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DO STOCK MARKETS WELCOME SIGNS OF CHANGING RULING SET-UP? AN EMPIRICAL INVESTIGATION ON THE IMPACTS OF GENERAL AND PRESIDENTIAL ELECTIONS ON KSE

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ABSTRACT

This study was an attempt to analyze the impact of general and presidential elections on stock market returns of Karachi Stock Exchange. The event study methodology was employed and the data from 1997 to 2013 was used to identify the impact. This study investigated the impact of general and presidential elections held in Pakistan individually and collectively. The results established that there was a significant impact of elections on stock market returns of Karachi Stock Exchange.

INTRODUCTION

Stock markets play a critical role in economic development. These provide a platform for raising funds, trading securities and help investors to generate profits. These markets also serve as a mechanism for price discovery and information dissemination. Stock markets are also used to implement privatization program; hence, they play an important role in development of emerging economies (Lee, 1998). The performance of stock market of an economy is of interest to various parties, including investors, capital markets, stock exchanges and governments. Stock market performance is influenced by a number of factors. One important factor is the impact of activities of government on performance of the economy. Economic activities, in turn, affect the performance of stock markets. Other factors that affect stock market performance are availability of assets, change in composition of investors and market sentiments. (Mendelson & Robbins, 1976)

Investors are always concerned about returns. While making capital budgeting decisions, the risk premiums and discount rates are considered. Risk is therefore an important topic for investors. Political risk may occur at international, national and individual level, and are random. Therefore, scholars must evaluate, predict and interpret political risk using different methods and perspectives. A number of studies examined the relationship between political risk and stock market and discussed how stock market responds to different elections periods. Lobo (1999) discovered risk in the rate of U.S stock returns during presidential and congressional elections. However, other studies examined the "efficient market" theory (Herron et al, 1999). Gemmil (1992) reported that the results of parliamentary pre-elections survey were consistent with price index of FTSE100. When the survey favors the labor party, the stock price drops, and when the survey favors conservative party, the stock prices sky rocked. Gwilym and Buckle (1999) further discovered that pre-election surveys' results regarding the 1992 British parliament elections were closely correlated with stock prices index.

In general, politics influence financial markets. Stock markets respond to new information regarding political decisions that may affect domestic and foreign policy. As such, market efficiency requires stock market to absorb trends into stock. Positive stock returns are expected following resolution of political uncertainty. In contrast, if outcomes of political uncertainty do not allow investors to immediately measure the negative impact on stock market returns, then the political outcomes constitute an uncertainty, thus inducing surprise. Political uncertainty takes different shapes such as transition of ruling party, changes in its fiscal policy, and various political events. Markets are known to be a suitable institution for efficient allocation of assets. Efficient market hypothesis states that all the available and relevant information about assets in financial market is reflected in its market price (Fama, 1970). According to this theory, if new information is available, then the market adjust prices so that no one can earn profit by using inside information.

Financial markets are often believed to be "informationally efficient" which means that the prices reflect all the available information, and reaction on new information is very quick and precise in aggregate. Efficient market hypothesis in-fact applies the concept of rationality to financial markets. Fama (1970) recognizes three forms of market efficiency, depending on what information is assumed to be incorporated in prices. Weak form means that only historical assets prices are reflected in stock market expectations. Under this assumption, technical analysis might not lead to abnormal profits, whereas fundamental analysis might still be profitable. Semi-strong form assumes that prices reflect all publically available information (historical prices, earning announcements, business condition etc.). Strong form, on top of that, allows for insider or private information to be included in price, and is the highest level of efficiency.

The information regarding the time of election is costless and publically available; therefore, there should be no effect on stock returns. Likewise, the result of election is publicly known immediately after it (if not earlier), so there should be no partisan cycle either. In other words, investor should expect pre-electoral boom and adjust expectations so that elections can have no effect on returns at all. Capital market theory by Fama (1970) states that market requires fulfilling four conditions to achieve efficiency. Efficient capital market ensures that nobody earns profit by trading the same contract at different prices in different markets simultaneously. The second condition concerns the use of historical prices information for building trading rules. In efficient markets, it should not be possible to infer future contract prices from historical data. The third condition concerns the possibility of making trading profits based solely on publically available information. It should not be possible to earn profits by using information. The fourth condition concerns the possibility of making profits by using private information. This condition is rarely met in prediction markets as it requires all individuals to guarantee a sufficient level of market efficiency. Observed evidence suggests that markets which fail to meet the mentioned requirements can achieve a high level of prediction accuracy. Chen and Plott (2002) observed a violation of non-arbitrage conditions in twelve different markets. In the market with small number of participants and little liquidity, the no-arbitrage condition is often violated.

Before understanding the objective of this study, it is necessary to have a look at the summary of events surrounding the last three multiparty General elections held in Pakistan in 2002, 2008 and 2013. This section provides the background against which performance of stock market is evaluated before and after elections. The General elections of 2002 were held in Pakistan on October 10, 2002 to elect the National Assembly and the provincial assemblies. The election was held under the watchful scrutiny of the military government of General Pervez Musharraf. This election featured the multiparty democracy, and Pakistan again returned to democracy. More than 70 parties contested the elections; the main parties were the Peoples Party Parliamentarians, Pakistan Muslim League-Nawaz Group, Muttahida Quami Movement (MQM), Pakistan Muslim League-Quaid-i-Azam also called the "King's Party" for its unconditional support to the government, and the Muttahida Majlis-i-Amal (MMA), alliance of six religious political parties. Other known parties contesting at the national level included the six-party National Alliance led by former caretaker Prime Minister Ghulam Mustafa Jatoi, Imran Khan's Pakistan Tehrik-i-Insaaf and Tahir-ul-Qadri's Pakistan Awami Tehrik. Pakistan Muslim League (Quaid-e-Azam) won the majority seats in the parliament.

