INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)
An International Dpen Access, Peer-reviewed, Refereed Journal

# Impact Of Election Results On Stock Markets Analysis Of BSE (SENSEX) And NSE (NIFTY) Indices 

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## ABSTRACT

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#### Abstract

The purpose of this paper is to analyze the impact of the announcement of election results on NSE (Nifty) and BSE (sensex) index. To measure the impact of average daily returns and volatility over three years Categories 30 days, 15 days, 7 days ago and 30 days, 15 days, 7 days later A few days after the announcement of the election results. Data collected over the last five election periods From1999, 2004, 2009, 2014, 2019. Statistical tools used in the study included: Data, paired t-test, variance, correlation coefficient. Study finds elections have an impact. The results are noticeable inthe short term, but gradually diminish in the medium term and fade away in the long term. term period. This research Election results and stock market developments. Exchanges react abnormally to information It's a short-lived anomaly, but it's selfcorrecting over the next few days. Research results We advise investors to be extra cautious about investing during this period and take advantageof it. Invest for the using short-term investment strategies.


keyword: Anomalies, General Elections, Investments, Volatility, Sensex, Nifty.

## INTRODUCTION

General elections are held every five years in India to elect the leader of the government. Political parties with different ideologies and understandings mean different things to the public, investors and investors. Business people, financial institutions, etc. General elections are repetitive in nature, It affects both the political and investment climate of a particular country. Uncertainty caused by this Stock market development remains the primary concern of market participants, analysts, and the market. It's called political risk. The relationship between political risk and capital markets is as follows. Pretty important. It's worth understanding traders, farmers, professionals, and more. Peopleare I look forward to the establishment of the next administration. Campello (2007) generally states this in research Elections can create uncertainty that
influences investor decisions and actions It brings anomalies and anomalies to the market. Existence of political risk is a global risk. A phenomenon that has affected many domestic stock markets around the world (Ziobrowski et al., 2004). The reasons for stock market inefficiency and volatility are political and economic Ambiguity. Several studies confirm that parliamentary elections have a significant impact on behavior movements of the market and its indices; (Brealey \& Myers, 2001) In his research he states: Efficiency is fifty-fifty, and all available news is immediately reflected in the stock price. that's why it's hard It is about devising a strategy aimed at consistently beating the market. (Shiller, 2000) states that investors can act irrationally in response to certain events. In other words, information that does not fall within the category of market efficiency. The stock market is affected by: Government decisions regarding economics, trade practices, taxes, commercial law, etc. Other factors Changes in availability and composition of other fixed assets impact market development Investors and Market Sentiment (Mendelson, 1976). Emotions play an important role in investing today Arena as in the 2014 election. Investors were thrilled with the expectation that the BJP would form it. Governments (Reddy, 2018) and markets reflect an upward trend. Factors such as optimism(Haruvy et al. Al. 1999).

Pessimism (De Bondt 1987), confidence (Daniel 1998), and rational expectations (Barberis et al. 1998) are thought to explain the dramatic changes in trade volume and its evolution. I will explain the return policy. The impact of the election results on stock markets is being felt around the world. It has become a natural phenomenon for markets to behave erratically in response to election results.announced. With the emergence and further development of behavioral finance, capital markets have grown significantly. Researchers discovered voting anomalies through the lens of behavioral finance. The study focuses on analyzing the impact of the announcement of election results on the performance of Indian stock indices Sensex (BSE) and Nifty (NSE). Many previous studies have discussed the impact of elections on stock markets. This paper focuses on the impact of election results on stock indices of two major stock exchanges in India. This research helps investors to be agile and prudent when making choices, invest with great care, and maximize returns.

## LITERATURE REVIEW

Researchers have attempted to study stock market movements to uncover anomalies and irregularities caused by the announcement of general election results. Two policy implications havebeen considered in the financial literature. "Political Business Cycle" and "Election Effect". The Political Business Cycle examines stock market returns during government tenure. The "election effect", often called the "presidential cycle" in the United States, looks at stock returns before and after the election day itself.

Sazari Abidin et al. (2010) pointed out that their research suggests that political cycles influence stock returns. Her research looks at stock returns for both New Zealand's central and Labor governments. The authors found that the center-right New Zealand National Party achieved a significantly higher return on equity during its tenure than the center-left party. The author suggestsrelying on the ruling party. Investors can make better investment decisions.

