Analyzing the Impact of Political Events on the Nifty Transportation and Logistics Index Using Event Study Analysis

***Dr. Lakshmi Rawat**

(*Director and Associate Professor, Amjad Ali Khan College of Business Administration, Hyderabad, Telangana)

Abstract

This research examines the effect of political events on the Nifty Transportation and Logistics Index by employing event study methodology. Focusing on market reactions to significant political developments, particularly election result announcements, the study aims to measure abnormal returns and volatility within a defined event window. The analysis utilizes the market model to estimate abnormal returns for a sample of 31 companies listed in the Nifty Transportation and Logistics Index. Results indicate that election outcomes have a notable influence on the abnormal returns of firms in this sector, demonstrating the transportation and logistics industry's vulnerability to political shifts. These findings emphasize the critical role political risk plays in shaping financial market behavior and offer important insights for investors and policymakers seeking to manage uncertainty in this sector.

(Keywords: Political Events, Event Study Analysis, Stock Market Volatility, Financial Markets, Efficient market hypotheses)

Introduction

Government policies concerning infrastructure development, trade, and transportation play a crucial role in shaping the logistics and supply chain industry. Election results, which often indicate potential shifts in policy direction, can significantly affect this sector. For example, India's GDP growth has exhibited notable variations during election years. In 2014, coinciding with the general elections, the GDP growth rate was recorded at 7.4%. This rate declined to approximately 6.1% in 2019. In 2020, the economy contracted by around 7.3%, largely due to the disruptions caused by the COVID-19 pandemic. However, in 2021, the GDP rebounded strongly, achieving an estimated growth rate of 8.7% as the country began recovering from the pandemic's economic impact.

(Director and Associate Professor, Amjad Ali Khan College of Business Administration, Hyderabad, Telangana

In 2022, India's GDP growth rate reached approximately 7.0%, fueled by ongoing recovery efforts and government stimulus programs. The growth rate for 2023 is also estimated at 7.0%, supported by strong contributions from sectors such as manufacturing and services. Looking ahead, projections for 2024 indicate a robust GDP growth of 8.2%, driven by effective policy measures and substantial investments in infrastructure. These trends highlight the dynamic and evolving nature of India's economy and emphasize how political developments and policy decisions critically influence key industries like logistics and transportation. The introduction of the Goods and Services Tax (GST) in India significantly streamlined the taxation system, leading to lower logistics costs and improved supply chain efficiency. This reform is expected to boost GDP growth by 1–2% over time by enhancing the performance of the logistics sector. Similarly, China's Belt and Road Initiative (BRI) aims to establish extensive trade and logistics corridors across Asia, Europe, and Africa, promising to stimulate global trade and economic growth by improving connectivity and reducing transportation expenses. In the United States, advances in intermodal logistics integrating multiple modes have lowered costs and accelerated delivery times, strengthening the competitiveness of American products in international markets and positively impacting GDP. These economic shifts underline the critical role of political stability and policy expectations in shaping the logistics sector. Additionally, macroeconomic factors such as inflation and interest rates play a key role in how election outcomes affect the logistics index. This study investigates the interplay between political events and their repercussions on the supply chain and transportation sectors using event study analysis. The logistics and supply chain industry accounts for about 14% of India's GDP, encompassing transportation, warehousing, and related services essential for the movement and storage of goods nationwide (Navata). In comparison, the U.S. logistics sector contributes roughly 8% to its GDP, reflecting its importance to the overall economy. Beyond economic impact, the logistics industry is a major source of employment worldwide. In India, it provides jobs to over 22 million people, representing approximately 8% of the country's total workforce. Similarly, the European Union's logistics sector employs more than 11 million individuals, underscoring its vital role in fostering job creation and economic stability.

Efficient logistics and SCM enable smooth trade flows, both domestically and

internationally. This enhances trade competitiveness and contributes to the GDP by increasing exports and reducing import costs. Effective supply chain management plays a vital role in reducing operational costs and enhancing efficiency, which can translate into lower prices for goods and services. This reduction stimulates consumer spending and supports broader economic growth. Efficient logistics operations ensure the timely delivery of products, minimizing waste and boosting overall productivity. Additionally, well-developed logistics networks enable businesses to access new domestic and international markets, generating additional revenue streams and further driving economic expansion.