A general election was held in Pakistan on February 18, 2008, after being postponed from January 8, 2008. The original date was intended to elect members of the National Assembly of Pakistan, the lower house of the Majlis-e-Shoora (the nation's parliament). Pakistan's two main opposition parties, the Pakistan People's Party (PPP) and the Pakistan Muslim League (N) (PML (N)) won the majority of seats in the election. The PPP and PML (N) formed the new coalition government with Yosaf Raza Gillani as Prime Minister of Pakistan. Afterwards General elections were held in Pakistan on May 11, 2013 to elect the members of the 14th National Assembly. Pakistan Muslim League (N) (PML (N)) won the majority of seats in the election. Many studies are undertaken to explain the relationship between performance of stock exchange and political activities in some countries. Most of these studies were conducted in developed stock exchanges. Studies on the effect of political activities on the performance of emerging capital markets are very important as more and more investors are participating in these markets. The investors in emerging markets are either local or foreign, thus contributing to economic development. The performance of stock market following general elections and its relationship with market performance is documented in United Kingdom and United States of America. (Stovall, 1992: Hudson, Keasey, &Dempsey, 1998).

The objective of the study is to examine the impact of Pakistani General elections on the stock market performance. The contribution of this study will be two folds. First, it will add to the academic literature present on EMH. Secondly, this study will hold evidence that whether the elections in a country could affect stock returns or not. This evidence would be helpful for

the investors in understanding the behavior of market and adjust their positions accordingly. The study will contribute to the existing literature in a few ways. First, it will provide support for the famous Efficient Market Hypothesis by Fama. In addition, it would add to the understanding that how the markets in a developing country like Pakistan respond to the elections conducted in that country. Last, but not the least, this study will provide an idea to the investors who want to invest in developing economies, of what might happen in the stock market during elections in those countries.

REVIEW OF LITERATURE

There are many empirical evidences that demonstrate the impact of elections on stock markets. Studies by Nordhaus (1975), MacRae (1977), Allvine and O'Niell (1980), and Herbest and Silkman (1984) are among the few researchers who explored the importance of political elections and their relationship with financial markets. There are also considerable evidences showing US presidential elections, in particular, to have a huge impact on both US and foreign markets. Studies by Hobbs and Riley (1984) and Homaifar, Randolph, Helms and Haddad (1988) showed that US presidential elections provide profit opportunities to corporate stockholders.

Foerster (1994) examined the impact of Canadian and U.S. elections on stock markets in Canada and reports that although Canadian markets follow four-year Presidential cycles, they also react to Canadian political factors. Markets react favorably to changes in their own government and Canadian markets react even strongly to U.S. regime changes." Longin and Solnik (1995) studied major international markets and reported that, "of all the major markets, Canada and the U.S. are the most correlated. The Mexican stock market is also highly integrated with the U.S. market". In another study, Foerster and Schmitz (1997) showed that international pervasiveness and importance of the four-year U.S. election cycle. They also showed that a variable related to the U.S Presidential election cycle has predictive ability beyond the well-known set of economic and seasonal variables.

In a study by Pantzalis, Stangel and and Turtle (2000), the behavior of stock market indices around political dates was examined. They reported positive abnormal returns leading up to elections week. The positive abnormal returns were shown to be a function of a country's degree of political, economic and press freedom and a function of election timing and success of the incumbent. Kehoe (2001) showed that the U.S. NASDAQ index and the Mexican IPC moved together to a much greater extent than either moved with the U.S. DowJones. The study mentioned that, "A perusal of financial headlines, however, suggests that the Mexican and U.S. stock markets are well integrated: Headlines like "Mexican bourse drops on NASDAQ woes "and "Mexican stocks hold modest gains ahead of Fed meeting are commonplace". Bialkowski, Gottschalk and Wisniewski (2008) conducted a study on Stock Market Volatility around National Elections on a sample of 27 OECD countries event study, and E-Garch was used to test whether national elections induced higher stock market volatility. It was reported that the country specific component of index return variance easily doubled during the week around an Election Day, which showed that investors get surprised by the election outcome.

Wang and Lin (2007) studied the political uncertainty and stock market behavior in emerging democracy. Their study examined the congressional effect between the pre- and post-democratization on the stock market by the asymmetric Generalized Autoregressive Conditional Heteroscedesticity (GARCH) model for the period from 1984 to 2004. The results indicated that the congressional effect has a negative effect on stock returns, but volatility was not found to be significant. Liu (2007), in a study analyzed the affect of Presidential Elections on Stock Market in Taiwan, South Korea, Singapore, Philippine, and Indonesia. He examined the return pattern around presidential election period in the stock markets during the sample period from 1996 to 2005. An event study analysis was used. It was reported that stock markets generate positive abnormal returns fifteen-day period before and after the presidential elections. Kithinji and Ngugi (2008) analyzed the performance of Nerobi stock exchange before and after General elections. The NSE month end indices for the period between 31st January 1991 and 30th September 2008 were obtained from the NSE, and were analyzed using line graphs, percentages, mean, variance and Pearson correlation coefficient. The findings of the study indicated that the NSE performance was influenced by political activities and expectations around the election period in the short term.

