International Journal of Multidisciplinary and Current Research ISSN: 2321-3124
Research Article Available at: http://ijmcr.com

Systematic Risk and Socio-Political Factors: The Case of Pakistan Stock Exchange

Shahzad Hussain[#], Syed Muhammad Amir Shah^ and Tanveer Ahmad[#]

[#]Lecturer, Phd Scholar SZABIST, Islamabad, Pakistan
^Associates Professor , Allama Iqbal Open University (IOU), Islamabad, Pakistan

Accepted 15 May 2017, Available online 20 May 2017, **Vol.5 (May/June 2017 issue)**

Abstract

The study aims to investigate the casual effect of Socio-Political factors on Systematic risk in Pakistan Stock Exchange. For this purpose, the study used 250 Non-Financial companies monthly rolling Beta (36 months window) data as well as Socio-Political factors like Assassination, Terrorism, Riots and General Strikes from 2001-2010 by using 23,349 observations. Assassination was further divided into two dimensions i.e. Assassination and Assassination through drone attack. Terrorism was divided into three sub dimensions i.e. Guerilla Attacks on Military, Police, Paramilitary and Intelligence, Terrorism (Terrorism attack on General mass) and Military Paramilitary or Police Attack on non-state combatants. The study used stepwise regression to identify the variables affecting the systematic risk. With exception to Riots, number of events instead of number of persons killed found to be statistically significant proxies to measure the effect of Socio-Political factors on systematic risk. General strike has no effect on systematic risk.

Keywords: *Systematic risk, Socio-Political factors, Terrorism*

Introduction

The last decade evident, Predominant Macroeconomic, Global, Catastrophic and Socio-Political factors affect the capital market up to a large extent. Different researches[1] have been conducted on the concern of investors to minimize the investor exposure toward risk (Julio & Yook, 2012).The risk generated through Socio-Political factors is a major contributor among the aforementioned predominant factors. Political events are the key driving forces behind the economic performance up to a large extent(Chan & Wei, 1996).Capital markets across the regions are very much sensitive to the economic growth. A small anomaly in economic growth has devastating impact on the stock markets. Consequently, increases investors expose toward high volatility in stock prices.

Political events are one of the key factors in the determining the return of a stock. Good political events have usually positive effect shaped stability and negative events create huge panic among investors. Thus, investor becomes more vulnerable to systematic risk due to Socio-Political instability. Various studies like Miya (2007); Simon (1982), Beaulieu, Cosset, and Essaddam (2006) further strengthen the argument through empirical support.

Particular, Pakistan had seriously confronted a huge Socio-Political events, which included military takeover, Political demonstration, and terrorism activities paralyzing the whole economy in general and stock exchange in particular (Siddiqui, 2012).Therefore, the above discussion has pitched a need for an in-depth inquiry of Socio-Political factors on Pakistan stock exchange in order to minimize the risk (Alesina & Perotti, 1996). The study creates a unique differentiation by using three proxies i.e. Guerilla Attacks on Military, Police, Paramilitary and Intelligence, Terrorism like Premeditated, politically motivated violence perpetrated against non-combatant targets by sub-national groups and Military, Paramilitary or Police Attack on non-state combatants. Besides, the study also divided the Assassination into two components i.e. Assassination and Drone Attack Assassination. Moreover, the study used two proxies for Riots and in same way two proxies were used for the General Strike. All these proxies were further categorized in two groups i.e. Number of Events and Number of Killed for the in-depth analysis over systematic risk (Rolling Beta (36 months Window). The study is arranged in such a way that chapter 01 is introduction. Literature review is chapter 02 then chapter 03 describes the methodology. Chapter 04 is analysis and chapter 05 is conclusion.

1Merwea and Smit (2015);Brüggelambert (2004); İkizlerli and Ülkü (2014);Kongprajya, 2010; Aktas, Bayar, and Oncu (2006); Amihud and Wohl (2004); Angelovska (2011); Arzu (2011); Chan and Wei (1996); Chena, Huab, and Stuetz (2006); Javed and Ahmed (1999); Zach (2003); Manzoor (2013); Nguyen and Enomoto (2009); Sohail and Zakir (2011);Hui, Yi, Chyn, Gnoh, and Mun (2014)

2. Literature Review

Political instability has long standing history of adverse effect on economic growth. The economic down turns as result of the political instability triggered uncertainty in stock market. Consequently, increase investor exposure. Political events are key driving forces behind the stock market volatility. Kim and Mei (2001) measure the impact of various political announcement stock return and level of uncertainty due these announcements. They assessed political events for 1989 to 1993 and their impact on Hong Kong hang sang index. The result revealed that those events have a significant impact on the returns and volatility. In similar fashion, Zach (2003) observed high volatility in stock market during an ongoing political events.

Political instability can be measured by two approaches, the first one emphasize on executive instability, while the second option is based on social unrest and political violence (Alesina & Perotti, 1996).The first approach measures political instability as a propensity to observe government changes. The change can constitutional or unconstitutional. The basic assumption behind this approach is that change in leadership is associated with uncertainty regardingpolicy making like fiscal policy and monetary policy(Cukierman, Edwards, & Tabellini, 1989; Londregan & Poole, 1990). Further, Malik, Hussain, and Ahmed (2009) analyzed the impact of president Musharraf resignation on Pakistan stock market. The study reveals a significant influence over capital market. Likewise,Mahmood *et al*., (2014)argued that imminent threat of Political events can't be ignored.

Moreover, Bilal, Talib, Haq, Khan, and Islam (2012); Hanan *et al*., (2012) studied the impactof macroeconomic factors, terrorism and catastrophes on the performance of Pakistan stock exchange (KSE-100 index). Sohail and Zakir (2011) investigated the impact of macroeconomic variables on KSE-100 index both in short and long run. The results revealed that there is a positive influence of inflation, GDP and exchange rate on the index while money supply had an adverse effect on the stock return. Similarly, Sohail and Hussain (2009) examined the long and short run term effect of variables like consumer price index, exchange rate and money supply on LSE-25 index. The study's finding depicted that CPI had a negative impact on stock return while exchange rate and money supply had intense positive effect in the long run while out of all the variables CPI is the greatest cause of uncertainty in the market. In same fashion, Subhani, Osman, and Gul (2010) support the negative impact of consumer price index on capital market.

Furthermore, Hussain, Lal, and Mubin (2009)revealed that exchange rate and exchange reserves significantly contribute to the Stock market volatility. In addition, gross fixed capital directly, while whole sale price index inversely affects stock prices. Likewise, Önder and Mugan (2006) argued that political and economic factors cause the fluctuation in the returns and also affect the trading volume. Therefore, international investor should consider all this information's before investing into the emerging markets because these stock markets are reactive to such events and factors. In contradiction to the previous findings the Akbar, Ali, and Khan (2012) suggested the positive impact of money supply on trading volume and inverse effect of interest rate on stock returns.

