Khan (2022), the Return of Nawaz Sharif (2023), the Imprisonment of Imran Khan (2023), and the General Elections (2024). Previous studies focus solely on political uncertainty but this study is unique as it simultaneously examines both political and non-political shocks, to provide a better understanding of investor behaviour in Pakistan. The results show that seven events had a statistically significant abnormal returns, including the General Elections 2024, General Elections 2018, Nawaz Sharif's Disqualification, Azadi March, Imran Khan's Imprisonment, Nawaz Sharif's Return to Power, and the Covid-19 Lockdown highlighting emotional investor reactions to heightened uncertainty. In contrast, other events such Peshawar school attack and operation Zarb-e-Azab exhibited either temporary or insignificant effects, suggesting that the stock market absorbs most political and non-political shocks efficiently. These findings contribute to the capital market literature in Pakistan by offering empirical insights into how the PSX responds to uncertainty, reinforcing the notion that while the market normalizes over time, unexpected and critical events can disrupt investor sentiment in the short run.

Corresponding Authors: Muhammad Mubeen

Email: mmubinmemon@gmail.com

Received: 23rd April, 2025

Received in revised form: 25th August, 2025

Accepted: 27th August, 2025

The material presented by the authors does not necessarily represent the viewpoint of the editor(s) and the management of the Khadim Ali Shah Bukhari Institute of Technology (KASBIT) as well as the authors' institute © KBJ is published by the Khadim Ali Shah Bukhari Institute of Technology (KASBIT) 84-B, S.M.C.H.S, off Sharah-e-Faisal, Karachi- 74400, Pakistan



1. Introduction

The stock market is crucial to a nation's growth by facilitating capital distribution between investors and businesses. The sustainability and growth attract both domestic and international investments, so indirectly enhancing overall economic competitiveness (Boldeanu & Tache, 2023). The economic, non-economic, and political dimensions demonstrate a symbiotic relationship regarding stock market success. Macroeconomic variables, like interest rates, inflation, and monetary and fiscal policy, influence the market composite, whereas microeconomic factors impact individual enterprises. Non-economic events, such as natural disasters and political instability, can yield substantial repercussions. Rezazadeh (2023) showed that for this region (i.e., Pakistan), regional stock market prices are commonly be less affected by domestic political instability and terrorism. During election times, often volatility is magnified, studies suggest stock markets keep moving around election dates on uncertainty about future policies and governance (Oueslati et al., 2021). Although politics as we know it would not have any immediate effect over the stock markets they are taken as substantial driver for same. This is because the political influence on market results and corporate performance is massive (Nguyen, 2023). Ali et al. indicate that in such politically insecure environments, investors usually exhibit prudence because unexpected events might trigger market collapse and market, thus lowering the stock market return (Ali et al., 2019). Similarly, Nazir et al. (2014) found that although political events do not immediately impact stock markets, they have a massive effect on market transactions and economic performance as a whole, in a stable political climate, less investment risks promote capital investment. Qubbaja and Omar (2019) confirm the same results, capital goes to the markets where political risk is down so this underscore as firm-level performance dependence on political stability. Another study by Dangol (2008) show that political shocks out of the blue can give rise to abnormal returns which indicate presence of the stock market and sensitive to political risks. In support of this likewise study by Jabarin et al. (2019) discovered that crucial political events did have measurable effect on stock market reactions in Palestine and Amman alike stress the importance of political backdrop in monetary markets. Similarly, Liu et al. (2017) reveal that Xiaini's Bo Case in China is a typical illustration of politic uncertainty causing hangings of stocks, especially for the companies which have built-in political factors. Furthermore, one might expect the market volatility to amplify the effects of political shock as well. Research on the British stock market during WWII revealed pronounced drops in stock prices following large political shocks



for British stock, suggesting it is common for markets to react to anti-political changes (Hudson & Urquhart 2015). Another feature of this sentiment is demonstrated by Aksoy (2014) who found that Turkish stock market exhibits segmented response across terrorist attacks, meaning opinions of investors can change drastically in little time in reaction to a political violence. Khan and Ahmed (2009), also evaluated the relationship among amassed stock market trading volume and daily stock return during Dev-2007 to 2008. With the help of statistical techniques, author used to tell correlation among the stock's return and trade volume. Results indicate that because of the appearance of event, the correlation influence among stock return and trade volume. The nature of negative and positive significance of correlation rest on event occur. Moreover, the role of investor sentiment cannot be overlooked. Studies such as that by Addoum and Kumar (2016) demonstrate that shifts in political sentiment can lead to systematic changes in stock prices, as investor portfolios adjust in response to political changes.

Moreover, the effects of political and non-political events on stock market returns are not similar across different countries. For instance, study by Taimur and Khan (2013) demonstrate that the price movements in both emerging and developed markets have been influenced historically by political events, although these effects are somewhat heterogeneous in their scope and disproportionality grounded in specificity of event type and underlying inequity. Context to Pakistan, Ashraf et al. (2020) inventively looked at how politically connected firms fared with respect to stock returns patterns during election, thereby further complicating the link between politics and market performance by uncovering differences in how companies respond to regime change. According to Masood and Sergi (2008), across years the probability of political events in Pakistan is very high and are an average of 1.5 per year. Nuclear tests by Pakistan and India military intervention (resulting in the war on terror), political unrest has drastically affected Pakistan's economical condition. The global perception of Pakistan after the September 11, 2001 attacks had a dramatic impact on the economy, leading to reduced foreign investment in the financial markets.

Despite the extensive literature available on the impact of political and non-political events on the stock market returns, the authors identified a notable research gap specific to the Pakistani environment. Previous research, such as studies conducted by Ashraf et al. (2020) and Abbas et al. (2021), concentrated on how specific political events affected Pakistan's financial sector, but they ignored other non-political events that could have an impact on Pakistan's stock market returns. Therefore, they did not give a thorough study of the Pakistan Stock market returns. Although,



Masood and Sergi (2008) conducted their analysis to study the effect of different political events on the returns of Pakistan Stock Exchange (PSX), their study focused mostly on assessing political risk and the likelihood of future events in relation to past years, thus it was confined to 2006 data.

Given the dramatic changes in the political and economic landscape in recent years, there is a need to investigate whether political and non-political events in Pakistan create opportunities for Pakistan's investors to make abnormal profits. This study seeks to fill this gap by examining whether political and non-political events from June 2014 to Feb 2024 create opportunities for investors to make abnormal profits in the Pakistan Stock Exchange (PSX), by addressing these two key research questions: (1) Does the Pakistan Stock Exchange experience abnormal returns as a result of political and non-political events? (2) Can investors earn profit during period of political and economic uncertainty through strategic investment? Additionally, the study seeks to determine the duration it takes for the Pakistani stock market to return to normalcy following major event.

This study offers a comprehensive analysis of whether both political and non-political events create opportunities for investors to earn abnormal profits in the Pakistan Stock Exchange. It contradicts the traditional assumptions of market efficiency and rational decision-making, by providing insights to what extent political and economic instability and investor sentiments can drastically affect markets dynamics. By shedding light on the role of emotions and sentiments, the study contributes to the domain of behavioral finance. Moreover, it provides a valuable insight for both investors and policymakers. The findings contribute to the capital market literature, offering a unique perspective on how markets react to uncertainty in the Pakistani context.

2. Literature Review

2.1 Theoretical Framework

2.1.1 Efficient Market Hypothesis (EMH) and Behavioral Finance

The relation between political and non-political events and stock market returns is one of the most extensively studied area, which can be analyzed in the framework of Efficient Market Hypothesis (EMH) by Fama (1998) and also by alternative models in behavioral finance. EMH, that assumes the market is efficient where prices reflect all past, present, public and private information. So nobody can gain extra returns aside from the market itself. In contrast, behavioral finance provides a complementary perspective by emphasizing how investor psychology, behavioral biases, and emotional reactions influence market outcomes, particularly during periods of uncertainty. According



to behavioral finance theory, investors are not always rational and may exhibit biases such as overconfidence, herd behavior, or loss aversion, which can lead to overreactions or underreactions to political and non-political events.

A study that supports EMH approach is by (Ali & Saha, 2020), where they said that Indian capital market response towards the outcome of Lok Sabha elections, which shows that stock prices changed according to new incoming information about the political environment, thereby supporting the EMH's claim that such markets react dynamically to news. Chau et al. (2014) showed political turbulence, such as the Arab Spring, significantly contributed to volatility in the MENA stock markets, although it did not affect their integration with global markets. This suggests that while markets may react to political events, the degree of integration and efficiency can vary, challenging the notion of a fully efficient market.

Furthermore, Jensen & Schmith, (2005) used the response of the stock market to the political event as the parameter to study this phenomenon to begin. They argue that the election of politicians who are presumably going to push pro-market policies induces higher stock returns and higher stock price volatility due to adverse political events. It is in line with the semi-strong form of EMH (Chavali et al. 2020) that stocks adjust quickly to publicly available information after an event breaks in political news. Nevertheless, the response does not seem immediate or homogeneous across all markets as demonstrated by Fodol & Aziz (2019), who say that Saudi stock market was an inefficient information processor for political news implies that market is weak-form. Wong & Hooy (2021) concurs as well, with politically connected firms whose volatilities increased in high-visibility events the market seems to be capable at reflecting information not uniformly across sectors.