In a study by Oehler, Walker, and Wendt (2011), evidence from U.S. presidential elections from 1976 to 2008 with focus on party-specific favoritism was used to explain abnormality in Stock prices. The results showed statistically significant (positive or negative) Cumulative abnormal price returns for most industries. Most effects appeared to be related to the individual presidents and changes in their political decision making irrespective of the underlying political ideology. Opare (2012) investigated the behavior of stock markets in thirteen European Countries around Elections from 1990 - 2012. It was reported that during the 15- day period before elections, there were positive market reactions. A general rise in the market reflects in positive abnormal returns. However, a negative reaction was observed in 15 days

after the release of election outcomes.

After the review of the literature, it is evident that limited work is done on the relationship between Elections and Stock market especially with reference to Pakistan. In Pakistan, it is very important to address the relationship between Elections and Stock market. This research is an attempt to fill the existing gap. The aim of this study is to find the impact of elections on stock market performance. The study tests the following hypothesis:

Hypothesis OA. There is no difference in the performance of the stock market for the period before and after a General Election.
Hypothesis 1A. There is a difference in the performance of the stock market for the period before and after a General Election.
Hypothesis OB. There is no difference in the performance of the stock market for the period before and after a Presidential Election.
Hypothesis 1B There is a difference in the performance of the stock market for the period before and after a Presidential Election.

METHODOLOGY

An event study methodology was used in the study. Election information including election date and election outcome was available on the website of Election Commission of Pakistan. Daily data from 1997 to 2013 was used in this study.

The first step in conducting an event study is to define the event of interest. In this study the effect of General and Presidential elections on stock markets was examined, so the event of interest can be defined as the elections in the country. Since the election date in every country has been set in advance and is public and fixed, the calendar date for all the individual elections is the event date which becomes time zero (t=0). The event window is the period in which the Equity return of stock market in the event was observed. Event window is that time period in which we expect that market will get effected by information. Since the event is the election; event day, the day in which information come into the market is theoretically the polling day. However, in order to investigate the effects on stock market before and after the elections, the event window was expanded in this study. The present study had taken an event window of 31 days in total i.e. the first half of the event window was composed of 15 days stock prices (-15) and the second half of the event window was also composed of 15 days stock prices (+15). This event window was chosen because it is the period that the uncertainty of an election has the most potential to be resolved because the majority voters had decided which candidate they will poll for, and thus it provided the least incentive for the ruling party to manipulate the stock market (Pantzalis et al., 2000; Cho, 2004). The polling day was not included in event window because elections were conducted on weekend, or stock market was closed on polling day.

The daily returns were calculated over estimation period by using equation

$$R_{it} = \ln(P_t / P_{t-1}) \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3.1)$$

Where,
P_t = value of index at end of day T.
P_{t-1} = value of index at end of day T-1.

The normal return is the expected return if the event does not happen. The expected return calculated in this study was through moving average method. Expected return is calculated through following equation.

$$E(R_i) = \sum_{n}^{i=1} (R_i / n) \quad \ldots\ldots\ldots\ldots\ldots\ldots (3.2)$$

The impact of an event can be estimated by measuring the abnormal return. The abnormal return is the difference between actual and normal return of security over event window. In this study the abnormal return was calculated by following equation.

$$AR_{it} = R_{it} - E(R_{it}) \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots (3.3)$$

Where;
Rt = actual return of equity index on t day during event period.

T-Statistic value tells us about level of significance. To find out whether AR is significant or insignificant t-values were calculated through following equation.

$$T = \frac{AR}{\sigma} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3.4)$$

σ = standard deviation

T-value tells us about level of significance. If t-value is greater than 1.96, it means AR is significant, and if less than 1.96 it means it is insignificant. Cumulative abnormal return (CAR) is the sum of all abnormal returns in the t period. It captures all the equity index abnormal returns over examined period of time.

$$CAR = \sum AR \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3.5)$$

Where,
∑AR = Sum of all Abnormal Return

To check either CAR is significant or insignificant, t-value can be calculated through following equation.

$$T = \frac{CAR}{\sigma} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3.6)$$

Where,
σ = standard deviation.

T-value tells us about level of significance. If t-value is greater than 1.96 it means CAR is significant and vice versa.

$$AAR = \frac{\Sigma AR}{N} \quad \ldots\ldots (3.8)$$

Where,
∑AR = Sum of all Abnormal Return

T-statistic was used in this study to find the significance of AAR .T-statistic shows us that either the average abnormal return is significant or insignificant. If the t value is greater than 1.96 the abnormal returns are significant during the event or particular day.

$$T = \frac{AAR}{\sigma/\sqrt{n}} \quad \ldots\ldots (3.9)$$

Where,
σ = standard deviation

Cumulative average abnormal return was calculated to explain the cumulative impact of events on return over event window. CAAR has been calculated by using following equation

$$CAAR = \frac{\Sigma CAR}{N} \quad \ldots\ldots (3.10)$$

Where,
∑CAR = Sum of all Cumulative Abnormal return.
N = Number of events.

CAAR was checked by calculating t- statistic for all event window to know whether it is significantly different from day 0 or not throughout the window, assuming that abnormal return were independent and identically distributed.

$$T = \frac{CAR}{\sigma/\sqrt{n}} \quad \ldots\ldots (3.11)$$

RESULTS AND DISCUSSION

The values for 31 days event window of 2002 General election Abnormal Return (AR) and Cumulative Abnormal Return (CAR) are given below. As shown 15 days were taken before Election Day and 15 days were taken after Election Day to find the effects of election on KSE 100. Table 4.1 presents the AR and CAR of 2002 General Election. Positive and significant abnormal returns were observed on the -2nd, -5th and -11th day 0.009648049, 0.005882458, 0.008138458 respectively in pre event window before election. Positive and insignificant abnormal return 0.00150108 was observed on 8th day of pre event window. Whereas negative and insignificant abnormal return -0.001023586 was found on the -7th day. On the event day, 0 positive and significant abnormal return 0.032225995 was found. This means that return of the event days is different from all other days. Mostly values before event day are positive, but after the event day they start decreasing and sign becomes negative. This positive stock price changes result from the government's intervention in the stock market to pull-up the stock price before elections. Chang et al. (2006) also provided evidence about this phenomenon in their study while investigating the impact of presidential elections on Taiwan's stock market. They reported that the ruling party may manipulate the stock market before elections by investing government funding in some stocks sector, such as bank, in order to win re-election. Therefore, it was found that stock market generates significant and positive returns months before elections.