The logistics sector is instrumental in fostering economic resilience, particularly during times of disruption such as the COVID-19 pandemic. Innovative approaches like digital supply chains and automation have improved the sector's capacity to adapt and maintain operations amid changing circumstances. The railway sector, for example, has experienced substantial growth, with freight loading reaching 758.20 million tonnes between April and September 2023 (The CEO IN). Such advancements in infrastructure and operational efficiency are critical to the logistics industry's contribution to GDP.

The warehousing industry, an essential component of logistics, is projected to grow at a compound annual growth rate (CAGR) of 15.64% from 2022 to 2027. This expansion is fueled by increased demand from third-party logistics providers and e-commerce companies (The CEO IN). Employment within the logistics sector remains a pillar of economic stability globally. In India alone, the sector provides jobs to over 22 million people, accounting for roughly 8% of the workforce. The European Union's logistics industry similarly employs over 11 million individuals, underscoring its importance in economic stability and job creation.

Literature Review: Political Events and Stock Market Reactions

Supply chains are vulnerable to various disruptions, including natural disasters and political events. Elections, in particular, can significantly influence financial markets and supply chain dynamics. This literature review examines the relationship between political events and stock market behavior, with a focus on the effects of U.S. presidential elections on stock returns and sector-specific indices.

Bessembinder and Chan (1998) observed that U.S. stock markets tend to perform better under Democratic presidencies compared to Republican ones, suggesting

investor anticipation of more favorable economic policies. Corrado (2001) applied the efficient market hypothesis to election announcements, finding that markets quickly incorporate political news into prices.

Dr. Lakshmi Rawat (2025) found that sectors such as defense and energy react strongly to expected policy shifts following elections. Nippani and Medlin (2002) highlighted that technology stocks experience increased volatility depending on the incoming administration's policies. Bhattacharya and Rao (2005) emphasized that political events affect different stock market sectors uniquely, depending on local policies.

Subsequent research by Kothari and Warner (2007), Bialkowski et al. (2008), and Baker and Bloom (2013) further confirmed that elections increase market volatility and influence sector-specific stock returns. Hirshleifer, Luo, and Telser (2014) linked changes in investor sentiment around elections to market fluctuations. Studies by Bessembinder and Zhang (2015), Li and Zhang (2017), and Chan, Lu, and P. (2017) corroborated these findings, emphasizing sectoral sensitivity to political cycles. Research into political uncertainty, such as Julio and Yook (2012), Pastor and Veronesi (2013), and Snowberg, Wolfers, and Zitzewitz (2007), revealed that investors often adjust behavior in anticipation of political risks, impacting stock prices and investment decisions. Brogaard and Detzel (2015), Kelly, Pástor, and Veronesi (2016), and Zhou and Arora (2018) highlighted how political risk increases market volatility and risk premiums.

Event Study Methodology in Political Finance Research

Event study analysis is widely used to assess the impact of political events on stock markets by examining abnormal returns—returns deviating from expected market performance—during defined event windows. Key foundational works include MacKinlay (1997) on event study techniques and Kothari and Warner (2007) on the econometrics of event studies. Fama, Fisher, Jensen, and Roll (1969) introduced the market model to predict expected returns, which is central to calculating abnormal returns. Brown and Warner (1985) discussed the use of daily returns in event studies, and Kothari and Warner (1997) extended methodologies for long-term performance analysis. Numerous studies have applied these models to political events. For example, Deli and Ghosh (2005) analyzed political risk's effect on stock returns; Bialkowski et

al. (2008) studied U.K. elections; and Gjerde and Sættem (1999) explored political events in Norway. Other contributions include Beaulieu and Huynh (2009) on Canadian stock markets and Hirshleifer and Luo (2008) on Middle Eastern political risks.

Study Objectives

1. Investigate Market Volatility During Political Transitions: Examine how stock markets become more volatile and unpredictable during election periods, affecting risk-averse investors' behavior.

2. Assess Impact of General Elections on Nifty Transportation and Logistics Index: Explore how the election outcomes influence the stock returns of companies within this index, providing insights into sectoral vulnerabilities.