2.1.2 Behavioral Finance and Investor Psychology

The investor sentiment and behavior finance also play an important role in the effect of political and economic events on stock returns. Behavioral finance can help to understand how major events impact behavior of investor. Empirical evidence often indicating that political and non-political events can lead to abnormal returns, which suggests market inefficiencies. For instance, investor's confidence may also be influenced by fear or optimism during various events. As a result, stock prices may deviate critically from their underlying values, leading to abnormal returns.



In this context, Rehan et al. (2021) report that during political instability the overconfidence and herding behaviour increase the volatility in the market returns thus creating an opportunity for investors to earn abnormal returns. This study contributed as empirical evidence for emerging economies like Pakistan. Similarly, another study by Rehan et al. (2022) examined the impact of Covid-19 pandemic on global indices. The study reported significant increase in volatility in market and adverse abnormal returns due to investors' panic behaviour and disturbances in economies. Furthermore, Alvi & Rehan (2020) reported existence of overconfidence and risk aversion in mutual fund investors resulting irrational investment decisions. Alvi et al. (2025) reports the similar results in their study. They report existence of herding behaviour and emotion based trading in the Pakistani stock market during political uncertainty periods.

In a similar study, Sharma & Kumar (2019) report that behavioural biases i.e., departure from EMH, impact the movement of stock prices. The presence of fear and speculation, particularly in the period of political uncertainty, can lead the stock prices deviate from their fundamental value (Savita & Ramesh, 2015). Furthermore, Adjei (2017) also reports political uncertainties influencing investor sentiments ultimately resulting their impact on stock market returns. The connection between political events and subsequent market reaction provides a better understanding about how information is transmitted and processed in the market. Additionally, the psychological factors may lead deviations from expected market behavior. Findings from these studies potentially imply that psychological factors such as fear, optimism and herding have a potential to push the stock prices away from their fundamental values. This ultimately challenges the EMH.

2.2 Empirical Evidence

2.2.1 Political and Non-Political Events and Stock Market Returns

The impact of political and non-political events on stock markets is a well-documented phenomenon that can manifest in different ways, including increased volatility, abnormal returns, and shifts in investor sentiment. For instance, Hamdani et al., (2024) explore the effects of general elections on stock market volatility in Indonesia, revealing that political events like general elections lead to noticeable fluctuations in stock returns on the Indonesia Stock Exchange. Their findings indicate that the market's reaction to such political events is substantial, particularly highlighted during the elections in 2009, 2014, and 2019. These results are extended by their analysis of elections from 2004 to 2023, which showed that pre-election uncertainty increased volatility in the Jakarta Composite



Index, with significant abnormal returns. Similarly, Karki et al., (2024) highlight that unanticipated political events can significantly impact the Nepal Stock Exchange, underscoring the market's sensitivity to political dynamics. Their study specifically notes sharp declines in insurance stock prices due to heightened risk perceptions during events like government changes, with abnormal returns in 5- and 10-day windows, suggesting sector-specific vulnerabilities relevant to the PSX. An obvious way large events influence through their impact on the volatility of the market. For example, Chau et al. (2014) found that political volatility, associated with the Arab Spring created volatility across the stocks in those Middle Eastern and Northern African countries, particularly among Islamic indices. Further, an announcement or decision political in nature may even have direct consequences for stock prices across certain sectors. Showing that political declarations or decisions may also signal immediate action in capital markets, and impact the valuation of companies by providing a communication signal (Levine and Zervos, 1998). This sentiment is echoed by Nguyen (2023), who stated that the Vietnamese stock exchange was greatly affected by international political influences, which is an example of the idea that political and non-political impacts can have extensive influences on capital markets.

The relationship between extraordinary events and stock market performance is not only limited to asymmetry of positive or negative outcomes but could also be viewed in terms of asymmetry between the response to good news or bad news. For example, Škrinjarić & Orlović (2019), Karime & Sayılır (2019) demonstrate that negative political news has a stronger effect on stock returns than good news. Denie et al. (2024) further continue this discussion by examining the Indonesian stock market during geopolitical events (2022–2024), finding that rising oil prices due to events like the Russia-Ukraine conflict negatively impacted energy-dependent sectors, while gold prices stabilized financial sectors as a safe-haven, and DXY appreciation increased volatility due to foreign capital outflows.

Moreover, the impacts of political and non-political events are specific to individual markets as object of study. For instance, Ali, et al. (2019) reported that political stability leads to sounder financial conditions, while the opposite holds true for instability (with increased volatility). This factor is sometime relevant to the emerging markets where political risks are likely to be linked or related strongly to affect the level of investor confidence and market conditions (Ghozzi & Chaibi, 2021), (Vortelinos & Saha, 2016). Similarly, Talbi et al. (2021) had similar results indicating that political uncertainty has a stronger effect on stock market volatility than financial crises impacts in the MENA



region. Gayathri (2025) complements these findings by analyzing India's prime ministerial elections, noting significant abnormal returns in 10-day pre-election windows due to electoral uncertainty, with banking and infrastructure sectors showing resilience and consumer goods facing higher volatility, relevant to PSX election periods.

The first avenue through which political events' features and financial costs affect stock market returns is through uncertainty. For example, Dangol (2008) study of the Quebec referendum reported that the uncertainty about the outcomes had a positive short-term effect on Quebec firms stock returns even for firms not yet created in Quebec, "evidence that underpinning political risk leads to an immediate impact on market value based on expected hints from investors (represented as uncertainty)". Similarly, Apergis, et al. (2017) found that even more recent geopolitical risks which could include political reports from the Paris terror attacks had a notable influence on stock prices of dominating defense companies in the Paris region make shifts in their portfolios that relate into any early strategic circumstances given processes especially as impacts unknown offered - note it took Increase of the defence stock price and put flags but could only speak publicly "portfolio without making quarterly financial statements reflecting shift". Moreover, Sarkar and Roy (2024) provide a systematic review across multiple countries, confirming that political crises (e.g., coups, protests) lead to significant negative abnormal returns in emerging markets, while elections cause short-term volatility followed by recovery with improved governance, emphasizing sectoral impacts in financial and energy sectors.

The timing of any major event can also matter with stock returns. For example, Osamwonyi and Omorokunwa (2017) found that Nigeria's election periods were associated with lower stock return due to uncertainty associated with election results leading to individual investor caution. In the broader literature, there is evidence that political events, such as election periods, or even legislative changes, influence investors to change their stock portfolios. Consequently, the anticipation of these events enables observable market movements (Jensen and Schmith, 2005).

Moreover, the relationship between political and non-political events and stock market performance is not uniform across different contexts. For example, provided empirical evidence from Pakistan, showing that political events often lead to negative abnormal returns, particularly during periods of political instability or autocratic governance (Nazir et al., 2014). This aligns with the findings of Kim & Jung (2014) who noted that geopolitical risks, particularly those stemming from North Korea, have influenced investor behavior in South Korea, leading to heightened volatility in



stock returns during periods of increased tension. Masood and Sergi (2008) analyzed major political events in Pakistan from 1947 to 2006, using Bayesian modeling and Markov Chain Monte Carlo techniques, finding an uncertainty premium of 7.5-12%. Rehman and Khan (2015) highlighted the negative impact of terrorism and the positive effect of elections on stock returns. Chiu et al. (2005) demonstrated that political elections in South Korea altered foreign investors' behavior in financial markets. Similarly, Bechtel (2009) argued that a stable political environment minimizes systematic investment risk, promoting growth, capital investment, and improving overall economic performance. Other studies by Beaulieu et al. (2006), Aktas and Oncu (2006), Bailey et al. (2005), and Frey and Waldenstrom (2004), also suggested that political events had a significant effect on financial market returns and trading volumes.

Moreover, Chau, Deesomsak, and Wang (2014) determined the area North African and Middle East (MENA) the Reaction of stock market to political instability. From time period of 1-june-2009 to 29-june- 2012. On the basis of regularly contain of ending price for Islamic and conventional shares Six MENA nations contain of Bahrain, Egypt, Lebanon, Kuwait, Jordan, and Oman. The outcomes show diverse response of conventional stock and Islamic to the political instability. The Islamic index indications statistically significant rise instability in the time of political uncertainty though conventional markets indicate activities of insignificant.

2.2.2 Political Events and Pakistan Stock Market.

The relationship between political events and stock market returns in Pakistan is a complex and multifaceted issue that has garnered significant attention in academic research. Political events have a major impact on the Pakistan Stock Exchange (PSX) and cause market fluctuations. Political instability and other non-political events, such as elections, government policy, and terrorist attacks, influence stock market returns through their effects on investor sentiment. Political events are potential sources of uncertainty for investors, which can affect stock market returns and volatility. For example, Nazir et al. (2014). empirically examined political events and Karachi Stock Exchange (PSX) returns which concluded that political events negatively affect returns, as significant political events usually lead to adverse returns. Maghdid et al. (2024) address the PSX, finding that high economic policy uncertainty driven by political instability (e.g., Imran Khan's ouster in 2022), reduced KSE-100 returns, with abnormal returns in 30-day windows, while political stability enhanced market resilience. Abbas et al. (2021) also talked about terrorism and the impacts of related events which increased volatility for PSX 100 index overcoming the dichotomous relationship but highlighting how terrorism



and political events produce uncertainty that affects investor confidence. Khalil & Akhtar, (2017) concluded that terrorist events have a negative impact on stock market with different potentials related to various terrorist attack events which could be correlated to larger perceived uncertainty.

