# A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT FOR THE AWARD OF DEGREE IN MASTER OF BUSINESS ADMINISTRATION, UNIVERSITY OF NAIROBI 

## DECLARATION

This research project is my original work and has not been submitted for a degree award at the University of Nairobi or any other university.

Signature $\qquad$ Date $\qquad$

## Robert Nyamweya Menge

Reg No: D61/67105/2011

This Research project has been submitted for presentation with my approval as University Supervisor.

Signed
Date $\qquad$

Mirie Mwangi

## Supervisor:

## ACKNOWLEDGEMENTS

I wish to thank The Almighty God for giving me a gift of life to write this work. I wish to express my gratitude to my supervisor Mr. Mirie Mwangi for his professional guidance in research methodology and motivation that enabled me to compile this project. I also extend gratitude to my classmates whose presence offered me the psychological motivation and need to learn.

Finally, I thank my family for supporting me throughout my studies. I can't express my gratitude in words for my family, whose unconditional love has been my greatest strength.

## DEDICATION

I dedicate this project to my wife and children and the school of business and administration at the University of Nairobi for being a strong pillar stone throughout my MBA course. I have been deeply humbled by the knowledge acquired and support accorded to me during my studies at the university.


#### Abstract

Country's politics can exert significant influence on its income distribution and prosperity hence affect the activities in a stock market as voters in democratic states elect parties which best represent their personal beliefs and interests. Election results may affect post-election corporate performance either by influencing a country's overall economy, like through changes in government spending either through fiscal changes, or company or sector-specific decisions such as changes in the regulatory environment after the new administration has been established. This study sought to examine the effects of the general elections on the stock market return of companies listed in the Nairobi Securities Exchange. The study adopted an event study methodology since the study was concerned with the establishment of the information content of election results announcement on share performance at the NSE. The population of this study was 56 companies listed in the NSE. The study used secondary data to gather information. Data obtained from the NSE covered the period before and after $31^{\text {st }}$ December 2002, $27^{\text {th }}$ December 2007 and $4^{\text {th }}$ March, 2013 elections. The collected secondary data was coded and entered into Statistical Package for Social Sciences (SPSS, Version 20) for analysis. Study findings from the market model indicated that the market return is a good predictor of stock returns. ANOVA results indicated that abnormal returns before elections were significantly higher than abnormal returns after the elections. ANOVA results also indicated that actual stock returns were significantly higher before elections than after election periods. Finally, ANOVA results revealed that the expected returns as well as the market returns were significantly higher before elections than after the elections. It is recommended that investors should factor in elections effect when making investment decisions. Specifically, investors should buy stocks after elections and sell them when their returns are high, that is, before elections. It is recommended that the Government should maintain stability after elections as instability brings about drops in stock returns.


## TABLE OF CONTENTS

DECLARATION ..... ii
ACKNOWLEDGEMENTS ..... iii
DEDICATION. ..... iv
ABSTRACT ..... v
LIST OF FIGURES ..... viii
LIST OF TABLES ..... ix
LIST OF ABBREVIATIONS ..... x
CHAPTER ONE ..... 1
INTRODUCTION ..... 1
1.1 Background of the Study ..... 1
1.2 Problem Statement ..... 7
1.3 Objective ..... 9
1.4 Value of the Study ..... 9
CHAPTER TWO ..... 11
LITERATURE REVIEW ..... 11
2.1 Introduction ..... 11
2.2 Theoretical Framework ..... 11
2.3 Event Study Methodology ..... 15
2.4 Empirical Review. ..... 16
2.5 Summary of Literature Review. ..... 23
CHAPTER THREE ..... 25
RESEARCH METHODOLOGY ..... 25
3.1 Introduction ..... 25
3.2 Research Design. ..... 25
3.3 Population and Sample of the Study ..... 26
3.4 Data Collection ..... 26
3.5 Data Analysis ..... 26
CHAPTER FOUR ..... 29
DATA ANALYSIS AND FINDINGS ..... 29
4.1 Introduction ..... 29
4.2 Annual Trends of Returns ..... 29
4.3 Regression Analysis ..... 32
4.4 Analysis of variance Between Groups and t-test Analysis of Abnormal Returns ..... 34
4.5 Summary of Findings ..... 36
CHAPTER FIVE ..... 39
SUMMARY, CONCLUSION AND RECOMMENDATIONS ..... 39
5.1 Introduction ..... 39
5.2 Summary ..... 39
5.3 Conclusions ..... 40
5.4 Recommendation ..... 41
5.5 Limitations of the Study. ..... 42
REFERENCES ..... 44
APPENDICES ..... 49
Appendix 1: List of Companies ..... 49
Appendix II: Data Input ..... 53