Besides, Bilal *et al*. (2012) studied that incremental changes in stock market due to change in terrorism activities like bomb blast, assassinations and Macroeconomics factors for sample period of 2005 to 2010. The results revealed that terrorism affect the stock market. While the study found a significant impact of macroeconomics variable like interest rate and insignificant impact of inflation on stock market.

In addition, foreign policy grabbed is considered a crucial of the politics, which determined the political capacity of a leader that is why Manzoor (2013) investigated the Pak-US relationship effect on KSE-100 index for period of 2006 to 2011. The study took most critical events like 1st drone attack, president Zardari visit to United States, incident of Raymond Davis and Hillary Clinton visit to Pakistan. The study found a significant impact of Pak-US relationship on stock market movement.

Akin, Tan and Gannon (2002) inspects how political events cause instability and uncertainty in the stock market. Different types of tests were done to check the volatility and result of the study suggest that stock market do respond to the political events depending upon the nature of the events, if the events is according to the expectation of the investor it will increase the efficiency of the market while if the event is against the investor's expectation then there will be an adverse effect on the stock market.

In addition, Vuchelen (2003) examines the efficiency of the Brussels stock market in response to the various news. News regarding the future economic policies and those policies in the study is predicted by different political events like general election, formation of new governments, composition patterns of the government (single party majority, collateral). It was further observed in the study government compositions that the sensitivity of the news of this event also depends upon the electoral system which varies from country to country.

Further, Siokis and Kapopoulos (2007)also examined that whether fluctuation in the stock prices of Athens

stock exchange depends upon the intensity of political atmosphere, focusing on assessing the effect of election on the financial market during the period of 1988 to 2004.The result form the study confirmed the fact from other studies that there is an impact of political scenarios on stock performance. Similarly, Robbani and Anantharaman (2002) conducted a study to check the influence of such events on the stock indexes of Pakistan, India, Sri Lanka and Indonesia as these are the developing markets. It was empirical from the results that political events have a long term effect on the stock prices. Further observed that these markets are very reactive to such events and negative political environment had a more significant impact on the markets.

Sometime stock mark*et al*so responds to the criminal activities. Laverde, Varua, and Garces-Ozanne (2009) inspected the impact of crime and political instability on Colombian stock market during the period of 2001 to 2006. The study revealed Crime has minor influence on the stock market while political instability has a significant negative impact on stock returns. Further Kutan and Perez (2002) used Colombian stock market to investigate the effect of crime and political events. Bogota and Medellin stock market was analyzed and it was empirically found that such events affect the stock returns and performance of the markets and further observed that Bogota market is more reactive to political uncertainty. Likewise, Chen, Shun, and Chen (2005) also performed a research to determine the impact of political events on the stock performance by studying the Taiwan stock exchange. The study reveals that there is rather unsteady movement in the prices during those events and volatility in the market is observed during specific events. Moreover, Döpke and Pierdzioch (2004) examined the connection between the financial market performance and political system in Germany. He found that the dissimilar in the U.S, financial markets returns were greater during liberal as compare to the conservative governments (Mahmood *et al*., 2014; Nguthi, 2013).

However, various other factors like financial crises and natural disaster, Ramadan impact over the stock is on inevitable. Like Ali and Afzal (2012) investigate the impact of 2007-08 global financial crisis on the stock markets of Pakistan and India as this crisis was one of the biggest in the history. They observed that this crisis induced more negative impact then positive and increased the instability. While this affect was more significant on Indian stock market, Javed (2007) examined the impact of October 8 earthquake on the activities of Karachi stock exchange. Stock price of sixty firms were analyzed in response to that unforeseen jolt. The result of the study suggests that the earthquake has both progressive and adverse effect on different firms depending upon their nature. Husain (1998) tried to explore that is there any Ramadan effect on the performance on stock market. The result indicates as people have less time in the month of Ramadan it affects the volatility of the stock market but doesn't have a significant effect on the mean returns.

Methodology

The study measure the Socio-Political index using 15 proxies. The study measure Assassination through proxies like Count Assassination ($CASSAS_{(t)}$), Count Assassination Drone Attack ($CASSASDA_{(t)}$), Killed Assassination ($KILLASSAS_{(t)}$), Killed Assassination Drone Attack ($KILLASSASDA_{(t)}$). Moreover, the study used six proxies for terrorism measurement i.e. Count Guerilla Attacks on Military, Police, Paramilitary and Intelligence($CGAONMILMP_{(t)}$), Count Terrorism ($CTERROR_{(t)}$) , Count Military, Paramilitary or Police Attack on non-state combatants($CMILPMP_{(t)}$), Killed Guerilla Attacks on Military, Police, Paramilitary and Intelligence ($KillGAONMILMP_{(t)}$), Killed Terrorism ($KILLTERROR_{(t)}$), Killed Military, Paramilitary or Police Attack on non-state combatants($KILLlMILPMP_{(t)}$), likewise, RIOTS is measure through Riots no of Events($RIOTNOEVENTS_{(t)}$). In similary way, the study used two poxies like General Strike No of Events(GSNOEVENTS(t)), General Strike No of Killed(GSNOKILL(t) for General Strike and Total No of person Killed($TOTALNOPKILL_{(t)}$) is use overall instability. Systematic risk calculated through CAPM by William F. Sharpe (1964).

Operationalization of Systematic risk

According to the capital asset pricing literature, the CAPM beta combines covariance and volatility, measuring the sensitivity ofasset returns to market returns in addition to the correlated relative volatility. The CAPM beta is denoted by β_i^{CAPM} , which uses the following formula Recommended by William F. Sharpe (1964):

$$\beta_i^{CAPM} = \frac{Cov\left[\left(R_{it} - R_{ft}\right).\left(R_{Mt} - R_{ft}\right)\right]}{Var\left[R_{Mt} - R_{ft}\right]} \quad \ldots\ldots(1)$$

Where R_{it} and RM_t are the returns of security i and market portfolio at time t, respectively, and Rf_t is the risk-free rate. Therefore, (R_{it} – Rf_t) can be regarded as the abnormal return of security i and (RM_t – Rf_t)as the excess return of the market portfolio.

$$\beta_{it} = \frac{Cov\left[\left(R_{it}\right).\left(R_{Mt}\right)\right]}{Var\left[R_{Mt}\right]} \quad \ldots\ldots(3)$$

This study used Beta of taking 36 months rolling window using the equation (3)

