

# Impact of Political Events on Stock Market: Evidence from Pakistan 

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#### Abstract

In this paper it is examined that how much political events impact the KSE-100 index returns, fifty major political events are selected from the period of 1998 to 2013 . To calculate the abnormal returns, event study methodology is applied and KSE-100 index returns data for 30 days before and 60 days after happening of an event are also collected. Results of each window verify that negative abnormal returns are observed some days before and some days after happening of an event. This study helps the investor to judge the effect of political events on KSE-100 index returns and develop strategy according to the political environment. Only major political events are selected for a selected time horizon which is not covering the all political episodes. Political conditions vary country to country and period to period. Further researches can be made by selecting different political events for any other country. This study contributes in literature and verifies the significant relationship between political events and stock market returns.


## 1. INTRODUCTION

Usually, calculation of stock prices are based on expected future cash flows generated by asset and on the basis of offered discount rate. In-spite of this, there is a lot of other factors that affect the prices of stocks like political policies of the

[^0]country (Yang et al., 2014), keeping organization under specific control (Lease et al., 1983; Nenova, 2003; Zingales, 1994) and restricted ownership (Stulz \& Wasserfallen, 1995). Since past few decades, researchers discover various economic factors that affect the stock market performance such as interest rate, exchange rate, inflation and deflation, foreign markets trends etc. Stock market is also affected due to different political events and such risk always exists in less developed countries
due to their instable political conditions (Bittlingmayer, 1998). During last decade several researches have analyzed the importance of political conditions on volatility of stock market around the world (Beaulieu et al., 2006). Political stability means predictable and reliable environment of country in which residence feel safe and all the activities are controlled by law. Stability in political system is achieved when the system is not derailing in crises and during internal warfare. Political stability is favorable for the investors because investors feel less risk in the market where political conditions are stable (Manzoor, 2013). A disturbed political system caused decline in the economic performance of a country. In this study it is investigated that how much stock market is volatile due to different political changes which also affect the economy in positive or negative sense (Suleman, 2012). Unstable political situations reduced foreign investment in stock market and cause volatility because investors are reluctant to invest in more diverse political conditions (Chan \& John Wei, 1996).

This study focuses on shifting of Government among different political parties as well as discusses national and international political changes that influence the stock market behavior. Developing countries affected through domestic as well as international events but domestic events like political conditions and imbalance macro-economic variables are more dangerous for the economy then the international events (Khalid \& Rajaguru, 2010) Political risk becomes a source of negative returns in the stock market (Simon, 1982). This study inspects that how political events lead to stock market volatility. Impact of political events is analyzed in various styles with reference to volatility. Stock Market responds according to the nature of a political event, prices will move up if the events occur according to the investor's view point, on the other hand prices will move down if events occur against investor's thoughts (Tan \& Gannon, 2002). Different studies show that stock prices fluctuate due to political events (Nguthi, 2013). A Study about the transformation of government between
different political parties and its consequences with reference to stock market, verifies that a relationship exist between change in government and stock market volatility. In this study it will be investigated that political changes in Pakistan have impact on KSE-100 index returns. Since 1947, when Pakistan came into bang, its political conditions remain unstable and highly volatile for the economy. After the death of Quaid-e-Azam Muhammad Ali Jinnah and after that murder of first Prime Minister Liaqat Ali Khan political environment of Pakistan become more unpredictable. Afterwards three Wars with India, number of military takeovers, international economic boycott after nuclear test, depending upon foreign debts, incident of Nine-Eleven and terrorism are the major factors in history which make political environment more unstable (Suleman, 2012). In first fifty years, no elected government completed its five year duration. Conflict of power between PMLn and PPP provide a path to the Military takeovers and none of them completed its government till 2008. So, this scenario confused the investors about the policies of government and increased systematic risk. Pakistani political system is more uncertain and affects by many national and international events so this study analyzes the impact of national and international political changes on stock market of Pakistan (Gul et al., 2013). This study will focus on 50 major political changes during 1998 to 2013 in Pakistan and check its impact on the Karachi Stock Market. Karachi Stock Market is becoming one of the best Asian Stock Market and its index is increasing day by day from last six to seven months. So, this market has great attraction for the investors who want to diversify their portfolio in different markets (Gul et al., 2013).

