THE EFFECT OF POLITICAL NEWS ON STOCK MARKET RETURNS IN KENYA: THE CASE OF MARCH 2013 GENERAL ELECTIONS

BY

PAUL NDUNG'U NGUTHI

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN FINANCE, UNIVERSITY OF NAIROBI

OCTOBER, 2013

DECLARATION

This project is my original work and to the best of my knowledge has not been submitted for award of a degree at the University of Nairobi or any other University

PAUL NDUNG'U NGUTHI

D63/79151/2012

SIGNED:.....

DATE:.....

This research Project has been submitted for examination with my approval as the university supervisor.

SIGNED:..... Date .....

MIRIE MWANGI

Lecturer, Department of Finance and Accounting

ACKNOWLEDGEMENT

This research project would not have been completed successfully without the contributions and support of different people who I sincerely thank. I wish to acknowledge the contributions and support of my supervisor Mr. Mirie Mwangi, who consistently offered guidance throughout the study. I also wish to express my gratitude to my dear family, Mrs. Caroline Wanjiru Paul and Master Levi Ng'ang'a Paul for their support and understanding during the whole process.

Finally, my gratitude goes to the almighty God for giving me the strength to successfully undertake this project.

DEDICATION

I dedicate this project to my dear parents, the late Geoffrey Nguthi Kariuki and Josephine Gakenia Nguthi who ensured I enjoyed the right to education.

ABSTRACT

The study was carried out to establish the effect of political news on stock returns in Kenya. The objective was to establish the effect of the March 2013 general elections on stock returns for companies listed at the Nairobi Securities Exchange. The study sampled the counters constituting the 20 share index owing to their 80% contribution to total volumes trading at the NSE. Out of the 20 counters, CMC holding Ltd was under suspension during the study period and was therefore omitted in the sample, which consequently consisted of 19 counters. The study was based on event study methodology and employed the market model to estimate the expected returns, consequently leading to the computation of abnormal returns. The event day was 4th March 2013. The estimation window was 120 days prior to the event window which comprised of 60 trading days prior to the event day and 60 trading days after the event date. During the event day, the Nairobi Securities Exchange remained closed.

The study findings were consistent with previous studies where stock prices were reported to react to political news. Volatility was noticed in stock prices in the short term to the election date with stock prices steeply rising around the election date. On average, the stock prices recorded an ascend movement around the event date and after the election signifying investor confidence in the incoming government. This signifies the confidence of investors in the new constitution dispensation which brought into effect devolved governments after the election date. As opposed to a previous study by Murigi (2008), the average abnormal returns remained positive before and after the event date with continued rise in stock prices after the event date. However, despite the recorded shift in stock returns, the abnormal returns for 17 counters out of the 19 sampled were not statistically significant, a matter that should be investigated in future studies. The implication of the study findings is that investors should take precautions when purchasing stocks during periods of political uncertainty.

TABLE OF CONTENTS

ABBREVIATIONS

APT	–	Arbitrage Pricing Theory
CAPM	–	Capital Asset Pricing Model
CMA	–	Capital Markets Authority
DPS	–	Dividends per Share
EMH	–	Efficient Market Hypothesis
EPS	–	Earnings per Share
GDP	–	Gross Domestic Product
ICC	–	International Criminal Court
JSX	–	Jakarta Stock Exchange
NSE	–	Nairobi Securities Exchange
P/E	–	Price Earnings Ratio

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The stock market is a public entity which facilitates trading in shares and derivatives. The shares and derivatives are referred to as securities and are listed on a Securities exchange. Fundamentally, share prices are influenced by the market forces of demand and supply. Besides the dynamics of demand and supply, other factors also exists that influence the movement in prices. In their study on the extent to which various factors affect stock prices at the Nigerian Capital Markets, Somoye, Akitoye and Oseni (2009) listed the following factors beside demand and supply:- Earnings Per Share (EPS), Dividends Per Share (DPS), Price of Crude oils, Gross Domestic Product (GDP), Inflation rate, interest rates and Exchange Rates. Political risk is one other factor that determines movement of stock prices. The effect is mostly attributed to the investor sentiments, attitudes and expectations around political events. This study examined the behaviour of the stock returns around the March 2013 Kenya General Elections.

1.1.1 Political News and Uncertainty

As widely claimed by many studies, political risk is one of the critical factors that influence the operations of a country's financial market. In any country, this risk is so vital since its related damage can cost a significant amount both on the macro and micro level economic systems. In general, the political risk can come in many forms such as new legislation, change of regime, a revolution, a coup or even civil war.

Both developing and developed countries have had a good share of effects consequent to political risk. According to O'Brien (2006), Fiji's economy was badly hurt due to the May 2000 coup that saw a democratic government overthrown. The result of this piece of political news was a depressed economy, a slump in tourism industry and following that was the collapse of the sugar and garment industries. The Fiji Gross Domestic Product (GDP) fell by 7.7% after the coup while Real National welfare and consumption fell by 7% and 2% respectively. Another case is the effect of the September 11th 2001 terrorism attack on the US soil which had devastating effects both due to the associated loss of lives and the effects on the economy. Though the effect on the economy was short term as explained by the action of the Federal Reserve who ensured increased liquidity by reducing interest rates and lessening the borrowers requirements for Banks, the long term effects can be felt to date. The decrease on the country's capital stock and the loss of consumer and investor confidence owing to political uncertainty cannot be downplayed.

Economists aligned to the partisan theory stress on the uncertainty over the policies that the incoming government will pursue after an election. Requisite to this is the ideology that each government has a distinct effect on economic policies, with differences in the ideological composition of a government being reflected in policy differences and therefore asset prices determinants. Hibbs (1977) categorizes political party policies into two wings. The left wing politicians prioritize on employment while their right wing counterparts favour a low inflation. Investors therefore expect right wingers to pursue more pronounced side policies. This study focuses on the effects of political

news in stock prices.

1.1.2 Stock Market Returns

Stock return can be defined as the change in stock prices relative to the initial prices at which the investor bought the stocks. In an efficient market, changes in prices are expected to be random and unpredictable since stock prices are expected to reflect all available news. The type of news incident to changes in stock prices can loosely be referred to as an event. We could derive different types of events in a stock market. Stock specific events only affect the particular stocks for which they relate. Such news as announcement of dividend change, stock splits, mergers and rights issues are stock specific since any change of perception by investors is only on the particular stocks. The availability of such news is always public owing to the requirement by stock market regulating bodies to have such information relayed to the public. Empirical evidence exists showing that stock prices react to such news. Ball and Brown (1968) in their study on the share price adjustments and information content of annual reports found that earnings announcements and dividend payout changes have significant effects on stock prices.

Another set of news would be news specific to an industry. The availability of such news will result in changes in the prices of all industry player stocks albeit the levels of reaction by the specific players may be different. Such events as the availability of cheaper inputs for a manufacturing process, introduction of new performance tax or entry of a large player in an industry may result in changes in the stock prices of

industry players.

Lastly, other set of news have an effect on the market as a whole. These I can be split into economic news and non economic news. The economic news has a financial backing such as Interest rate volatility and inflation. Such events mostly affect the economic fundamentals of the stock prices therefore leading to changes in the prices. Non economic events on the other hand have no financial background. They include natural calamities such as earthquakes which on the very basic lead to a redistribution of wealth to social needs by cutting on the amount of wealth available for investment. Others include political events which are the concern of this study.

While most events are economic in nature and mostly industry specific, political events such as wars, elections, death of presidents or prime ministers, referendum votes, change of governments through coups among others are non economic in nature. Miya (2007) notes that economic events happen randomly and are hard for non insiders to predict. However, election dates are determined way before hand, following a pattern after a number of years. This notwithstanding, electioneering periods are associated with a lot of uncertainties for investors.

1.1.3 Impact of Political News on Stock Returns

Voters consider their financial situations when voting. Policy makers are therefore known to systematically generate a rising stock market by influencing policy instruments in the run up to elections and making promises on a better performing stock

market once elected.

Miya (2007) alludes that politics influence income distribution and prosperity of a nation. Each candidate in an election is subjected to scrutiny by investors and the winning candidates are those that best represents their personal believes and interests. As such, each candidate in an election is interested in winning the faith of the electorate by outlining investment friendly manifestos and articulating key development issues that would see growth in the economy.

While facing a challenge for a re-election, seating leaders do their best towards the end of a term in office to win the hearts of the electorate and secure a new term in office. According to Nordhaus (1985), the incumbent leaders pursue for policies that maximizes their chances of re election. He continues to point out that the economy is stimulated by unsustainable expansionary policies before elections while harsh actions are taken immediately after elections to curb the resultant inflation. Consequently, the election period is associated with uncertainties which are challenging to investors. The challenges are twofold: how to plan for investments around the electioneering period and what kind of returns to expect from the investments.

Bialkowski et al (2006) alludes that despite numerous efforts to accurately predict the results of an election through polls, investors are surprised by the final distribution of votes. Stock prices strongly react in response to this surprise. Consequently, volatility is observed at an elevated level, a situation Bialkowski et al (2006) claims holds

regardless of the size of the event window. The research continues to note that there is a likelihood of country specific volatility doubling up during the elections. Suleman (2010) examined the behaviour of returns and volatility of Karachi stock exchange 100 index to good and bad political news. He observed a positive impact and reduced volatility associated with good political news while returns are affected negatively by bad political news which as well increases on volatility. From the foregoing, political events are associated with volatility in the stock market.

1.1.4 Political News and Stock returns in Kenya

Kenya gained its independence from the British colony in 1963 and operated as a single political system up to 1992 after which multiparty democracy was adopted. Whereas there has been numerous elections in the former British colony, improved voter education has lead to a greater participation in the general elections over time. Presidential elections take place every five years. This is constitutional provision which also provides that a sitting president is only eligible once for re election. This in essence provides for a change of regime every five years. Election periods are associated with great uncertainty. When faced with such uncertainty, investors take on positions that they feel best safeguard their investments. This leads to movements in asset prices owing to the signalling effect of elections and depending on the perceived nature of the incoming governments.

The Nairobi Securities Exchange (NSE) is one of the emerging markets and like many other emerging markets has undergone rapid growth over the years. The market started

off informally in the 1920's during the colonial era. It was informal then since no trading rules existed with most trades being private gentleman's agreements. In 1951, the market was formalized leading to recognition as an overseas stock exchange by the London Securities exchange. By this time, only one stock broker existed. In 1954, Nairobi stock exchange was registered under the societies act as an association of stock brokers. Despite the milestones in formalizing the market, trading at this time was only between resident Europeans, a situation that persisted until 1963 when Kenya gained her independence. The activity in the NSE almost came to a halt in the independence days as a result of the uncertainty surrounding the new sovereign status of the country. With flow of information, the bourse regained consciousness over time. Today, the exchange consists of 19 registered brokers and 62 listed companies. This study sought to establish the effect of political news on stock returns at the Nairobi Securities exchange by looking at the March 2013 general elections.