Cavill et al. (2015) In a study on "The impact of general elections on the price-earnings ratio of theNairobi Stock Exchange (NSE)." The purpose of their study was to determine the impact of the general election results on NSE's stock performance. This study used event research techniques andanalyzed data obtained from his NSE on his 1997, 2002, 2007 and 2013 election days in Kenya. Dueto market volatility, the market reaction to the election turned out to be extremely negative or positive. Cumulative Abnormal Earnings (CAR) found that the 2002 and 2013 elections were insignificant. And he found the 1997 and 2007 elections significant. The author advises stakeholdersto keep an eye on election campaign events and also mentions the macroeconomic evolution of inflation. The devaluation of the shilling and the global financial crisis may be the reason why the stock market is affected.

Balaji et al. (2018) an intensive study on the impact of general elections on Indian stock markets found that elections influence stock market performance. For the study, using analytical tools such as the t-test and ftest, he took his 30-day sample from the BSE and NSE general elections over thepast five years. The authors conclude that there is no significant effect on the Nifty index. The studyalso comes to the conclusion that the market only reacts in the short term and does not react to volatility in the long term.

Agarwal et al. (1999) investigated the types of events that caused large changes in emerging marketequity market volatility. They found that most events tended to be more local. The stock market crash of 1987 was the only global event that resulted in significant increases in volatility in several emerging markets.

Teddy Chandra (2015) explores the impact of the 2014 Indonesian presidential election on the Indonesian stock market. The study includes a sample of his 45 companies listed on LQ-45 from February 2014 to July. The implication of the event research study model allowed the authors to discover that all events during the presidential election have anomalous returns.

Khalid et al. (2010) used the Markov switching process to study the impact of political events on financial market volatility. The study examined political shocks, both negative and positive, and included data for Pakistan from January 1999 to September 2006. The study concludes that various political events caused setbacks and severely affected the economy.

## THE ELECTION PERIOD FOR THE STUDY

| lectionYear of | of election (LokSabha) |  | Partywon | Date of result |
| :---: | :---: | :---: | :---: | :---: |
| 1999 |  |  | P/NDA | $\begin{gathered} 5^{\text {th }} \\ \text { OCTOBER } \end{gathered}$ |
| 20041 |  |  |  | $13^{\text {th }} \text { MAY }$ |
| 20091 | 15 |  |  | $16^{\text {th }} \text { MAY }$ |
| $2014$ |  |  | P/NDA | $16^{\mathrm{th}} \text { MAY }$ |
| $20191$ |  |  | P/NDA | $23^{\text {rd }} \text { MAY }$ |

*Only trading days are considered while calculating 30, 15, and 7 days before and after electionresult date.

## OBJECTIVES OF THE STUDY

1. Analysis of the impact of the announcement of election results on the BSE and NSE indices(Sensex and Nifty).
2. Analysis of the volatility (variance) of his BSE and NSE indices due to election results.

## HYPOTHESIS

1. Ha1: There is an impact of the announcement of election results on the BSE Index(Sensex) andNSE Index (Nifty).
2. Ha2: Variability in the stock market exists only for a limited period.

## DATA AND METHODOLOGY

Keeping with the main purpose of the study to determine the impact of political events on Indian general elections, the study covered the past five general elections of 1999, 2004, 2009, 2014 and 2019. The current study uses descriptive and analytical methods. The study considered the daily closing prices of the Sensex and Nifty indices. Data was collected from the websites of each stock exchange to which the index belongs (NSE and BSE). Since the data comes from genuine sources, it is assumed that there are no errors. The study primarily focuses on stock market performance or volatility over one month ( 30 days), two weeks ( 15 days) and one week ( 7 days ago) and one month( 30 days), two weeks ( 15 days) and one week ( 7 days ago). General elections in India typically go through many phases, beginning in March and lasting about two and a half months, with results announced in mid-May. Data were calculated for testing purposes. The presence of anomalies and anomalies caused by the announcement of election results. The logarithmic method was used to determine the daily returns of the two indices. A paired t-test is used to determine the importance of election results announcements in the stock market. Correlation coefficients were applied to see if there was a correlation between stock price performance and the announcement of election results over the three chosen time periods. Yield is calculated based on

$$
\mathrm{Rt}=\log (\mathrm{Pt} / \mathrm{Pt}-1) .
$$

where $\mathrm{Rt}=$ Market returns at the period $\mathrm{t}, \mathrm{Pt}=$ Closing Price of the index at day $\mathrm{t}, \mathrm{Pt}-1=$ Closing Price of the index at day $\mathrm{t}-1, \log =$ Natural log.

