

## **A Study of Impact of Lok Sabha elections on Stock market Returns with special reference to S&P BSE Sensex and Nifty 50**

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### **ABSTRACT**

*India “The flawed democracy” as characterized by the Economist intelligence unit saw the formation of 17th Lok Sabha in 2019 “the year of pig: fortune and personality” according to Chinese Zodiac 2019. The year since the beginning has also been characterized as a volatile period for the Indian stock market due to the Lok Sabha elections. The objective of the present study is to find out how the stock market fares around the period of election. The S&P BSE Sensex and Nifty 50 returns were studied for a period of 1-week, 1-Month and 3-Months pre and post the election result dates and the results were amusing on an average investing three months before elections and selling three months post give good returns. Six out of eight times 6-Months return were positive for S&P BSE Sensex and four out of seven times for Nifty 50. The stock market returns showed more of greens than red around the election period.*

**Keywords:** Lok Sabha Elections, Stock Market, S&P BSE Sensex, Nifty 50.

### **INTRODUCTION:**

India the largest democracy in the world is characterized as “flawed democracy” by The Economist Intelligence Unit in its democracy Index 2018. While the 17<sup>th</sup> Lok Sabha has been elected in the year 2019; the Indian stock market was highly volatile starting from the year as a result of Lok Sabha elections. The volatility of the Indian stock market around the election year is evident from the past trends. It was back in 1952 when Independent India held its first general elections, but we were a closed economy then; however today we are a globalized economy and the political, economic, social, technological and legal environment of an economy do have spillover impact on other economies. The stock market trends excluding corrections explains this spillover impact, irrespective of the events that is predicted to happen in near future or has already occurred all drive the sentiments of the investors. These investor sentiments are evident from the stock market volatility. The markets are not always driven by the rationality of the investors which the proponents of rational finance support but are driven majorly by the biases of the irrational investors which the proponents of behavior finance support. These biases lead stock prices to be valued differently from its intrinsic value.

Technology has a great role in influencing how investors behave today regarding their investments. We are living in the era of “Big Data” and are prone to the statements coming out on social media by various political leaders, entrepreneurs, governors and Organizations. For instance as claimed by Bloomberg \$13 Billion were wiped out off stocks on 6<sup>th</sup> May 2019 when Donald Trump tweeted about hike in tariffs on China’s goods. In context to above parameters this study discusses the impact of Lok Sabha elections on Investor sentiments. Investor sentiments are being judged based on the BSE Sensex and Nifty 50 returns.

### **LITERATURE REVIEW:**

Indian stock market is one of the oldest stock markets in Asia and plays a vital role in economic development.

Factors like company news, economy, world events, investors expectations, speculations, supply & demand for stock, natural disasters, war, terrorism and political events have an effect on the Indian stock market (G. Sudarsana Reddy, 2018). The events like Elections, acquisition, stock market crashes has been an interesting area for researchers for measuring the abnormal returns and event study methodology has been widely used to measure the abnormality in returns. The abnormal returns could be because of asymmetry and rumors that spread across the market (Kumar Deva B., et al., 2015). The analysis to check the future predictions using monthly barometer can give appropriate directions of the Indian Stock market. This study indicated that the monthly returns had no impact on the Stock Market for the upcoming twelve months (Patel, 2014). The cross-border investment flows have increased the interest of the investors in the stock exchange. The paper explained the seasonality of the stock return in the Bombay Stock Exchange. The month of the year effect is impacted by the stock returns in India. The seasonal effect had impact on the arising stock markets (Ray, 2012). The study focused on the connection between the month-of-the-year effect and market crash effects on monthly returns in Indian stock markets. The study was positive for November, August, and December effects and negative for the March effect. The study also concluded that the market crash decreased the seasonal effects (Dash, Dutta and Sabharwal, 2011). The study done was on the corporate bonds from January 1926 to December 2008. The study was conducted on the three types of month effects. The analysis explained there was higher or lower volatilities for some months compared to the other months wherein January experienced the highest mean monthly return, followed by a dip in February and March, and then an upward trend until January (Hamid, 2010). Investors search the opportunities for investment. They wanted to identify the abnormal patterns existed concerning rates of returns on Mondays. The paper was to understand the seasonality of the stock market 1998 to 2011, for Standard & Poor's (S & P) Nifty and CNX Nifty Junior. It was observed that the Wednesdays' returns were highest in both the indices and there was non-existence of the Monday effect (Sarangi, Kar and Mohanthy, 2012). To study predictability and nonlinear dependence in the context of the Indian stock market was studied. It was found that the Indian stock market was predictable, observed lack of efficiency due day-of-the week effects, parameter instability, and daily-level seasonality in volatility, the short-term interest rate (Sarkar and Mukhopadhyay (2005) This study considered the seasonal effects in the Indian stock market. Two major indices were used for the study Bombay Stock Exchange Index and the National Stock Exchange Index. They tested the efficiency of the Indian stock market through week day effects, weekend, January and April effects. The negative Monday effect and the positive January effects were not found in India. Instead the Monday returns were positive while Tuesday returns were negative. This study indicated that the Indian stock market did not exhibit the usual seasonal anomalies such as Monday and January effect (Raj and Kumari, 2006).