Socio-Political Factors

S.N	Assassination (Count Events-Killed)		
1	Count Assasination	$CASSAS_{(t)}$	No of Assasinations events either political or high Govt officials per month
2	Count Assasination Drone Attack	$CASSASDA_{(t)}$	No of Drone Attack Assasinations events per month
3	Killed Assasination	$KILLASSAS_{(t)}$	No of people killed in assassinations events per month
4	Killed Assasination Drone Attack	$KILLASSASDA_{(t)}$	No of people killed in Drone attack Assasination per month
	Terrorism (Count Events-Killed)		
5	Count Guerilla Attacks on Military, Police, Paramilitary and Intelligence	$CGAONMILMP_{(t)}$	Guerilla Attacks on Military, Police, Paramilitary and Intelligence number of events per month
6	Count Terrorism	$CTERROR_{(t)}$	Terrorism like Premeditated, politically motivated violence perpetrated against noncombatant targets No of events per month
7	Count Military, Paramilitary or Police Attack on non-state combatants	$CMILPMP_{(t)}$	Military, Paramilitary or Police Attack on non-state combatants no of events per month
8	Killed Guerilla Attacks on Military, Police, Paramilitary and Intelligence	$KillGAONMILMP_{(t)}$	Guerilla Attacks on Military, Police, Paramilitary and Intelligence number of Killed per month
9	Killed Terrorism	$KILLTERROR_{(t)}$	Terrorism like Premeditated, politically motivated violence perpetrated against noncombatant targets No of Killed per month
10	Killed Military, Paramilitary or Police Attack on non-state combatants	$KILLIMILPMP_{(t)}$	Military, Paramilitary or Police Attack on non-state combatants no of Killed per month
	Riot(Killed-Events)		
11	Riots no of Events	$RIOTNOEVENTS_{(t)}$	Total No of Riots Events per month
12	Riots no of Killed	$RIOTNOKILL_{(t)}$	Total No of people killed in Riots Events per month
	General Strike(Killed-Events)		
13	General Strike No of Events	GSNOEVENTS(t)	Total No of General Strike Events per month
14	General Strike No of Killed	GSNOKILL(t)	Total No of people killed in General Stirke Events per month
	Total No of Person (Current Values-Lag Values)		
15	Total No of person Killed	$TOTALNOPKILL_{(t)}$	Total No of peron killed irrespective of the events

Econometric Models for initial Screening:

$$\beta_{it} = \beta_o + \beta^1{}_t CASSAS_{(t)} + \beta^1{}_t CASSASDA_{(t)} + \varepsilon_{it} \text{.....(01)}$$

$$\beta_{it} = \beta_o + \beta^1{}_t + \beta^1{}_t CASSAS_{(t-1)} + \beta^2{}_t CASSASDA_{(t-1)} + \varepsilon_{it} \text{.....(02)}$$

$$\beta_{it} = \beta_o + \beta^1{}_t KILLASSAS_{(t)} + \beta^2{}_t KILLASSASDA_{(t)} + \varepsilon_{it} \text{.....(03)}$$

$$\beta_{it} = \beta_o + \beta^1{}_t KILLASSAS_{(t-1)} + \beta^2{}_t KILLASSASDA_{(t-1)} + \varepsilon_{it} \text{.....(04)}$$

$$\beta_{it} = \beta_o + \beta^1{}_t CGAONMILMP_{(t)} + \beta^2{}_t CTERROR_{(t)} + \beta^3{}_t CMILPMP_{(t)} + \varepsilon_{it} \text{.....(05)}$$

$$\beta_{it} = \beta_o + \beta^1{}_t CGAONMILMP_{(t-1)} + \beta^2{}_t CTERROR_{(t-1)} + \beta^3{}_t CMILPMP_{(t-1)} + \varepsilon_{it} \text{.....(06)}$$

$$\beta_{it} = \beta_o + \beta^1{}_t KILLGAONMILMP_{(t)} + \beta^2{}_t KILLTERROR_{(t)} + \beta^3{}_t KILLMILPMP_{(t)} + \varepsilon_{it} \text{.....(07)}$$

$$\beta_{it} = \beta_o + \beta^1{}_t KILLGAONMILMP_{(t-1)} + \beta^2{}_t KILLTERROR_{(t-1)} + \beta^3{}_t KILLMILPMP_{(t-1)} + \varepsilon_{it} \text{.....(08)}$$

$$\beta_{it} = \beta_o + \beta^1{}_t RIOTNOEVENTS_{(t)} + \varepsilon_{it} \text{.....(09)}$$

$$\beta_{it} = \beta_o + \beta^1{}_t RIOTNOKILL_{(t)} + \varepsilon_{it} \text{.....(10)}$$

$$\beta_{it} = \beta_o + \beta^1{}_t RIOTNOEVENTS_{(t-1)} + \beta^2{}_t RIOTNOKILL_{(t-1)} + \varepsilon_{it} \text{.....(11)}$$

$$\beta_{it} = \beta_o + \beta^1{}_t GSNOEVENTS_{(t)} + \varepsilon_{it} \text{.....(12)}$$

$$\beta_{it} = \beta_o + \beta^1{}_t GSNOKILL_{(t)} + \varepsilon_{it} \text{.....(13)}$$

$$\beta_{it} = \beta_o + \beta^1{}_t GSNOEVENTS_{(t-1)} + \beta^2{}_t GSNOKILL_{(t-1)} + \varepsilon_{it} \text{.....(14)}$$

$$\beta_{it} = \beta_o + \beta^1{}_t TOTALNOPKILL_{(t)} + \varepsilon_{it} \text{.....(15)}$$

$$\beta_{it} = \beta_o + \beta^1{}_t TOTALNOPKILL_{(t-1)} + \varepsilon_{it} \text{.....(16)}$$

Econometric Models for Final Screening :

$$\beta_{it} = \beta_t^1 CASSASDA_{(t-1)} + \beta_t^2 CTERROR_{(t-1)} + \beta_t^3 CMILPMP_{(t-1)} + \beta_t^4 TOTALNOPKILL_{(t)} + \beta_t^5 RIOTNOKILL_t + \beta_t^6 KILLASSASDA_{(t-1)} + \varepsilon_{it} \ldots.(1)$$

$$\beta_{it} = \beta_o + \beta_t^1 CTERROR_{(t-1)} + \beta_t^2 CMILPMP_{(t-1)} + \beta_t^3 TOTALNOPKILL_{(t)} + \beta_t^4 RIOTNOKILL_{(t)} + \beta_t^5 KILLASSASDA_{(t-1)} + \varepsilon_{it} \ldots..(2)$$

$$\beta_{it} = \beta_o + \beta_t^1 CASSASDA_{(t-1)} + \beta_t^2 CTERROR_{(t-1)} + \beta_t^3 CMILPMP_{(t-1)} + \beta_t^4 RIOTNOKILL_{(t)} + \beta_t^5 TOTALNOPKILL_{(t-1)} + \varepsilon_{it} \ldots..(3)$$