This is consistent with the findings of Ahmed & Hussain, (2014). who stated that political instability in South Asia, particularly, the fraught political relationship between India and Pakistan had negative effects on capital markets, including the PSX. Furthermore, Sadiq et al. (2019) point out political influences can mediate quality of financial reporting substantially, further suggesting political states of affairs can have indirect effects on stock market outcomes through governance issues in managements of companies.

Certain political events have also been found to have powerful influences on the stock market. In particular, Audi et al. (2022),(Masood & Sergi, 2008) found that the military coup of 1999, and the assassination of Benazir Bhutto in 2007 were key events that resulted in significant decreases in stock prices. Similarly, Noor et al. (2020) documented significant oscillations of stock returns following the announcement of nuclear tests in 1998, showing a measure of political risk. Furthermore, (Audi et al., 2022) and (Sulehri & Ali, 2020) also found evidence of relationships between political uncertainty and stock market outcomes, as elections tended to produce positive stock returns whereas, other states of political unrest were demonstrated to have produced negative effects.

Moreover, the influence of political events is not the same, as the type and event determines how they will impact the stock market. For example, general elections may cause a stock market to respond positively, but political unrest or the imposition of judicial authority can produce negative consequences (Sulehri & Ali, 2020),(Mai, 2023). This variability illustrates the need for an understanding of the political context when studying stock market movements in Pakistan.

Beyond discrete political events, the broader concept of political stability has an important role to play in stock market performance and investor confidence. Higher political stability has been linked with better stock market performance, as less uncertainty encourages investment (Ali, 2023). While political unrest is associated with reducing liquidity as the transaction costs rise (Kwabi et al., 2023).

Furthermore, the relationship between political events and market returns is not just negative. Raza (2023) reports that positive political events, such as improved governance and democracy, can lead to improvements in market returns as these positive developments increase investor confidence and



subsequent investment. This complexity is important, as clearly, negative political events can create a negative market reaction, while positive changes can promote positive market movement.

The impact of political events can also be seen in terms of the interaction of the PSX 100 index with macroeconomic news that is also related to a political event. Rashid et al. point out that market returns are significantly impacted by macroeconomic news and that macroeconomic news refers to information about the economy in a country when it involves political decision-making. For example, positive economic news correlates with positive increases in the PSX 100 index (Raza, 2023), confirming that economic indicators compound political events.

3. Research Methodology

This study applied event study methodology. It is one of the most commonly used methodologies in previous studies that allows to assess the effects of major events on stock market returns. Researchers commonly use this method to determine how specific events, for example, elections or major policy announcements influence stock prices through abnormal returns in a given event window. This methodology allows some meaningful insight into investor sentiments towards events differing from the normal day to day businesses trends or influences. Numerous studies have demonstrated the efficacy of event study methodology in capturing the impact of political and non-political events on stock market returns. For instance, Nazir et al. (2014) highlight that this method has been successfully adapted to understand political situations in many contexts. Similarly, Jabarin et al. (2019) also used this methodology and demonstrated that political events had a substantial impact on stock market returns in Palestine and Amman which helps the perception of political dynamics as key factors to market behavior. Moreover, the flexibility of the event study methodology is showcased in research centered around various forms of political occurrences. For instance, Tiemann (2023) highlighted that this methodology has a long-standing history in financial research, effectively capturing market sensitivities to various political and non-political events.

The application of event study methodology is not limited to specific regions or types of different events. For instance, research by Obradović & Tomić (2017) examined the effects of the 2012 U.S. presidential election on stock returns, demonstrating the methodology's ability to analyze significant national events. Furthermore, studies like those by Ferreira-Schenk et al. (2019) and Maitra & Dey (2012) illustrate how the methodology can be adapted to assess both corporate and political events, thereby broadening its applicability in financial research. In conclusion, the event study



methodology is a robust framework for analyzing the impact of political and non-political events on stock market returns.

3.1 Events Identification

This study focuses on twelve major political and non-political events outlined in table 3.1 that occurred in Pakistan between June 2014 – Feb 2024:

S.no	Event Date	Description
1	June 15, 2014	Operation Zarb-e-Azab Initiation: The Pakistani military launched a comprehensive operation against militant groups in North Waziristan, aiming to eliminate terrorist strongholds
2	December 16, 2014	Peshawar School Attack: A t terrorist attack on the Army Public School in Peshawar which resulted in deaths of over 150 people.
3	April 3, 2016	Panama Papers Leak: The leak implicated Prime Minister Nawaz Sharif's family in offshore holdings, leading to legal battles and political turmoil.
4	July 28, 2017	Nawaz Sharif's Disqualification: The Supreme Court disqualified Prime Minister Nawaz Sharif from office over corruption charges stemming from the Panama Papers investigation.
5	July 25, 2018	General Elections and Imran Khan's Premiership: PTI won the general elections, and Imran Khan became Prime Minister, marking a significant political shift.
6	June 28, 2018	FATF Grey Listing: Pakistan was placed on the Financial Action Task Force (FATF) grey list due to concerns over money laundering and terror financing.
7	October 28 to November 30, 2019	Azadi March, led by Maulana Fazl-ur-Rehman: A massive protest against the government of Prime Minister Imran Khan.
8	April 01, 2020	Covid-19 Lockdown: A nationwide economic and social disruption began as Pakistan implemented a lockdown to control the spread of COVID-19.
9	April 10, 2022	Ouster of Imran Khan: Imran Khan was removed from office via a no-confidence vote.
10	October 20, 2023	Return of Nawaz Sharif: Nawaz Sharif returned to Pakistan after years in exile.
11	August 05, 2023	Imprisonment of Imran Khan: Imran Khan was jailed, sparking protests.
12	February 08, 2024	General Elections: Pakistan held crucial general elections after political upheaval.

Table 3.1: Selected events from 2014 to 2024



3.2 Data Collection

The proxy for the market returns has been used in this study is the daily returns of KSE-100 index, which has been calculated by using daily closing prices of KSE-100 index, obtained from official website of Pakistan stock exchange. The study focuses on twelve major political and non-political events occurred between June 2014 and Feb 2024. To accommodate the 300-day estimation window for calculating expected returns, the study period spans from August 2013 to February 2024, ensuring sufficient historical data for each event.

3.3 Event window and Estimation Period

The event window is the specific time period around the event date during which the abnormal returns is calculated to assess the impact of the event. Different researchers have used different events window including 2 days, 5 days, 11 days, 15 days, 30 days or 33 days. The selection of the event window is an empirical issue, as choosing one that is too long may capture the effects of other economic, non-economic, or political events not relevant to the study. On the other hand, if the window is too short, it may fail to fully capture the market's reaction to the event. In previous studies, Ismail and Suhardjo (2001) used an 11-day event window to analyze stock market anomalies related to domestic political events. Bailey et al. (2005) utilized a 33-day event window (11 days before and 22 days after) to examine the market impact of the Iraq invasion of Kuwait. Beaulieu et al. (2006) applied a 20-day event window (10 days before and after) to study the effects of the 1995 Quebec Referendum on stock returns. Malik et al. (2009) used a six-month window to assess the impact of Gen. Pervaiz Musharraf's resignation on the KSE-100 index. In another example, Nazir et al. (2014) discussed effects of political events on KSE-100 index returns over periods of 2 days, 5 days and 15 days. The study uses event windows of 5, 15, and 30 days before and after each of the 12 political and non-political events. In view of Pakistan's frequent political instability and unstable future, with 5-, 15-, and 30-day event windows before and after the occurrence so that one annual event will not affect another. The 5 and 15-day windows may provide a better idea of the short-term effects of political events on the KSE-100 index, while the 30-day window will be assessed the market's ability to absorb and process the uncertain information over a slightly longer period.

Estimation period is just the period over which the expected return of the stock market is calculated. Different estimation periods have been applied by different researchers for this purpose including 100, 120, 180, 200 or 300 days (Ahmed, 2017; Attapattu & Gunaratne, 2013; Campbell et al., 2011; Malik, 2009; Nazir et al., 2014; Yeung & Aman, 2016). In this study the estimation period is



defined as 300 days (i.e., 300 by the day of event) prior to the event date. The period is used to compute the expected returns.

3.4 Study Model

There are five models which are commonly used in event study methodology such as mean-adjusted return model, market-adjusted return model, capital asset pricing model (CAPM), Market model and Fama-French Three-factor model. This study used the mean-adjusted return model, which has been well known in the literature on stock market indices for its effectiveness. Through this model, researchers can discover how stock prices react to particular events. They compare actual returns to expected returns, which are typically calculated based on historical performance. We have used this model due to its simplicity and suitability for the PSX, where data limitations, such as unreliable risk-free rate data or less comprehensive market indices, make CAPM and market-adjusted models less feasible. The mean-adjusted model assumes constant expected returns over the estimation period, making it robust for volatile emerging markets like Pakistan, where market dynamics may not be fully captured by broader indices or risk models. Previous researchers, such as (Ali et al., 2019), (Fodol & Aziz., 2019), (Jabarin et al., 2019). (Nazir et al., 2014), (Karki 2024) ,(Yeung and Aman 2016), and (Ahmed 2017), have used this model for assess the impact of political events on the developing and emerging stock markets.