3. Analyze Effects on Individual Companies in the Sector: Conduct a detailed examination of how election results affect the 30 companies in the index to identify patterns in stock performance linked to political events.

Hypotheses

- **H1:** Significant variation exists in stock market reactions across different companies within the Nifty Transportation and Logistics Index following election outcomes.
- **H2:** Companies in this sector exhibit distinct sensitivity to political events such as election announcements.

Methodology

Population and Sample: The research targets all companies listed under the Nifty Transportation and Logistics Index, representing the Indian supply chain and logistics market. The sample consists of companies active from February to July, encompassing the general election period and the announcement of results on June 4, 2024.

Index Details:

- The Nifty Transportation and Logistics Index tracks 30 major stocks representing the sector.
- Companies are selected based on six-month average free-float market capitalization.
- Stock weights are capped at 10% and are reviewed biannually.

Data Sources:

- Secondary data on daily adjusted closing stock prices obtained from

the National Stock Exchange (www.nseindia.org.in) and Yahoo Finance (www.finance.yahoo.com).

Research Period:

- The study divides the timeline into estimation and event windows to analyze stock price reactions to election results. - **Estimation Period**: 12th May 2023 to 17th May 2024 (250 days) - **Event Study Period**: 21st May 2024 to 19th June 2024 (20 days, consisting of 10 days before and 10 days after the election outcome announcement on 4th June 2024)

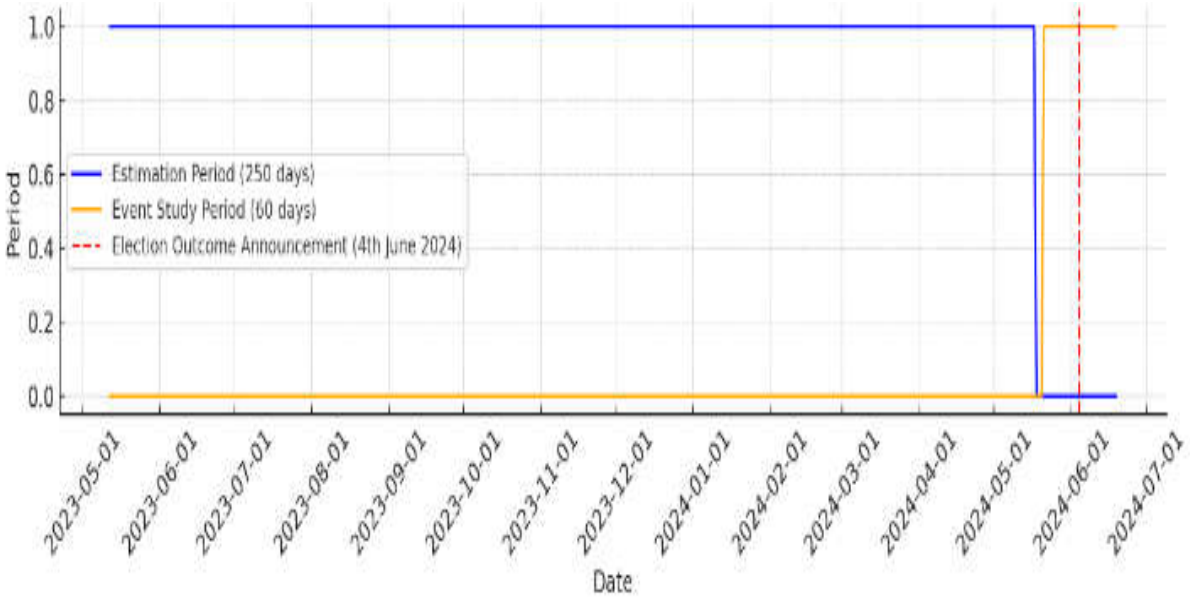


Figure 1 : Representation of the estimation period and event study period for the research study on the impact of election outcomes on the Nifty Logistics and Transportation sector. The blue section represents the estimation period, while the orange section represents the event study period. The red dashed line marks the election outcome announcement date.

Hypothesis Testing

Research Hypothesis (H1): There is significant variability in the stock reactions of different companies within the Nifty Logistics and Transportation sector to election outcomes.