TABLE 4.1
AR and CAR of 2002 General elections

DAYS	AR	t-statistic	CAR	t-statistic
-15	-0.0115	-9.63609*	-0.0114646	-9.63609*
-14	0.00572	4.809868*	-0.005742	-4.82622*
-13	-0.0023	-1.89447	-0.007996	-6.72069*
-12	-0.0061	-5.15027*	-0.0141236	-11.871*
-11	0.00588	4.944253*	-0.0082411	-6.92671*
-10	-0.0077	-6.50458*	-0.01598	-13.4313*
-9	-0.001	-0.86033	-0.0170036	-14.2916*
-8	0.0015	1.26167	-0.0155025	-13.03*
-7	0.00814	6.840439*	-0.007364	-6.18951*
-6	-0.0104	-8.75589*	-0.0177814	-14.9454*
-5	0.00965	8.109263*	-0.0081333	-6.83614*
-4	-0.0057	-4.81173*	-0.0138581	-11.6479*
-3	-0.0075	-6.3399*	-0.0214011	-17.9878*
-2	-0.0077	-6.49869*	-0.0291329	-24.4864*
-1	-0.0135	-11.3825*	-0.0426754	-35.869*
0	0.00322	27.08621*	-0.0104494	-8.78277*
1	0.00037	0.30993	-0.0100806	-8.47284*
2	-0.00957	-8.04372*	-0.0196507	-16.5166*
3	-0.00744	-6.25509*	-0.0270927	-22.7716*
4	-0.00332	-2.78867*	-0.0304106	-25.5603*
5	-0.00721	-6.06178*	-0.0376226	-31.6221*
6	-0.0013	-1.13256	-0.0389701	-32.7547*
7	-0.00908	-7.63289*	-0.0480514	-40.3875*
8	-0.0104	-8.7416*	-0.0584517	-49.1292*
9	-0.00962	-8.08894*	-0.0680756	-57.2181*
10	-0.017	-14.288*	-0.0850749	-71.5061*
11	0.01527	12.83165*	-0.0698084	-58.6745*
12	-0.001	-0.843	-0.0708113	-59.5175*

13	-0.01484	-12.4731*	-0.0856513	-71.9906*
14	-0.0093	-7.81995*	-0.0949551	-79.8105*
15	-0.00485	-4.07656*	-0.0998052	-83.8871*

Note: shows significance level.*

Positive and insignificant Abnormal return 0.000368741 was found on 1st day after the event, whereas, negative and insignificant abnormal return -0.001002968 was observed on 12th day of post event window. Cumulative abnormal return (CAR) is the sum of all abnormal return in the t period. It captures all the equity index abnormal returns over examined period of time. On day 0 negative and significant CAR -0.01008062 was observed. Both in pre window (-15) and post window (+15) significant and negative cumulative abnormal return were observed. The values for 31 days event window of 2008 General election AR and CAR are given below. 15 days were taken before Election Day and 15 days were taken after Election Day to find effect of election on KSE 100. Table 4.2 presents the AR and CAR of 2008 General election. Negative and insignificant AR, -0.00102, -0.00121, -0.00066, -0.00078, -0.00022, -0.00112, -0.00103, were observed on -14th,-11th, -9th, - 8th,-3rd, 1st and 15th day respectively.

TABLE 4.2
AR and CAR of 2008 General Election

Days	AR	t-statistic	CAR	t-statistic
-15	-0.00924	-11.1755*	-0.00924446	-11.17547756*
-14	-0.00102	-1.23174	-0.01026337	-12.4072166*
-13	-0.00843	-10.191*	-0.01869346	-22.59821449*
-12	0.00214	2.588873*	-0.01655192	-20.00934174*
-11	-0.00121	-1.46034	-0.01775993	-21.46967811*
-10	0.00386	4.670573*	-0.01389638	-16.79910544*
-9	-0.00066	-0.79758	-0.01455615	-17.59668487*
-8	-0.00078	-0.93999	-0.01533372	-18.53667287*
-7	0.00265	3.197141*	-0.01268901	-15.3395322*
-6	0.0049	5.925199*	-0.00778763	-9.414332761*
-5	0.00483	5.835386*	-0.00296054	-3.578946386*
-4	-0.01426	-17.2378*	-0.01721978	-20.81670288*
-3	-0.00022	-0.26581	-0.01743966	-21.08251052*
-2	-0.01077	-13.0175*	-0.02820788	-34.10003835*
-1	-0.00407	-4.91542*	-0.03227397	-39.01546261*
0	-0.02906	-35.1313*	-0.06133495	-74.1468009*
1	-0.00112	-1.35792	-0.06245824	-75.50472418*
2	-0.00839	-10.1464*	-0.07085143	-85.65111648*
3	0.00056	0.670447	-0.07029683	-84.98066955*
4	0.00332	4.015344*	-0.0669753	-80.96532577*
5	-0.00602	-7.27391*	-0.07299235	-88.23923624*
6	0.00354	4.276885*	-0.06945447	-83.96235174*
7	-0.00277	-3.34997*	-0.07222559	-87.31231722*
8	0.01091	13.19072*	-0.0613141	-74.12159551*
9	0.00908	10.97807*	-0.05223294	-63.14353001*
10	0.00629	7.608211*	-0.04593935	-55.5353191*
11	-0.01349	-16.3018*	-0.05942437	-71.83713154*
12	-0.01121	-13.5512*	-0.07063405	-85.38833089*
13	0.00566	6.83845*	-0.06497722	-78.54988097*
14	0.01224	14.79419*	-0.05273933	-63.75569528*
15	-0.00103	-1.24445	-0.05376875	-65.00014184*