Rest of the Paper is arranged as follows: Literature review is discussed in second section. Methodology is explained in third section and Analysis is given in fourth section. In the fifth and last section conclusion of the study is described.

## 2. LITERATURE REVIEW

In the past, lot of research work is done to check to relationship between stock market and macro-economic factors like exchange rate, inflation and interest rate etc. But political factors are also having equal rank in order to influence the trends of Stock Market. In this study evidence from (Pakistan) Karachi Stock Market is collected to check whether political instability involve in movement of prices or how much political risk affect the investor's decision making. In Pakistan, after 52 years stable political conditions are born which have positive impact on KSE such as trading volume is increasing day by day as well as Stock Market Index touching its highest limit of the history. But terrorist's attack and unstable law and order situation is still a question mark for the investors (Gul et al., 2013).
(Khalid \& Rajaguru, 2010) conducted a study using eight years data of different political events which occur in Pakistan or outside of Pakistan from Jan, 1999 to Sep, 2006 and examine the response of Karachi Stock Market with reference to those events. Different indicators of secondary market such as exchange rate, stock prices and interest rate are used to collect empirical evidence. In this study Markov Switching VAR model is used for the analysis of data and results support that a relationship exist between Karachi Stock Exchange and national \& international political reforms.

In another study on Karachi Stock Exchange by (Suleman, 2012), outcomes of political headlines are investigated in order to check their impact on market return and how much market is volatile due to these gossip. News is divided into two classes as Good news and Bad news, GARCH model is utilized to evaluate variation in returns due to different political news. The result defines that low volatility of the market and high returns when various optimistic news is prevailing. On the other hand, shocking news political affairs lead to more volatility of KSE and low return is recorded due to such news.

A research work by (Aggarwal et al., 1999), explains that different political events become a source of volatility in stock market of different countries. First of all decided the duration of volatility in developing stock markets afterward scan internal and external event in order to check base of volatility. To measure the abrupt changes in stock returns in every market and duration of those changes, ICSS algorithm technique is applied. Domestic reforms are affecting more than international events such as Mexican exchange rate crises, high inflation at Latin America etc. Only single international event found during ten years period that was a Crash of October 1987 due to that security prices of different underdeveloped stock markets become volatile.

A study by (Laverde et al., 2009), checked the relationship among crime, political uncertainty and market returns volatility in Colombia. Last five years daily data was used (July 2001 to October 2006) in order to confirm a link between variables. Their results showed that political uncertainty and crime are important determinants of market returns volatility. Market returns an activity are partly influenced by crime while political uncertainty has negative impact on market returns of Colombia. Political stability might accelerate the long run growth.

In an article (Mukherjee \& Leblang, 2007), it is experimented that; is there any link between diplomat's policies, rate of interest and rise and fall in stock prices in USA and UK It is observed that investors hope high interest rate when Democratic Party and Labor Party are on government benches in USA and UK respectively. On the other side trading community anticipate low interest rate when Republican Party and Conservative Party are in Ruling in USA and UK respectively. Investors Predictions about an increase or decrease in interest rate become reason of volatility in Stock Markets. In this study the outcomes after applying GARCH (LM and ARCH test) model support the researcher theory.

A German study by (Döpke \& Pierdzioch, 2006) is conducted to watch that how much stock market is depending upon Political
events. VAR-based and popularity functions are exercised in order to check the relationship between variables. The results suggest that there is a poor relationship between political changes and stock market. It is also concluded that exchange of Government between political parties does not volatile the stock market unlike a study on American Stock Market. It is also not found that voting period affect the German Stock Exchange.

In the light of existing literature it is evident that political events have strong impact on stock returns. Therefore present study attempts to adopt the methodology used by previous researchers to investigate the impact of political events on KSE-100 index returns.

## 3. METHODOLOGY

Political events have great impact on the volatility of returns of any stock market. After nuclear test, Pakistan faced economic sanctions and similarly after nine-eleven attacks Pakistan blamed to refuge the terrorists and some other events also impacted the economy of Pakistan (Suleman, 2012). In order to check the impact of different political events after nuclear test of Pakistan this study is conducted. Fifty major events from 19982013 are selected for analyzing that how much these events become cause of volatility in returns. One month before event day and two months after event day KSE100 Index returns are also collected to prove null hypothesis.