1.2 Research Problem

The efficiency of a market is defined in terms of how fast the market is able to assimilate new information in the prices of securities. The securities markets have been known to be affected by political news in response to the perceived impact on domestic and foreign policy. The general effect of political news on stock exchange has been the increased volatility of stock prices around political events. This is mostly attributed to the uncertainty surrounding such elections with most investors finding it hard to make investment decisions during these political events. The political events are in the form of elections, referendum votes, resignation of presidents and prime ministers and to the

extreme wars.

Whereas there has been immense study of the effect of political news on stock markets in developed countries, few studies have been conducted on developing markets. Soultanaeva (2008) studied the impact of political news in Baltic stock markets arriving at mixed results. Some markets such as Russia showed increased political risks while others such as Riga and Tallim showed decreasing risk. Others such as Vinius seemed unaffected. This lead to the conclusion that different markets react differently to political news. Other published research on the behaviour of stock market returns on and after election dates report high volatility of returns about the election date.

Locally, few studies have been conduction on the reaction of the Nairobi Securities exchange to political news. Miya (2007) reported stock volatility at the NSE during the 1992 and 2002 Kenya General Elections. Another study is one conducted by Kithinji and Ngugi (2008) on the 1992, 1997, 2002 and 2007 Kenya General Elections on the stock returns at the NSE. From their study, stock returns are affected on the short term by political decisions with a better stock performance in the first two years after elections. They also report poor returns during two years prior to a general election in Kenya. According to Murigi (2008), not all sectors are affected the same in an election period. She reported that the Finance sector experience high volatility than the industrial sector while the Agricultural sector is least affected. Murigi concludes by suggesting that future political events should be studied to test for consistencies of returns on shares trading at the NSE. Notable with all the previous studies is the

requirement to control for the end of year effect associated with the timing of the elections.

This study therefore builds on the previous works by analysing the stock returns for securities trading at the NSE during the March 2013 general election. As opposed to the other elections held in Kenya, the 2013 elections were unique in that they happened under a new constitution pumulgated in August 2010. In addition to the election being held in March as opposed to the December tradition, the 2013 elections succeeded the contested 2007 elections. One of the contenders cried foul play in the 2007 elections while the other was facing criminal charges at the International Criminal Court on suspicion of having fuelled the elections.

This study therefore seeks to answer the following research question:-

What was the reaction of stock returns at the Nairobi Securities Exchange to the March 2013 Kenya General Elections?

1.3 Research Objectives

The objective of the study is to establish the behaviour of stock returns for companies listed at the Nairobi Securities Exchange during the March 2013 Kenya General elections.

1.4 Value of the Study

The study will be beneficial to scholars, existing and potential investors, listed companies, Government and quasi government bodies among others. To scholars, this

study will add new knowledge into the scholarly world with an opportunity to build new studies around it, test for its consistencies over time, constructively critique or support the study thereby enlarging their knowledge in finance.

To the stock market players, this study will shed more light on the patterns of stock returns at the NSE around election dates. Existing and potential investors will therefore make informed decisions on the trading positions to take in related future events, while brokerage firms will be more enlightened while giving investment advice to their clients on the appropriate time to make investments, as well as shaping investor expectations on stock return trends. Listed companies will be well informed while performing political risk analysis prior to making investment and other corporate decisions as well as assessing how related political events may affect the value of their companies.

Finally, government and quasi government bodies such as Capital Markets Authority and Nairobi Securities Exchange can use the results of the study in formulating valuable policy and legal framework aimed at developing the stock market.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

While conducting the study on the impact of the March 2013 Kenya General Elections on the stock Market returns for companies listed at the NSE, it is of importance to review key underlying Finance theories. Key among the theories is the Efficient Market hypothesis which is the fundamental backing of this study. Since the study makes use of Event study methodology which is a joint study on market efficiency and the Asset Pricing Models, the study also revisits the Capital Asset Pricing Model and the Arbitrage Pricing Theory.

2.2 Theoretical Review

In this section, I have discussed the Efficient Market Hypothesis, Capital Asset Pricing Model and Arbitrage Pricing Theory all in relation to market efficiency.

2.2.1 Efficient Market Hypothesis

The genesis of EMH was the formalization of early works on efficient capital markets which were based on the Random Walk Theory. These works contained extensive empirical analysis but lacked theoretical backing. The Random walk theory postulated that the price movements occurred at random and could therefore not be predicted. Fama (1969), the scholar behind this formalization, organized the empirical data and presented the efficient market theory in a fair game model. From his work, the prices at which securities are trading already reflect the current market prices. This is an assurance to

investors who by this theory will expect a return consistent with the risk.

EMH can be looked at to imply two things. One is the rapid adjustment of the stock prices to new information. It is therefore expected that there will be no delays in responding to the availability of news in the stock market. Past empirical studies have shown that share prices respond to news. The responsiveness of a security price to relevant information available in the securities market is what is defined as share price behaviour. Jordan and Miller (2009) assert that this price behaviour is the resultant sum total of all the actions of individual market players reacting to new information relevant to a security.

The second implication of the Efficient Market Hypothesis (EMH) is that prices fully reflect all available information. From the above discussion, the flow of information is immediately reflected in stock prices. This means that today's stock prices only reflect today's news and are independent of yesterday's price changes. Owing to the unpredictable nature of news, the resulting price changes today must be unpredictable and random. Prices therefore reflect all public information implying that even traders possessing little or no information at all and partaking a diversified portfolio that is given by the market will get a rate of return equivalent to the most informed investors and experts. This therefore implies that no investor is in a position to earn above average returns without accepting equally higher risks.

EMH assumes that there is rationality in the market where no relevant information is

ignored and little or no systematic errors are made. The obvious result is that all prices are at levels consistent with market fundamentals. According to Fama (1969), the overall efficient market exists in three variants. In its weakest form, current stock prices already reflect past prices and return. A direct implication of this is that there exists no relationship between the past prices and the current prices. Any investor therefore making investment decisions backed by an analysis of the past prices will not make any abnormal returns. EMH stems from the arbitrage activities of considerable profit-maximizing investors. The same investors are known to act rationally and compete to construct trading strategies based on all relevant publicly available information to make abnormal return. The highly competitive arbitrages account for the immediate reaction of stock price to relevant announcements. Furthermore, on account of the stochastic characteristic of the release of news, stock return at announcement day is perceived as a random walk, therefore, any techniques based on such information and specifically accounting news would be useless.

The semi-strong form EMH contends that all publicly available information is already reflected in stock prices. The implication is that upon the information becoming public, any investor who basis their investment decision on such decision will not make any excess returns. Lastly, the strong form EMH postulates that the stock prices already carry all public and private information. Private information would be particular to a stock and can be assumed to belong or be available to insiders. However, from this variant, even the insiders cannot make above average risk adjusted returns by making use of their assumed vantage point since the information they have is already reflected in the stock prices.

Both academics and stock market professionals agree on the efficiency of the stock market in the semi – strong form. By reason therefore, there cannot exist any systematic way to exploit opportunities in this market to make superior gains. From EMH, a contest between investors after abnormal profits leads to a new set of stock prices. EMH does not assume that all investors are rational but rather assumes that the markets thereof are rational. According to Ritter (2003), EMH does not assume that markets can foresee the future but rather assumes that markets make unbiased forecasts of the future.

The tenets of EMH have been challenged by the assumptions that all market players are assumed to be are rational and will evaluate a set of information in an exact same way. Most anti efficiency theorists presents two investor scenarios where one investor is interested in the undervalued stocks and the other is looking for growth potential. The subsequent argument is that the two given a set of information will act differently. Further challenged is the validity of the assumption that no investor would make more profits that another while the two have the same amount of investment funds. Closely related to this is the assumption that no investor should be able to beat the market. However, there are a number of investors who have made it their game to beat the market and make an above average return.

As an answer to these challenges to efficiency, the modern market is characterized by computerized systems used to analyze stock investments, trades and corporations. This has lead to automation of investments based on strict fundamental and mathematical

methods. Although it is difficult to attain 100% efficiency with the continued employment of human feelings and in investment decisions, a continued surge of technology into the stock market has helped improve the efficiency of the market to a great deal.

2.2.2 Capital Asset Pricing Model

While testing for the validity of the three variants of EMH, studies conducted mostly use an asset pricing model. Capital Asset Pricing Model commonly known as CAPM is a capital market theory that extends the portfolio theory and is useful in pricing of risky assets. The model assumes a risk free asset with zero variance and zero correlation.

CAPM is useful in estimating cost of capital for firms and evaluating the performance of managed portfolios. The model offers powerful and intuitively pleasing predictions about how to measure risk as well as the relation between risk and associated return. This therefore makes CAPM a very attractive model. The model assumes that the variance of returns is an adequate measure of risk and that returns are normally distributed or are distributed in any two parameter way. Another assumption is that all investors whether active or potential can access the same information and are agreeable about the risk and expected return of all assets. The model further assumes that there are not taxes or transactional costs.

It is these assumptions especially the homogeneity of investor expectations that have seen the model receive a lot of criticism. Empirical work has presented results that contradict

the assumptions of this model. Contrary to the assumption of CAPM that the expected excess return from holding an asset is proportional to the covariance of its return with market portfolio, empirical evidence shows market anomalies like size and value effects that the model is unable to explain. In particular, empirical evidence has shown that the low beta assets earn a higher return while high beta assets earn a lower return than is forecasted by CAPM.

Fama and French (2004) evaluated the performance of CAPM and found that passive funds invested in low beta, small or value stock, tend to produce positive abnormal returns relative to CAPM predictions. These findings are relevant to EMH in two ways: one being that the criticism comes from the founder of EMH and the second being that CAPM builds on the assumptions of EMH.

Despite the evidence against CAPM, the model is still widely used because its and equilibrium model which provides a strong relationship among asset yields. Merton (1973) alludes that CAPM can be easily interpreted and that empirical evidence proves that it does explain a significant fraction of the variation in asset returns.

2.2.3 Arbitrage Pricing Model

This theory was initiated by an Economist names Stephen Ross in 1976. It is a modification of the CAPM and postulates that expected return of a financial asset can be modelled as a linear function of various micro economic factors, where sensitivity in each factor is represented by a factor specific beta coefficient. The Arbitrage Pricing Model

explains the price at which a misplaced asset is expected to be. Unlike CAPM, Arbitrage Pricing Theory (APT) uses the risk free assets expected return and the risk premium of a number of macro-economic factors. Profit maximizing market players can therefore theoretically make us of APT to identify mispriced securities; securities whose prices are different from the theoretical price arrived at by use of the model. Listed shares are known to have two types of risks; systematic risk and idiosyncratic. Systematic risks are common to all listed shares in the market and can therefore not be diversified away. Idiosyncratic risk on the other hand is specific to a particular firm or industry and can be diversified away. All equilibrium models only rewards systematic risk by earning a premium which compensates investors for holding risky assets.

Sawyer and Gygax (1983) argue that there are two assumptions under APT. One relates to the returns generation process in that returns are generated by a set of unknown and uncorrelated systematic factors. The second assumption is the absence of arbitrage. Like CAPM, several tests have been conducted on APT. Ross and Richard (1980) conducted such a test and found evidence that the estimated expected returns on a security depends on estimated factor loadings and variables such as own standard deviation. The results were further supported by Chen (1983) who used daily return data to compare the evidence on CAPM and APT as implemented by market indices and found that APT performs well. The theory is further supported in that estimated factor loadings and variables such as own variance and size of the firm do not contribute additional explanatory power to that of the factor loadings.