Note: shows significance level.*

Positive and insignificant abnormal return, 0.000555, was found on 3rd day after the event day. Negative and significant abnormal return -0.02906 was observed on day 0. On subsequent day after day 0, negative and insignificant abnormal return -0.00112 was observed. On day -12, -10, - 7, -6, and -5, positive and significant abnormal returns 0.002142, 0.003864, 0.002645, 0.004901 and 0.004827were observed, respectively in pre event window. On day 4, 6, 8, 9, 10, 13, and 14 positive and significant abnormal return were observed. Cumulative abnormal returns were calculated to capture the effect all the index abnormal returns over examined period of time. On the event day 0, negative and significant cumulative abnormal returns -0.06133495 was observed. Also, on subsequent day after day zero (i.e. 1) negative and significant CAR was found. The CAR decreased up to day 4 and then increased; however, negative and significant CAR was observed over the entire event window. The values for 31 days event window of 2013 General election Abnormal Return and Cumulative Abnormal Return are given below. 15 days were taken before Election Day and 15 days were taken after Election Day to find effect of election on KSE 100. Table 4.3 present the Abnormal and Cumulative Abnormal Return. On day zero (0) negative and significant abnormal return -0.01467 was found. The level of significance tells that the abnormal return of the day zero is significantly different from other days. On day 1, negative and significantly abnormal return -0.00962 was observed and it increased up to day 2, while it remained negative but decreased on 3rd day. Positive and significant abnormal returns 0.002516, 0.006358, 0.001061, 0.007443, 0.009076, 0.004758, 0.017392 and 0.004727 were observed on -14th,-9th,-4th, 3rd, 8th,9th, and 12th day respectively. On day 15th insignificant abnormal return 0.000171 was found which means that the market does not respond to news on that day but the very next day -14th significant abnormal return 0.002516 is observed which means market respond to news. Negative and significant CAR -0.062921465 is observed on day 0, means cumulative abnormal returns are significantly different from others days, showing that election effect abnormal and cumulative abnormal

returns during event window.

TABLE 4.3
AR and CAR of 2013 General Election

Days	AR	t-statistic	CAR	t-statistic
-15	0.00017	0.375285	0.000171402	0.375284913
-14	0.00252	5.509486*	0.002687715	5.884770679*
-13	-0.00111	-2.42305*	0.001581052	3.461724551*
-12	-0.00593	-12.9898*	-0.00435172	-9.528113681*
-11	-0.00439	-9.61668*	-0.00874389	-19.14479526*
-10	-0.00045	-0.98585	-0.00919415	-20.13064602*
-9	0.00636	13.92062*	-0.00283627	-6.210021243*
-8	-0.00712	-15.5789*	-0.0099515	-21.78888148*
-7	-0.00149	-3.26595*	-0.01144314	-25.05483468*
-6	-0.0087	-19.0486*	-0.02014311	-44.10348175*
-5	-0.0002	-0.43228	-0.02034055	-44.53575754*
-4	0.00106	2.32295*	-0.0192796	-42.21280728*
-3	-0.00943	-20.6503*	-0.0287111	-62.86313396*
-2	-0.00823	-18.0216*	-0.03694199	-80.88473116*
-1	-0.01131	-24.7704*	-0.04825522	-105.6551196*
0	-0.01467	-32.1118*	-0.06292147	-137.766963*
1	-0.00962	-21.0612*	-0.07254063	-158.8281928*
2	-0.00279	-6.10104*	-0.07532713	-164.9292365*
3	0.00908	19.87295*	-0.06625067	-145.0562858*
4	-0.00418	-9.15741*	-0.07043308	-154.2136936*
5	-0.0116	-25.3932*	-0.08203078	-179.6069372*
6	-0.01489	-32.6085*	-0.09692387	-212.215462*
7	-0.01167	-25.5603*	-0.10859787	-237.7757472*
8	0.00744	16.29562*	-0.10115527	-221.4801293*
9	0.00476	10.41826*	-0.096397	-211.0618688*
10	0.01739	38.07882*	-0.07900549	-172.9830492*
11	-0.02343	-51.2955*	-0.10243339	-224.2785862*
12	0.00473	10.34952*	-0.09770652	-213.9290673*
13	-0.00502	-10.9812*	-0.10272191	-224.9102916*
14	-0.0087	-19.0558*	-0.11142514	-243.9660857*
15	-0.00966	-21.1565*	-0.12108782	-265.1225844*

*Note: *shows significance level.*

The values of 2002, 2008 and 2013 General election Average Abnormal Return and Cumulative Average Abnormal Return are given below in table 4.4. Table 4.5 present values of Average Abnormal return and Cumulative Abnormal Return. The Average abnormal return was calculated to examine effect of all three events of General elections on stock market performance. Cumulative Abnormal Returns were calculated to find cumulative impact of events on stock market performance. On day zero, positive and significant AAR 0.007872754 was observed. Also significant CAAR -0.09382 was observed on day zero (0). The t-statistic value 8.974958* of AAR shows that average abnormal return on day zero (0) is different from others days. And insignificant AAR was observed on -15th day, but on very next day i.e. -14th, positive and significant AAR 0.00789925 was observed. Throughout the pre and post event window positive and negative significant AAR and CAAR were observed. The findings illustrate that the announcement of general elections causes Abnormal Return; however, this change in abnormal return is not permanent and the market adjust the stock prices after some days. The results show us that general elections have a significant impact on stock market performance.