The Actual returns of the KSE-100 index were calculated using the following formula:

$$R_t = \ln(P_n) - \ln(P_{n-1})$$

Where R_t represent the actual returns of KSE-100 index at the specific time t. P_n represents the current price of KSE-index (Closing price) and P_{n-1} represents the previous day closing price of KSE-100 index.

The expected return has determined using the following equation:

$$R^* = \frac{1}{T} \sum_{t=1}^T R_t \dots \dots \dots Eq \quad 01$$

Where (R^*) denotes the expected return, (T) is the number of days in the estimation period, (R_t) represents the actual return of the market index on day (t) .

To analyze the market's reaction to an event, abnormal returns were calculated for the event date as well as the days before and after the event. The abnormal returns of a market index are the difference between the actual and expected return on a given period of time.

$$AR_t = R_t - R^* \dots \dots \dots Eq \quad 02$$

Where (AR_t) is the abnormal return on day (t) within the event window, (R_t) is the Actual return for the KSE-100 index on day (t) , (R^*) is the expected return computed from equation 2.

Moreover, the average abnormal returns before and after the event have been calculated, according to 5, 15 and 30 days before and after the event day.

$$AR_{before}^* = \sum_{t=-k}^{t=-1} AR_{before,t}$$

Where (k) is the number of days before the event, and (AR_{before}^*) is the average abnormal return before to the event day.

And,

$$AR_{after}^* = \sum_{t=1}^{t=k} AR_{after,t}$$

Where (k) represents the number of days after the event, and (AR_{after}^*) is the average abnormal return after the event day.

To measure the event's impact, the abnormal returns before and after the event have been compared. A positive difference indicated a favorable market response, while a negative difference suggested a detrimental impact. To test whether political and non-political events lead to significant differences in market performance, the study proposes the following hypothesis:

H₁: The abnormal returns before and after the events are not equal.

This hypothesis is tested using a paired sample t-test to determine if the differences in abnormal returns before and after the events are statistically significant, indicating potential opportunities for abnormal profits. Which is recommended by Menike and Man (2013), Nazir et al. (2014), and Ahmed (2017). We calculated the standard deviation of pre-event and post-event of abnormal returns:

$$\sigma_{\text{before}} = \sqrt{\frac{\sum_{t=-k}^{t=-1} (AR_{\text{before},t} - AR_{\text{before},t}^*)^2}{n-1}}$$

And,

$$\sigma_{\text{after}} = \sqrt{\frac{\sum_{t=1}^{t=k} (AR_{\text{after},t} - AR_{\text{after},t}^*)^2}{n-1}}$$

Where (σ) is the standard deviation of abnormal returns. Then, the pooled standard error was calculated as:

$$\sigma_{\text{pre-post}} = \sqrt{\frac{(n_1 - 1)\sigma_1^2 + (n_2 - 1)\sigma_2^2}{n_1 + n_2 - 1} \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}$$

Where (σ_1^2) and (σ_2^2) are the variances for the pre-event and post-event periods, respectively, (n_1) and (n_2) are the number of days before and after the event.

Finally, the t-statistic was calculated using:

$$t = \frac{AR_{\text{after}}^* - AR_{\text{before}}^*}{\sigma_{\text{pre-post}}}$$

4. Data Analysis and Findings

This section presents the empirical findings from applying the event study methodology described in Section 3. The analysis proceeds in three stages: first, a preliminary descriptive assessment of the KSE-100 index returns, summarizing their distribution, volatility, and central tendency; second, a visual inspection of daily returns and closing price trends to identify volatility clusters and long-term market cycles; and third, an event-wise abnormal return analysis for twelve major political and non-political events. The results are evaluated through descriptive statistics, time-series plots, paired sample t-tests, and percentage change calculations, allowing for a detailed assessment of the short-term and medium-term market reactions.



4.1 Descriptive Statistics

Table 4.1 summarizes the daily returns of the KSE-100 index over 2,616 trading days from August 2013 to February 2024. The index yields a mean daily return of 0.039% and the standard deviation of 1.062% indicates moderate volatility in daily returns. The negative skewness (-0.52216) reflects a tendency for extreme negative returns, while the kurtosis value (4.32444) exceeds the normal distribution benchmark of 3, indicating a leptokurtic distribution with fatter tails and a higher probability of extreme fluctuations. The minimum and maximum values (-0.07102 and 0.05734, respectively) highlight the occurrence of substantial daily movements in both directions, consistent with the presence of market shocks during the study period. These characteristics suggest that while the KSE-100 generally trends upward in the long term, it experiences occasional sharp downturns, consistent with the volatility patterns of emerging markets (Nazir et al., 2014; Maghdid et al., 2024).

Mean (%)	0.039
Standard Error (%)	0.021
Median (%)	0.051
Standard Deviation (%)	1.062
Sample Variance (%)	0.011%
Kurtosis	4.324
Skewness	-0.522
Range (%)	12.836
Minimum (%)	-7.102
Maximum (%)	5.734
Sum	1.028
Count	2616

Table 4.1: Descriptive statistics of KSE-100 index daily returns

Figure 4.1 presents the KSE-100 closing prices over the study period, illustrating the long-term trend and market cycles. The index experienced multiple growth phases, often interrupted by sharp declines during periods of political instability or global financial stress. For example, the downturn during the Covid-19 lockdown and political unrest periods was followed by recovery phases, demonstrating the PSX's ability to normalize aftershocks. The upward trajectory in certain periods suggests resilience, though the observed volatility underlines the importance of political and macroeconomic stability for sustained market growth (Ali, 2023; Raza, 2023).

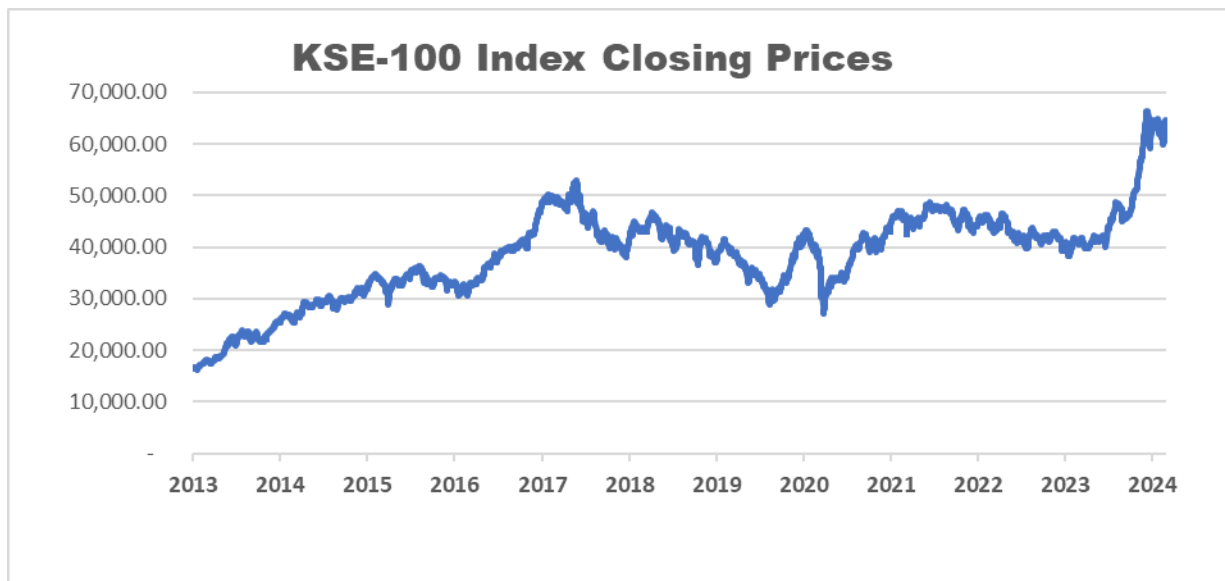


Figure 4.1: Cumulative trend of the KSE-100 index

To further explore the distribution of returns, Figure 4.2 plots the daily returns over time. The chart reveals clear volatility clustering, with periods of heightened fluctuations often coinciding with major political and non-political events examined in this study. Notable spikes both positive and negative are observed around events such as the General Elections 2018 and 2024, the Covid-19 lockdown, and leadership changes, reflecting short-term inefficiencies in market pricing. These patterns are consistent with findings from previous research on political event impacts in emerging markets (Hamdani et al., 2024; Rehan et al., 2021).