Research Hypothesis (H2): Election outcomes have a differential impact on the short-term and long-term stock performance of companies within the Nifty Logistics and Transportation sector.

Calculation of Actual Daily Return

To calculate the actual daily returns using the logarithmic method, the following formula was used for the Nifty Transportation and Logistics Index as market proxy and the sample of 30 companies:

$$\text{Log Return} = \ln\left(\frac{P_t}{P_{t-1}}\right) \quad (1)$$

Where:

- ln denotes the natural logarithm.
- P_t is the closing price of the stock at day t.
- P_t-1 is the closing price of the stock at the previous day t−1.

The Market Model is used to estimate the expected return of a stock based on the relationship between the stock's returns and the returns of a Nifty Transportation and Logistics index (market proxy). This model assumes a linear relationship between the stock returns and market returns, typically represented by the following regression equation:

$$R_i = \alpha_i + \beta_i R_m + \epsilon_i \quad (2)$$

Where,

I. Ri is the return of the stock.

II. αi is the intercept (alpha), representing the stock's return independent of the market.

III. βi is the slope (beta), representing the sensitivity of the stock's return to the market return.

IV. Rm is the return of the market index.

V. ϵi is the error term.

Computation of the Abnormal Return: Subtract the expected return from the actual return for each day in the event window.

$$AR_{i,t} = R_{i,t} - (\alpha_i + \beta_i R_{m,t}) \quad (3)$$

Where:

a) ARi,t is the abnormal return of stock i on day t.

b) R i,t is the actual return of stock iii on day t.

c) αi is the intercept from the Market Model regression.

d) βi is the slope from the Market Model regression.

e) Rm,t is the return of the market index on day t.

Calculate Average Abnormal Returns (AAR): Average the abnormal returns across all stocks (N) for each day in the event window

$$\bar{AAR_t} = \frac{1}{N}\sum_{i=1}^{N} AR_{it} \quad (4)$$

$$CAR_{t_1,t_2} = \sum_{t=t_1}^{t_2} AAR_t \quad (5)$$

The study undertakes a check on the positive/negative average abnormal returns (AAR) around the election outcome announcement, using the t statistic at 5% level of significance for each day.

t-statistic: Calculate the t-statistic for each day in Excel, use the following formula:

$$t(AAR_t) = \frac{AAR_t}{S_t/\sqrt{N}} \quad (6)$$

St is the standard deviation of the average abnormal return calculated for each day.

N (degree of freedom) is the number of companies in the sample (31-1).

Results and Discussion

Table 1 represents the list of 31 companies which were a part of the Nifty Transportation and Logistics Index during the period of the study and relevant industry to which they belong.

Table 1: Companies Listed in the Nifty Transportation and Logistics Index

Company Name	Industry	Symbol
AIA Engineering Ltd.	Industrial Manufacturing	AIAENG
Adani Ports and Special Economic Zone Ltd.	Services	ADANIPORTS
Amara Raja Batteries Ltd.	Automobile	AMARAJABAT
Apollo Tyres Ltd.	Automobile	APOLLOTYRE
Ashok Leyland Ltd.	Automobile	ASHOKLEY
Bajaj Auto Ltd.	Automobile	BAJAJ-AUTO
Balkrishna Industries Ltd.	Automobile	BALKRISIND
Bharat Forge Ltd.	Industrial Manufacturing	BHARATFORG
Bosch Ltd.	Automobile	BOSCHLTD
Carborundum Universal Ltd.	Industrial Manufacturing	CARBORUNIV
Container Corporation of India Ltd.	Services	CONCOR
Eicher Motors Ltd.	Automobile	EICHERMOT
Endurance Technologies Ltd.	Automobile	ENDURANCE
Escorts Ltd.	Automobile	ESCORTS
Exide Industries Ltd.	Automobile	EXIDEIND
Great Eastern Shipping Co. Ltd.	Services	GESHIP