## DATA TIME PERIOD FOR THE STUDY

| Election <br> Year | 30 days Before | $15 \text { days }$ <br> before | $7 \text { days }$ <br> before | ElectionResult <br> Date | 30 <br> days <br> after | 15 days after | $\begin{aligned} & 7 \text { days } \\ & \text { after } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1999 | 23-081999 to <br> 04-10- <br> 1999 | 14-09- <br> 1999 to <br> 04-10- <br> 1999 | $\begin{aligned} & 24-09- \\ & 1999 \text { to } \\ & 04-10- \\ & 1999 \end{aligned}$ | $5{ }^{\text {th }}$ OCTOBER | $\begin{aligned} & 06-10- \\ & 1999 \text { to } \\ & 18-11- \\ & 1999 \end{aligned}$ | $\begin{aligned} & 06-10- \\ & 1999 \text { to } \\ & 27-10 \\ & 1999 \end{aligned}$ | 06-10- 1999 to $14-10-$ 1999 |
| 2004 | $\begin{aligned} & 30-03- \\ & 2004 \text { to } \\ & 12-05- \\ & 2004 \end{aligned}$ | $\begin{aligned} & 21-04- \\ & 2004 \text { to } \\ & 12-05- \\ & 2004 \end{aligned}$ | $\begin{aligned} & 04-05- \\ & 2004 \text { to } \\ & 12-05- \\ & 2004 \end{aligned}$ | $13^{\text {th }}$ MAY | $14-05-2$ 2004 to $24-06-$ 2004 | $\begin{aligned} & 14-05- \\ & 2004 \text { to } \\ & 03-06- \\ & 2004 \end{aligned}$ | $14-05-$ 2004 to $24-05-$ 2004 |
| 2009 | $\begin{aligned} & 27-03- \\ & 2009 \text { to } \\ & 15-05- \\ & 2009 \end{aligned}$ | $\begin{aligned} & 23-04- \\ & 2009 \text { to } \\ & 15-05- \\ & 2009 \end{aligned}$ | $07-05-$ 2009 to $15-05-$ 2009 | $16^{\text {th }}$ MAY | $18-05-$ 2009 to $26-06-$ 2009 | $18-05-$ 2009 to $05-06-$ 2009 | $18-05-$ 2009 to $26-05-$ 2009 |


| 2014 | 28-03- | 23-03 | 07-05 |  | 19-05- | 19-05- | 19-05- |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 to | 2014 to | $2014 \text { to }$ | $16^{\text {th }}$ MAY | 2014 to | $\begin{aligned} & 2014 \\ & \text { to } \end{aligned}$ | 2014 to |
|  | 15-05- |  | 15-05 |  | 27-06- |  | 27-05- |
|  | $2014$ | 2014 | $2014$ |  | $2014$ | $\begin{aligned} & 06-06- \\ & 2014 \end{aligned}$ | 2014 |
| 2019 | 05-04- | 02-05- | 14-05 | $23^{\text {rd }}$ MAY | 24-05- | 24-05- | 24-05- |
|  | 2019 to | 2019 to | 2019 to |  | 2019 to | 2019 to | 2019 to |
|  | 22-05- | 22-05- | 22-05 |  | 05-07- |  | 03-06- |
|  | $2019$ | $2019$ | $2019$ |  | $2019$ | $\begin{aligned} & 14-06- \\ & 2019 \end{aligned}$ | 2019 |

## DATA ANALYSIS

1 and 2 show average daily returns calculated from Sensex and Nifty index prices for various periodsbefore and after the election results announcement. Estimates suggest that the index has the greatest impact on performance in the short term. H. Seven days (7 days). Both exchanges posted negative returns in 2009. Index returns are declining, and the medium-term (15 days) has a fairly negative impact. Long-term returns are flat relative to the short- and medium-term both before and after the announcement of the election results.