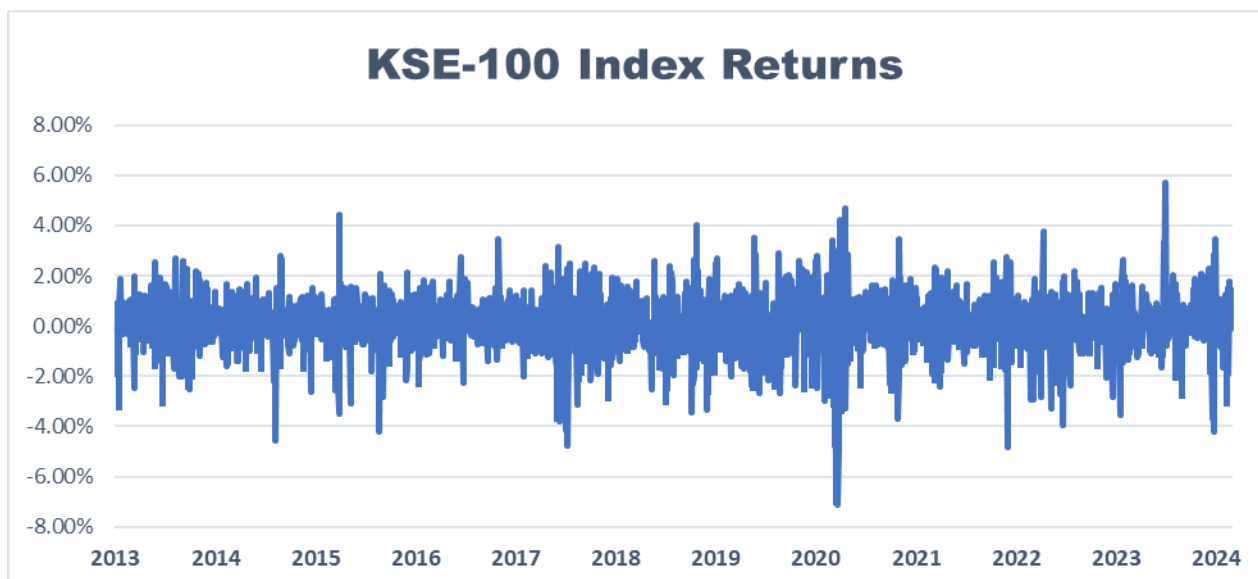


Figure 4.2: Cumulative trend of the KSE-100 index returns



4.2 Abnormal Return Analysis

Table 4.2 represents the average abnormal returns before and after the events at different event window. Table 4.3 shows the significance level of political and non-political events at different event windows of 5 days, 15 days and 30 days.

S.NO	Event	AR*					
		5 Days		15 Days		30 Days	
		Pre	Post	Pre	Post	Pre	Post
1	Operation Zarb-e-Azab Initiation	0.000	-0.006	0.000	-0.002	-0.001	-0.002
2	Peshawar School Attack	-0.003	0.005	0.000	0.003	0.001	0.003
3	Panama Papers Leak	0.004	-0.011	0.002	0.000	0.002	0.000
4	Nawaz Sharif's Disqualification	0.003	-0.011	0.001	0.000	-0.003	0.000
5	General Elections-2018	0.008	0.006	0.000	0.005	-0.001	0.004
6	FATF Grey listing	-0.006	-0.011	-0.001	0.000	-0.001	0.000
7	Covid-19 Lockdown	0.006	0.007	-0.016	0.004	-0.010	0.005
8	Azadi march by Maulana Fazl-ur-Rehman	-0.002	0.008	0.001	0.008	0.003	-0.002
9	Ouster of Imran Khan	-0.003	0.002	0.001	-0.004	0.004	0.000
10	Return of Nawaz Sharif	0.006	0.000	0.005	0.007	0.003	0.007
11	Imprisonment of Imran Khan	0.008	-0.001	0.004	-0.002	0.005	-0.003
12	General Elections -2024	0.002	-0.011	-0.002	-0.001	0.000	-0.001

Table 4.2: Average abnormal returns before and after an event

S.no	Events	t-value		
		5 Days	15 Days	30 Days
1	Operation Zarb-e-Azb Initiation	1.173	0.978	0.516
2	Peshawar School Attack	-1.668	-1.510	-1.193
3	Panama Papers Leak	1.696	0.477	0.989
4	Nawaz Sharif's Disqualification	-1.635**	0.197	-0.800
5	General Elections-2018	-2.080***	-0.962	0.131
6	FATF Grey listing	0.491	-0.243	-0.263



7Covid-19 Lockdown	-0.060	-2.028***	-2.643***
8Azadi march by Maulana Fazl-ur-Rehman	-1.200**	-1.959*	-1.293**
9Ouster of Imran Khan	-0.646	1.282	0.895
10Return of Nawaz Sharif	1.148	-0.675	-2.230***
11Imprisonment of Imran Khan	-1.118**	1.922*	2.424***
12General Elections -2024	-2.386***	-2.205**	0.137

Note: *, **, *Significance at 1, 5, and 10 percent, respectively**

Table 4.3: t-values of market returns at 5-, 15- and 30-days event windows

The initiation of Operation Zarb-e-Azb marked a significant development, leading to delayed but noticeable market reactions. Initially, the stock market displayed minimal movement, with a pre-event AR of 0.000, but as the implications of the military campaign became clearer, investor sentiment adjusted. Post-event, the AR showed a slight in the 5-day window, improving in the 15-day and 30-day windows. The t-values for this event are showing statistically insignificant reaction to the event.

The Peshawar school attack, a profoundly tragic event, did not provoke a substantial reaction in the stock market. While the societal impact was immense, the AR data shows a pre-event decline of -0.003, transitioning to 0.005 post-event in the 5-day window. This upward trend continued into the 15-day and 30-day windows. The t-values indicate that the market's reaction remained statistically insignificant, reflecting its focus on long-term resilience over immediate disruptions.

The Panama Papers leak, which revealed extensive details about offshore holdings of prominent figures, also failed to elicit a strong market reaction. The AR data indicates a pre-event rise of 0.004, which turned negative to -0.011 post-event in the 5-day window. This shift continued into the 15-day and 30-day windows. The t-values of this event suggest that while there was some initial sensitivity, the reactions were statistically insignificant over the longer windows.

Nawaz Sharif's disqualification, a major political event, significantly affect market sentiment in the 5 days window. AR data shows a minor pre-event rise of 0.003, which declined sharply to -0.011 post-event in the 5-day window. This downward trend stabilized in the 15-day and 30-day windows, with post-event ARs of 0.000. The t-values of -1.635**, 0.197, and -0.800 suggest some short-term sensitivity to the event at the 5% significance level, though the impact dissipated over time.

The General Elections 2018 and the subsequent start of Imran Khan's premiership had a noticeable and immediate effect on the stock market. Pre-event ARs were 0.008, slightly declining to



0.006 post-event in the 5-day window. The 15-day and 30-day windows reflected modest recovery, with post-event ARs reaching 0.005 and 0.004, respectively. The t-value of -2.080*** in the 5-day window indicates a statistically significant reaction at the 1% level, but the impact diminished in the 15 days and 30 days windows with t-values of -0.962 and 0.131.

The FATF grey listing, despite its implications for international financial scrutiny, had little effect on market sentiment. AR data indicates a pre-event decline, which continued to post-event in the 5-day window, stabilizing in the 15-day and 30-day windows. The t-values of this event confirm the statistically insignificant market reactions to this event.

The Covid-19 lockdown had a profound and statistically significant impact on the stock market. AR data shows a pre-event increase of 0.006, rising slightly to 0.007 post-event in the 5-day window. However, this trend reversed sharply in the 15-day and 30-day windows, with post-event ARs declining to 0.004 and 0.005, respectively. The t-values confirm significant negative market reactions, especially in the 15 days and 30 days windows.

The Azadi March, led by Maulana Fazl-ur-Rehman, was a major political protest demanding the resignation of the Prime Minister and early elections. The event showed statistically significant market reaction in the 5 days, 30 days (at 5 percent level of significance) and 15 days windows (at 10 percent level of significance). The AR data shows a slight positive return for the 5-day pre-event window, which turned marginally negative post-event.

The ouster of Imran Khan from office through a no-confidence motion failed to produce a notable impact on stock market returns. Pre-event ARs were -0.003, improving to 0.002 post-event in the 5-day window before reversing in the 15-day window. By the 30-day window, post-event ARs stabilized. The t-values across the respective windows indicate statistically insignificant impact on market sentiment.

Nawaz Sharif's return to power significantly influenced market sentiment in the 30 days window. AR data shows a pre-event rise of 0.006, which declined to 0.000 post-event in the 5-day window. The t-values of 1.148, -0.675, and -2.230*** indicate some sensitivity in the long-term window, with the 30-day impact being significant at the 1% level.

The imprisonment of Imran Khan on corruption charges prompted a short-term negative reaction. AR data reveals a pre-event rise of 0.008, dropping sharply to -0.001 post-event in the 5-day window. This downward trend persisted in the 15-day and 30-day windows, with post-event ARs declining further to



-0.002 and -0.003, respectively. The t-values of -1.118**, 1.922*, and 2.424*** indicate significant reactions across all windows, with varying levels of significance.

The General Elections 2024, which resulted in a significant political shift, had a pronounced and lasting impact on the stock market. Pre-event ARs were 0.002, declining sharply to -0.011 post-event in the 5-day window. This negative trend continued into the 15-day and 30-day windows, with post-event ARs of -0.001 in both periods. The t-values of -2.386***, -2.205**, and 0.137 reflect significant negative reactions in the 5 days and 15 days windows, emphasizing investor concerns over potential policy disruptions and heightened uncertainty.