APT and EMH share the same root as neo-classical economics and are founded on the same assumptions; such as perfect competition in stock markets. The fundamental of APT is based on the law of one price, which states that in an equilibrium market, the price of two assets bearing the same risk must be equal; otherwise an arbitrage opportunity will arise to take advantage of such disequilibrium. APT has been useful in explaining the impact of changes in macro risk factors such as politics on stock returns.

2.3 Determinants of Stock Returns

Fama (1990) and Schwert (1990) showed that only 50% of the market stock prices variations can be explained ex-post by real economic activity. Researchers have therefore engaged a lot of time trying to examine other factors other than the fundamentals of demand and supply that influence the stock price movements.

In general, release of news related to a company play a very vital role in price shifts. Where such news is negative, the prospects of the stock are negatively affected leading to more people disposing off the stock. Positive news on the other hand leads to increased interest in the stock which culminates to better pricing. Significant movement in share prices have been associated with announcement of trading figures. An increase in Earnings per share (EPS) gives a general feeling of a healthy company therefore influencing the buying tendencies in the market. The Price Earnings Ratio (P/E) gives a comparison of the share price to the earnings. Where the stock price is too low compared to earnings, then the signal is that the stock is undervalued and has a potential of rising. On the other hand, when the ratio is high, the indication is that the stock is overvalued

and there's a likelihood of fall in prices.

The stock performance is to some extent explained by the performance of the respective board. The appointment of a new board, its composition, resignation among others have been found to connote useful pricing information. In their study, Gurgul and majdosz (2007) found evidence supporting the significant effect of board resignations in stock prices.

Announcement of dividends do contain relevant pricing information. The effect of this kind of news is more significant after the announcement date and not in the pre announcement or announcement date. According to Mehindiratta and Gupta (2010), investors shift their position at the time of dividend announcement indicating information content in the post announcement period. Empirical evidence exists that shows that dividend increase lead to more positive abnormal returns which supports the EMH. These announcements, whether a surprise or an increase to an existing dividend, are seen as a sign of strength, suggesting that announcing firm has a substantial amount of excess capital.

Factors external to a particular stock or the stock market in general have also been known to affect stock price variations. These factors have an effect on the expectations of investors which leads them to realigning their investment strategies in anticipation of the general effect on the economy. This study investigates the effect of political news on stock returns in Kenya.

2.4 Empirical Studies

Globally, a number of studies have been conducted on the behaviour of stock returns around political events. Most studies revolve around political events in developed markets. However, several studies have been conducted in developing markets albeit a handful. This section provides a review of some of the studies in the context of both the developed and emerging markets. The first section starts off with the global studies while the last section deals with studies done in the Kenyan context.

Ismail and Suhardjo (2001) while investigating the impact of domestic political events on the Indonesian stock market which as well examined the validity of EMH sampled all the industry sectors at the Jakarta Stock Exchange (JSX). Daily closing market indices data was collected both composite and indices in each sector. 11 political events from November 1999 to February 2001 were selected and the mean-adjusted return model used to compute the stock returns before and after each event. The event study methodology was employed and a mixed result obtained. Out of the 11 events, only 2 cases in which the industry as a whole and the composite index responded to political events on the day of the event. In another three cases, the industry as a whole and the composite index behaved totally different while in the rest of the case, the market did not respond to political news. Ismail and Suhardjo concluded that no conclusive statement can be made about the semi-strong form market efficiency of the JSX. They however noted that the changes in the sign of abnormal returns suggested political instability which means that political news were being carried into stock prices.

Robbani and Anantharaman (2002) while analysing the effect of political events on the prices of stocks in emerging stock markets focussed on the stock markets of India, Indonesia, Parkistan and Sri Lanka. The four countries were chosen since they portrayed political uncertainties at the time. The results showed that these markets carefully monitored the important political events and that stock prices reacted appropriately and on timely fashion to those events that had a long term effect. From their conclusions, it is evident that the stock market is semi – strong efficient and that stock prices reflect political news.

Pedro and Valcanov (2003) analysed the relation between presidential elections and the US stock market by sampling 684 monthly observations, 18 elections, 10 democratic and 8 Republican presidents. Their study was based on data from 1927. The study established that there exists volatility in the stock market around election periods. Further in their analysis, they found out that the stock market returns were higher under Democratic presidencies than under Republican Presidencies. Pedro and Valcanov however were not able to explain this variation in returns, which still remains a puzzle.

Goonatilake and Herath (2007) conducted a study aimed at examining the relationship between stock market fluctuations and release of political news in three stock markets namely DJIA, NASDAQ and S&P 500. Their data was based on a ten week period beginning July to September 2006. To assess the effect of political news on stock volatility, the political news were categorized into three: good news, bad news and neutral news. To test for volatility, a chi- square test was conducted. The results showed

reduced, increased and unchanged stock market volatility respectively for the three types of political news.

Malik and Shakil, (2009), used Phillips Peron's unit root test to inspect the connection with trading volume and returns. The major event on the base of which research is conducted is the effect of the pre-resignation and the post-resignation Ex President Pervaiz Musharraf. The results showed that the impact of the political events on the trading volume and return of the stock prices is significant and prices behave bearish and bullish trend due to the intensity of the event.

Gul et al (2013) while studying the reaction of stock market to political events sampled 14 companies listed in the financial sector at the Karachi stock exchange. The time span for the study was four years from 2007 to 2010 and used paired sample t-test statistics to test for the significance of political events to the performance of the KSE 100. The focus was on Pakistan which was struggling with political pressure, terrorism and suicidal bombings. The data analyzed through SPSS using Paired samples t-test statistics showed that, the events have significant impact on the share prices. Analysis sought to find the effect of the political events on the individual firms stock and the combined sector effect. The findings showed that each firm reacts negatively to the event and the firm share prices show bullish trend after the happening of event. Further, the research showed that there was significant overall effect of the political risk of the entire financial sector with banks mostly affected. It is therefore clear from this study that politics have an impact on stock returns.

Very few studies have been conducted on this area in the local context. Miya (2007) conducted a study on market behaviour around national elections in Kenya. His study covered the 1997 and 2002 elections. The study consisted of all companies that form the 20 share index and employed event study methodology. In his model, the end of year effect was controlled by studying performance of the market in December 2000 and December 2005, which were three years after the national elections. This was to segregate the end of year effects from the election effects since all the elections in in his study took place in the month of December. Miya employed the market model to arrive at the abnormal returns. From his analysis, it was clear that the market reacted to political events. During the election period, share prices for all the listed companies were seen to fall. The prices would again rise after the elections. From this study, it is clear to note that the information content of political events is carried in stock prices at the Nairobi Securities exchange. What at this point remained to be seen was the effect that these political events had on the different segments of the Nairobi Securities Exchange, and if the all segments were affected the same.

In a quest to cover this gap, Murigi (2008) conducted a study on the effect of Kenyan election on the various segments of the NSE. The study was on three national election years of 1992, 1997 and 2002 and used the event study methodology. The study employed the market model which is the most ideal model for event studies. The event window was 60 days prior to the event date and 60 days after event date. Murigi used an estimation period of 250 days. She found evidence of drastic changes in price and stock

volumes at the NSE during the election periods. She as well found out that different market segments reacted differently to political events with the financial segment reacting more that the other segments. This implies that there is a price and volume effect on stock prices caused by political events. Political events therefore affect the securities exchange by altering not only the stock prices. From the results obtained by Murigi (2008), the different sectors of the Nairobi Securities Exchange perceive political news differently therefore the reason for the different effects. Industries that are more liquid and that act as mediators between the economic surplus sectors and the economic deficient sectors are more affected by political news that the others. Agriculture which was least affected must have gotten its strength on the long term nature of their dealings. Investors in this sector must perceive that the election event will have passed by the time their returns are due.

A similar study was conducted by Kithinji and Ngugi (2008) who analysed the performance of stocks around electioneering periods in Kenya. The study sort to check for consistency of results obtained by Miya (2007) by including the 2007 elections in their study. Event study methodology was used to test the efficiency of the Nairobi Securities Exchange market. Kithinji and Ngugi used market model to arrive at the abnormal returns, and used data on all trading counters that were active during the 1997, 2002 and 2007 Kenya general elections. By sampling 54 counters that were actively trading through the period between 31st January 1991 to 30th September 2008, Kithinji and Ngugi concluded that the stock performance is influenced by political activities around event dates. From their analysis, stock performance was better in the first two years following an election and poor during the two year period to the next general

election. These results were consistent with the results by Miya (2007) who reported declined returns in the period to the general elections and improved returns in the period after the elections. The two went further to issue an investment advisory based on their study by indicating that pre election investments can be eroded after the election effects. Proper timing would therefore seem to be the period just after the election where the prospects of the market are high.

While all the previous studies were based on general elections, Nyamao (2012) used event study methodology to analyze the share price behaviour of listed companies around the 2010 Constitution of Kenya referendum. In his study, he sort to find if the local studies would hold for a referendum vote. His target population consisted of companies forming the 20 share index while the data used was the daily closing market prices for the stocks that were actively trading. In his study, he excluded all the stocks that had been suspended from trading. His sample therefore consisted of 63 active counters. Being the most used model, Nyamao employed the market model to estimate the abnormal returns associated with the referendum event. He concluded that the NSE over reacted for two days immediately following the event and thereafter the prices entered the correction period. From his study, it is clear that political news have a bearing on stock prices in the Nairobi Securities Exchange.

2.5 Summary of Literature Review

Political risk not only causes an unpleasant impact on the micro economic level, but extreme political events also affect the economy at a micro economic level. Many

empirical works have examined the effect of political risks either on specific industries or the countries' stock markets. However, much of the work focuses on political issues in the developed countries and less in the context of emerging or developing countries which on the contrary are faced by less stable political environment. The rapid development in telecommunication in these countries has enhanced access to political information by individual investors as well as quick response to such news. As such, continued study on the effect of political news on the emerging markets will be very useful in not only measuring the impact but in aiding formulation of policies aimed at stabilizing these markets.

From the local studies already conducted, election periods are marked by volatility in share prices at the NSE. Being a five year political cycle, the two years prior to an election event is marked by increased prices and general improved performance of stocks as sitting governments try to align policies to suit the market and woo voters. However, upon election into office, key monetary policies are put in place in an effort to curb the inflation associated with pre-election campaigns.

This study sought to establish if this trend was evident in the run up to the 2013 general elections. This election was different from previous elections held in Kenya in that it was held under a new constitutional dispensation that was praised for creation of country governments. The election took place in the month of March as opposed to the December tradition which therefore gives a good ground for study without having to control for the calendar effect associated with reduced activity in the stock markets in December.

The study therefore sought to test the hypothesis that the abnormal stock returns during the event period were statistically significant implying an election effect on stock prices; against the alternative hypothesis that the abnormal stock returns were insignificant implying no election effect.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research design, the population of interest, the sample design, Data collection and Data Analysis.