TABLE 4.4
AAR and CAAR of 2002, 2008 and 2013 General Elections

Days	AAR	t-statistic	CAAR	t-statistic
-15	-0.014374691	-16.3872*	-0.01437	-16.38718*
-14	0.00789925	9.005163*	-0.00648	-7.38201667*
-13	-0.006170648	-7.03455*	-0.01265	-14.4165688*
-12	-0.011346489	-12.935*	-0.02399	-27.3515921*
-11	0.001087621	1.239891	-0.0229	-26.1117014*
-10	-0.006901286	-7.86748*	-0.02981	-33.9791835*
-9	0.005114375	5.830399*	-0.02469	-28.1487848*
-8	-0.005873347	-6.69563*	-0.03057	-34.8444135*
-7	0.007528387	8.582378*	-0.02304	-26.262035*
-6	-0.017483552	-19.9313*	-0.04052	-46.1933237*
-5	0.011059648	12.60802*	-0.02946	-33.5853002*
-4	-0.009416915	-10.7353*	-0.03888	-44.3206043*
-3	-0.017047727	-19.4344*	-0.05593	-63.7550517*
-2	-0.019552158	-22.2895*	-0.07548	-86.0445562*
-1	-0.02621103	-29.8806*	-0.10169	-115.92519*
0	0.007872754	8.974958*	-0.09382	-106.950233*
1	-0.009624855	-10.9724*	-0.10344	-117.922589*
2	-0.015154295	-17.2759*	-0.11859	-135.198521*
3	0.001819286	2.073991*	-0.11678	-133.12453*
4	-0.006393069	-7.28811*	-0.12317	-140.412644*
5	-0.02081543	-23.7296*	-0.14398	-164.142281*
6	-0.015061264	-17.1699*	-0.15905	-181.312157*
7	-0.021678985	-24.7141*	-0.18072	-206.026249*
8	0.000679383	0.774498	-0.18005	-205.251752*
9	-0.001838547	-2.09595*	-0.18188	-207.347699*
10	0.002490075	2.838691*	-0.17939	-204.509008*
11	-0.012656368	-14.4283*	-0.19205	-218.937296*
12	-1.27E-05	-0.01443	-0.19206	-218.951724*
13	-0.017969735	-20.4855*	-0.21003	-239.437262*
14	-0.013927775	-15.8777*	-0.22396	-255.314958*
15	-0.014855935	-16.9358*	-0.23882	-272.250757*

Note: shows significance level.*

The values for 31 days event window of 2007 presidential election Abnormal Return and Cumulative

Abnormal Return are given below.15 days were taken before Election Day and 15 days were taken after Election Day to find effect of election on KSE 100. Table 4.5 presents the value of AR and CAR of 2007 Presidential election. Negative and insignificant AR -0.00011974 and CAR -0.00012 were observed on -15th day, which shows that market did not respond to the election news on first day, while negative and significant abnormal return -0.01156488 were observed on day -14 showing that market responded to the news, and the AR on day 14, was significantly different from other days. On day zero (0) negative and significant Abnormal Return -0.0131191 and Cumulative Abnormal Return -1.197 were observed, which were different from all others days. The abnormal return increased up to day 3 but on day 4 it decreased. On day 11 insignificant abnormal return -0.00072825 was found.

TABLE 4.5
AR and CAR of 2007 Presidential Election

Days	AR	t-statistic	CAR	t-statistic
-15	-0.00012	-0.1673	-0.00012	-0.1673
-14	-0.01156	-16.1576*	-0.01168	-16.3249*
-13	-0.02293	-32.04*	-0.03462	-48.3649*
-12	-0.03433	-47.9653*	-0.06895	-96.3302*
-11	-0.0456	-63.7118*	-0.11455	-160.042*
-10	-0.0569	-79.4943*	-0.17145	-239.536*
-9	-0.06811	-95.1531*	-0.23956	-334.689*
-8	-0.0794	-110.932*	-0.31896	-445.622*
-7	-0.09048	-126.413*	-0.40944	-572.034*
-6	-0.1016	-141.944*	-0.51103	-713.978*
-5	-0.11264	-157.366*	-0.62367	-871.344*
-4	-0.1236	-172.692*	-0.74727	-1044.04*
-3	-0.13458	-188.028*	-0.88185	-1232.06*
-2	-0.14555	-203.353*	-1.02741	-1435.42*
-1	-0.15647	-218.615*	-1.18388	-1654.03*
0	-0.01312	-18.3291*	-1.197	-1672.36*
1	-0.00237	-3.31237*	-1.19937	-1675.67*
2	0.006963	9.727819*	-1.19241	-1665.95*
3	0.006927	9.677654*	-1.18548	-1656.27*
4	-0.00303	-4.2321*	-1.18851	-1660.5*
5	-0.00543	-7.58791*	-1.19394	-1668.09*
6	0.003453	4.824237*	-1.19049	-1663.26*
7	0.018506	25.85523*	-1.17198	-1637.41*
8	0.010573	14.77146*	-1.16141	-1622.64*
9	0.024145	33.73421*	-1.13726	-1588.9*
10	-0.00159	-2.22454*	-1.13886	-1591.13*
11	-0.00073	-1.01745	-1.13958	-1592.15*
12	0.009113	12.7314*	-1.13047	-1579.41*
13	0.031707	44.29816*	-1.09877	-1535.12*
14	-0.01511	-21.1061*	-1.11387	-1556.22*
15	0.033326	46.56006*	-1.08055	-1509.66*