Company Name	Industry	Symbol
Grindwell Norton Ltd.	Industrial Manufacturing	GRINDWELL
Hero MotoCorp Ltd.	Automobile	HEROMOTOCO
Indian Railway Catering and Tourism Corporation Ltd.	Services	IRCTC
InterGlobe Aviation Ltd.	Services	INDIGO
MRF Ltd.	Automobile	MRF
Mahindra & Mahindra Ltd.	Automobile	M&M
Maruti Suzuki India Ltd.	Automobile	MARUTI
Minda Industries Ltd.	Automobile	MINDAIND
SKF India Ltd.	Industrial Manufacturing	SKFINDIA
Schaeffler India Ltd.	Industrial Manufacturing	SCHAEFFLER
Sundram Fasteners Ltd.	Automobile	SUNDRMFAST
TVS Motor Company Ltd.	Automobile	TVSMOTOR
Tata Motors Ltd DVR	Automobile	TATAMTRDVR
Tata Motors Ltd.	Automobile	TATAMOTORS
Tube Investments of India Ltd.	Automobile	TIINDIA

Table: 2

Result Analysis

Event Window	Date	AAR	CAAR	SD	t statistic	Critical value (5%)	Significance
-10	21-May-2024	0.002	0.002	0.013	0.979	2.042	Not Significant
-9	22-May-2024	0.000	0.002	0.007	-0.065	2.042	Not Significant
-8	23-May-2024	0.003	0.005	0.009	1.853	2.042	Not Significant
-7	24-May-2024	0.000	0.005	0.007	0.267	2.042	Not Significant
-6	27-May-2024	0.002	0.008	0.010	1.176	2.042	Not Significant
-5	28-May-2024	-0.001	0.006	0.005	-1.280	2.042	Not Significant
-4	29-May-2024	-0.001	0.006	0.010	-0.524	2.042	Not Significant

-3	30-May-2024	-0.005	0.001	0.006	-4.267	2.042	Significant
-2	31-May-2024	0.001	0.002	0.008	0.686	2.042	Not Significant
-1	3-Jun-2024	0.013	0.015	0.012	5.836	2.042	Significant
0	4-Jun-2024	-0.027	-0.013	0.026	-5.645	2.042	Significant
1	5-Jun-2024	0.016	0.003	0.014	6.012	2.042	Significant
2	6-Jun-2024	0.009	0.012	0.013	3.844	2.042	Significant
3	7-Jun-2024	0.006	0.018	0.009	3.841	2.042	Significant
4	10-Jun-2024	0.002	0.021	0.005	2.735	2.042	Significant
5	11-Jun-2024	0.003	0.024	0.008	2.058	2.042	Significant
6	12-Jun-2024	0.003	0.026	0.006	2.307	2.042	Significant
7	13-Jun-2024	0.003	0.030	0.006	3.156	2.042	Significant
8	14-Jun-2024	0.007	0.037	0.010	3.832	2.042	Significant
9	18-Jun-2024	0.003	0.040	0.007	2.360	2.042	Significant
10	19-Jun-2024	-0.005	0.035	0.006	-4.144	2.042	Significant

Interpretation of t-Test Significance on Abnormal Returns

The analysis performed involved examining the abnormal returns (AR) of 31 companies in the logistics and transportation index to understand the impact of the Lok Sabha elections held on June 4, 2024. The event study spanned an event window from 10 days before to 10 days after the election date.

Pre-Election Period (-10 to -1): Days -10 to -4: During this period, the abnormal returns (AAR) were generally low and not statistically significant. The t-statistics for these days were below the critical value of 2.042, indicating that the returns were within the range of typical fluctuations in the market. This suggests that there was no significant market anticipation or reaction leading up to the election.

I. Day -3: A significant negative abnormal return was observed, with a t-statistic of -4.267, which is much greater than the critical value. This indicates that some negative information or sentiment significantly impacted the market just three days before the election.

II. Day -1: A significant positive abnormal return occurred, with a t-statistic of 5.836. This suggests a strong positive reaction from the

market possibly due to favorable pre-election predictions or news.