In order to prove null hypothesis that political events do not affect the stock market returns, event study technique is used. Event study is most common technique to check the impact of various events on the efficiency of stock market. According to this method it is measured how market trends are going on before happening of an event and what changes occur after happening of an event (Bhagat et al., 1985). Same technique is used to measure the short time period volatility in returns of Quebec companies in response to October $30^{\text {th }} 1995$, elections (Beaulieu et al., 2006). Event
study technique is used to evaluate that the stock purchase plan affect the value of the stock hold by existing shareholders. To analyze the change in return between pre and post period from purchase day, event study methodology is used (Bhagat et al., 1985). Event study technique is way to check the impact of different events for short time horizon that how much abnormal returns are generated after happening of an event (Brown \& Warner, 1985). A study about stock dividend announcements and its impact on fluctuations of return, after and before announcement days, is calculated by using event study methodology.

It is expected that political events will affect the market returns for the short time period (for $10-15$ days) not for longer time period. In short run KSE-100 Index shows volatility because every event affect the economy of Pakistan and KSE-100 index is best indicator to gauge the economic performance in the country. But, it is expected that after $10-15$ days no more volatility in KSE-100 Index.

Three event windows are established to evaluate the impact of different political events on KSE-100 index. First window consists of 91 days ( $-30^{\text {th }}$ day to $+60^{\text {th }}$ day), second window consists of 61 days $\left(-30^{\text {th }}\right.$ day to $+30^{\text {th }}$ day) and third window consists of 21 days $\left(-10^{\text {th }}\right.$ day to $+10^{\text {th }}$ day $)$. Purpose of selecting different windows is to measure that how returns behave towards the closer the event day and far from event day.

### 3.1 Market adjusted returns

Afterwards a return generating technique is used; actual returns of KSE-100 index for all selected days are calculated as closing index minus opening index (previous day closing) and divided by opening index (previous day closing) define in equation (1) as under:

$$
\begin{equation*}
R m t=(M t-M t-1) / M t-1 \tag{1}
\end{equation*}
$$

Where
$R m t=$ Market return on day $t$.
$M t=$ Market index value today.
$M t-1=$ Market index value of last day.
Mean return of selected sample is calculated by applying average formula on actual
return of all days. Abnormal return is calculated as difference between actual and average return which is explained in equation (2) as under:
$A i t=R i, t-R i, t$
Where
Ait $=$ Abnormal return for the $t$ day.
Ri,t=Actual return for the $t$ day.
$\bar{R} i, t=$ Average return for the $t$ day.
When abnormal return of all events are achieved for whole sample period then average abnormal return and cumulative average abnormal return is calculated according to following equation (3) and (4) respectively:

Avg. of abnormal returns of all fifty events for each day.

AARit $=\frac{1}{N} \sum_{t=1}^{N}$ AR it
Here,
$\mathrm{AAR}=$ Average of abnormal returns of all fifty events for each day.
$\frac{1}{N} \sum_{t=1}^{N} A R i t=$ Sum of abnormal returns of all fifty events for each day.

Cumulative average of abnormal returns of all fifty events for each day.
$\operatorname{CAAR}(T 1, T 2)=\sum_{T 1}^{T 2} \frac{1}{N} \sum_{t=1}^{N}$ ARit (4)

Here,
CAAR $=$ Cumulative average abnormal returns of all fifty events for each day.
$\sum_{T 1}^{T 2} \frac{1}{N} \sum_{t=1}^{N}$ ARit= Sum of every next average abnormal return till last day.

### 3.2 Test of significance

Results of average abnormal returns and cumulative average abnormal returns are understandable when it is statistically tested and its level of significance is obtained through statistical test. Numbers of parametric and non-parametric tests are available to find out the level of significance. But in this study t-test is used
because it is very simple test to apply on abnormal returns of KSE-100 index. It is assumed in t-test that data is normally distributed. Fifty major political events are selected to estimate their impact on the KSE-100 index returns before 30 days after 60 days of event day, therefore distribution normality for the selected period is biased. T-test is calculated as under:
$t$ value $=A A R$ or CAAR/ S.D. of (AAR) or
(CAAR)

Here,
AAR=Average Abnormal returns
S. D. of $(A R)=$ Standard Deviation of Average abnormal return or Cumulative Average abnormal return.