3.2Research Design

The study was based on event study methodology to establish the behaviour of stock returns around the March 2013 Kenya General Election. The event date being 4th March 2013 while the event window constituted 120 days; 60 days prior to the elections and 60 days after the election. The estimation period constituted 120 days prior to the start of the event window, the benchmark set by MacKinlay (1997).

3.3 Population

The population of interest was all the 62 companies listed at the Nairobi Securities exchange (NSE). A full list of these companies is provided under appendix 1.

3.4 Sample Design

The sample population was the companies that constitute the 20 share index, and that were not on suspension from active trading during the study period. These companies constitute about 80% of market capitalization and volume of trade at the Nairobi Securities Exchange. They therefore are a good representation of the population of interest. The study made use of the daily prices of these securities which were useful in

computing the stock returns. The 20 share index was as well used in computing the market return.

3.5 Data Collection

Data on daily share prices was collected from secondary sources. The secondary source in this case was the Nairobi Securities Exchange data vendors and the NSE data base.

3.6 Data Analysis

Data was analysed by evaluating the election independent returns of the stocks at the NSE 20 share index and comparing with the returns during the election period. The period for evaluating the independent returns was based on 120 days prior to the event window.

Brown and Warner (1985) argued that market model assumes that the slope and intercept terms are constant over the time period which the model is fit to the available data. Though there are other models usable with event studies, Brown and Warner (1980, 1985) concluded that event study methodologies that are based on Ordinary Least Squares method, Market model and use parametric tests are well specified under a variety of conditions.

To estimate the returns, the market model developed by Glenn (2002) was used. The model gives a linear relationship between a security return j and the market portfolio returns. Mathematically,

$R_j = a_j + b_j R_{mt} + e_{jt}$ ..... (1)

Where R_{jt} is the security return at time t, R_{mt} is the market return time t e_{jt} is the error term, a_j and b_j are constants which will be estimated through Ordinary Least Squares Method (OLS).

Arithmetic mean was used in computing both the security return (R_{it}) and the Market Return (R_{mt}) during the estimation window. Using SPSS, a regression analysis was conducted to estimate the constant (a_j) and the coefficient (b_j) which were used to obtain the expected (normal) returns using data in the event period.

Daily abnormal returns were computed by subtracting the predicted normal return from the actual return for each day in the event window.

Abnormal Return = Actual Return – Expected Normal Return

$$AR_i = R_{it} - (a_i + b_i R_{mt})$$

The sum of the abnormal returns over the event window were computed as the cumulative abnormal return.

$$CAR_i = \sum AR_i$$

To test for significance of the abnormal return, a test statistic was computed as follows:-

$$T = \frac{CAR_i}{se_i}$$

where CAR_i is the cumulative abnormal return for stock i and se_i is the standard deviation over the estimation period. This is a student t test and was conducted at 5% level of significance.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1. Introduction

This chapter outlines the analysis of the data and gives illustrations of the findings. The findings are given in graphs and tables.

4.2 Descriptive Statistics

Data was analyzed using four descriptive statistics namely minimum, maximum, mean and standard deviation. During the event window, the market index recorded a minimum value of 4,012.05 while the maximum value was 5,030.91. The mean market index was 4,006.12 with a standard deviation of 310. 19. A major shift was seen in Athi river mining with minimum price being Kshs. 50 and a maximum price of Kshs. 230. Appendix 2 shows a summary of the descriptive statistics for the market index and the stock prices.

On analysing stock returns during the event window, Express Kenya Ltd recorded the highest maximum return at 0.11660 while Co operative bank recorded the lowest minimum return at – 0.3380. The average mean return was 0.0002165. Table 4.2 shows a summary of the descriptive statistics for the stock returns during the event window.

Table 4.2 Descriptive Statistics – Stock Returns

Stock	Minimum	Maximum	Mean	Std. Deviation
Rea Vipingo	-.06761	.08140	.0007882	.02206838
Sasini Tea	-.05083	.06884	.0018024	.02006768
Barclays Bank	-.06530	.03894	.0003783	.01230694
Equity Bank	-.04639	.07735	.0027394	.01610513
KCB	-.05936	.05923	.0018061	.01600131
Standard Chartered	-.06282	.03881	-.0010602	.01196186

Stock	Minimum	Maximum	Mean	Std. Deviation
Co operative Bank	-.03380	.07063	.0020256	.01398587
Express Kenya	-.12809	.11660	-.0000486	.03219451
Kenya Airways	-.05180	.03118	-.0002951	.01350730
Nation Media Group	-.14249	.05916	-.0000988	.02194205
Athi River Mining	-.78644	.05001	-.0056682	.07409135
Bamburi Cement	-.06445	.04816	-.0000986	.01650505
EA Cables	-.05932	.08274	.0008524	.02021229
Kengen	-.06931	.08071	.0018183	.02678179
KPLC	-.04166	.04094	-.0009483	.01454591
BAT	-.03617	.03007	-.0009048	.00911502
EABL	-.05091	.03622	.0016105	.01499786
Mumias Sugar	-.13204	.08150	.0009493	.02031395
Safaricom	-.05057	.03433	-.0015343	.01539187

Source: Research Data

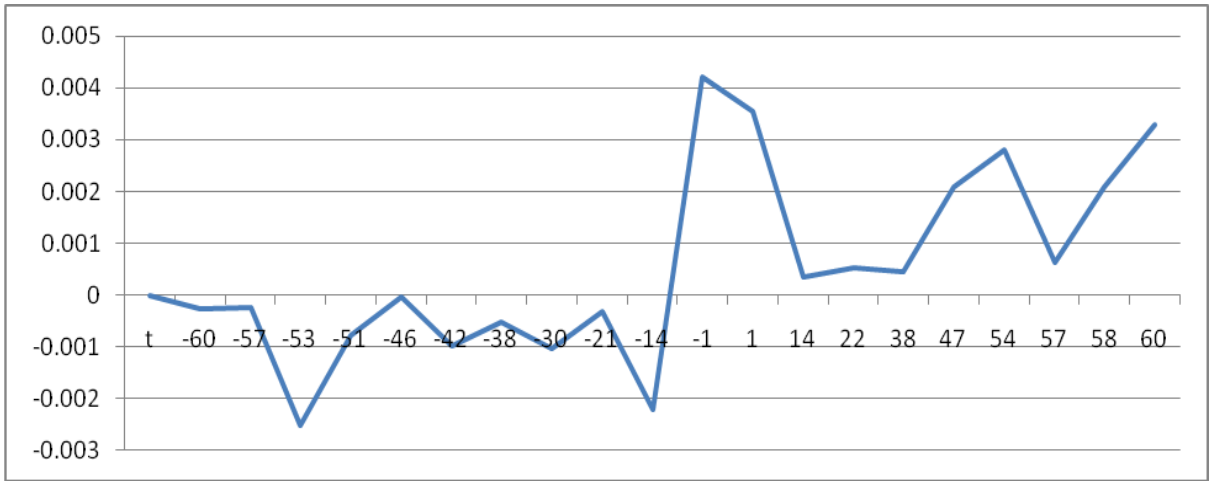
4.3 Data Analysis and Findings

The sample was constituted of the NSE 20 share index constituent counters that were actively trading during the event window. These were 19 counters since one of the counters was under suspension. The market model was used to model expected returns during the event window. This model assumes that the individual stock returns are linearly related to the Market return. The study assumed the arithmetic mean in computing the stock returns. Abnormal returns were obtained by subtracting the modelled expected returns from the actual returns. Appendix 3 shows the estimated market model parameters for each stock.

From the abnormal returns obtained, a trend was observed where negative abnormal returns were recorded for the 60 days prior to the election. The trend however reverses after the election where the abnormal returns were positive. This could be attributed to

the uncertainty that the political event brought in the market with most investors deciding to take a back seat and watch the outcome of the elections. Upon successful transition, the investors were more confident in the market and therefore resulted in increased stock prices after the event.

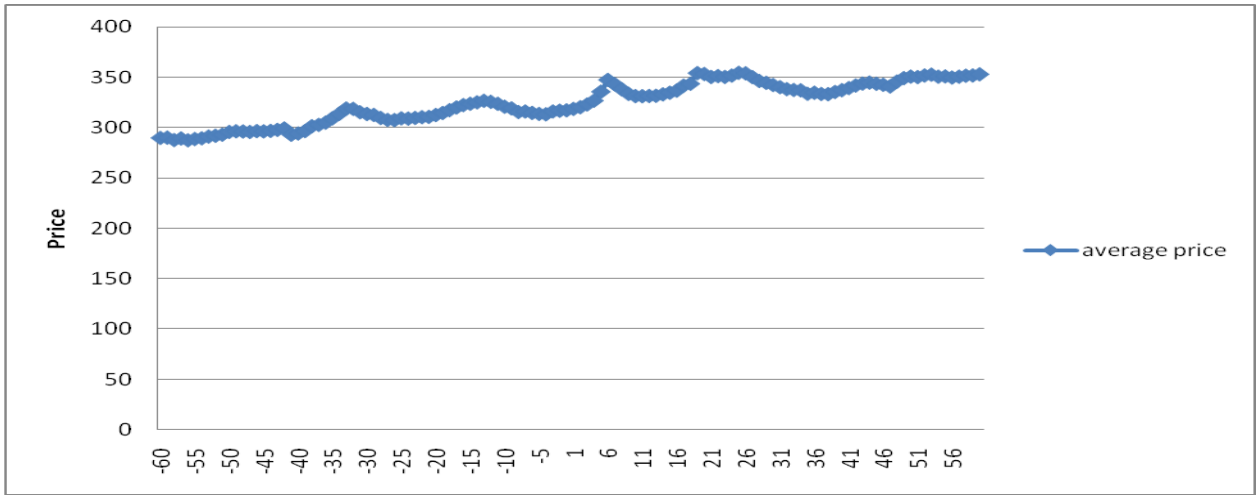
Graph 4.1 Cummulative Abnormal Returns Around the Event Date



Source: Research Data

The average price movement recorded an ascending trend during the event window. There was a short term decline in the average prices around the event date which was immediately corrected a few days after the event date. The steady rise in the average price is seen thorough the period after the event window.