4.3 Summary of the Analysis

Out of the 12 events analyzed, seven events had a statistically significant impact on the stock market in the shorter time periods. These include the General Elections 2024, General Elections 2018, Nawaz Sharif's disqualification, the Azadi March, Imran Khan's imprisonment, Nawaz Sharif's return to power, and the Covid-19 lockdown. The General Elections 2024 and General Elections 2018 led to significant abnormal returns, particularly in the 5-day windows, with sustained negative abnormal returns indicating investor concerns over political shifts. The Covid-19 lockdown had a profound negative impact, with significant reactions observed in the 15-day and 30-day windows. Similarly, Nawaz Sharif's disqualification, the Azadi March, and Imran Khan's imprisonment led to short-term significant market reactions, reflecting heightened political instability. Nawaz Sharif's return to power also had a lasting effect, with a significant impact observed in the 30-day window. In contrast, events such as Operation Zarb-e-Azb, the Peshawar School Attack, the Panama Papers Leak, Imran Khan's ouster, and FATF Grey Listing showed insignificant market response, suggesting that they were either less impactful or anticipated by the market. Therefore, we reject the null hypothesis for the General Elections 2024, General Elections 2018, Nawaz Sharif's disqualification, the Azadi March, Imran Khan's imprisonment, Nawaz Sharif's return to power, and the Covid-19 lockdown, confirming their significant impact on stock market returns. The lack of significance for the other events implies that they were either less consequential or already priced in by the market, indicating that the PSX absorbs political shocks in the short term and normalizes over time.

The following graph illustrate the percentage changes in average abnormal returns of the KSE-100 index over a 30-day period before and after twelve significant political and non-political events in

Pakistan between June 2014 and Feb 2024. The analysis reveals a diverse and significant range of impacts, highlighting both positive and negative changes in market behavior.

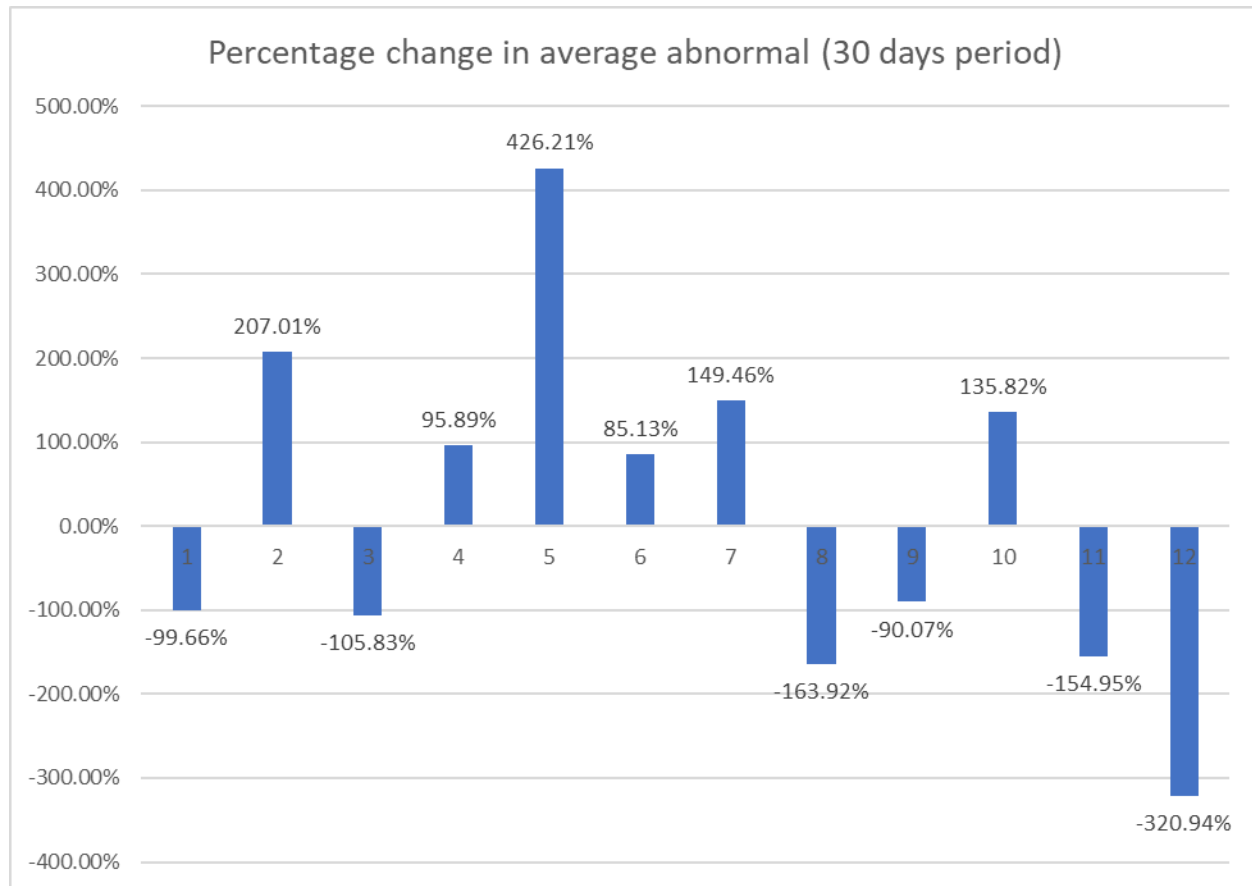


Figure 4.3: Percentage change in average abnormal returns of 30 days, prior and after an event

The stock market reacted differently to each event, revealing a wide range of investor sentiments. The Peshawar School Attack (2014) and the General Elections (2024) show the highest positive abnormal returns of 207.01% and 320.94%, respectively, indicating a strong investor response to these critical events. Conversely, the General Elections of 2018 (-426.21%) registered the most substantial negative abnormal returns, reflecting heightened market instability and investor pessimism during this period. Events such as the Panama Papers Leak (-105.83%), Nawaz Sharif's Disqualification (-95.89%), and the FATF Grey Listing (-85.13%) resulted in moderately negative impacts, likely due to their implications for political and economic uncertainty. Similarly, the Covid-19 lockdown (-149.46%) and Azadi March (-163.92%) underscored the market's sensitivity to disruptions in the socio-political landscape.

On the other hand, the Return of Nawaz Sharif (135.82%) marked a notable recovery phase, potentially signaling restored investor confidence. However, the Imprisonment of Imran Khan (-



154.95%) and the Ouster of Imran Khan (-90.07%) further emphasize the volatility introduced by political instability. These findings suggest that the Pakistan Stock Exchange responds variably to political and non-political events, with the magnitude and direction of market reactions influenced by the nature of the event. The stark contrast between positive and negative abnormal returns underscores the importance of understanding investor sentiment and the interplay of political and economic factors in shaping market dynamics.

5 Conclusion

This study aimed to investigate whether political and non-political events between June 2014 and Feb 2024, create opportunities for investors to earn abnormal profits in the Pakistan Stock Exchange (PSX). The findings reveal that seven events including General Elections 2024, General Elections 2018, Nawaz Sharif's disqualification, the Azadi March, Imran Khan's imprisonment, Nawaz Sharif's return to power, and the Covid-19 lockdown had a statistically significant linearly equivalent effect on abnormal returns among the twelve events examined. The remaining five events, including the Operation Zarb-e-Azab, the Peshawar School Attack, the Panama Papers Leak, Imran Khan's ouster, and FATF Grey Listing, did not establish significant impacts, indicating that the stock market either absorbed the information rapidly or had already predicted these events. These findings challenge the Efficient Market Hypothesis (EMH) for short-term periods, as the PSX exhibited inefficiencies when reacting to the unexpected political developments and other activities. The market's subdued response to other political events and other activities implies that either these events were less critical for investors or that the market had already adjusted to the uncertainty.

In conclusion, while the PSX shows signs of inefficiency in the short run, it tends to normalize over a longer period of time, absorbing shocks within 30 days. In the event study, the statistic shows a constant adverse abnormal return with statistical significance regardless of event window, showing that market reacted negatively to the event. The appearance of negative ARs before the event is due to anticipatory reaction or information leak, and more negative return post-event signal lasting doubts among investors. In other words, not many positively reverse effects were observed, but rather generally negative and significant results, affirming that the event practically led to higher perceived risk, unfavorably perceived policy implications or implicit ambiguity of the structure, exacerbated by the situations in various sectors or different types of firms.



6. Practical Guidelines for Policymakers.

The findings of this study suggest various important guidelines for policymakers in Pakistan. This study provides evidence that political and non-political events produce significant short-term abnormal returns in the Pakistan Stock Exchange. Which suggests that the stock market remains sensitive to uncertainty arising from government changes, political instability, and other crisis situations. Similar to previous studies (Nazir et al., 2014; Maghdid et al., 2024; Hamdani et al., 2024), the results of this study highlight that during uncertainty, ensuring political stability and maintaining consistency in economic policy frameworks are necessary for minimizing volatility and sustaining confidence of investors. It further highlights the importance of transparent and timely communication during political uncertainty to reduce anticipatory behavior of investor and panic selling.