$$\beta_{it} = \beta_o + \beta_t^1 CTERROR_{(t-1)} + \beta_t^2 CMILPMP_{(t-1)} + \beta_t^3 RIOTNOKILL_{(t)} + \beta_t^4 KILLASSASDA_{(t-1)} + \beta_t^5 TOTALNOPKILL_{(t-1)} + \varepsilon_{it} \ldots..(4)$$

$$\beta_{it} = \beta_o + \beta_t^1 CASSASDA_{(t-1)} + \beta_t^2 CTERROR_{(t-1)} + \beta_t^3 CMILPMP_{(t-1)} + \beta_t^4 TOTALNOPKILL_{(t)} + \beta_t^5 RIOTNOKILL_{(t)} + \beta_t^6 CASSAS_{(t-1)} + \varepsilon_{it} \ldots(5)$$

$$\beta_{it} = \beta_o + \beta_t^1 CASSASDA_{(t-1)} + \beta_t^2 CTERROR_{(t-1)} + \beta_t^3 CMILPMP_{(t-1)} + \beta_t^4 RIOTNOKILL_{(t)} + \beta_t^5 TOTALNOPKILL_{(t-1)} + \beta_t^6 CASSAS_{(t-1)} + \varepsilon_{it} \ldots.(6)$$

$$\beta_{it} = \beta_o + \beta_t^1 CTERROR_{(t-1)} + \beta_t^2 CMILPMP_{(t-1)} + \beta_t^3 TOTALNOPKILL_{(t)} + \beta_t^4 RIOTNOKILL_{(t)} + \beta_t^5 KILLASSASDA_{(t-1)} + \beta_t^6 KILLASSAS_{(t-1).} + \varepsilon_{it} \ldots..(7)$$

$$\beta_{it} = \beta_o + \beta_t^1 CTERROR + \beta_t^2 CMILPMP_{(t-1)} + \beta_t^3 RIOTNOKILL_{(t)} + \beta_t^4 KILLASSASDA_{(t-1)} + \beta_t^5 TOTALNOPKILL_{(t-1)} + \beta_t^6 KILLASSAS_{(t-1).} + \varepsilon_{it} \ldots..(8)$$

Results and Discussion

The study scrutinizes causal relationship between Socio-Political factors i.e. Assassination, terrorism, General strikes, Riots and systematic risk. The study measure each variable using various dimensions for example the study disintegrated Assassination into four dimensions like Count assassination(CASSAS) Count assassination drone attack(CASSASDA), Killed assassination(KILLASSAS) killed assassination drone attack (KILLASSASDA)

Further the Study used six proxies for terrorism like CountGuerilla Attacks on Military, Police, Paramilitary and Intelligence (CGAONMILMP), Count Terrorism (Terrorism attack on General mass) (CTERROR), Count Military Paramilitary or Police Attack on non-state combatants (CMILPMP), Killed Guerilla Attacks on Military, Police, Paramilitary and Intelligence (KillGAONMILMP), killed Terrorism (Terrorism attack on General mass) (KILLTERROR) , killed Military Paramilitary or Police Attack on non-state combatants (KILLIMILPMP).

Moreover, the study used two proxies for Riot i.e. Riots no of events (RIOTNOEVENTS) and Riot no of killed ($RIOTNOKILL_{(t)}$). Besides, the study use two proxies like General Strike no of events (GSNOEVENTS) and General Strike no of killed (GSNOKILL). Further, the study used Total No of killed (TOTALNOPKILL) per month irrespective of the event. In simple words, the study divided the all the proxies into four major categories Assassination, terrorism, General strikes, Riots.

For the analysis purpose, the study used total observations of 936,686. In the process of calculating months returns 892,376 observations were deleted. Further, the study deleted 3,153 observations by excluding firms that have months returns for less than 38 months. Further, firms with no major activity during the major part of the sample period were excluded. So, any firm that had more than 50 % of zeros as percentage of total observation of a specific firm in the dataset were excluded from the dataset. In this process 6,475 observations were deleted. In the final stage, the study calculated 23,349 rolling betas of 36 month window.

In order to extract the most suitable proxies for final estimation, the study conducted screening test by individually regressing each sub group proxies for time t and (t-1) on rolling Beta. Table 1 indicates that results of each group and sub group. The first group i.e. Assassinations four proxies CASSAS, CASSASDA, KILLASSAS, KILLASSASDA for Time t and (t-1). The results bases on T-statistics indicates that $CASSAS_{(t-1),}$ $CASSASDA_{(t-1),}$ $KILLASSAS_{(t-1),}$ $KILLASSASDA_{(t-1)}$ are better proxies than others. In second group i.e. Terrorism, the study regressed six proxies which include CGAONMILMP, CTERROR, CMILPMP, KillGAONMILMP, KILLTERROR, KILLIMILPMP by taking the current and lag values on rolling Beta. The results suggested Two proxies $CTERROR_{(t-1)}$ and $CMILPMP_{(t-1)}$ for better estimation. While 3rd group namely Riot consists of current and lag values of two proxies i.e. RIOTNOEVENTS and RIOTNOKILL. The regression results indicates that $RIOTNOKILL_{(t)}$ is most suitable proxy. While Group 04 proxies related to General Strikes are $GSNOEVENTS_{(t)}$ and $GSNOKILL_{(t)}$. However, the study found no better proxy for General Strike. Moreover, the Study found $TOTALNOPKILL_{(t)}$ and $TOTALNOPKILL_{(t-1)}$ better proxies for final estimation.

In this whole screening process, the study extracted 9 Socio-Political proxies, which would measure Assassination, terrorism, Riot i.e. Count assassination drone attack(t-1), Count terrorism(t-1), Count military paramilitary or police(t-1), Total number of persons killed(t), Riot no of killed(t), killed assassination drone attack(t-1), total number of person skilled(t-1), Count assassination(t-1), killed assassination (t-1) for the final estimations. However, proxies related to General Strike were excluded due insignificant.

Table 1: Regression Estimation: DV = Rolling Beta (36 Months)