## 4. ANALYSIS RESULTS

Following table 1 , table 2 and table 3 represents 91 days window ( $-30^{\text {th }}$ day to $+60^{\text {th }}$ day), 61 days window ( $-30^{\text {th }}$ day to $+30^{\text {th }}$ day) and 21 days window ( $-10^{\text {th }}$ day to $+10^{\text {th }}$ day) respectively. The purpose of selecting three different windows (for different period) is to compare the volatility in returns for short time period as well as for long time period. The result of this analysis indicates that return of average abnormal returns and cumulative abnormal return are $90 \%, 95 \%, 99 \%$ significant where ${ }^{*}$, **, *** exist respectively in front of $t$-value. T-value is determined by applying $t$-test on AAR and CAAR; t-test is calculated according to the equation (05).

Table 1 represents 91days window ( $-30^{\text {th }}$ day to $+60^{\text {th }}$ day), when t -test is applied on this window significant results are achieved from ( $-8^{\text {th }}$ day to $+15^{\text {th }}$ day). This thing shows that political events in Pakistan volatile the KSE-100 index returns before $8^{\text {th }}$ day of an event and abnormal returns is observed till $15^{\text {th }}$ day after the occurrence of an event. After the $15^{\text {th }}$ day the KSE-100 index move according to its routine but again significant results are achieved from $+29^{\text {th }}$ day to $+38^{\text {th }}$ day. Because Pakistan has instable political conditions and number of events happened in three month period, so, repeated significance is in response of any
other event or may be due to market inefficiency.

Table 2 denotes 61 days window ( $-30^{\text {th }}$ day to +30 day), in this selected time horizon results become significant from $-4^{\text {th }}$ day to $+3{ }^{\text {rd }}$ day when event happened so it is said that if we check the impact of political events on one month pre and post return then four days before happening of an event and three days after happening of an event KSE-100 index returns are abnormal. Here, impact of political event is less as compare to the 91 day window because of
accumulation effect as well as due to less sample period.

Table 3 represents 21 days window ( $-10^{\text {th }}$ day to $+10^{\text {th }}$ day), when short time window is used then result show that political events volatile the KSE-100 index returns 5 days before and 2 days after happening of an event. It means from $-5^{\text {th }}$ day to $+2^{\text {nd }}$ day of an event abnormal returns are recorded. Only two days abnormal returns are observed after the happening of an event due to accumulation effect and for short time period analysis is run.