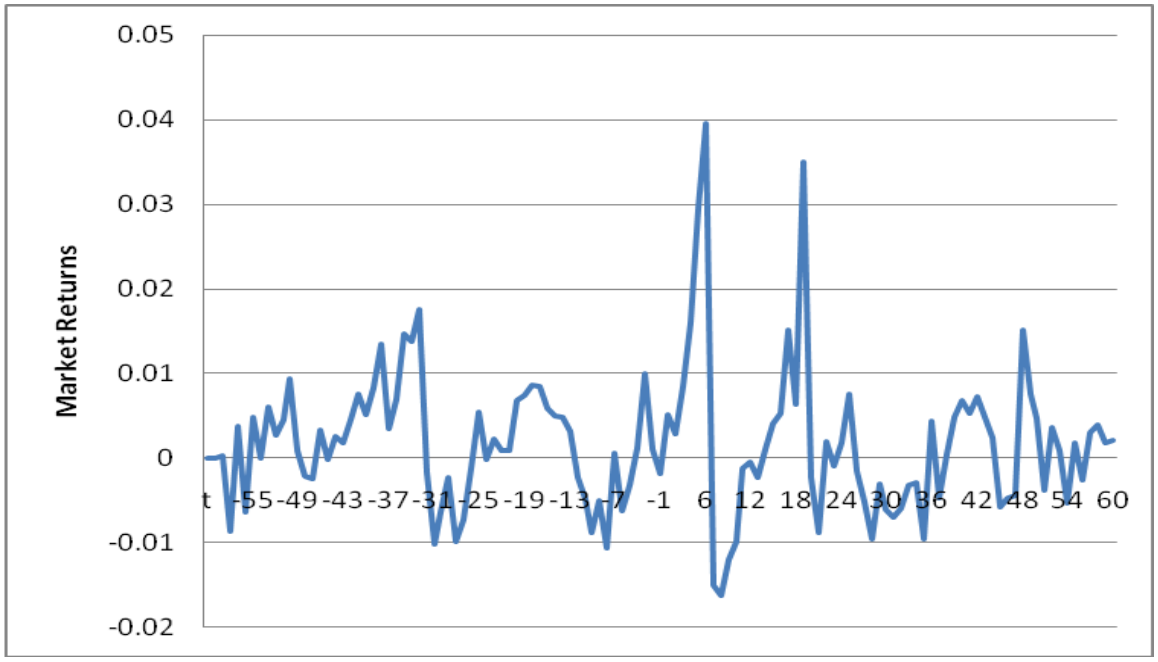
Graph 4.2 Average Price Movement During the Event Window.



Source: Research Data

The 20 share index market return was also analysed to establish if the there were any anomalies during the event date. The market returns were viewed to vary significantly about the event date with sharp gains being made immediately after the event date. The market therefore was reacting to the positive news carried by the peaceful completion of the electioneering process. The process however is corrected a few days after with the market performance getting back to the normal approximately 20 days after the event.

Graph 4.3 Market Return Movement Around the Event date.



Source: Research Data

To test for significance of the abnormal returns, a T test was conducted at 5% level of significance. The T test showed that the abnormal returns were not significant for 17 counters out of the 19 sampled. The abnormal returns for Athi River Mining and Kengen were found to be statistically significant. In General, the results imply that the NSE is efficient at least in the semi strong form and that investors are well compensated for the risk they undertake. Below is a summary of the t test.

Table 4.3 Cumulative Abnormal Return T-test.

NO	Stock	CAR	CAR T Statistic	T Critical(5%,)
1	Rea Vipingo	0.004065082	0.019964872	2.11
2	Sasini	0.231294612	0.979209849	2.11
3	Barclays	-0.071866518	-0.589066112	2.11
4	Equity	0.278239517	1.743002228	2.11
5	KCB	0.106789325	0.95021006	2.11

NO	Stock	CAR	CAR T Statistic	T Critical(5%,)
6	Standard Chartered	-0.123945822	-0.668497401	2.11
7	CO - OP	0.172226262	1.644480728	2.11
8	Express Kenya	0.192548526	0.683449392	2.11
9	Kenya Airways	0.007897327	0.040773355	2.11
10	NMG	-0.026430892	-0.162604396	2.11
11	ARM	-0.644112072	-2.635085422	2.11
12	Bamburi	0.046430725	0.25673403	2.11
13	E.A.Cables	0.15236084	0.929310287	2.11
14	KenGen	0.292830899	2.123971735	2.11
15	KPLC	-0.222870611	-1.76656162	2.11
16	BAT	-0.113142437	-0.846718133	2.11
17	EABL	0.157485809	1.203424707	2.11
18	Mumias	0.179158944	0.828180245	2.11
19	Safaricom	-0.190668736	-0.938042424	2.11

Source: Research Data

This particular result would need to be investigated further in future studies to establish why the abnormal returns were not significant for the majority of the counters. This is informed by the fact the returns recorded and prices indicated some movements in line with the political news.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

This chapter provides the study summary and the conclusions from the study. It also provides the limitations for the study and recommendations for further research.

5.2 Summary and Conclusions

The objective of the study was to establish the effect of political news on stock returns in Kenya. Positive abnormal returns were observed after the election date and Negative returns a few days to the election date. Results showed drastic changes in stock prices during elections. Share prices reduce before elections but start rising after elections. The abnormal returns were however not significant.

The implication of the study to the investor is that they should take precautions when buying shares at a period of political uncertainty. Risk averse investors should avoid purchasing stocks in the run up to the elections to defray the unnecessary risks associated with the election events. However, for the investors who have a bigger risk appetite, the negative returns recorded in the run up to the elections are immediately corrected after the event date. The investors will therefore be able to recoup their investments after the event date

5.3 Limitations of the Study.

There were several challenges encountered during the study. Key among this is the limitation by the data collected. It was noted that in a number of days, several counters remained closed and therefore returned no prices. An assumption was made that the previous day prices for the particular stocks still prevailed. This assumption in itself may not be valid.

The study context was the Kenyan stock market. Though uncertainty is involved in all political events in the world, the peculiarity of the Kenyan politics may limit the generalization of the study to other parts of the world.

Further to the above, the study assumed that no other factors or events affected the stock returns during the event window. It is however important to note that other news specific to particular stocks may have played a vital role in the kind of returns observed during the event window. For example, a there were stocks that were trading cum dividend which may have had a signalling effect to the investors and as a result contributed to the share price movements. The study assumes that this resultant effect is negligible.

5.4 Suggestions for Further Research

Whereas the objective of the study was achieved, no study is exclusive by itself. As such, further study should be conducted to establish if the results herewith obtained would hold in a different timing. Future political news should be investigated to ascertain the generalizability of the obtained results in future election events.

Though the study employed the market model in estimating the normal stock returns, other models exist which may give a different result. One of such model is the GARCH model which takes care of heteroscedasticity effect. A future study based on this model is therefore recommended.

Finally, there has been other election in Kenya. It would therefore be of interest to conduct a study that compares the results obtained in the 2013 general elections with other elections held in the past. This will give a general view on the political news effect on stock trading.

REFERENCES

Ball, R. & Brown, P. (1968). An empirical evolution of accounting income numbers. *Journal of Accounting Research*, 4, 159-178

Bhatti, M.I., Aishanferi, H. & Hossain, M.Z. (2006). *Economic analysis of model selection and model testing*. Aldershot: Ashgate.

Bialkowski, J., Gottschlk, K. & Wisnielwski, T.P. (2006). Stock market volatility around national elections. Retrieved from postgraduate research programmes home page Http://Viadrina.euv-frnkfurt-o.de/gk-wiwi.

Brown, S. & Warner J. (1980). Measuring security price performance. *Journal of Financial Economics.*8, 205-258.

Brown, S. & Warner J. (1985). Using daily stock returns: The case of event studies. *Journal of Financial Economics*, 14, 3 – 32.

Chen, N. (1983). Some empirical tests of the arbitrage pricing. *Journal of Finance*, 38,(5), 1393 - 1414.

Fama, E. (1998). Market efficiency, long-term returns and behavioural finance. *Journal of Financial Economics*, 49, 283 – 306.

Fama, E. (1990). Stock returns, expected returns and real activity. *Journal of Finance*, 44(4), 1089 – 1107.

Glenn, V.H. (2002). Problems and solutions in conducting event studies. *The Journal of Risk Insurance*, 1, 282 – 306.

Goonatilake, R., & Herath, S. (2007). The volatility of the stock market to news.

International Research Journal of Finance and Economics, 11, 53 – 65.

Gul, S., Khan, M.T., Saif, N. & Rehman, S. (2013). Stock market reaction to political events: Evidence from Pakistan. *Journal of Economics and Sustainable Development*, 4, (1), 222 - 285.

Gurgul, H. & Majdozs, P. (2007). Implications of dividend announcements for the stock prices and trading volumes of DAX companies. *Journal of Finance and Economics*, 56, 58 – 68.

Hibbs, D.A. (1977). Political parties and micro-economic policy. *American Political Science Review,* 71, 1467 – 1487.

Ismail, I. & Suhardjo, H. (2001). The impact of domestic political effects on an emerging stock market: The case of Indonesia. *Proceedings of the Pacific Management conference*. 235 – 262.

Jordan, B. & Miller, T. (2009). Fundamentals of investment*: Valuation and management*, 5th edition, 209 – 294.

Kithinji, A. & Ngugi, W. (2008). Stock market performance before and after general elections: The case of Nairobi Securities Exchange. *Unpublished MBA project*, University of Nairobi.

MacKinlay, A. C. (1997). Event studies in economics and finance. *Journal of Economic Literature*, 35, (1), 13 – 39.

Malik, S., Hussain, S. & Shaki, A. (2009). Impact of political events on trading volume and stock returns: The case of KSE. *International Review of Business Research Papers*, 5, 354 -364.

Mehindiratta, N. & Gupta, S. (2010). Impact of dividend announcement on stock prices. *International Journal of Information Technology and Knowledge Management*, 2(2), 405 – 410.

Merton, R.C. (1973). An inter-temporal capital asset pricing model. *Econometrica* 41, (5), 867 – 887.

Miya G.H. (2007). Stock market behaviour around national elections in Kenya. *Unpublished MBA project*, University of Nairobi.

Muringi, B.W. (2008). An investigation of the impact of national elections in Kenya on the stock returns at the NSE. *Unpublished MBA project*, University of Nairobi.

Nordhaus, W.D. (1975). Political business cycle. *Review of Economic Studies*, 42, 169 – 190.

Nyamao, G. T. (2012). Share price behaviour around the 2010 constitution of Kenya referendum on NSE. *Unpublished MBA project*, University of Nairobi.

Pedro, S.C. & Valkanov, R. (2003). The presidential puzzle: Political cycles and the stock market. *Journal of Finance*, LVIII, 5-7

Robbani, M.G. & Anantharaman, S. (2002, May 2-4). An economic analysis of stock market reaction to political events in emerging markets. *Second Annual Applied Business and Information Technology Conference*, Pittsburgh, Pennsylvania.

Roll, R. & Ross, S.A. (1980). An imperial Investigation of the arbitrage pricing theory. *Journal of Finance*, 35, 5.

Sawyer, K.R. & Gygax, A.F. (2006). Testing the arbitrage pricing conditions of APT. Retrieved from http://papers.ssm.com/8013/papers.cmf?abstract-id=913696.

Schwert, G. W. (1990). Stock returns and real activity. A century of evidence. *Journal of Finance*, 45(4), 1237 – 1257.

Soltanaeve, A. (2008). Impact of political news on the Baltic state stock markets, Downloaded from http://www.usbe.umu.se/digitalAssets/8/810 ues735

Somoye, R.O., Akitoye, I. R. & Oseni, J. E. (2009). Determinants of equity prices in the stock markets. *International Research Journal of Finance and Economics,* 30, 177 - 189

Suleman, M.T. (2012). Stock market reaction to good and bad political news. *Asian Journal of Finance & Accounting* 4, 30 – 37.

APPENDICES

Appendix 1: Companies Listed at the Nairobi Securities Exchange.