### **OBJECTIVE OF STUDY:**

The objective of the study is to examine the volatility of returns around the Lok Sabha elections using BSE Sensex and Nifty 50 closing prices.



The objective of the paper can best be comprehended using the word cloud Created using the data in this research paper using R Programming.

**RESEARCH METHODOLOGY:**

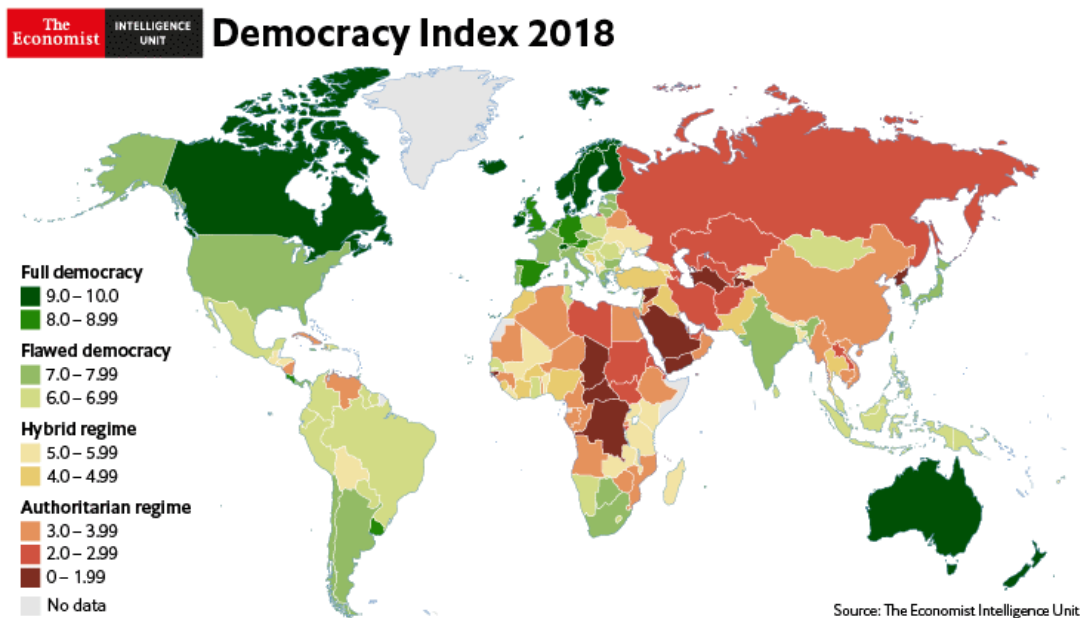
Event study has been conducted to find out the variability of return in and around the general elections since 1991. The variability of returns has been measure for a window pre and post the event date for 1-week, 1-Month and 3-Months. Closing prices of S&P BSE Sensex and Nifty 50 has been considered to find the relative return and the mean return. The Historical data was collected from the NSE and BSE official website.

$$\text{Relative Return} = \frac{\text{Closing Price (Today)} - \text{Closing Price (Yesterday)}}{\text{Closing Price (Yesterday)}}$$

$$\text{Mean Return} = \frac{\text{Expected Daily Return}}{\text{No. of Days}}$$

The democracy index released by The Economist Intelligence Unit classifies countries into full democracy, flawed democracy, hybrid regime or authoritarian. The categories considered for the index are electoral process and pluralism, the functioning of government, political participation, democratic political culture and civil liberties. The Index classifies India as a “Flawed democracy”. The Index ranks 167 countries on a scale of 0 to 10 based on 60 indicators. According to the Whitepaper released by The Economist, Flawed democracies are fair and free and basic liberties are honored but may have issues like media freedom infringement. India according to fig. 1 India is ranked between 7-7.99 on a scale of 10 and hence is categorized as flawed democracy.

**Fig 1. Democracy index 2018 by The Economist Intelligence Unit**



**Source:** <https://www.eiu.com/topic/democracy-index>

It’s very essential to find how the stock market fares around the election period. Thereby the election result dates since 1991 has been used to find if the year of elections do make the stock market volatile. The results showed that Indian stock market has raised more no. of times than the fall. This fact is evident from the returns calculated used closing prices of S&P BSE Sensex and Nifty 50. Table 1 and Table 2 represent the return for a window of 1-Month, 1-week and 3-Months pre and post the election result dates. According to Table 1 and Table 2, The results showed that the pre and post election returns were positive in most of the years with year 2004 as an exception where both pre and post election results were negative (Red) however the data presented some amusing results for the year 2008-2009, back in the year 2008 the newspapers were flooded by a popular saying “When US Sneezes world catches the cold” India was still strong then with some cold symptoms but thankfully didn’t catch it. Possibility of good immune! Indian markets were market with rise (Green) in the share prices around

that period as evident from the tables below. The 17<sup>th</sup> lok Sabha was founded on 24<sup>th</sup> May with election results driving up the stock prices yet again however the 1-week and 1-Month increase in share prices has not been a tremendous one as depicted by returns (refer table 1&2).