Table 1: 91-Days event window

| Days | TAR | AAR | t value | CAAR | t value |
| :--- | :---: | :---: | :---: | :---: | :---: |
| -30 | -0.140 | -0.003 | -1.265 | -0.003 | -0.570 |
| -29 | 0.025 | 0.001 | 0.229 | -0.002 | -0.467 |
| -28 | 0.014 | 0.000 | 0.121 | -0.002 | -0.412 |
| -27 | -0.011 | 0.000 | -0.099 | -0.002 | -0.457 |
| -26 | -0.102 | -0.002 | -0.918 | -0.004 | -0.870 |
| -25 | 0.041 | 0.001 | 0.369 | -0.004 | -0.704 |
| -24 | -0.088 | -0.002 | -0.790 | -0.005 | -1.060 |
| -23 | 0.136 | 0.003 | 1.221 | -0.003 | -0.510 |
| -22 | -0.043 | -0.001 | -0.389 | -0.003 | -0.685 |
| -21 | 0.027 | 0.001 | 0.241 | -0.003 | -0.577 |
| -20 | -0.036 | -0.001 | -0.323 | -0.004 | -0.722 |
| -19 | -0.086 | -0.002 | -0.777 | -0.005 | -1.072 |
| -18 | 0.120 | 0.002 | 1.084 | -0.003 | -0.584 |
| -17 | 0.050 | 0.001 | 0.450 | -0.002 | -0.381 |
| -16 | -0.034 | -0.001 | -0.306 | -0.003 | -0.519 |
| -15 | 0.023 | 0.001 | 0.208 | -0.002 | -0.425 |
| -14 | 0.064 | 0.001 | 0.576 | -0.001 | -0.166 |
| -13 | 0.113 | 0.002 | 1.020 | 0.001 | 0.294 |
| -12 | -0.254 | -0.005 | $-2.291^{* *}$ | -0.004 | -0.739 |
| -11 | -0.004 | 0.000 | -0.034 | -0.004 | -0.754 |
| -10 | -0.040 | -0.001 | -0.364 | -0.005 | -0.918 |
| -9 | -0.139 | -0.003 | -1.254 | -0.007 | -1.483 |
| -8 | -0.139 | -0.003 | -1.248 | -0.010 | $-2.045^{* *}$ |
| -7 | -0.027 | -0.001 | -0.241 | -0.011 | $-2.153^{* *}$ |
| -6 | 0.079 | 0.002 | 0.711 | -0.009 | $-1.833^{*}$ |
| -5 | -0.154 | -0.003 | -1.387 | -0.012 | $-2.457^{* *}$ |
| -4 | -0.195 | -0.004 | $-1.756^{*}$ | -0.016 | $-3.249^{* * *}$ |
| -3 | -0.029 | -0.001 | -0.258 | -0.017 | $-3.365^{* * *}$ |
| -2 | 0.250 | 0.005 | $2.252^{* *}$ | -0.012 | $-2.350^{* *}$ |
| -1 | -0.148 | -0.003 | -1.333 | -0.015 | $-2.951^{* * *}$ |
| 0 | 0.011 | 0.000 | 0.095 | -0.014 | $-2.908^{* * *}$ |
| 1 | -0.188 | -0.004 | $-1.695^{*}$ | -0.018 | $-3.672^{* * *}$ |
| 2 | 0.109 | 0.002 | 0.979 | -0.016 | $-3.231^{* * *}$ |
| 3 | 0.245 | 0.005 | $2.206^{* * *}$ | -0.011 | $-2.237^{* *}$ |
| 4 | 0.011 | 0.000 | 0.100 | -0.011 | $-2.192^{* *}$ |
| 5 | 0.068 | 0.001 | 0.610 | -0.009 | $-1.917^{*}$ |
| 6 | -0.177 | -0.004 | -1.597 | -0.013 | $-2.636^{* * *}$ |
| 7 | 0.048 | 0.001 | 0.435 | -0.012 | $-2.440^{* *}$ |
|  |  |  |  |  |  |