Moreover, Policymakers should also consider the introduction of market-stabilizing mechanisms, such circuit breakers and adequate provisions for liquidity, which have been shown in previous studies to help absorb shocks and limit contagion effects in different financial markets. As cognitive biases play an important role in driving abnormal returns during high uncertainty events (Rehan et al., 2021; Nizam et al., 2024), there is scope for initiatives, which aimed at enhancing investor awareness and promoting strategies for long term investment. Additionally, the study's evidence that the market absorbs certain shocks more quickly than others suggests that policymakers can monitor patterns of abnormal return as an indirect yet valuable indicator for expectations of investor and targeted policy responses.

7. Recommendations for Academics and Researchers.

The multifaceted relationship between political, non-political, global events and stock market performance in emerging economies like Pakistan, needs further exploration. The following recommendations suggest directions for researchers and academics to deepen understanding of market dynamics and inform policy development.

- 1. Examine Sector Based and Firm-Level Responses:** Future studies should employ sectorial and firm level data and advanced models, such as GARCH for volatility or Fama-French multi-factor models, to analyze sector-specific impacts and firm-level resilience, providing insights for targeted investment strategies. Aggregate market indices may overlook variations in how different sectors



(e.g., automobile, energy, banking, textile, etc) or firms with political affiliations respond to different events.

- 2. Examine Global Geopolitical Influences:** Global events, including India-Pakistan conflicts, Israel-Palestine or Israel-Iran disputes, can affect emerging economies through trade disruptions or capital flows. Researchers should incorporate these global events into event study frameworks, using different models such as vector autoregression (VAR), to quantify spillovers and their interaction with domestic shocks, enhancing understanding of global market connections.
- 3. Applications of Behavioral Finance:** Future research should leverage sentiment analysis, to quantify how psychological factors drive market volatility. Investor psychology, including fear, optimism, or herding behavior, plays a critical role during periods of uncertainty.
- 4. Evaluate Alternative Methodologies and Extend Event Window:** While mean-adjusted return models are suitable for emerging markets but comparing them with CAPM or market-adjusted models can validate findings across contexts. Extending event windows or using rolling analyses can explore long-term market responses which will provide a more comprehensive view of recovery dynamics of country.
- 5. Conduct Comparative Studies of Cross-Market:** Comparing the PSX with other emerging markets, such as India, Bangladesh or Indonesia, can reveal whether event-driven volatility is unique or shared across regions. Panel data analyses can identify common patterns and inform regional policy frameworks, enhancing the generalizability of findings.

These recommendations encourage interdisciplinary research, integrating financial econometrics, behavioral finance, and geopolitical analysis, to advance knowledge of stock market dynamics in emerging economies.



References

- Abbas, J., Mirza, H. H., Hussain, H., Hussain, R. Y., Saad, M., & Akhtar, M. (2021). Stock Market Reaction towards Terrorism: An Evidence Based on Seasonal Variation in Pakistan. *Journal of Economic Impact*, 3(3), 167–177. <https://doi.org/10.52223/jei3032106>
- Adjei, F., & Adjei, M. (2017). Political cycles, investor sentiment, and stock market returns. *Journal of Finance and Economics*, 5(1), 1–10. <https://doi.org/10.12691/jfe-5-1-1>
- Ahmed, S., & Hussain, S. M. (2014). The Financial Cost of Rivalry: a tale of two South Asia neighbors. *Emerging Markets Finance and Trade*, 50(sup3), 35–60. <https://doi.org/10.2753/ree1540-496x5003s303>
- Aksoy, M. (2014). The effects of terrorism on Turkish stock market. *Ege Akademik Bakis (Ege Academic Review)*, 14(1), 31. <https://doi.org/10.21121/eab.2014118065>
- Ali, A. (2023). The impact of Macro-Economic variables on the stock market performance of the textile industry with the moderating effect of COVID-19: A Comparative analysis of Pakistan, Bangladesh, and Sri Lanka. *Journal of Development and Social Sciences*, 4(III). [https://doi.org/10.47205/jdss.2023\(4-iii\)11](https://doi.org/10.47205/jdss.2023(4-iii)11)
- Ali, N. P., & Saha, A. (2020). Market efficiency of Indian Capital Market: An event study around the announcement of results of Lok Sabha Election 2019. *International Journal of Financial Research*, 12(1), 60. <https://doi.org/10.5430/ijfr.v12n1p60>
- Ali, S., Waqar, S., & Haris, M. (2019). The Nexus between Political & Institutional Corruption Events with the Stock Market: A Study of Pakistan. *Journal of Finance & Economic Research*, 4(1), 59–71. <https://doi.org/10.20547/jfer1904105>
- Alvi, J., & Rehan, M. (2020). Factors affecting mutual fund performance in Pakistan. *Global Journal of Business Economics and Management Current Issues*, 10(2), 124–143. <https://doi.org/10.18844/gjbem.v10i2.4907>
- Apergis, N., Bonato, M., Gupta, R., & Kyei, C. (2017). Does Geopolitical Risks Predict Stock Returns and Volatility of Leading Defense Companies? Evidence from a Nonparametric Approach. *Defence and Peace Economics*, 1–13. <https://doi.org/10.1080/10242694.2017.1292097>
- Ashraf, A., Hassan, M. K., Abbas, K., & Zaman, Q. U. (2020). Do firms harvest from political connections during general elections? Case of Pakistan. *Journal of Financial Crime*, 27(1), 258–273. <https://doi.org/10.1108/jfc-02-2019-0022>
- Audi, M., Sulehri, F. A., Ali, A., & Al-Masri, R. (2022). An event based analysis of stock return and political uncertainty in Pakistan: revisited. *International Journal of Economics and Financial Issues*, 12(5), 39–56. <https://doi.org/10.32479/ijefi.13239>
- Boldeanu, F., & Tache, I. (2023). The impact of political decisions on oil and gas companies. *Bulletin of the Transilvania University of Brasov Series V Economic Sciences*, 123–128. <https://doi.org/10.31926/but.es.2023.16.65.1.13>
- Chau, F., Deesomsak, R., & Wang, J. (2014). Political uncertainty and stock market volatility in the Middle East and North African (MENA) countries. *Journal of International Financial Markets Institutions and Money*, 28, 1–19. <https://doi.org/10.1016/j.intfin.2013.10.008>
- Chavali, K., Alam, M., & Rosario, S. (2020). Stock Market Response to Elections: An event Study Method. *Journal of Asian Finance Economics and Business*, 7(5), 9–18. <https://doi.org/10.13106/jafeb.2020.vol7.no5.009>
- Dangol, J. (2008). Unanticipated Political Events and stock Returns: An event study. *NRB Economic Review*, 86–110. <https://doi.org/10.3126/nrber.v20i1.52973>



- Denie, J., Surachman, N., Indrawati, N. K., & Rahayu, M. (2024). Nexus between oil, gold price and DXY index on Indonesian stock market during geopolitical events (2022 – 2024). *Revista De Gestão Social E Ambiental*, 18(6), e06634. <https://doi.org/10.24857/rgsa.v18n6-142>
- Ferreira, S. J., Mohlamme, S., Van Vuuren, G., & Dickason, Z. (2019). The influence of corporate financial events on selected JSE-listed companies. *Cogent Economics & Finance*, 7(1), 1597665. <https://doi.org/10.1080/23322039.2019.1597665>
- Fodol, M. Z., & Aziz, H. B. A. (2019). THE IMPACT OF UNANTICIPATED POLITICAL EVENTS ON STOCKS MARKET RETURNS: EMPIRICAL EVIDENCES FROM SAUDI ARABIA. *International Journal of Islamic Business Ethics*, 4(2), 659. <https://doi.org/10.30659/ijibe.4.2.659-675>
- Gayathri, M., & Sophia, S. (2025). Electoral Shockwaves: A novel analysis of market volatility surrounding India's prime ministerial elections. *SAGE Open*, 15(2). <https://doi.org/10.1177/21582440251343955>
- Ghozzi, B. B., & Chaibi, H. (2021). Political risks and financial markets: emerging vs developed economies. *EuroMed Journal of Business*, 17(4), 677–697. <https://doi.org/10.1108/emjb-11-2020-0123>
- Hamdani, H., Elvaretta, K. L., Wardani, M. a. K., & Kartiasih, F. (2024). The impact of general elections on stock market volatility in Indonesia (2004–2023). *JPPUMA Jurnal Ilmu Pemerintahan Dan Sosial Politik Universitas Medan Area*, 12(1), 75–96. <https://doi.org/10.31289/jppuma.v12i1.11126>
- Hkiri, B., Béjaoui, A., Gharib, C., & AlNemer, H. A. (2021). Revisiting efficiency in MENA stock markets during political shocks: evidence from a multi-step approach. *Heliyon*, 7(9), e08028. <https://doi.org/10.1016/j.heliyon.2021.e08028>
- Hudson, R., & Urquhart, A. (2015). War and stock markets: The effect of World War Two on the British stock market. *International Review of Financial Analysis*, 40, 166–177. <https://doi.org/10.1016/j.irfa.2015.05.015>
- Jabarin, M., Nour, A., & Atout, S. (2019). Impact of macroeconomic factors and political events on the market index returns at Palestine and Amman Stock Markets (2011–2017). *Investment Management and Financial Innovations*, 16(4), 156–167. [https://doi.org/10.21511/imfi.16\(4\).2019.14](https://doi.org/10.21511/imfi.16(4).2019.14)
- Jensen, N. M., & Schmith, S. (2005). Market responses to politics. *Comparative Political Studies*, 38(10), 1245–1270. <https://doi.org/10.1177/0010414005279790>
- Karime, S., & Sayilir, Ö. (2019). Political news and stock market reactions: evidence from Turkey over the period 2008–2017. *International Journal of Management and Economics*, 55(2), 83–98. <https://doi.org/10.2478/ijme-2019-0013>
- Karki, D., Kakshyapati, S., Bhattarai, G., Fakhfakh, H., & Randika, D. (2024). Unanticipated political events and their effect on the Nepalese insurance sector and stock market. *Nepalese Journal of Insurance and Social Security*, 6(1), 60–70. <https://doi.org/10.58665/njiss.43>
- Khalil, F., & Akhtar, W. (2017). Impact of terrorist attacks on stock market performance: A case of Pakistan. *Asian Journal of Economic Modelling*, 5(2), 208–222. <https://doi.org/10.18488/journal.8.2017.52.208.222>
- Khan, M. A., & Ahmad, E. (2020). Measurement of Stock Market Crisis & its Dimensions: Evidence from Pakistan. *Review of Economics and Development Studies*, 6(2), 389–399. <https://doi.org/10.47067/reads.v6i2.207>
- Kim, Y. H., & Jung, H. (2014). Investor Trading Behavior Around the Time of Geopolitical Risk Events: Evidence from South Korea. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2580604>