**Table 1: S&P BSE Sensex Return**

Pre Analysis (% Return before Election Results)			Election Results	Post Analysis (% Returns Post Election Result )		
3 Month Return	1 Month Return	1 Week Return		3 Month Return	1 Month Return	1 Week Return
14.06495324	4.087989099	3.398797967	21-Jun-91	37.15653638	4.229210117	-6.351526011
7.1756462	7.1290699	2.7607395	16-May-96	-11.5183712	6.3869468	-3.5902707
8.9870414	-2.6589351	0.4238054	1-Jun-96	-8.2739977	-3.7636121	2.3777247
9.0582949	-0.9520237	1.7279765	21-Apr-97	9.3291998	-1.7048311	0.6768795
14.18492873	4.557579981	7.025556854	10-Oct-99	9.670732822	-7.798830632	-2.009030601
-15.19727487	-15.56815204	-2.136149448	22-May-04	-1.089937403	-8.094112503	-7.097280427
55.33431865	26.04515829	12.84043432	22-May-09	9.747716414	3.161699845	2.944160609
18.41930476	8.838477667	2.36968809	26-May-14	6.9827988	1.399003434	-0.129587553
8.195675	0.639209	4.000318	24-May-19	-	-0.60918	1.645301

**Source:** Calculated using BSE Historical Database

**Table 2: NIFTY 50 Return**

Pre Analysis (% Return before Election Results)			Election Results	Post Analysis (% Returns Post Election Result )		
3 Month Return	1 Month Return	1 Week Return		3 Month Return	1 Month Return	1 Week Return
6.664819	6.643413	2.332810652	16-May-96	-11.1945	5.031056	-4.205247255
9.049796	-2.19319	0.450678783	1-Jun-96	-7.71957	0.085181	2.929108011
5.957011	-1.85817	2.151174265	21-Apr-97	9.843485	-1.75372	0.452574015
17.96252	5.895197	7.793485389	10-Oct-99	-33.5849	-6.36119	-2.692048518
-15.7855	-16.716	-1.402932255	22-May-04	-1.07219	-8.58377	-7.785063865
53.88185	25.12703	14.68685741	22-May-09	6.849121	-0.07668	2.32629468
18.82324	8.615237	2.278217409	26-May-14	7.415359	1.822926	0.046881051
8.019163	0.70059	3.876297	24-May-19	-	0.575188	3.701623

**Source:** Calculated using NSE Historical Database

**Table 3: Returns for 6-Months, 2-Months and 2-weeks**

Election Result Dates	S& P BSE Sensex (Returns%)			NIFTY 50(Returns %)		
	6 Months (3 Months pre and 3 Months post Elections)	2 Months (1 Month Pre and 1 Month Post Elections)	2 Weeks(1 Week Pre and 1 Week Post Elections)	6 Months	2 Months	2 Weeks
21-Jun-91	56.44753908	10.51664396	-1.35983	*	*	*
16-May-96	-4.499282915	14.77653048	-0.22873	-4.204580211	13.27536	-0.8619662
1-Jun-96	1.956516015	-4.4604779	4.855159	2.381262069	-3.08338	5.19063989
21-Apr-97	22.56357151	0.079312978	5.277772	19.24257932	-1.2135	5.131241366
10-Oct-99	26.48531815	-2.62834787	5.928821	-21.40350877	-0.52259	5.22844859
22-May-04	-13.38860858	-19.8738347	-6.11949	-14.09062694	-21.4909	6.243680485
22-May-09	72.3449969	31.45600476	17.43627	65.49909554	25.85059	18.12400419
26-May-14	26.80900632	10.46629352	2.33445	27.49493956	10.47437	2.21435513
24-May-2019	-	0.357985	7.998571	-	1.279809	7.7214056

**Source:** Calculated using NSE and BSE Historical Database

As per the above table, if an investor would have kept his investment for a total of six months (Including pre and post elections) he would generate good returns on an average. The results suggested that the year 2004 gave a huge amount of negative return irrespective of the period for which the stock was held. However for all other years, on an average the returns were positive.

**CONCLUSION:**

Stock market plays a vital role in the Indian financial system; the variability of returns is the reflection of the sentiments of not only Indian Investors but also the trust bestowed in the Indian capital markets by the foreign investors inclusive of Foreign Institutional Investors (FII) and Foreign Portfolio Investors (FPI). The studies in the past has revealed that Economic , Political , Technological and Legal factors all have impact on the sentiments of the investor and thereby impact the flow of funds in the capital markets. However, the stream of behavior finance highlights and contradicts what the theories of CAPM, Markowitz model and efficient market hypothesis tell about investors. According to latter, Investors behave rationally, Capital markets are efficient and investors cannot earn abnormal profit. However the discipline of behavior finance emphasizes on the irrationality of investors and that investors do not essentially invest based on Economic, Industry or Company fundamentals and are henceforth likely be driven by the heard behavior. Investors might go by trending stock and might not really go for value investing. These biases lead stocks to move in either direction from its intrinsic value and hence lead to abnormal profit or loss. The results above suggest that election year do make the markets volatile and investors do end up into abnormal profits or losses. The results depicted the chances of happening of former more than latter.

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