The values for 31 days event window of 2008 presidential election Abnormal Return and Cumulative Abnormal Return are given below.15 days were taken before Election Day and 15 days were taken after Election Day to find effect of election on KSE 100. Table 4.6 presents AR and CAR of 2008 presidential election. Positive and significant abnormal return 0.00745941 and Cumulative Abnormal return 0.156496 were observed on event day zero (0), showing that return on day zero(0) was different from all other days. On day 1 positive and significant AR 0.00398757 was found, which was less than day zero. On day 2 insignificant abnormal return was observed, which shows us that Presidential election causes Abnormal returns, however this change is not permanent in nature and the market adjust itself. Positive and significant abnormal return 0.00711129 was observed on day 3, while after day 3 insignificant AR was observed till day15 in pre event windows.

TABLE 4.6
AR and CAR of 2008 Presidential Election

Days	AR	t-statistic	CAR	t-statistic
-15	-0.03912679	-20.5747*	-0.03913	-20.5747*
-14	-0.01426736	-7.50246*	-0.05339	-28.0772*
-13	0.04132782	21.73215*	-0.01207	-6.34506*
-12	0.03212176	16.89116*	0.020055	10.54611*
-11	0.02809352	14.77292*	0.048149	25.31902*
-10	0.02199989	11.5686*	0.070149	36.88762*
-9	0.0442122	23.24889*	0.114361	60.13652*
-8	0.03451658	18.15047*	0.148878	78.28699*
-7	-0.00324189	-1.70474	0.145636	76.58225*
-6	0.00272193	1.431324	0.148358	78.01357*
-5	0.00300126	1.578205	0.151359	79.59178*
-4	0.00105687	0.555753	0.152416	80.14753*
-3	0.00201839	1.061365	0.154434	81.2089*
-2	0.00290388	1.526997	0.157338	82.73589*
-1	-0.00830115	-4.36514*	0.149037	78.37075*
0	0.00745941	3.922517*	0.156496	82.29327*
1	0.00398757	2.096856*	0.160484	84.39012*
2	-0.00202648	-1.06562	0.158457	83.3245*
3	0.00711129	3.739459*	0.165569	87.06396*
4	0.00202264	1.063601	0.167591	88.12756*
5	0.00274595	1.443952	0.170337	89.57151*
6	0.00097609	0.513276	0.171313	90.08479*
7	0.00017686	0.093001	0.17149	90.17779*
8	0.00022957	0.120719	0.17172	90.29851*
9	-0.00179081	-0.9417	0.169929	89.35681*
10	-0.00201574	-1.05997	0.167913	88.29684*
11	-0.00201428	-1.05921	0.165899	87.23763*

12	-0.00113323	-0.59591	0.164766	86.64172*
13	-0.00136637	-0.7185	0.163399	85.92322*
14	-0.00197774	-1.03999	0.161422	84.88323*
15	-0.00183258	-0.96366	0.159589	83.91958*

Note: shows significance level.*

The values for 31 days event window of 2013 presidential election Abnormal Return and Cumulative Abnormal Return are given below.15 days were taken before Election Day and 15 days were taken after Election Day to find effect of election on KSE 100. Table 4.7 presents the value of AR and CAR of 2013 presidential election .Positive and significant Abnormal Return 0.00315733 and Cumulative Abnormal Return 0.012835 were found on event day (0). On subsequent day, after day 0, insignificant AR 0.00065396 was found. On day 2, 3 and 4 positive significant AR were observed, whereas negative and significant AR was observed on day 5,6,7 and 8.

TABLE 4.7
AR and CAR of 2013 Presidential Election

Days	AR	t-statistic	CAR	t-statistic
-15	-0.01384889	-29.7544*	-0.01385	-29.7544*
-14	-0.00963022	-20.6906*	-0.02348	-50.4451*
-13	0.01234997	26.53402*	0.00272	5.843417*
-12	-0.01074068	-23.0764*	0.001609	3.457585*
-11	-0.00395995	-8.50799*	-0.0147	-31.5844*
-10	0.00236605	5.083475*	-0.00159	-3.42452*
-9	0.00909716	19.54533*	0.011463	24.6288*
-8	-0.00336202	-7.22334*	0.005735	12.32199*
-7	-0.01154545	-24.8055*	-0.01491	-32.0288*
-6	-0.00774684	-16.6442*	-0.01929	-41.4497*
-5	0.00087681	1.883827	-0.00687	-14.7603*
-4	-0.00197	-25.395	-0.00109	-2.34873*
-3	0.01050543	22.571*	0.008535	18.33845*
-2	0.00514758	11.05962*	0.015653	33.63063*
-1	0.00967786	20.79296*	0.014825	31.85258*
0	0.00315733	6.783542*	0.012835	27.5765*
1	0.00065396	1.405048	0.003811	8.188589*
2	0.01141027	24.51506*	0.012064	25.9201*
3	0.019013	40.84959*	0.030423	65.36464*
4	0.00525607	11.29271*	0.024269	52.1423*
5	-0.02473975	-53.1536*	-0.01948	-41.8609*
6	-0.00674206	-14.4854*	-0.03148	-67.6389*
7	-0.0055985	-12.0284*	-0.01234	-26.5138*
8	-0.00130576	-2.80544*	-0.0069	-14.8339*
9	0.00249092	5.351758*	0.001185	2.546317*
10	0.00496903	10.67601*	0.00746	16.02777*
11	0.00667208	14.33503*	0.011641	25.01104*
12	0.02232875	47.9735*	0.029001	62.30853*
13	0.01498584	32.19721*	0.037315	80.17071*
14	0.00166735	3.582306*	0.016653	35.77952*
15	-0.00741191	-15.9245*	-0.00574	-12.3422*