- Kwabi, F. O., Adegbite, E., Ezeani, E., Wonu, C., & Mumbi, H. (2023). Political uncertainty and stock market liquidity, size, and transaction cost: The role of institutional quality. *International Journal of Finance & Economics*. <https://doi.org/10.1002/ijfe.2760>
- Liu, L. X., Shu, H., & Wei, K. J. (2017). The impacts of political uncertainty on asset prices: Evidence from the Bo scandal in China. *Journal of Financial Economics*, 125(2), 286–310. <https://doi.org/10.1016/j.jfineco.2017.05.011>
- Maghdid, R. S., Kareem, S. M., Hama, Y. S., Waris, M., & Naveed, R. T. (2024). Moderating role of political stability and economic policy uncertainty between country governance practice and stock market performance. A comparative analysis of Pakistan and Kurdistan Region of Iraq. *PLoS ONE*, 19(4), e0301698. <https://doi.org/10.1371/journal.pone.0301698>
- Mai, Z., Saleem, H. M. N., & Kamran, M. (2023). The relationship between political instability and stock market performance: An analysis of the MSCI index in the case of Pakistan. *PLoS ONE*, 18(10), e0292284. <https://doi.org/10.1371/journal.pone.0292284>
- Maitra, D., & Dey, K. (2012). Dividend announcement and market response in Indian stock Market: An Event-Study analysis. *Global Business Review*, 13(2), 269–283. <https://doi.org/10.1177/097215091201300206>
- Masood, O., & Sergi, B. S. (2008). How political risks and events have influenced Pakistan's stock markets from 1947 to the present. *International Journal of Economic Policy in Emerging Economies*, 1(4), 427. <https://doi.org/10.1504/ijepee.2008.021285>
- Nazir, M. S., Younus, H., Kaleem, A., & Anwar, Z. (2014). Impact of political events on stock market returns: empirical evidence from Pakistan. *Journal of Economic and Administrative Sciences*, 30(1), 60–78. <https://doi.org/10.1108/jeas-03-2013-0011>
- Nguyen, P. L. (2023). Effect of international political developments on the Vietnamese stock exchange. *Journal of Finance and Accounting*, 7(2), 90–97. <https://doi.org/10.53819/81018102t2130>
- Nizam, K., Mohiuddin, I., Alvi, J., Mehboob, A., & Reham, M. (2024). Herding Behavior and Psychological Factors: Insights from the Pakistan Stock Exchange. *JISR Management and Social Sciences & Economics*, 22(3), 43–64. <https://doi.org/10.31384/jisrmsse/2024.22.3.3>
- Noor, A., Fatima, K., & Ali, H. (2020). Impact of China–Pakistan Economic Corridor on Pakistan stock market and firm performance. *Journal of Public Affairs*, 21(3). <https://doi.org/10.1002/pa.2542>
- Obradović, S., & Tomić, N. (2017). The effect of presidential election in the USA on stock return flow – a study of a political event. *Economic Research-Ekonomska Istraživanja*, 30(1), 112–124. <https://doi.org/10.1080/1331677x.2017.1305802>
- Osamwonyi, I. O., & Omorokunwa, O. G. (2017). Presidential election and portfolio selections in the Nigeria Stock Exchange. *International Journal of Financial Research*, 8(4), 184. <https://doi.org/10.5430/ijfr.v8n4p184>
- Oueslati, J. G., Basti, N., & Klouj, L. (2021). Euro-Mediterranean financial markets reaction to political elections. *International Journal of Social and Administrative Sciences*, 6(2), 70–85. <https://doi.org/10.18488/journal.136.2021.62.70.85>
- Qubbaja, A., & Omar, S. A. (2019). The Impact of Political Events on Palestine Securities Exchange Returns: An Empirical Study between (1997-2016). *International Journal of Academic Research in Accounting Finance and Management Sciences*, 9(3). <https://doi.org/10.6007/ijarafms/v9-i3/6482>
- Raza, S., Baiqing, S., Kay-Khine, P., & Kemal, M. A. (2023). Uncovering the effect of news signals on daily stock market performance: An Econometric analysis. *International Journal of Financial Studies*, 11(3), 99. <https://doi.org/10.3390/ijfs11030099>



- Rehan, M., Alvi, J., Javed, L., & Saleem, B. (2021). Impact of Behavioral Factors in Making Investment Decisions and Performance: Evidence from Pakistan Stock Exchange. *Market Forces*, 16(1), 22. <https://doi.org/10.51153/mf.v16i1.435>
- Rehan, M., Alvi, J., & Karaca, S. S. (2022). Short term stress of COVID-19 on world major stock indices. *Asia-Pacific Financial Markets*, 29(3), 527–568. <https://doi.org/10.1007/s10690-022-09359-7>
- Rezazadeh, A., Pesyan, V. N., & Karami, A. (2023). An analysis of spatial effects of terrorism on stock market returns in the Middle East countries. *International Journal of Islamic and Middle Eastern Finance and Management*. <https://doi.org/10.1108/imefm-01-2023-0031>
- Sadiq, M., Mohamad, S., & Kwong, W. C. G. (2019). Do CEO Incentives Mediate the Relationship between Political Influences and Financial Reporting Quality? *International Journal of Asian Social Science*, 9(3), 276–284. <https://doi.org/10.18488/journal.1.2019.93.276.284>
- Sarkar, P. R., & Roy, G. (2024). A Systematic review on impact of political crisis and election on capital market returns. *American Journal of Economics and Business Innovation*, 3(3), 18–30. <https://doi.org/10.54536/ajebi.v3i3.3459>
- Savita, N., & Ramesh, A. (2015). Return Volatility Around National Elections: Evidence from India. *Procedia - Social and Behavioral Sciences*, 189, 163–168. <https://doi.org/10.1016/j.sbspro.2015.03.210>
- Sharma, A., & Kumar, A. (2019). A review paper on behavioral finance: study of emerging trends. *Qualitative Research in Financial Markets*, 12(2), 137–157. <https://doi.org/10.1108/qrfm-06-2017-0050>
- Škrinjarčić, T., & Orlović, Z. (2019). Effects of economic and political events on stock returns: Event study of the Agrokor case in Croatia. *Croatian Economic Survey*, 21(1), 47–86. <https://doi.org/10.15179/ces.21.1.2>
- Stock Market Volatility during the General Election. (2019). *Jurnal Ekonomi Malaysia*, 53(3). <https://doi.org/10.17576/jem-2019-5303-4>
- Talbi, D., Chaibi, H., & Maoueti, A. (2021). Political uncertainty, financial crises, and stock market volatility: Evidence from MENA region. *Journal of Public Affairs*, 22(S1). <https://doi.org/10.1002/pa.2783>
- Tiemann, M. (2023). Money laundering, media and European banks. *Journal of Money Laundering Control*, 27(1), 93–126. <https://doi.org/10.1108/jmlc-02-2023-0032>
- Vortelinos, D. I., & Saha, S. (2016). The impact of political risk on return, volatility and discontinuity: Evidence from the international stock and foreign exchange markets. *Finance Research Letters*, 17, 222–226. <https://doi.org/10.1016/j.frl.2016.03.017>
- Wong, N. W., & Hooy, N. C. (2021). Politically Connected Firms and Their Stock Return Volatility during High-Visibility Events: Evidence from Malaysia. *International Journal of Business and Society*, 22(3), 1449–1468. <https://doi.org/10.33736/ijbs.4314.2021>