Variable	Coefficient (t)	Coefficient (t-1)	T-Statistics	R Square
Assassination (Count Events-Killed)				
$CASSAS_{(t)}$	0.0022257		1.31	0.0006
$CASSASDA_{(t)}$	-0.0590829		-3.73	
$CASSAS_{(t-1)}$		**0.0023445**[1]	**1.33**	0.0007
$CASSASDA_{(t-1)}$		**-0.0667766**[2]	**-3.97**	
$KILLASSAS_{(t)}$	0.0011091		0.96	0.0006
$KILLASSASDA_{(t)}$	-0.0091041		-3.68	
$KILLASSAS_{(t-1)}$		**0.0012527**[3]	**1.04**	0.0007
$KILLASSASDA_{(t-1)}$		**-0.0103065**[4]	**-4.04**	
Terrorism (Count Events-Killed)				
$CGAONMILMP_{(t)}$	0.0002601		0.03	0.0006
$CTERROR_{(t)}$	0.0125558		2.22	
$CMILPMP_{(t)}$	-0.0197445		-3.87	
$CGAONMILMP_{(t-1)}$		-.0007984	-0.09	0.0009
$CTERROR_{(t-1)}$		**0.0141381**[5]	**2.48**	
$CMILPMP_{(t-1)}$		**-0.023474**[6]	**-4.54**	
$KillGAONMILMP_{(t)}$	0.0008931		0.94	0.0003
$KILLTERROR_{(t)}$	-0.0004365		-0.6	
$KILLIMILPMP_{(t)}$	-0.0007807		-2.4	
$KillGAONMILMP_{(t-1)}$		.0006348	0.67	0.0003
$KILLTERROR_{(t-1)}$		-.0004531	-0.62	
$KILLIMILPMP_{(t-1)}$		-.0007672	-2.35	
Riot(Killed-Events)				
$RIOTNOEVENTS_{(t)}$	-.0102018		1.34	0.000
$RIOTNOKILL_{(t)}$	**0.0064492**[7]		**2.08**	0.000
$RIOTNOKILL_{(t-1)}$		0.0100982	1.89	0.0001
$RIOTNOEvent_{(t-1)}$		-0.0005234	3.09	
General Strike(Killed-Events)				
GSNOEVENTS(t)	0.0090065		1.31	0.000
GSNOKILL(t)	-.0429293		-1.33	0.000
GSNOEVENTS(t-1)		0.003501	0.6	0.0001
GSNOKILL(t-1)		-0.0382958	-1.38	
Total No of Person (Current Values-Lag Values)				
$TOTALNOPKILL_{(t)}$	**-0.0003549**[8]		**-2.47**	**0.0003**
$TOTALNOPKILL_{(t-1)}$		**-.0003535**[9]	**-2.46**	**0.0003**

Count assassination drone attack$_{(t-1)}$ = $CASSASDA_{(t-1)}$, Count terrorism$_{(t-1)}$ = $CTERROR_{(t-1)}$, Count Military Paramilitary or Police Attack on non-state combatants $_{(t-1)}$ = $CMILPMP_{(t-1)}$, Total number of persons killed$_{(t)}$ = $TOTALNOPKill_{(t)}$, Riot no of killed$_{(t)}$= , $RIOTNOKill_{(t)}$, killed assassination drone attack$_{(t-1)}$= $KillASSASDA_{(t-1)}$, total number of person skilled$_{(t-1)}$ = $TOTALNOPKill_{(t-1)}$, Count assassination$_{(t-1)}$ = $CASSAS_{(t-1)}$, killed assassination $_{(t-1)}$= $KILLASSAS_{(t-1)}$

Table 2: Descriptive Statistics

Variable	Obs	Mean	Std.Dev	Min	Max
Beta(36 month rolling window)	23349	0.5946	1.5468	-5.7174	55.6738
$CASSASDA_{(t-1)}$	23349	0.1723	0.6763	0	5
$CTERROR_{(t-1)}$	23349	1.3869	3.0915	0	19
$CMILPMP_{(t-1)}$	23349	0.7697	2.7509	0	22
$TOTALNOPKill_{(t)}$	23349	32.4068	70.048	0	403
$RIOTNOKILL_{(t)}$	23349	1.6101	5.5029	0	42
$KILLASSASDA_{(t-1)}$	23349	1.1606	4.2837	0	25
$TOTALNOPKill_{(t-1)}$	23349	31.1953	69.4104	0	403
$CASSAS_{(t-1)}$	23349	3.6167	6.4104	0	25
$KILLASSAS_{(t-1)}$	23349	5.011	9.1784	0	39

Count assassination drone attack$_{(t-1)}$ = $CASSASDA_{(t-1)}$, Count terrorism$_{(t-1)}$ = $CTERROR_{(t-1)}$, Count Military Paramilitary or Police Attack on non-state combatants $_{(t-1)}$ = $CMILPMP_{(t-1)}$, Total number of persons killed$_{(t)}$ = $TOTALNOPKill_{(t)}$, Riot no of killed$_{(t)}$= , $RIOTNOKill_{(t)}$, killed assassination drone attack$_{(t-1)}$= $KillASSASDA_{(t-1)}$, total number of person skilled$_{(t-1)}$ = $TOTALNOPKill_{(t-1)}$, Count assassination$_{(t-1)}$ = $CASSAS_{(t-1)}$, killed assassination $_{(t-1)}$= $KILLASSAS_{(t-1)}$

Table 3: Correlation

	1	2	3	4	5	6	7	8	9	10
Beta(36 month rolling window)	1									
$CASSASDA_{(t-1)}$	-0.026	1								
$CTERROR_{(t-1)}$	-0.002	0.597	1							
$CMILPMP_{(t-1)}$	-0.023	0.826	0.695	1						
$TOTALNOPKill_{(t)}$	-0.016	-0.050	0.102	-0.009	1					
$RIOTNOKILL_{(t)}$	0.110	-0.080	0.615	-0.064	0.326	1				
$KILLASSASDA_{(t-1)}$	0.026	0.940	0.457	0.729	-0.840	-0.080	1			
$TOTALNOPKill_{(t-1)}$	-0.016	0.699	0.739	0.837	0.007	-0.040	0.679	1		
$CASSAS_{(t-1)}$	-0.001	0.370	0.795	0.415	0.007	0.152	0.329	0.663	1	
$KILLASSAS_{(t-1)}$	-0.002	0.356	0.784	0.374	0.105	0.161	0.319	0.646	0.948	1

Count assassination drone attack$_{(t-1)}$ = $CASSASDA_{(t-1)}$, Count terrorism$_{(t-1)}$ = $CTERROR_{(t-1)}$, Count Military Paramilitary or Police Attack on non-state combatants $_{(t-1)}$ = $CMILPMP_{(t-1)}$,Total number of persons killed$_{(t)}$ = $TOTALNOPKill_{(t)}$, Riot no of killed$_{(t)}$= , $RIOTNOKill_{(t)}$, killed assassination drone attack$_{(t-1)}$= $KillASSASDA_{(t-1)}$, total number of person skilled$_{(t-1)}$ = $TOTALNOPKill_{(t-1)}$, Count assassination$_{(t-1)}$ = $CASSAS_{(t-1)}$, killed assassination $_{(t-1)}$= $KILLASSAS_{(t-1)}$

Descriptive statistics

The table 2 shows the descriptive statistics of Rolling Beta (36 month Window) and shortlisted proxies for final estimation. The below results depict that Rolling Beta has a minimum mean value of 0.5946. $TOTALNOPKill_{(t)}$ has highest mean value of32.4068 while $CASSASDA_{(t-1)}$ has minimum mean value of 0.1723. $TOTALNOPKill_{(t)}$ has the more variation according to the Standard deviation value 70.048 while $CASSASDA_{(t-1)}$ has the lowest Standard deviation i.e. 0.6763

Table 03 indicates the correlation table, which indicates that $CASSASDA_{(t-1)}$ $CTERROR_{(t-1)}$, $CMILPMP_{(t-1)}$, $TOTALNOPKill_{(t)}$ and $TOTALNOPKill_{(t-1)}$ has negative relationship with endogenous variable. However, the correlation table depict a positive association of $RIOTNOKILL_{(t)}$, $KILLASSASDA_{(t-1)}$ with rolling Beta. Further, the study found no sign of Multicolinarity.