Table 1. Average returns of Sensex, BSE

| Daily average returns of BSE |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Years |  | Befor e |  | Afte |  |  |
|  | 30 Days | 15 Days | 7 Days | 30 Days | $15 \text { Days }$ | $7 \text { Days }$ |
| 1999 | -0.00015 | -0.00031 | $-0.00148$ | -0.00082 | $-0.00148$ | $0.00555$ |
| 2004 | -0.00074 | -0.00564 | -0.00641 | -0.00213 | -0.00242 | $\begin{gathered} 0.00090 \\ 9 \\ \hline \end{gathered}$ |
| 2009 | 0.011724 | $\begin{gathered} 0.01660 \\ 4 \end{gathered}$ | $\begin{gathered} 0.02350 \\ 7 \end{gathered}$ | 0.00115 | 0.001758 | -0.00176 |
| 2014 | 0.002558 | $\begin{gathered} 0.00353 \\ 3 \end{gathered}$ | $\begin{gathered} 0.01106 \\ 5 \end{gathered}$ | 0.001407 | 0.00325 | $0.00112$ |
| 2019 | $0.000044$ | -0.00029 | $\begin{gathered} 0.00560 \\ 3 \end{gathered}$ | -0.01376 | -0.00081 | $\begin{gathered} 0.00233 \\ 1 \end{gathered}$ |

Table 2. Average returns of Nifty, NSE

| Daily average returns of NSE |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Years | $\begin{gathered} \hline \text { Befor } \\ \mathrm{e} \end{gathered}$ |  |  | Afte r |  |  |
|  | 30 Days | 15 Days | 7 Days | 30 Days | 15 Days | 7 Days |
| $\begin{gathered} 199 \\ 9 \end{gathered}$ | 0.000205 | 0.000369 | -0.00349 | -0.00098 | 0.000889 | $\begin{gathered} 0.00620 \\ 7 \end{gathered}$ |
| $\begin{gathered} 200 \\ 4 \end{gathered}$ | -0.00063 | -0.00579 | -0.00615 | -0.00204 | -0.00263 | $\begin{gathered} 0.00217 \\ 7 \\ \hline \end{gathered}$ |
| $\begin{gathered} 200 \\ 9 \end{gathered}$ | 0.010993 | 0.015551 | 0.022859 | 0.000519 | 0.001626 | -0.00156 |
| $\begin{gathered} 201 \\ 4 \\ \hline \end{gathered}$ | 0.002433 | 0.00344 | 0.011357 | 0.001559 | 0.003496 | $\begin{gathered} 0.00129 \\ 4 \\ \hline \end{gathered}$ |
| 201 9 | 0.010031 | 0.012344 | 0.014893 | 0.07507 | 0.007523 | $\begin{gathered} 0.00733 \\ 5 \\ \hline \end{gathered}$ |

Table 3. Average returns of variance BSE


Table 4. Average returns of variance NSE

| Daily variance returns of <br> NSE |  |  |  |  |  |  |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Befor <br> e |  |  |  | 15 <br> Days | 7 Days |  |
|  | 30 <br> Days | 30 <br> Days | 15 <br> Days | 7 <br> Days |  |  |  |
|  | 0.02 | 0.02 | 0.02 | 0.04 | 0.04 | 0.07 |  |
| 2004 | 0.02 | 0.03 | 0.04 | 0.11 | 0.22 | 0.44 |  |
| 2009 | 0.14 | 0.22 | 0.43 | 0.04 | 0.04 | 0.04 |  |
| 2014 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 |  |
| 2019 | 0.01 | 0.02 | 0.02 | 0.56 | 0.01 | 0.01 |  |

Tables 3 and 4 show the diversified profit margins of Nifty and Sensex. Variance ( $\sigma 2$ ) in statistics is a measure of the variance between numbers in a data set. It measures how far each number in the dataset is from the mean, i.e. how far it is from all other numbers in the dataset. A quick look at the ANOVA table shows that the volatility has decreased over the long term ( 30 days). In the medium term ( 15 days), volatility stays at the level of long-term volatility. While the market is volatile in the short term (7 days), this shows that the market tends to be volatile in the long term. Analysis of variance proves his second hypothesis that stock market volatility/volatility only exists for a finite period of time.