| 8 | -0.087 | -0.002 | -0.782 | -0.014 | -2.7929*** |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 9 | 0.200 | 0.004 | 1.7970* | -0.010 | -1.9834** |
| 10 | -0.046 | -0.001 | -0.411 | -0.011 | -2.1685** |
| Days | TAR | AAR | t value | CAAR | t value |
| 11 | 0.201 | 0.004 | 1.8129* | -0.007 | -1.352 |
| 12 | -0.075 | -0.002 | -0.678 | -0.008 | -1.6573* |
| 13 | -0.037 | -0.001 | -0.336 | -0.009 | -1.8085* |
| 14 | -0.056 | -0.001 | -0.508 | -0.010 | $-2.0373 * *$ |
| 15 | 0.051 | 0.001 | 0.462 | -0.009 | -1.8290* |
| 16 | 0.119 | 0.002 | 1.071 | -0.007 | -1.347 |
| 17 | 0.021 | 0.000 | 0.189 | -0.006 | -1.262 |
| 18 | -0.003 | 0.000 | -0.031 | -0.006 | -1.275 |
| 19 | -0.021 | 0.000 | -0.189 | -0.007 | -1.361 |
| 20 | 0.014 | 0.000 | 0.123 | -0.006 | -1.305 |
| 21 | -0.033 | -0.001 | -0.298 | -0.007 | -1.439 |
| 22 | 0.070 | 0.001 | 0.630 | -0.006 | -1.155 |
| 23 | 0.054 | 0.001 | 0.483 | -0.005 | -0.937 |
| 24 | 0.062 | 0.001 | 0.558 | -0.003 | -0.686 |
| 25 | -0.009 | 0.000 | -0.079 | -0.004 | -0.722 |
| 26 | -0.177 | -0.004 | -1.597 | -0.007 | -1.441 |
| 27 | 0.072 | 0.001 | 0.645 | -0.006 | -1.150 |
| 28 | -0.086 | -0.002 | -0.771 | -0.007 | -1.498 |
| 29 | -0.077 | -0.002 | -0.694 | -0.009 | -1.810* |
| 30 | -0.124 | -0.003 | -1.120 | -0.011 | $-2.314^{* *}$ |
| 31 | -0.047 | -0.001 | -0.423 | -0.012 | -2.505** |
| 32 | 0.104 | 0.002 | 0.934 | -0.010 | -2.084** |
| 33 | 0.091 | 0.002 | 0.821 | -0.009 | -1.715* |
| 34 | -0.235 | -0.005 | $-2.118^{* *}$ | -0.013 | $-2.669^{* * *}$ |
| 35 | -0.151 | -0.003 | -1.358 | -0.016 | -3.281*** |
| 36 | -0.033 | -0.001 | -0.300 | -0.017 | -3.416*** |
| 37 | 0.154 | 0.003 | 1.388 | -0.014 | $-2.791 * * *$ |
| 38 | 0.118 | 0.002 | 1.060 | -0.011 | -2.313** |
| 39 | 0.168 | 0.003 | 1.516 | -0.008 | -1.631 |
| 40 | 0.091 | 0.002 | 0.818 | -0.006 | -1.262 |
| 41 | 0.005 | 0.000 | 0.045 | -0.006 | -1.242 |
| 42 | 0.009 | 0.000 | 0.085 | -0.006 | -1.204 |
| 43 | 0.096 | 0.002 | 0.867 | -0.004 | -0.813 |
| 44 | -0.038 | -0.001 | -0.343 | -0.005 | -0.968 |
| 45 | 0.193 | 0.004 | 1.736* | -0.001 | -0.186 |
| 46 | 0.018 | 0.000 | 0.161 | -0.001 | -0.113 |
| 47 | -0.146 | -0.003 | -1.314 | -0.004 | -0.705 |
| 48 | 0.162 | 0.003 | 1.457 | 0.000 | -0.049 |
| 49 | 0.016 | 0.000 | 0.145 | 0.000 | 0.017 |
| 50 | -0.025 | -0.001 | -0.226 | 0.000 | -0.086 |
| 51 | -0.034 | -0.001 | -0.308 | -0.001 | -0.224 |
| 52 | 0.102 | 0.002 | 0.921 | 0.001 | 0.191 |
| 53 | -0.107 | -0.002 | -0.964 | -0.001 | -0.243 |
| 54 | -0.024 | -0.001 | -0.216 | -0.002 | -0.341 |
| 55 | 0.224 | 0.005 | 2.0172** | 0.003 | 0.568 |
| 56 | -0.231 | -0.005 | $-2.080^{* *}$ | -0.002 | -0.369 |
| 57 | -0.014 | 0.000 | -0.125 | -0.002 | -0.426 |
| 58 | 0.027 | 0.001 | 0.245 | -0.002 | -0.315 |
| 59 | 0.055 | 0.001 | 0.494 | -0.001 | -0.093 |
| 60 | 0.023 | 0.001 | 0.205 | 0.000 | 0.000 |