Regression Results

The study shortlisted 09 Socio-Political factors i.e. Count assassination drone attack ($CASSASDA_{(t-1)}$), Count terrorism ($CTERROR_{(t-1)}$), Count military paramilitary or police ($CMILPMP_{(t-1)}$) , Total number of persons killed ($TOTALNOPKill_{(t)}$), Riot no of killed ($RIOTNOKILL_{(t)}$), killed assassination drone attack($KILLASSASDA_{(t-1)}$) Total number of person killed($TOTALNOPKill_{(t-1)}$), Count assassination($CASSAS_{(t-1)}$), killed Assassination($KILLASSAS_{(t-1)}$) for the final estimations.

The study used Count assassination drone attack ($CASSASDA_{(t-1)}$), Count terrorism ($CTERROR_{(t-1)}$), Count military paramilitary or police ($CMILPMP_{(t-1)}$), Total number of persons killed ($TOTALNOPKill_{(t)}$), Riot no of killed ($RIOTNOKILL_{(t)}$), killed assassination drone attack($KILLASSASDA_{(t-1)}$) Total number of person killed ($TOTALNOPKill_{(t-1)}$), Count assassination($CASSAS_{(t-1)}$), killed Assassination($KILLASSAS_{(t-1)}$) in eight different models.

Further, the study used $CASSASDA_{(t-1)}$ as a proxy for Assassination in Model 1, Model 2,Model 5,Model 6 respectively. The table 04 results indicate that $CASSASDA_{(t-1)}$ have coefficient values of -0.0537, -0.0453, -0.0519, -0.0447 in Model-1.Model-2, Model-5, Model-6 respectively. Which imply that drone attack mostly hit most wanted terrorists. Therefore, the investor feels more secure when hot hard core terrorists are being attacked through Drone attack.

In similar fashion, $CTERROR_{(t-1)}$ and $CMILPMP_{(t-1)}$ are used as proxy to capture the effect of Terrorism. The $CTERROR_{(t-1)}$ statistically significant positive coefficient values of 0.0157, 0.0139, 0.0146, 0.0124, 0.0273, 0.0230, 0.0261, 0.0260in Model-1,Model-2,Model-3 Model-4 Model-5 Model-6 Model-7 and model 08.respectively. This results implies that terrorism have strong impact of terrorism on market wide risk in Pakistan. However, the lag value suggested that information distribution among the investors is slow.

Moreover, $CMILPMP_{(t-1)}$ have statistically significant negative relationship with rolling beta as it can observed from coefficients values -0.0134, -0.0148, -0.014, -0.0210, 0.0213, 0.029 except model 3. The results depicts that the attack Military, Paramilitary or Police on non-state combatant for example Pakistan Army and Police assault on the Lal Masjid. Such kinds of operations lead to Socio-Political stability and increases investor confidence over the Pakistan Stock exchange. Resultantly market wide risk decreases.

Further, Riot no of killed ($RIOTNOKILL_{(t)}$) have statistically significant positive coefficients values of and 0.00395 , 0.00404, 0.00458 and 0.0046 in Model-1,Model-2 ,Model-5, Model-7 .While insignificant effect on inModel-3, Model-4, Model-6,Model-8. This suggested that investor get panic when they get the news related to RIOTS. Moreover, $TOTALNOPKill_{(t)}$ have performed much better through the whole estimation and it has statistically significant negative coefficients of -0.00056, -0.0005, -0.0005, -0.0005. However, the study found $TOTALNOPKill_{(t-1)}$ And $KILLASSASDA_{(t-1)}$statistically insignificant and considered to be weak proxies for the assassination.

In nutshell, the study concluded that Model-5 best combinations among others, which consists of $CASSASDA_{(t-1)}$,$CTERROR_{(t-1)}$,$CMILPMP_{(t-1)}$, $TOTALNOPKill_{(t)}$, $RIOTNOKILL_{(t)}$, and $CASSAS_{(t-1)}$have statistically significant effect over the systematic risk.

Table 4: Regression Analysis: DV= Rolling Beta (36 Months Window)

VARIABLES	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8
$CASSASDA_{(t-1)}$	-0.0537**		-0.0453*		-0.0519**	-0.0447*		
	0.0256		0.0256		0.0257	0.0238		
$CTERROR_{(t-1)}$	0.0157***	0.0139***	0.0146***	0.0124**	0.0273***	0.0230***	0.0261***	0.0260***
	0.0046	0.0046	0.0050	0.0051	0.0072	0.0073	-0.0076	0.0077
$CMILPMP_{(t-1)}$	-0.0134*	-0.0148**	-0.0120	-0.014**	-0.0173**	-0.0210**	-0.0213***	0.029***
	0.0070	0.0066	0.00811	0.0074	0.0072	0.0102	-0.0073	0.0098
$TOTALNOPKill_{(t)}$	-0.00056***	-0.0005***			-0.0005***		-0.0005***	
	0.0001	0.0001			0.00015		-0.0001	
$RIOTNOKILL_{(t)}$	0.0039**	0.0040**	0.0017	0.0018	0.0045**	0.0023	0.0046**	0.0027
	0.0019	0.0019	-0.0018	0.00188	0.002	-0.00191	0.0019	0.0019
$KILLASSASDA_{(t-1)}$		-0.0071**		-0.0058*			-0.0053	0.0004
		0.0035		0.0035			0.0035	0.0003
$TOTALNOPKill_{(t-1)}$			-0.0001	2.30E-05		0.0002		0.0005
			-0.0002	0.0003		0.00036		0.0003
$CASSAS_{(t-1)}$					-0.0057*	-0.0058		
					-0.0027	0.0034		
$KILLASSAS_{(t-1)}$							-0.0040**	-0.0057**
							0.0019	-0.0024
Constant	0.605***	0.608***	0.593***	0.594***	0.612***	0.596***	0.613***	0.597***
	-0.0121	0.0122	0.0118	-0.0119	0.0125	0.012	0.0124	0.012
Observations	23,165	23,165	23,165	23,165	23,165	23,165	23,165	23,165
R-squared	0.014	0.014	0.0011	0.011	0.016	0.001	0.016	0.001

Count assassination drone attack$_{(t-1)}$ = CASSASDA$_{(t-1)}$, Count terrorism$_{(t-1)}$ = CTERROR$_{(t-1)}$, Count Military Paramilitary or Police Attack on non-state combatants $_{(t-1)}$ = CMILPMP$_{(t-1)}$,Total number of persons killed$_{(t)}$ = TOTALNOPKill$_{(t)}$, Riot no of killed$_{(t)}$= , RIOTNOKill$_{(t)}$, killed assassination drone attack$_{(t-1)}$= KillASSASDA$_{(t-1)}$, total number of person skilled$_{(t-1)}$ = TOTALNOPKill$_{(t-1)}$, Count assassination$_{(t-1)}$ = CASSAS$_{(t-1)}$, killed assassination $_{(t-1)}$= KILLASSAS$_{(t-1)}$

Conclusion

The study investigates the impact of socio-Political factors on systemic risk. The study use Socio-Political factors like Assassination, Terrorism, General Strike and Riot. The study used 36 variables to find the most suitable proxies for the aforementioned variables in the first phase.