Note: shows significance level.*

The values of 2002, 2008 and 2013 General election Average Abnormal Return and Cumulative Average Abnormal Return are given below. Table 4.8 presents the values AAR and CAAR of all the three events of presidential elections. Negative and significant AAR -0.04386283 was observed on the first day (-15th) of pre event window AAR increased to day 3 but on day 4 it decreased. Negative and significant AAR -0.00460725 and CAAR -0.16616 were observed on day zero (0). On the very next day, insignificant AAR 0.001834722 was found. Positive and significant increasing AAR was found on day 2 but on day 4 it became insignificant. On day 10 insignificant AAR -0.00195162 was found. Throughout the event window positive and negative significant AAR and CAAR were observed except 1st, 4th and 10th day on which insignificant AAR were observed. Results show that announcement of presidential election causes abnormal return but this change in Abnormal Return was not permanent. On the 10th day significant abnormal return was observed as market react instantaneously to positive information but the stock prices reversed on the next day. Hence, the result proves that presidential election has significant effect on stock market performance. So, the hypothesis that there is a difference between performance of stock market before and after a Presidential Election is supported by the results.

TABLE 4.4
AAR and CAAR of 2007, 2008 and 2013 Presidential Elections

Days	AAR	t-statistic	CAAR	t-statistic
-15	-0.04386283	-36.4455*	-0.04386	-36.4455*
-14	-0.02904232	-24.1312*	-0.07291	-60.5767*
-13	0.02251172	18.70493*	-0.00653	-5.42626*
-12	-0.00578979	-4.81072*	0.01672	13.89421*
-11	-0.01882841	-15.6445*	-0.02462	-20.4552*
-10	-0.03410979	-28.3417*	-0.05294	-43.9862*
-9	-0.02086156	-17.3338*	-0.05497	-45.6756*
-8	-0.04600426	-38.2248*	-0.06687	-55.5587*
-7	-0.09757078	-81.0713*	-0.14358	-119.296*
-6	-0.10145703	-84.3004*	-0.19903	-165.372*
-5	-0.10934179	-90.8518*	-0.2108	-175.152*
-4	-0.12320474	-102.371*	-0.23255	-193.222*
-3	-0.12906153	-107.237*	-0.25227	-209.607*
-2	-0.14093111	-117.099*	-0.26999	-224.336*
-1	-0.16155002	-134.232*	-0.30248	-251.331*

0	-0.00460725	-3.82815*	-0.16616	-138.06*
1	0.00183472	1.524466	-0.00277	-2.30368*
2	0.00873966	7.261766*	0.01057	8.786233*
3	0.02037578	16.93019*	0.02912	24.19195*
4	0.00074552	0.619455	0.02112	17.54964*
5	-0.01093171	-9.08313*	-0.01019	-8.46368*
6	0.0021817	1.812773	-0.00875	-7.27036*
7	0.01681666	13.97293*	0.019	15.7857*
8	0.01036704	8.613949*	0.02718	22.58688*
9	0.02318487	19.26426*	0.03355	27.87821*
10	-0.00195162	-1.6216	0.02123	17.64266*
11	-0.0005185	-0.43082	-0.00247	-2.05242*
12	0.01542223	12.81429*	0.0149	12.38347*
13	0.03533548	29.36017*	0.05076	42.17446*
14	-0.01652869	-13.7337*	0.01881	15.62652*
15	0.02902232	24.11457*	0.01249	10.38092*

Note: shows significance level*

CONCLUSION AND RECOMMENDATIONS

This study focused on examining effect of general and presidential on stock market performance during election period in Pakistan. All the hypothesis found support. The findings illustrate that the announcement of general elections causes Abnormal Return, but this change in abnormal return is not permanent and the market adjust the stock prices after some days. The results show us that general elections have a significant impact on stock market performance. The results also show that during presidential election event, there are significant abnormal and average abnormal returns; hence it can be said that presidential election effect stock market performance. The results show that general and presidential election causes abnormal returns but are not permanent in nature. With the general pattern of abnormal returns around elections, the question arises as to what action should an investor take or not take? What is significance of these results to the investors? Firstly, investors seeking to cash in on the uncertain information reflection in the market should do so before Election Day since returns begin to fall afterwards. It is, however, a highly risky strategy to adopt, taking into consideration the fact that different countries may experience different kinds of political shocks which may alter the behavior of stock market. As such this strategy may be well suited for non- risk averse investors.

This research study investigated the impact of elections on stock market returns. The current study only discusses theoretically and empirically the general and presidential elections in Pakistan and its impact on Karachi stock market. Although the study gives important contribution to the field, but there are also some limitations. One of main limitation of this study was that the sample size was too small; there were only three General and three presidential elections held in the test period. Therefore, further researches which can collect more election samples are required. This study also examines the period of financial crises in 2007 and 2008.These crises deeply influenced the behavior of stock market and thus the test on election period in this period may be ambiguous. Future study can be conducted which can take into consideration not only political election but also other political events like resignation of president and prime ministers. The study was conducted for Pakistani stock market .Other Asian developing countries like India; Bangladesh and Sri Lanka researchers may take these countries as a sample for future research study on comparative basis. This study only considered the election period; one can also study the period before and after elections on comparative basis. The research study only discussed election, but there are also other factors like constitutional amendments and legislation change etc., that could be included in future studies.

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