Table 2: 61-Days event window

| Days | TAR | AAR | T value | CAAR | T value |
| :--- | :---: | :---: | :---: | :---: | :---: |
| -30 | -0.131 | -0.002 | -1.213 | -0.003 | -0.586 |
| -29 | 0.034 | 0.007 | 0.322 | -0.002 | -0.431 |
| -28 | 0.022 | 0.005 | 0.211 | -0.002 | -0.329 |
| -27 | -0.001 | 0.000 | -0.015 | -0.002 | -0.336 |
| -26 | -0.092 | -0.001 | -0.856 | -0.003 | -0.750 |
| -25 | 0.050 | 0.001 | 0.465 | -0.002 | -0.525 |
| -24 | -0.078 | -0.001 | -0.725 | -0.004 | -0.875 |
| -23 | 0.144 | 0.002 | 1.341 | -0.001 | -0.227 |
| -22 | -0.033 | -0.007 | -0.313 | -0.002 | -0.379 |
| -21 | 0.036 | 0.007 | 0.334 | -0.001 | -0.217 |
| -20 | -0.026 | -0.005 | -0.245 | -0.002 | -0.336 |
| -19 | -0.076 | -0.001 | -0.711 | -0.003 | -0.680 |
| -18 | 0.129 | 0.002 | 1.199 | 0.000 | -0.100 |
| -17 | 0.059 | 0.001 | 0.549 | 0.001 | 0.165 |
| -16 | -0.024 | -0.005 | -0.228 | 0.000 | 0.055 |
| -15 | 0.032 | 0.006 | 0.300 | 0.001 | 0.200 |
| -14 | 0.073 | 0.001 | 0.678 | 0.002 | 0.528 |
| -13 | 0.122 | 0.002 | 1.134 | 0.005 | 1.077 |
| -12 | -0.245 | -0.004 | $-2.2668^{* *}$ | 0.000 | -0.019 |
| -11 | 0.005 | 0.001 | 0.051 | 0.000 | 0.006 |
| -10 | -0.031 | -0.006 | -0.288 | -0.001 | -0.134 |
| -9 | -0.129 | -0.002 | -1.201 | -0.003 | -0.714 |
| -8 | -0.129 | -0.002 | -1.195 | -0.006 | -1.292 |
| -7 | -0.017 | -0.003 | -0.161 | -0.006 | -1.370 |
| -6 | 0.088 | 0.001 | 0.817 | -0.004 | -0.975 |
| -5 | -0.144 | -0.002 | -1.338 | -0.007 | -1.622 |
| -4 | -0.185 | -0.003 | $-1.7176^{*}$ | -0.011 | $-2.451^{* *}$ |
| -3 | -0.019 | -0.004 | -0.178 | -0.011 | $-2.538^{* *}$ |
| -2 | 0.259 | 0.005 | $2.399^{* *}$ | -0.006 | -1.37 |
| -1 | -0.138 | -0.002 | -1.283 | -0.009 | $-1.998^{* *}$ |
| 0 | 0.019 | 0.000 | 0.185 | -0.009 | $-1.908^{*}$ |
| 1 | -0.178 | -0.003 | $-1.655^{*}$ | -0.012 | $-2.709^{* * *}$ |
| 2 | 0.118 | 0.002 | 1.092 | -0.010 | $-2.181^{* *}$ |
| 3 | 0.254 | 0.005 | $2.352^{* *}$ | -0.005 | -1.044 |
| 4 | 0.020 | 0.000 | 0.189 | -0.004 | -0.953 |
| 5 | 0.077 | 0.001 | 0.713 | -0.003 | -0.608 |
| 6 | -0.167 | -0.003 | -1.553 | -0.006 | -1.359 |
| 7 | 0.057 | 0.001 | 0.533 | -0.005 | -1.101 |
| 8 | -0.077 | -0.001 | -0.716 | -0.007 | -1.447 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |


| Days | TAR | AAR | T value | CAAR | T value |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 9 | 0.208 | 0.004 | $1.932^{*}$ | -0.002 | -0.513 |
| 10 | -0.036 | -0.007 | -0.336 | -0.003 | -0.675 |
| 11 | 0.210 | 0.004 | $1.948^{*}$ | 0.001 | 0.267 |
| 12 | -0.065 | -0.002 | -0.610 | 0.000 | -0.028 |
| 13 | -0.027 | -0.006 | -0.258 | -0.001 | -0.153 |
| 14 | -0.047 | -0.009 | -0.435 | -0.002 | -0.363 |
| 15 | 0.060 | 0.0012 | 0.561 | 0.000 | -0.092 |
| 16 | 0.128 | 0.003 | 1.186 | 0.002 | 0.482 |
| 17 | 0.030 | 0.006 | 0.281 | 0.003 | 0.617 |
| 18 | 0.005 | 0.001 | 0.055 | 0.003 | 0.644 |
| 19 | -0.011 | -0.002 | -0.108 | 0.003 | 0.592 |
| 20 | 0.023 | 0.005 | 0.213 | 0.003 | 0.695 |
| 21 | -0.023 | -0.000 | -0.219 | 0.003 | 0.589 |
| 22 | 0.079 | 0.001 | 0.734 | 0.004 | 0.944 |
| 23 | 0.063 | 0.001 | 0.583 | 0.006 | 1.226 |
| 24 | 0.071 | 0.001 | 0.660 | 0.007 | 1.545 |
| 25 | 0.000 | 0.000 | 0.005 | 0.007 | 1.547 |
| 26 | -0.167 | -0.003 | -1.554 | 0.004 | 0.796 |
| 27 | 0.080 | 0.001 | 0.749 | 0.005 | 1.158 |
| 28 | -0.076 | -0.001 | -0.705 | 0.004 | 0.817 |
| 29 | -0.067 | -0.001 | -0.627 | 0.002 | 0.514 |
| 30 | -0.115 | -0.002 | -1.064 | 0.000 | 0.000 |
|  |  | 0.002 |  |  |  |