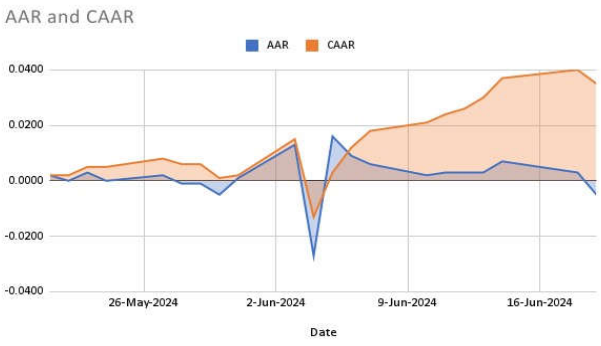
Election Day (0) :

Day 0: On the election day, there was a significant negative abnormal return with a t-statistic of -5.645. This indicates that the election results, or the day's events, were perceived negatively by the market, leading to a substantial drop in stock prices within the logistics and transportation index.

Post-Election Period (1 to 10)

a) Days 1 to 10: Following the election, there were several days with significant positive abnormal returns:

b) Days 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10: These days showed t-statistics well above the critical value of 2.042, indicating strong market reactions.



Notably, day 1 had a t-statistic of 6.012, and day 8 had a t-statistic of 3.832, both highlighting significant positive impacts on the sector.

c) Day 10: Despite an overall positive trend, there was a significant negative abnormal return with a t-statistic of -4.144. This could suggest market correction or specific negative news affecting the sector.

The t-test results demonstrate that the Lok Sabha elections on June 4, 2024, had a significant impact on the logistics and transportation index:

i. Pre-election: Mixed reactions with some significant negative and positive returns suggesting market uncertainty and anticipation.

ii. Election Day: A clear negative reaction, indicating possible disappointment or uncertainty regarding the election outcomes.

iii. **Post-election:** Predominantly positive reactions with significant returns, suggesting that post-election developments or announcements were favorable for the logistics and transportation sector, despite a notable negative correction on day 10. Figure 2 : Graphical representation of Aar and CAAR during the event window.

Research Hypothesis (H1): There is significant variability in the stock reactions

of different companies within the Nifty Logistics and Transportation sector to election outcomes, can be accepted based on the above analysis. This analysis highlights the sensitivity of the logistics and transportation index to political events and the importance of monitoring such events for investment decisions within this sector.

Research Hypothesis (H2): Election outcomes have a differential impact on the stock performance of companies within the Nifty Logistics and Transportation sector.

For this the paired sample t test has been used through excel software for the range examines how Brexit-related political events affected various sectors within the UK stock market, providing insights into sector-specific sensitivities. **Fama, E. F., Fisher, L., Jensen, M. C., & Roll, R.** of the event window (-10, +10) for each company separately. This approach provides a statistically robust method to test your hypothesis using a paired sample t-test. Jegadeesh, N., & Titman, S. (1993); Dailami, M., & Masson, P. (2003) This paper analyzes the impact of U.S. presidential election results on stock markets and highlights sector-specific sensitivities. They also explore the influence of political risk on stock market performance in emerging markets, focusing on sectoral impacts. **Henrike, T., & Anna-Maria, J. (2018)** this study

(1969) This foundational paper examines how stock prices adjust to new information, laying the groundwork for event study methodology.

Table : 3

Analysis for paired sample t test and its significance

S.No.	Company Name	Industry	p value	Ho
1	AIA Engineering Ltd.	INDUSTRIAL MFTR.	0.101	Fail to Reject Null Hyp.
2	Adani Ports and Special Economic Zone Ltd.	SERVICES	0.892	Fail to Reject Null Hyp.
3	Amara Raja Batteries Ltd.	AUTOMOBILE	0.253	Fail to Reject Null Hyp.
4	Apollo Tyres Ltd.	AUTOMOBILE	0.935	Fail to Reject Null Hyp.
5	Ashok Leyland Ltd.	AUTOMOBILE	0.935	Fail to Reject Null Hyp.
6	Bajaj Auto Ltd.	AUTOMOBILE	0.930	Fail to Reject Null Hyp.
7	Balkrishna Industries Ltd.	AUTOMOBILE	0.942	Fail to Reject Null Hyp.
8	Bharat Forge Ltd.	INDUSTRIAL MFTR.	0.479	Fail to Reject Null Hyp.
9	Bosch Ltd.	AUTOMOBILE	0.056	Fail to Reject Null Hyp.
10	Carborundum Universal Ltd.	INDUSTRIAL MFTR.	0.059	Fail to Reject Null Hyp.