In second phase, the study shortlisted 09 Socio-Political factors i.e. Count assassination drone attack ($CASSASDA_{(t-1)}$), Count Terrorism (Terrorism attack on General mass) ($CTERROR_{(t-1)}$), Military Paramilitary or Police Attack on non-state combatants($CMILPMP_{(t-1)}$) , Total number of persons killed ($TOTALNOPKill_{(t)}$), Riot no of killed ($RIOTNOKILL_{(t)}$), killed assassination drone attack($KILLASSASDA_{(t-1)}$) Total number of person killed ($TOTALNOPKill_{(t-1)}$), Count assassination($CASSAS_{(t-1)}$), killed Assassination($KILLASSAS_{(t-1)}$) Statistically significant effect over the systematic risk.

In nutshell, the study found statistical significant impact of 07 proxies i.e. Count assassination drone attack ($CASSASDA_{(t-1)}$), Count terrorism ($CTERROR_{(t-1)}$), Count military paramilitary or police ($CMILPMP_{(t-1)}$), Total number of persons killed ($TOTALNOPKill_{(t)}$), Riot no of killed ($RIOTNOKILL_{(t)}$), Count assassination($CASSAS_{(t-1)}$), killed Assassination($KILLASSAS_{(t-1)}$) on Systematic risk. However, the study found no significant impact of killed assassination drone attack($KILLASSASDA_{(t-1)}$) Total number of person killed ($TOTALNOPKill_{(t-1)}$) after estimating 08 difference models. The study findings are in contrast to Drakos (2004) and robust with Ahmad and Shahzad (2014), Cam (2008) and Voth (2002).

References

[1]. Ahmad, T., & Shahzad, S. J. H. (2014). Industry Premiums and Systematic Risk under Terror: Empirical Evidence from Pakistan.

[2]. Akbar, M., Ali, S., & Khan, M. F. (2012). The relationship of stock prices and macroeconomic variables revisited: Evidence from Karachi stock exchange. *African Journal of Business Management, 6*(4), 1315-1322.

[3]. Aktas, H., Bayar, C., & Oncu, S. (2006). The Stock Market Reaction to Extreme Events: The Evidence from Turkey. *International Research Journal of Finance and Economics, 6*, 78-89.

[4]. Alesina, A., & Perotti, R. (1996). Income distribution, political instability, and investment. *European economic review, 40*(6), 1203-1228.

[5]. Ali, R., & Afzal, M. (2012). Impact of global financial crisis on stock markets: Evidence from Pakistan and India. *Journal of Business Management and Economics, 3*(7), 275-282.

[6]. Amihud, Y., & Wohl, A. (2004). Political news and stock prices: The case of Saddam Hussein contracts. *Journal of Banking & Finance, 28*, 1185-1200.

[7]. Angelovska, J. (2011). The Impact of Political Events Name Issue on an Emerging Macedonian Stock Market *Journal of Public Administration and Governance, 1*(2), 203-216.

[8]. Arzu, s. (2011). *Political Instability & Its Impact on Karachi Stock Exchange.* (masters), Lahore School of Economics, lahore.

[9]. Beaulieu, M. C., Cosset, J. C., & Essaddam, N. (2006). Political Uncertainty and Stock Market Returns: Evidence from the 1995 Quebec referendum. *Canadian Journal of Economics, 39*(2), 621-641.

[10]. Bilal, A. R., Talib, N. B. A., Haq, I. U., Khan, M. N. A. A., & Islam, T. (2012). How Terrorism and Macroeconomic Factors Impact on Returns: A Case Study of Karachi Stock Exchange. *World Applied Sciences Journal, 19*(11), 1575-1584.