Table 5. Paired t-test for Sensex Index


Tables 5 and 6 show the paired t-tests that were used to assess the statistical significance betweenthe results 30,15 , and 7 days before the announcement of the election results. The paired-samplest-test result was not significant for all elections, with $p>0.05$. This indicates that revenue did notincrease significantly over time before and after the announcement of the election results. Therefore, this study rejects the alternative hypothesis Ha1 and concludes that the announcementof election results will not have a material impact on his BSE and NSE index returns.

Table 7. Correlation Coefficient of Sensex (BSE)

| Year | 30 <br> Days | 15 Days | 7 <br> Days |  |
| :---: | :---: | :---: | :---: | :---: |
| 1999 |  | 0.811 | - |  |
| 2004 | 0.534 | 0.581 | -0.277 |  |
| 2009 |  | - | -0.172 | -0.438 |
| 2014 |  | 0.270 | 0.365 | -0.448 |
| 2019 | 0.264 | $0.792^{*}$ | 0.733 |  |

## * Correlation is significant at the 0.01 level (2-tailed)

Table 8. Correlation Coefficient of Nifty, NSE

| Year | 30 Days | $15 \text { Days }$ | $\begin{gathered} \hline 7 \\ \text { Days } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| 1999 | 0.506* |  | -0.405 |
| 2004 | $\begin{gathered} .507 \\ * \end{gathered}$ | $0.242$ | $-0.527$ |
| 2009 | $\begin{gathered} 0.13 \\ 2 \end{gathered}$ | 0.361 | -253 |
| 2014 | $\begin{gathered} 0.23 \\ 1 \end{gathered}$ | 0.805* |  |
| 2019 | $\begin{gathered} 0.31 \\ 6 \end{gathered}$ | $0.381$ | $0.559$ |

## * Correlation is significant at the 0.01 level (2-tailed)

Correlation coefficient measures the strength of the relationship that exists between two variables. Tables 7 and 8 show the correlation of Sensex and Nifty index prices before and after the election results announcement. 2009, 2014, and 2019 show relatively modest long-term (30-day) correlations compared to 1999 and 2004. In the long term, the 1999 and 2004 Nifty indices are strongly correlated, and in the medium term, the 2014 Nifty index shows a strong correlation. In 1999, both indices showed a negative relationship between medium-term and short-term maturities. A negativecorrelation indicates some kind of arbitrage by speculators and operators. Results have been announced. 2009, 2014, and 2019 show relatively modest longterm (30-day) correlations compared to 1999 and 2004. 1999 and 2004 long-term and long-term Nifty indices 2014 shows a strong correlation over the medium term. In 1999, both indices showed a negative relationship between medium-term and short-term maturities. A negative correlation indicates some kind of arbitrage byspeculators and operators.

## FINDINGS

Equity markets remain stable ahead of the announcement of election results in the medium to long term, but lead to volatility after the announcement of election results. This anomaly only occurs for a short period of time ( 7 days) before and after the announcement of the election results, as measuredby average returns per day. People are betting on the bull market to beat the bears, relying on the politics, ideology and political will of competing factions. Short-term correlations show negative correlations in 1999, 2004 and 2009. H. Market returns declined after the announcement. There was a positive short-term correlation between 2014 and 2019, suggesting that the announcement had a positive impact on market returns. The results of the paired $t$-test are not significant, indicating that the significant increases in market returns due to pre- and post-election announcements are only short term.

## CONCLUSION

Elections and other political events create anomalies and create anomalies in natural market conditions. In a constantly liquid market, the price of a security perfectly reflects all available information. Stock prices react to information about election results, causing short-term fluctuations. According to the study, the highest average returns occurred after results were announced and finalized within a month. Significant fluctuations were observed in the first week or seven days afterthe announcement of the election results

Investors should therefore remain cautious and vigilant when investing during this period. During this period, applying short-term market strategies will pay off. Events such as budgets, elections, festivals, wars, stock splits, bonus announcements, mergers and acquisitions create subtle anomalies in the market. These events provide many opportunities for further research Fully powered arena.

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