AGRICULTURAL

Eaagads Ltd
Kakuzi Ltd
Kapchorua Tea Co. Ltd
The Limuru Tea Co. Ltd
Rea Vipingo Plantations Ltd
Sasini Ltd
Williamson Tea Kenya Ltd

AUTOMOBILES & ACCESSORIES

Car & General (K) Ltd
CMC Holdings Ltd
Marshalls (E.A.) Ltd
Sameer Africa Ltd

BANKING

Barclays Bank of Kenya Ltd
CFC Stanbic of Kenya Holdings Ltd
Diamond Trust Bank Kenya Ltd
Equity Bank Ltd
Housing Finance Co.Kenya Ltd
I&M Holdings Ltd
Kenya Commercial Bank Ltd
National Bank of Kenya Ltd
NIC Bank Ltd
Standard Chartered Bank Kenya Ltd
The Co-operative Bank of Kenya Ltd

COMMERCIAL AND SERVICES

Express Kenya Ltd
Hutchings Biemer Ltd
Kenya Airways Ltd
Longhorn Kenya Ltd
Nation Media Group Ltd
Scangroup Ltd
Standard Group Ltd
TPS Eastern Africa Ltd
Uchumi Supermarket Ltd

CONSTRUCTION & ALLIED

ARM Cement Ltd
Bamburi Cement Ltd
Crown Paints Kenya Ltd
E.A.Cables Ltd
E.A.Portland Cement Co. Ltd

ENERGY & PETROLEUM

KenGen Co. Ltd
KenolKobil Ltd
Kenya Power & Lighting Co Ltd
Total Kenya Ltd
Umeme Ltd

INSURANCE

British-American Investments Co.(Kenya) Ltd
CIC Insurance Group Ltd
Jubilee Holdings Ltd
Kenya Re Insurance Corporation Ltd
Liberty Kenya Holdings Ltd
Pan Africa Insurance Holdings Ltd

INVESTMENT

Centum Investment Co Ltd
Olympia Capital Holdings Ltd
Trans-Century Ltd

MANUFACTURING & ALLIED

A.Baumann & Co Ltd
B.O.C Kenya Ltd
British American Tobacco Kenya Ltd
Carbacid Investments Ltd
East African Breweries Ltd
Eveready East Africa Ltd
Kenya Orchards Ltd
Mumias Sugar Co. Ltd
Unga Group Ltd

TELECOMMUNICATION & TECHNOLOGY

AccessKenya Group Ltd
Safaricom Ltd

GROWTH ENTERPRISE MARKET SEGMENT (GEMS)

Home Afrika Ltd

Source: NSE 2013

Appendix 2: Descriptive Statistics During Event Window- Stock Prices and Market Index

Counter	Minimum	Maximum	Mean	Std. Deviation
Maket Index	4012.05	5030.91	4606.1209	310.19290
Rea Vipingo	18.50	23.00	20.8150	1.22275
Sasini Tea	10.90	14.20	12.4121	.81838
Barclays Bank	14.10	18.70	16.5988	1.04774
Equity Bank	23.00	36.25	29.2313	4.13788
KCB	27.25	43.00	36.8521	4.85564
Standard Chartered	230.00	318.00	276.3667	26.47686
Co operative Bank	11.95	17.80	14.5700	1.85514
Express Kenya	3.05	4.30	3.6634	.33111
Kenya Airways	10.50	11.60	11.0054	.23351
Nation Media Group	217.00	398.00	276.9250	41.53993
Athi River Mining	50.00	230.00	87.9042	57.45482
Bamburi Cement	177.00	225.00	204.2417	10.87283
EA Cables	11.65	17.20	14.3183	1.66427
Kengen	8.60	15.95	12.7733	2.36268
KPLC	16.20	20.00	17.9500	.94211
BAT	458.00	560.00	527.8167	25.21903
EABL	246.00	423.00	304.7167	36.10679
Mumias Sugar	4.20	5.30	4.7788	.22675
Safaricom	5.00	7.35	5.9946	.69699

Source: Nairobi Securities Exchange Daily Statistics

Appendix 3: Estimated Market Model Parameters for each stock

STOCK	Alpha	Beta	Adjusted R2	Standard error
Rea Vipingo	0.001715	(0.309477)	0.0023023	0.0170817
Sasini	(0.000766)	0.448843	0.00092536	0.0200427
Barclays	0.000506	0.553943	0.0432503	0.0103191
Equity	(0.000355)	0.867699	0.07081321	0.0128660
KCB	0.001157	0.344130	0.01769594	0.0091320
Standard Chartered	0.001457	0.954549	0.05940791	0.0153903
CO - OP	0.000003	0.421015	0.03598648	0.0084913
Express Kenya	(0.001889)	2.223013	0.14022012	0.0231533
Kenya Airways	(0.002162)	1.384864	0.10420714	0.0169126
NMG	0.001899	0.729275	0.04565763	0.0132630
ARM	(0.000297)	1.432083	0.08038747	0.0199544
Bamburi	0.000176	1.077913	0.08308886	0.0147745
E.A.Cables	0.000764	0.379905	0.00591305	0.0136779
KenGen	0.000893	0.799869	0.07528964	0.0115111
KPLC	0.000796	0.311376	0.00779861	0.0105311
BAT	0.001697	0.434147	0.01975363	0.0110812
EABL	0.000237	0.909621	0.12001805	0.0103106
Mumias	(0.003024)	0.937736	0.04046131	0.0179856
Safaricom	0.002176	1.383009	0.11472227	0.0160580

Source: Research Data

Appendix 4: Average Stock Prices and Market Index Before and After the Event Date

	Estimation Period	60 days to Event	60 days after Event
Rea Vipingo	17.12	19.86	21.77
Sasini	11.64	11.84	12.98
Barclays	14.35	15.75	17.45
Equity	22.76	25.58	32.89
KCB	26.46	32.83	40.88
Standard Chartered	209.83	253.67	299.07
CO - OP	11.80	12.86	16.28
Express Kenya	3.85	3.41	3.92
Kenya Airways	12.88	10.93	11.08
NMG	201.13	246.28	307.57
ARM	211.42	108.43	67.38
Bamburi	172.90	199.35	209.13
E.A.Cables	10.71	12.90	15.74
KenGen	8.74	10.83	14.72
KPLC	16.72	17.47	18.43
BAT	415.54	512.08	543.55
EABL	231.60	282.73	326.70
Mumias	6.26	4.93	4.63
Safaricom	4.05	5.42	6.57
20 share Index	3,931.10	4,345.65	4,866.59

Source: NSE Daily Market Data

Appendix 5. Daily Stock Prices and Market Index During the Event Window

t	20 share Index	Rea Vipingo	Sasini	Barclays	Equity	KCB	Standard Chartered	CO - OP	Express Kenya	Kenya Airways	NMG	ARM	Bamburi	E.A.Cables	KenGen	KPLC	BAT	EABL	Mumias	Safaricom
-60	4,056.41	18.50	11.70	14.50	23.00	27.50	236.00	12.15	3.45	11.30	228.00	219.00	177.00	11.70	9.75	16.20	458.00	246.00	4.85	5.05
-59	4,057.39	18.95	11.60	14.45	23.00	27.50	236.00	12.15	3.45	11.30	227.00	220.00	179.00	11.65	9.70	16.40	460.00	247.00	4.85	5.00
-58	4,022.64	18.85	11.45	14.25	23.00	27.25	230.00	12.10	3.55	11.30	226.00	210.00	180.00	12.05	9.00	16.45	461.00	249.00	4.80	5.00
-57	4,037.99	18.95	11.55	14.25	23.25	27.50	234.00	12.10	3.50	10.75	225.00	219.00	182.00	12.10	8.80	16.45	461.00	251.00	4.90	5.05
-56	4,012.05	18.50	11.70	14.10	23.50	27.25	234.00	12.05	3.50	10.85	225.00	206.00	182.00	12.05	8.80	16.55	461.00	254.00	4.85	5.05
-55	4,031.72	18.95	11.70	14.45	23.25	27.50	234.00	12.10	3.60	11.00	224.00	207.00	185.00	12.05	8.60	16.60	460.00	257.00	4.90	5.00
-54	4,031.70	18.90	11.70	14.65	23.50	28.50	234.00	12.05	3.60	10.85	224.00	213.00	185.00	12.10	8.60	16.95	465.00	259.00	4.80	5.05
-53	4,056.18	18.85	11.70	14.65	23.50	29.00	234.00	11.95	3.60	10.90	223.00	215.00	185.00	12.00	8.75	17.05	472.00	260.00	4.80	5.05
-52	4,067.21	18.70	11.30	14.65	23.50	29.00	235.00	11.95	3.60	10.75	222.00	217.00	190.00	12.10	8.85	17.05	470.00	260.00	4.90	5.05
-51	4,085.70	18.70	11.30	14.70	23.50	29.00	236.00	12.00	3.55	11.00	220.00	217.00	190.00	12.15	8.80	17.05	474.00	260.00	5.10	5.05
-50	4,124.06	18.70	11.70	14.85	23.50	29.25	236.00	12.00	3.55	11.00	217.00	222.00	189.00	12.25	9.20	17.15	489.00	259.00	5.15	5.05
-49	4,127.60	18.80	11.65	15.05	23.75	29.25	235.00	12.00	3.55	11.10	224.00	223.00	189.00	12.30	9.00	17.05	491.00	259.00	5.10	5.05
-48	4,119.10	18.70	11.70	15.30	23.50	29.50	235.00	12.00	3.55	11.05	218.00	230.00	190.00	12.25	8.85	17.05	492.00	261.00	4.95	5.05
-47	4,109.28	18.70	11.70	15.50	23.50	29.75	235.00	12.05	3.50	11.05	219.00	230.00	188.00	12.45	8.95	17.10	492.00	261.00	4.90	5.05
-46	4,122.74	18.70	11.70	15.70	23.75	29.75	235.00	12.15	3.50	11.15	227.00	223.00	188.00	12.45	8.95	17.10	492.00	263.00	4.85	5.10
-45	4,122.22	19.00	11.70	15.70	24.00	29.75	236.00	12.35	3.50	11.25	222.00	223.00	185.00	11.95	8.90	17.45	493.00	264.00	4.85	5.05
-44	4,133.02	19.00	11.70	15.75	23.75	29.75	235.00	12.60	3.50	11.40	222.00	223.00	185.00	11.70	8.80	17.10	493.00	265.00	4.85	5.05
-43	4,140.43	19.50	11.95	15.70	23.75	30.25	236.00	12.75	3.50	11.30	225.00	223.00	190.00	11.75	8.90	17.00	493.00	267.00	4.90	5.10
-42	4,159.25	19.20	11.75	15.80	23.75	31.00	235.00	12.80	3.45	11.35	227.00	223.00	190.00	12.10	8.85	17.00	500.00	267.00	4.95	5.15
-41	4,191.05	19.30	11.90	15.80	24.00	31.00	236.00	12.90	3.50	11.25	229.00	50.00	194.00	12.10	8.85	16.95	502.00	274.00	5.05	5.25