Table 3: 21-Days event window

| Days | TAR | AAR | t value | CAAR | t value |
| :--- | :---: | :---: | :---: | :---: | :---: |
| -10 | -0.024 | -0.001 | -0.172 | -0.001 | -0.142 |
| -9 | -0.123 | -0.003 | -0.885 | -0.003 | -0.870 |
| -8 | -0.122 | -0.002 | -0.881 | -0.005 | -1.594 |
| -7 | -0.010 | 0.000 | -0.073 | -0.006 | -1.634 |
| -6 | 0.096 | 0.002 | 0.690 | -0.004 | -1.087 |
| -5 | -0.137 | -0.003 | -0.992 | -0.006 | $-1.902^{*}$ |
| -4 | -0.178 | -0.004 | -1.288 | -0.010 | $-2.962^{* * *}$ |
| -3 | -0.012 | 0.000 | -0.087 | -0.010 | $-3.034^{* * *}$ |
| -2 | 0.267 | 0.005 | $1.925^{*}$ | -0.005 | -1.45 |
| -1 | -0.131 | -0.003 | -0.949 | -0.008 | $-2.230^{* *}$ |
| 0 | 0.027 | 0.001 | 0.196 | -0.007 | $-2.069^{* *}$ |
| 1 | -0.172 | -0.003 | -1.240 | -0.010 | $-3.088^{* * *}$ |
| 2 | 0.125 | 0.003 | 0.905 | -0.008 | $-2.344^{* *}$ |


| 3 | 0.262 | 0.005 | $1.888^{*}$ | -0.003 | -0.791 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 4 | 0.028 | 0.001 | 0.200 | -0.002 | -0.627 |
| 5 | 0.084 | 0.002 | 0.609 | 0.000 | -0.126 |
| 6 | -0.161 | -0.003 | -1.160 | -0.004 | -1.080 |
| 7 | 0.065 | 0.001 | 0.469 | -0.002 | -0.694 |
| 8 | -0.070 | -0.001 | -0.507 | -0.004 | -1.111 |
| 9 | 0.216 | 0.004 | 1.560 | 0.001 | 0.172 |
| 10 | -0.029 | -0.001 | -0.210 | 0.000 | 0.000 |
|  |  | 0.003 |  |  |  |



## 5. CONCLUSION DISCUSSION

The conclusion portion of this study covers two aspects, first measures the KSE-100 index performance, secondly it evaluates that how KSE-100 index returns fluctuates in response to a political event and for how much days abnormal returns are achieved in short time frame and as well as for long time frame. Karachi stock market is best option for investors who want to diversify their risk
by investing into different markets because its returns are increasing day by day. But political conditions are unstable in Pakistan and number of events disturbed the KSE100 index performance due to that investor hesitates to invest in such market (Suleman, 2012). But after 2012, KSE-100 index is gradually increasing and touching its highest limit due reduction in military takeovers as well as two elected governments completed their durations of five years first time in Pakistan history.


By applying event study technique it is concluded that KSE-100 index returns become volatile when political event occur. The results of all three event windows are solid evidence to reject the null hypothesis that political events have no impact on KSE100 index returns. Political events always
have an impact on stock market index; it may be for short run or may for long run. But this study shows that political events volatile the KSE-100 index return for short time period (Maximum for 10-15 days) because in Pakistan political events are less related to the market.



In this study impact of all political events is tested for different time frames in order to compare the results of each time frame. Results of all time frames suggest that KSE100 index returns become abnormal some days before and some days after happening of an event. In 21 days event window results support that $-5^{\text {th }}$ day to $+2^{\text {nd }}$ day returns are negatively abnormal, in 61 days event window results shows that $-4^{\text {th }}$ day to $+3^{\text {rd }}$ day negatively abnormal returns occur and 91 days event window results indicates that negative abnormal returns between $-8^{\text {th }}$ day to $+15^{\text {th }}$ day are achieved but in this window again returns are becoming abnormal from $+29^{\text {th }}$ day to +38 day due happening of any
other event in this time frame or may be due to certain market inefficiency. Each time frame showing different days for abnormal returns because of accumulation effect. As shown in figure less accumulation for short time period window ( 21 days CAAR) and more accumulation for long time period window ( 91 days CAAR). In each window results indicates that returns are negatively abnormal, the reason of this phenomena is that mostly event leads to un-stability of the government. So, investors are reluctant to invest more in such conditions and some call back their investments which lead to negativity in overall market returns.

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