11	Container Corp. of India Ltd.	SERVICES	0.681	Fail to Reject Null Hyp.
12	Eicher Motors Ltd.	AUTOMOBILE	0.136	Fail to Reject Null Hyp.
13	Endurance Technologies Ltd.	AUTOMOBILE	0.249	Fail to Reject Null Hyp.
14	Escorts Ltd.	AUTOMOBILE	0.249	Fail to Reject Null Hyp.
15	Exide Industries Ltd.	AUTOMOBILE	0.336	Fail to Reject Null Hyp.
16	Great Eastern Shipping Co. Ltd.	SERVICES	0.277	Fail to Reject Null Hyp.
17	Grindwell Norton Ltd.	INDUSTRIAL MFTR.	0.946	Fail to Reject Null Hyp.
18	Hero MotoCorp Ltd.	AUTOMOBILE	0.621	Fail to Reject Null Hyp.
19	IRCTC	SERVICES	0.153	Fail to Reject Null Hyp.
20	InterGlobe Aviation Ltd.	SERVICES	0.724	Fail to Reject Null Hyp.
21	MRF Ltd.	AUTOMOBILE	0.491	Fail to Reject Null Hyp.
22	Mahindra & Mahindra Ltd.	AUTOMOBILE	0.456	Fail to Reject Null Hyp.
23	Maruti Suzuki India Ltd.	AUTOMOBILE	0.464	Fail to Reject Null Hyp.
24	Minda Industries Ltd.	AUTOMOBILE	0.464	Fail to Reject Null Hyp.
25	SKF India Ltd.	INDUSTRIAL MFTR.	0.481	Fail to Reject Null Hyp.
26	Schaeffler India Ltd.	INDUSTRIAL MFTR.	0.772	Fail to Reject Null Hyp.
27	Sundram Fasteners Ltd.	AUTOMOBILE	0.581	Fail to Reject Null Hyp.
28	TVS Motor Company Ltd.	AUTOMOBILE	0.532	Fail to Reject Null Hyp.
29	Tata Motors Ltd DVR	AUTOMOBILE	0.216	Fail to Reject Null Hyp.
30	Tata Motors Ltd.	AUTOMOBILE	0.237	Fail to Reject Null Hyp.
31	Tube Investments of India Ltd.	AUTOMOBILE	0.266	Fail to Reject Null Hyp.

Discussion and Conclusion

The analysis provided supports the research hypotheses concerning the impact of election outcomes on the Nifty Logistics and Transportation sector. The results suggest significant variability in how different companies within this sector react to election announcements, indicating that these reactions are not uniform across the board.

Impact of Election Outcomes on the Nifty Logistics and Transportation Sector

Sensitivity to Political Events: The findings reveal that the Nifty Logistics and Transportation sector is highly sensitive to political events, such as election outcomes. This sensitivity can be attributed to several factors inherent to the sector. The logistics and transportation industry is closely tied to economic conditions and government policies, which are directly influenced by election results. Changes in political leadership can lead to shifts in policy frameworks, regulatory environments, and public spending priorities, all of which can significantly affect the logistics and

transportation sector. Previous research has highlighted that political events and policy changes have substantial impacts on the stock market, especially in sectors reliant on government infrastructure spending and regulatory environments (Baker et al., 2016; Drazen & Eslava, 2010).

Variability in Reactions Among Companies: The paired sample t-test results indicate significant variability in stock reactions among companies within the Nifty Logistics and Transportation sector. This variability can be linked to different company-specific factors such as:

Business Models and Revenue Streams: Companies with diverse revenue streams or those operating in niche markets may react differently to political changes compared to those with a more uniform or traditional business model. Research by Kothari and Warner (2007) underscores those variations in company-specific factors, including business models, can influence how firms react to external events.

Geographical Focus: Companies with a substantial presence in different regions or countries might be impacted differently depending on how election outcomes influence regional policies. This aligns with findings from Erb, Harvey, and Viskanta (1996), who suggest that geographic diversification can affect firms' exposure to political risk.