t	20 share Index	Rea Vipingo	Sasini	Barclays	Equity	KCB	Standard Chartered	CO - OP	Express Kenya	Kenya Airways	NMG	ARM	Bamburi	E.A.Cables	KenGen	KPLC	BAT	EABL	Mumias	Safaricom
-40	4,212.49	19.20	12.00	15.75	23.75	31.00	239.00	12.80	3.50	11.20	231.00	52.00	191.00	12.15	9.00	16.55	504.00	272.00	5.00	5.35
-39	4,247.74	19.15	12.10	15.70	24.00	31.00	241.00	12.75	3.50	11.35	233.00	51.50	190.00	12.20	9.00	16.70	505.00	280.00	5.00	5.60
-38	4,305.03	19.45	12.45	15.60	25.25	31.25	241.00	12.70	3.15	11.20	239.00	54.50	190.00	12.45	9.15	16.70	524.00	290.00	4.95	5.80
-37	4,319.73	20.00	12.05	15.45	25.75	31.75	242.00	12.75	3.05	11.35	242.00	55.00	194.00	12.00	9.45	16.80	525.00	291.00	4.95	5.60
-36	4,349.87	19.65	12.05	15.40	25.75	32.75	244.00	12.75	3.05	11.00	243.00	56.00	195.00	12.05	10.10	17.00	530.00	294.00	4.95	5.60
-35	4,413.97	19.65	12.95	15.50	25.75	33.25	249.00	12.85	3.05	11.05	242.00	59.00	195.00	12.10	10.80	17.20	540.00	299.00	4.90	5.65
-34	4,474.68	19.65	12.55	15.70	26.25	34.25	255.00	13.00	3.15	11.05	256.00	59.00	196.00	12.50	11.50	17.90	540.00	303.00	4.95	5.65
-33	4,553.25	19.70	12.85	16.15	27.25	34.50	262.00	13.40	3.15	11.05	264.00	59.50	200.00	13.20	12.60	18.05	540.00	304.00	5.25	5.75
-32	4,545.91	19.95	12.90	16.25	26.50	32.75	268.00	13.10	3.25	11.00	259.00	59.50	204.00	13.35	13.60	18.10	540.00	301.00	5.30	5.75
-31	4,500.09	20.25	12.80	16.00	25.75	32.75	262.00	13.00	3.55	10.95	251.00	57.00	205.00	13.30	13.75	17.85	540.00	295.00	5.25	5.75
-30	4,471.21	20.50	12.40	16.10	25.50	32.75	262.00	13.05	3.50	10.85	251.00	57.50	201.00	13.25	13.35	17.70	540.00	295.00	5.15	5.75
-29	4,461.32	20.00	12.40	16.10	26.00	33.00	259.00	13.05	3.50	10.95	256.00	57.00	201.00	13.30	13.10	17.90	530.00	294.00	5.10	5.65
-28	4,417.17	20.00	12.15	16.10	25.75	33.00	259.00	13.00	3.50	10.95	256.00	54.00	202.00	13.25	12.10	17.80	515.00	296.00	5.00	5.60
-27	4,385.00	20.00	12.45	16.10	25.75	32.75	258.00	12.85	3.60	10.90	250.00	52.50	202.00	13.35	11.40	17.60	519.00	294.00	4.95	5.60
-26	4,379.71	19.95	12.05	16.10	26.00	33.25	257.00	12.70	3.60	10.90	250.00	52.50	205.00	13.50	11.40	17.05	517.00	297.00	5.00	5.60
-25	4,403.38	20.00	12.00	16.10	26.25	33.50	259.00	12.75	3.50	10.85	251.00	52.50	210.00	13.55	12.20	17.25	517.00	299.00	5.05	5.40
-24	4,402.75	20.00	12.00	16.10	26.25	33.50	259.00	12.90	3.50	10.85	255.00	52.00	202.00	13.55	12.50	17.40	517.00	299.00	5.05	5.30
-23	4,412.61	20.00	12.00	16.10	26.25	33.50	260.00	13.00	3.50	10.85	256.00	51.00	203.00	13.25	12.15	17.85	517.00	300.00	5.05	5.30
-22	4,416.60	20.00	11.95	16.15	26.25	33.50	262.00	12.95	3.50	10.55	259.00	52.00	205.00	13.45	11.85	17.65	519.00	301.00	5.05	5.45
-21	4,420.79	20.00	11.90	16.10	26.50	33.50	263.00	13.05	3.50	10.65	260.00	51.50	203.00	13.40	11.75	17.70	519.00	303.00	5.00	5.55
-20	4,450.78	20.00	11.55	16.15	26.75	33.75	263.00	13.00	3.50	10.85	264.00	52.50	203.00	13.40	11.75	17.80	520.00	304.00	5.00	5.50

t	20 share Index	Rea Vipingo	Sasini	Barclays	Equity	KCB	Standard Chartered	CO - OP	Express Kenya	Kenya Airways	NMG	ARM	Bamburi	E.A.Cables	KenGen	KPLC	BAT	EABL	Mumias	Safaricom
-19	4,483.62	20.00	11.60	16.15	26.75	34.25	264.00	13.20	3.50	10.85	264.00	55.50	203.00	13.40	11.95	17.95	521.00	306.00	5.00	5.40
-18	4,522.53	20.75	11.85	16.20	27.00	34.75	265.00	13.25	3.50	10.90	261.00	56.50	209.00	13.35	12.45	18.45	529.00	307.00	4.95	5.40
-17	4,561.16	20.75	11.85	16.35	27.25	35.00	269.00	13.45	3.50	10.70	260.00	60.00	215.00	13.45	12.55	18.50	530.00	307.00	5.00	5.40
-16	4,588.42	21.00	11.60	16.45	27.50	35.50	274.00	13.60	3.50	10.75	264.00	59.50	217.00	13.65	12.50	18.65	539.00	307.00	5.00	5.55
-15	4,611.03	20.75	11.85	16.50	27.75	36.75	273.00	13.65	3.50	10.80	264.00	58.50	217.00	13.35	12.50	18.70	539.00	311.00	4.95	5.65
-14	4,633.48	20.75	11.80	16.50	27.50	38.25	277.00	13.85	3.25	10.90	261.00	59.00	217.00	13.55	12.45	19.00	539.00	314.00	4.95	5.70
-13	4,648.09	20.50	11.95	16.15	27.75	38.50	277.00	14.05	3.20	10.80	270.00	60.00	221.00	13.40	12.30	19.05	540.00	315.00	4.95	5.70
-12	4,637.54	20.50	12.10	16.15	27.75	37.00	278.00	13.90	3.20	10.75	268.00	59.50	222.00	13.45	12.35	19.05	539.00	308.00	4.95	5.60
-11	4,614.75	20.75	12.00	16.15	28.00	37.00	278.00	13.70	3.20	10.75	266.00	60.00	222.00	13.50	12.25	18.70	537.00	295.00	5.00	5.55
-10	4,573.88	21.25	11.80	16.35	27.50	37.25	278.00	13.35	3.25	10.60	263.00	59.50	220.00	13.45	12.15	18.65	534.00	287.00	4.95	5.55
-9	4,551.06	20.75	11.95	16.35	27.50	36.75	276.00	13.30	3.25	10.70	265.00	60.00	220.00	13.45	11.75	18.00	535.00	277.00	4.95	5.65
-8	4,502.75	20.75	11.60	16.30	27.25	36.50	272.00	13.30	3.25	10.65	265.00	61.00	204.00	13.45	11.65	17.75	535.00	273.00	4.80	5.70
-7	4,505.59	21.00	11.55	16.25	27.00	36.25	271.00	13.15	3.05	10.65	265.00	62.00	214.00	13.45	11.65	17.75	530.00	277.00	4.75	5.70
-6	4,477.89	20.75	11.25	16.20	26.75	36.50	270.00	13.10	3.06	10.60	265.00	62.50	214.00	13.45	10.95	17.55	529.00	280.00	4.65	5.70
-5	4,463.65	21.25	11.15	16.25	26.75	37.00	265.00	13.10	3.30	10.65	265.00	62.50	211.00	13.45	10.80	17.05	530.00	280.00	4.75	5.65
-4	4,469.19	21.75	10.90	16.25	26.75	39.25	265.00	13.25	3.30	10.65	264.00	62.00	204.00	13.75	11.60	16.80	523.00	279.00	4.70	5.65
-3	4,513.55	21.00	10.95	16.35	27.75	38.50	264.00	13.35	3.30	10.65	267.00	62.00	204.00	14.95	12.25	16.80	530.00	280.00	4.85	5.75
-2	4,518.59	21.25	11.00	16.60	28.25	38.25	270.00	13.75	3.40	10.65	268.00	62.00	204.00	14.95	12.30	17.45	530.00	282.00	4.20	5.75
-1	4,510.47	21.75	11.20	17.00	28.25	36.00	273.00	13.95	3.40	10.50	270.00	62.50	203.00	14.75	12.05	17.90	539.00	285.00	4.20	5.80
1	4,533.82	21.75	11.20	17.00	28.50	35.50	279.00	14.45	3.40	10.60	269.00	62.50	203.00	14.30	12.25	17.80	537.00	287.00	4.55	5.95
2	4,546.83	21.00	11.45	17.00	30.00	35.50	291.00	14.30	3.50	10.65	270.00	62.50	205.00	14.65	12.45	18.00	537.00	291.00	4.45	5.95