[11]. Brüggelambert, G. (2004). Information and efficiency in political stock markets: using computerized markets to predict election results. *Applied Economics, 36*(7), 753-768.
[12]. Cam, M. A. (2008). The impact of terrorism on United States industries. *Economic Papers: A journal of applied economics and policy, 27*(2), 115-134.
[13]. Chan, Y. c., & Wei, K. J. (1996). Political risk and stock price volatility: the case of Hong Kong. *Pacific-Basin Finance Journal, 4*(2), 259-275.
[14]. Chena, S.-H., Huab, M.-S., & Stuetz, R. (2006). Domestic portfolio choice amid political instability. *Applied Financial Economics Letters, 2*, 37-41.
[15]. Cukierman, A., Edwards, S., & Tabellini, G. (1989). Seigniorage and political instability: National Bureau of Economic Research.
[16]. Döpke, J., & Pierdzioch, C. (2004). Politics and the Stock Market Evidence from Germany. *Journal of Political Economy, 22*(4), 925-943.
[17]. Drakos, K. (2004). Terrorism-induced structural shifts in financial risk: airline stocks in the aftermath of the September 11th terror attacks. *European Journal of Political Economy, 20*(2), 435-446.
[18]. Gul, S., Khan, M. T., Saif, N., Rehman, S. U., & Roohullah. (2013). Stock Market Reaction to Political Events (Evidence from Pakistan). *Journal of Economics and Sustainable Development, 4*(1), 165-175.
[19]. Hanan, M. A., Saleem, N., Siddiqui, S. A., & Imran, S. (2012). Impact of Natural Disasters, Terrorism and Political News on KSE-100 Index. *Forman Journal of Economic Studies, 8*, 13-30.
[20]. Harlow, W. V., & Rao, R. K. (1989). Asset pricing in a generalized mean-lower partial moment framework: Theory and evidence. *Journal of Financial and Quantitative Analysis, 24*(03), 285-311.
[21]. Hogan, W. W., & Warren, J. M. (1974). Toward the development of an equilibrium capital-market model based on semivariance. *Journal of Financial and Quantitative Analysis, 9*(01), 1-11.
[22]. Hui, C. j., Yi, c. p., Chyn, l. s., Gnoh, l. b., & Mun, w. y. (2014). *Determinants of stock price fluctuations: Evidence from singapore fluctuations.* (bba (hons)), Tunku abdul rahman.
[23]. Husain, F. (1998). A seasonality in the Pakistani equity market: The Ramadhan effect. *The Pakistan Development Review, 37*(1), 77-81.
[24]. Hussain, A., Lal, I., & Mubin, M. (2009). Short run and Long run Dynamics of Macroeconomics Variables and Stock prices: Case Study of KSE (Karachi Stock Exchange). *Kashmir Economic Review, 18*(1), 43-61.
[25]. İkizlerli, D., & Ülkü, N. (2014). Political Risk and Foreigners' Trading: Evidence from an Emerging Stock Market. *Emerging Markets Finance and Trade, 48*(3), 106-121.
[26]. Javed, A. Y. (2007). *Stock Market Reaction to Catastrophic shock: Evidence from listed Pakistani firms.* Pakistan institute of development economics, Islamabad. (37)
[27]. Javed, A. y., & Ahmed, a. (1999). The Response of Karachi Stock Exchange to Nuclear Detonation. *The Pakistan Development Review, 38*(4), 777-786.
[28]. Julio, B., & Yook, Y. (2012). Political Uncertainty and Corporate Investment Cycles. *The Journal of Finance, 67*(1), 45-83. doi: 10.1111/j.1540-6261.2011.01707.x
[29]. Khalid, A. M., & Rajaguru, G. (2010). *The Impact of Political Events on Financial Market Volatility: Evidence Using a Markov Switching Process*. Globalisation and Development Centre,. Bond University, Gold Coast. Australia.
[30]. Kim, H. Y., & Mei, J. P. (2001). What makes the stock market jump? An analysis of political risk on Hong Kong stock returns. *Journal of International Money and Finance, 20*(7), 1003-1016.
[31]. Kongprajya, A. (2010). *An analysis of the impact of political news on Thai stock market.* (MA Risk Management), University of Nottingham, United Kingdom.
[32]. Kutan, A. M., & Perez, S. M. (2002). Does organized crime affect stock market development? Evidence from Colombia. *The Emerging Markets Group, Working Paper 4, 2*.
[33]. Laverde, J. C. F., Varua, M. E., & Garces-Ozanne, A. (2009). Understanding Crime, Political Uncertainty and Stock Market Returns. *World Economics, 10*(2), 109-116.
[34]. Londregan, J. B., & Poole, K. T. (1990). Poverty, the coup trap, and the seizure of executive power. *World politics, 42*(02), 151-183.
[35]. Mahmood, S., Irfan, M., Iqbal, S., Kamran, M., & Ijaz, A. (2014). Impact of Political Events on Stock Market: Evidence from Pakistan. *Journal of Asian Business Strategy, 4*(12), 163-174.
[36]. Malik, S., Hussain, S., & Ahmed, S. (2009). Impact of political event on trading volume and stock returns: The case of KSE. *International Review of Business Research Papers, 5*(4), 354-364.
[37]. Manzoor, H. (2013). Impact of pak-US relationship news on KSE-100 Index. *Journal of Business Management and Accounts, 2*(24-29).
[38]. Merwea, R. v. d., & Smit, E. v. d. M. (2015). The influence of political news events on share market activity in South Africa. *Investment Analysts Journal, 26*(44), 11-23.
[39]. Miya, G. H. (2007). *Stock market behaviour around national elections in Kenya.* (Masters in Business administration), University of Nairobi, Kenya.
[40]. Murtaza, H., haq, M. A. u., & Ali, R. (2015). Impact of Major Political Events on Stock Market Returns of Pakistan. *Public Policy and Administration Research, 5*(4), 69-83.
[41]. Nazir, M. S., Younus, H., Kaleem, A., & Anwar, Z. (2014). Impact of political events on stock market returns: empirical evidence from Pakistan. *Journal of Economic and Administrative Sciences, 30*(1), 60-78.
[42]. Nguthi, P. N. u. (2013). *The effect of political news on stock market returns in kenya: The case of march 2013 general elections.* (Master of science in finance), UNIVERSITY OF NAIROBI, kenya.
[43]. Nguyen, A. P., & Enomoto, C. E. (2009). Acts Of Terrorism And Their Impacts On Stock Index Returns And Volatility: The Cases Of The Karachi And Tehran Stock Exchanges. *International Business & Economics Research Journal, 8*(12), 75-86.
[44]. Önder, Z., & Mugan, S. (2006). How do political and economic news affect emerging markets? Evidence from Argentina and Turkey. *Emerging Markets Finance and Trade, 42*(4), 50-77.
[45]. Robbani, M. G., & Anantharaman, S. (2002). *An econometric analysis of stock market to political events in emerging markets.* Paper presented at the 2nd annual ABIT conference held in Pittsburgh, Pennsylvania.
[46]. Siddiqui, T. (2012). After Osama Bin Laden, *The Express Tribune*.
[47]. Simon, J. D. (1982). Political risk assessment-past trends and future-prospects. *Columbia Journal of World Business, 17*(3), 62-71.
[48]. Siokis, F., & Kapopoulos, p. (2007). Parties, elections and stock market volatility: Evidence from a small open economy. *Economics & Politics, 19*(1), 123-134.
[49]. Sohail, N., & Hussain, Z. (2009). Long-run and short-run relationship between macroeconomic variables and stock prices in pakistan the case of lahore stock exchange. *Pakistan Economic and Social Review, 47*(2), 183-198.
[50]. Sohail, N., & Zakir, H. (2011). The macroeconomic variables and stock returns in pakistan: The case of kse100 index *Journal of Applied Research in Finance, 3*(1), 76-84.
[51]. Subhani, M. I., Osman, A., & Gul, A. (2010). Relationship between consumer price index (CPI) and kse -100 index trading volume in pakistan and finding the endogeneity in the involved data.
[52]. Taimur, M., & Khan, s. (2014). Impact of political and catastrophic events on stock returns. *VFAST Transactions on Education and Social Sciences, 6*(1), 21-32.
[53]. Tan, O. G., & Gannon, G. L. (2002). 'Information effect' of economic news: SPI future. *International Review of Financial Analysis, 11*(4), 467-489.
[54]. Tsai, H.-J., Chen, M.-C., & Yang, C.-Y. (2014). A time-varying perspective on the CAPM and downside betas. *International Review of Economics & Finance, 29*(0), 440-454. doi: http://dx.doi.org/10.1016/j.iref.2013.07.006
[55]. Voth, H.-J. (2002). Stock price volatility and political uncertainty: Evidence from the interwar period.
[56]. Vuchelen, J. J. (2003). Electoral systems and the effects of political events on the stock market: The belgian case. *Economics and Politics, 15*, 85-102.
[57]. Zach, T. (2003). Political Events and the Stock Market: Evidence from Israel. *International journal of business, 8*(3), 243-266.