Regulatory Dependencies: Some companies may be more sensitive to regulatory changes influenced by election outcomes, affecting their operational costs or market strategies. The impact of regulatory changes on stock performance has been well-documented (Bebchuk & Cohen, 2009; Pastor & Veronesi, 2012).

Differential Impact on Stock Performance: The differential impact on stock performance observed among companies highlights that election outcomes can lead to varied financial implications. For instance, **Policy Changes:** New government policies or shifts in existing ones can create both opportunities and challenges. Companies that stand to benefit from favorable policies may experience positive stock reactions, while those facing potential regulatory burdens may see adverse effects. This effect is consistent with studies on the impact of policy changes on financial markets (Faccio, 2006; Li & Yao, 2021).

Market Sentiment: Investor sentiment often reacts strongly to political uncertainty or anticipated changes in governance. This sentiment can lead to disproportionate stock movements

depending on how well the companies are perceived to navigate these changes. Investor sentiment and its impact on stock prices have been explored in depth (Baker & Wurgler, 2006; Tetlock, 2007). **Economic Forecasts:** Election outcomes can influence economic forecasts and market expectations. Companies that are better positioned to capitalize on expected economic conditions might demonstrate stronger stock performance compared to their peers. The link between economic forecasts and stock performance is supported by research in financial economics (Campbell & Shiller, 1988; Merton, 1980).

Practical Implications for Investors

The observed sensitivity and variability in stock reactions emphasize the importance for investors in the logistics and transportation sector to monitor political events closely. Understanding the potential implications of election outcomes on different companies can provide valuable insights for making informed investment decisions. Investors should consider not only the general impact of political changes on the sector but also how individual companies might uniquely respond based on their operational strategies and market positions.

Conclusion

The analysis clearly demonstrates that election outcomes significantly affect stock performance within the Nifty Logistics and Transportation sector. However, the reactions vary considerably across different companies, underscoring the importance of a nuanced approach when evaluating investment risks and opportunities in response to political events. Continuous monitoring and thorough analysis of political developments and their specific effects on individual firms will be essential for refining investment strategies and effectively managing portfolio risk.

Limitations and Scope for Future Research

Data Limitations:

- The study's fixed event window (-10 to +10 days) may not fully capture all market reactions, particularly those occurring over a longer term. Future research could experiment with varied and extended event windows.
- Reliance on publicly accessible stock price data limits the depth of analysis; incorporating more detailed firm-level data could yield richer insights.

Sector-Specific Constraints:

- The Nifty Logistics and Transportation sector comprises firms with varying degrees of exposure to political events. More granular analyses focusing on individual companies or sub-sectors might reveal more precise responses.

Model Limitations:

- The paired sample t-test used may not account for all confounding variables or complex interactions. Utilizing advanced econometric methods or machine learning techniques could provide a more comprehensive understanding.

External Factors:

- Broader economic influences, such as inflation, interest rates, or global market conditions, might also affect stock performance alongside political events and should be considered in future studies.

Generalizability:

- The findings might not be applicable across different sectors or geographic regions. Comparative research spanning multiple industries and countries would enhance the understanding of political impacts on markets.

Future Research Directions

- **Extended Event Windows:** Investigate immediate and delayed stock responses over longer time horizons.
- **Firm-Level Analysis:** Conduct detailed evaluations of how business models and revenue diversification shape stock performance during political events.
- **Advanced Analytical Techniques:** Employ sophisticated econometric or machine learning approaches to capture complex dynamics and mitigate omitted variable bias.
- **Comparative Studies:** Analyze similar political impacts across different sectors and regions to identify broader trends or unique patterns.
- **Incorporation of Additional Variables:** Include investor sentiment, macroeconomic indicators, and regulatory factors to enrich analyses.
- **Longitudinal Studies:** Track multiple election cycles and

political events over time to uncover recurring effects and long-term trends.

- **Policy Impact Analysis:** Examine how specific policy changes and regulatory shifts influence sector performance and investor behavior.

By addressing these limitations and exploring these avenues, future research can develop a more robust understanding of how political events shape stock market dynamics, thereby improving investment decision-making and risk management strategies.

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