t	20 share Index	Rea Vipingo	Sasini	Barclays	Equity	KCB	Standard Chartered	CO - OP	Express Kenya	Kenya Airways	NMG	ARM	Bamburi	E.A.Cables	KenGen	KPLC	BAT	EABL	Mumias	Safaricom
3	4,585.07	21.25	11.95	17.15	29.75	36.00	298.00	14.40	3.60	10.75	270.00	63.00	205.00	14.75	12.50	18.25	540.00	295.00	4.50	5.95
4	4,658.64	21.00	12.05	17.35	30.00	38.25	294.00	14.80	3.60	10.85	270.00	64.00	205.00	14.80	12.60	18.40	539.00	297.00	4.80	6.00
5	4,796.33	21.25	12.40	17.20	31.25	39.50	300.00	15.60	3.90	11.00	275.00	67.50	218.00	15.55	13.45	19.00	535.00	307.00	4.80	6.15
6	4,985.91	22.00	13.35	17.95	33.50	40.25	309.00	16.15	3.90	11.60	280.00	71.50	220.00	16.30	14.70	19.95	539.00	320.00	4.75	6.25
7	4,911.45	23.00	13.00	18.30	31.50	39.75	302.00	16.00	3.90	11.55	282.00	71.00	219.00	16.15	14.15	20.00	535.00	319.00	4.70	6.25
8	4,831.85	21.75	12.55	16.95	31.00	39.25	300.00	15.35	3.90	11.35	280.00	69.50	219.00	15.85	13.60	19.10	539.00	311.00	4.60	6.30
9	4,774.12	21.75	12.90	16.30	30.00	38.50	292.00	14.90	3.90	11.40	282.00	69.00	211.00	14.85	13.10	18.65	530.00	303.00	4.65	6.15
10	4,727.04	22.00	12.45	16.35	29.00	38.50	291.00	14.85	3.90	11.25	283.00	67.00	215.00	15.65	13.25	18.60	530.00	304.00	4.60	6.00
11	4,721.23	22.00	12.45	16.60	29.75	38.75	289.00	14.95	3.90	11.25	282.00	67.00	217.00	15.45	13.70	18.55	530.00	307.00	4.60	5.95
12	4,719.05	21.50	12.10	16.65	30.25	38.50	289.00	15.10	3.60	11.20	286.00	68.00	217.00	15.50	13.85	18.60	530.00	309.00	4.60	5.95
13	4,708.56	21.25	11.95	16.60	30.00	38.50	288.00	15.05	3.50	11.10	303.00	68.00	217.00	15.45	13.50	18.60	530.00	309.00	4.55	5.85
14	4,713.60	21.25	11.85	16.60	30.00	38.50	291.00	15.00	3.50	11.00	321.00	67.50	219.00	15.45	13.45	18.55	530.00	310.00	4.50	5.80
15	4,732.79	21.00	12.20	16.65	30.00	39.00	294.00	15.15	3.50	11.00	330.00	67.00	220.00	15.20	13.80	18.95	530.00	310.00	4.50	5.80
16	4,758.22	21.00	11.60	16.65	30.50	40.00	298.00	15.20	3.55	10.95	332.00	66.50	219.00	15.15	14.10	18.90	539.00	311.00	4.55	5.80
17	4,830.44	21.75	12.10	16.90	33.25	40.75	301.00	16.30	3.50	10.85	349.00	67.50	218.00	15.50	14.45	19.00	539.00	311.00	4.50	5.95
18	4,860.83	20.75	11.95	17.00	33.25	41.50	301.00	16.40	3.50	10.95	355.00	68.50	217.00	15.95	14.60	19.00	540.00	311.00	4.50	6.00
19	5,030.91	22.25	12.40	18.00	35.50	42.50	312.00	17.80	3.80	10.95	366.00	70.00	225.00	17.20	15.95	20.00	540.00	310.00	4.70	6.00
20	5,019.73	22.00	12.40	17.70	35.50	42.00	314.00	17.65	3.80	11.00	377.00	67.50	210.00	17.05	15.50	19.80	540.00	310.00	4.70	6.15
21	4,975.77	22.00	12.65	17.05	34.75	42.50	309.00	17.00	3.50	11.00	373.00	68.50	206.00	16.80	15.15	19.20	540.00	309.00	4.70	6.30
22	4,985.68	22.00	13.05	17.25	34.75	42.50	312.00	16.85	3.50	10.90	379.00	68.00	205.00	16.65	15.35	19.30	542.00	307.00	4.70	6.30
23	4,980.84	22.00	12.70	17.10	35.50	42.25	318.00	17.00	3.85	10.90	381.00	66.50	200.00	16.95	15.80	19.55	541.00	292.00	4.85	6.35

t	20 share Index	Rea Vipingo	Sasini	Barclays	Equity	KCB	Standard Chartered	CO - OP	Express Kenya	Kenya Airways	NMG	ARM	Bamburi	E.A.Cables	KenGen	KPLC	BAT	EABL	Mumias	Safaricom
24	4,990.04	22.50	12.60	17.30	35.75	42.25	317.00	17.05	3.95	10.95	386.00	66.50	203.00	16.95	15.95	19.60	541.00	302.00	5.00	6.45
25	5,027.90	22.50	12.95	17.40	35.50	42.25	317.00	17.00	4.20	10.95	398.00	67.50	204.00	17.10	15.90	19.55	542.00	303.00	5.00	6.55
26	5,020.50	23.00	13.10	17.50	35.00	42.00	317.00	16.95	4.25	10.95	395.00	67.50	205.00	16.75	15.90	19.45	542.00	304.00	4.95	6.50
27	4,994.94	23.00	13.40	17.60	34.50	42.00	316.00	16.90	4.25	11.00	338.00	67.50	210.00	16.95	15.80	19.40	543.00	306.00	4.90	6.40
28	4,947.51	22.50	13.45	17.50	34.00	42.00	318.00	16.90	4.25	10.95	314.00	66.50	205.00	17.15	15.75	19.20	544.00	304.00	4.80	6.40
29	4,932.77	22.50	13.45	17.45	33.50	41.75	318.00	16.90	4.30	10.95	295.00	67.50	204.00	17.05	15.80	19.10	544.00	302.00	4.80	6.45
30	4,902.60	22.50	13.05	17.50	33.25	41.00	300.00	16.80	4.30	10.95	295.00	68.00	205.00	16.75	15.75	19.05	548.00	303.00	4.75	6.55
31	4,868.29	22.25	13.10	17.40	33.00	40.75	299.00	16.70	4.25	10.95	287.00	67.00	205.00	16.70	15.70	18.95	554.00	299.00	4.75	6.60
32	4,839.49	22.25	13.45	17.40	32.75	40.50	300.00	16.50	4.25	10.95	278.00	66.50	205.00	16.90	15.45	18.85	555.00	297.00	4.75	6.60
33	4,824.44	22.50	13.50	17.35	32.50	40.75	299.00	16.35	4.25	10.95	275.00	66.00	205.00	16.90	15.00	18.50	560.00	296.00	4.75	6.60
34	4,810.40	22.50	13.40	17.35	32.75	41.75	298.00	16.40	4.00	11.00	277.00	65.00	210.00	16.75	15.00	18.55	560.00	298.00	4.70	6.60
35	4,764.52	22.00	13.40	17.35	32.50	41.50	277.00	16.50	4.00	11.00	280.00	65.50	204.00	16.85	15.00	18.25	560.00	299.00	4.65	6.60
36	4,785.38	21.00	13.10	17.45	32.00	41.50	281.00	16.45	4.00	11.10	279.00	65.00	204.00	16.90	15.15	18.30	560.00	297.00	4.75	6.65
37	4,763.09	21.75	12.70	17.45	31.75	41.50	279.00	16.40	4.00	11.00	279.00	62.50	204.00	16.70	15.00	18.35	560.00	300.00	4.75	6.70
38	4,765.23	21.00	12.90	17.70	31.25	42.00	279.00	16.25	4.20	10.95	280.00	62.50	204.00	16.40	14.85	18.30	549.00	305.00	4.75	6.85
39	4,788.26	21.25	12.85	17.65	31.25	42.00	282.00	16.30	4.20	11.00	285.00	65.00	205.00	16.00	14.95	18.45	545.00	317.00	4.75	7.00
40	4,821.17	22.00	13.40	17.65	31.00	42.00	288.00	16.45	4.00	11.00	279.00	65.00	205.00	16.00	14.90	18.50	545.00	320.00	4.65	7.05
41	4,846.43	21.50	13.20	17.65	31.25	42.25	291.00	16.50	4.00	10.90	285.00	66.00	205.00	15.15	14.95	18.55	545.00	327.00	4.65	7.10
42	4,881.75	22.25	13.25	17.65	31.50	42.25	296.00	16.50	3.95	10.95	287.00	66.00	205.00	15.25	15.05	18.55	545.00	334.00	4.60	7.15
43	4,905.68	20.75	13.05	17.70	32.25	43.00	298.00	16.40	3.95	10.95	290.00	68.00	205.00	15.25	15.05	18.75	549.00	338.00	4.55	7.20
44	4,917.46	20.75	13.00	17.70	33.25	43.00	298.00	16.35	3.95	11.00	293.00	69.00	205.00	15.20	15.05	18.75	550.00	340.00	4.55	7.20

t	20 share Index	Rea Vipingo	Sasini	Barclays	Equity	KCB	Standard Chartered	CO - OP	Express Kenya	Kenya Airways	NMG	ARM	Bamburi	E.A.Cables	KenGen	KPLC	BAT	EABL	Mumias	Safaricom
45	4,888.97	20.75	13.55	17.55	33.50	43.00	299.00	16.35	3.95	11.10	295.00	68.00	206.00	15.00	14.50	17.95	550.00	343.00	4.50	6.95
46	4,866.05	21.00	13.60	17.55	33.25	42.75	303.00	16.40	3.95	11.35	295.00	67.50	200.00	14.75	14.45	17.20	550.00	349.00	4.50	6.90
47	4,844.81	21.00	13.50	17.55	32.75	40.50	302.00	16.25	3.95	11.30	294.00	69.50	204.00	15.00	14.65	17.10	530.00	355.00	4.45	7.10
48	4,918.27	22.00	13.40	17.60	33.00	41.25	303.00	16.50	4.00	11.30	296.00	70.00	208.00	15.10	15.50	17.05	530.00	369.00	4.45	7.35
49	4,955.61	22.00	13.55	17.60	34.50	41.00	299.00	16.95	4.00	11.30	299.00	69.00	205.00	14.80	15.50	17.00	548.00	385.00	4.40	7.25
50	4,978.79	21.50	13.55	17.65	34.75	41.25	299.00	16.95	4.00	11.35	300.00	69.50	205.00	15.00	15.10	17.10	548.00	391.00	4.50	7.15
51	4,960.30	21.25	13.50	17.85	34.75	41.25	296.00	17.00	3.95	11.35	305.00	69.50	205.00	14.65	15.05	17.10	548.00	399.00	4.50	7.00
52	4,978.65	21.75	13.55	17.70	35.00	41.50	299.00	16.95	4.00	11.30	302.00	69.00	205.00	14.45	14.85	17.65	550.00	409.00	4.55	7.10
53	4,983.54	21.75	13.60	17.70	35.00	41.75	301.00	16.95	4.00	11.35	305.00	70.00	205.00	14.40	14.90	17.70	542.00	423.00	4.45	7.15
54	4,956.95	22.25	13.95	17.90	35.00	42.00	299.00	16.90	4.00	11.30	307.00	69.00	205.00	14.35	14.95	17.55	543.00	408.00	4.40	7.05
55	4,965.98	21.50	14.00	18.20	35.00	41.75	301.00	16.95	3.95	11.25	312.00	69.00	208.00	15.05	15.15	17.30	550.00	388.00	4.40	7.00
56	4,953.03	21.00	14.00	18.25	35.50	41.25	301.00	16.80	3.95	11.30	309.00	69.50	210.00	15.10	15.05	17.10	550.00	379.00	4.40	7.00
57	4,967.75	22.00	13.85	18.55	36.25	41.75	302.00	16.65	4.00	11.25	312.00	69.00	210.00	14.65	14.95	17.00	550.00	377.00	4.45	7.05
58	4,987.16	22.00	14.00	18.70	35.25	42.00	300.00	16.70	4.10	11.30	319.00	69.50	215.00	15.00	14.95	16.95	551.00	365.00	4.55	7.15
59	4,996.07	21.75	14.00	18.55	35.75	41.75	300.00	16.75	4.10	11.10	314.00	68.00	219.00	15.10	15.05	16.80	550.00	364.00	4.55	7.25
60	5,006.96	22.75	14.20	17.95	36.00	41.50	300.00	16.70	4.20	11.25	320.00	69.00	221.00	15.00	15.15	16.75	550.00	367.00	4.50	7.25

Source: NSE Daily Market Data