## LIST OF FIGURES

Figure 4.1: Trend Analysis of Abnormal Return .............................................................. 30

Figure 4.2: Trend Analysis in Actual returns.................................................................... 31

Figure 4.3: Trend Analysis in Market Returns ................................................................. 32

## LIST OF TABLES

Table 4.1: Fitness of Model ..... 33
Table 4.2:Analysis of Variance(ANOVA) ..... 33
Table 4.3: Linear Regression of Coefficients ..... 34
Table 4.4: Descriptive Statistics for Returns ..... 35
Table 4.5: Analysis of Variance (ANOVA) Between Groups ..... 36

## LIST OF ABBREVIATIONS

| AAR | -Average Abnormal Return |
| :---: | :---: |
| ANOVA | - Analysis of Variance |
| ATS | -Automated Trading System |
| CAAR | -Cumulative Average Abnormal Returns |
| CBK | - Central Bank of Kenya |
| CPRA | - Comparison Period Return Approach |
| EMH | - Efficient Market hypothesis |
| EVA | - Economic value Analysis |
| IPOs | - Initial Public Offerings |
| MPT | - Modern Portfolio Theory |
| MRT | - Mean Reversion Theory |
| NASI | -Nairobi All Share Index |
| NSE | - Nairobi Security Exchange |
| ROA | - Return on Assets |
| ROE | - Return on Equity |
| RWH | - Random Walk Hypothesis |
| SPSS | - Statistical Package for Social Sciences |
| U.S. | - United States |

## CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

Country's politics can exert significant influence on its income distribution and prosperity hence affect the activities in a stock market as voters in democratic states elect parties which best represent their personal beliefs and interests (Alesina \& Jeffrey,1987). According to partisan theory propounded by Hibbs (1977), leftist governments tend to prioritize the reduction of unemployment, whereas right-wing governments attribute higher social costs to inflation. Another influential theory presented by Nordhaus (1975) postulates that, irrespective of their political orientation, incumbents will pursue policies that maximize their chances of re-election. As a result, they will try to self-servingly attune the business cycle to the timing of elections. The economy will be stimulated by unsustainable expansionary policies before the elections, and harsh actions aimed at curbing the resultant inflation will have to follow at the beginning of the new term of office. It has to be noted, however, that any policy induced cycles in real activity will be ephemeral if the economic agents and voters have rational expectations (Rogoff, 1990).

Election results may influence corporate performance by general changes in government spending and tax changes as some companies or sectors benefit or suffer from sectorspecific governmental decisions (Bloomberg and Hess, 2001). Stock market participants incorporate expectations about political change into stock prices prior to an election and
adjust their opinion according to the actual decision making following the election (Oehler, Walker and Wendt, 2009). Election results may affect post-election corporate performance either by influencing a country's overall economy, like through changes in government spending either through fiscal changes, or company or sector-specific decisions such as changes in the regulatory environment after the new administration has been established (Fiorina, 1991). Prices are the outcomes of volatile human expectations, shifting the supply and demand lines, and causing prices to oscillate. Fluctuations in prices are a natural process of changing expectations, thereby leading to cyclical patterns. There are many kinds of cycles, with the combined effect of driving movements in stock prices and hence returns on a security exchange (Leblang and Mukherjee, 2005).

Stock markets in the world individually and collectively play a critical role in their economies as they provide an avenue for raising funds, for trading in securities including futures, options and other derivatives which provide opportunities for investors to generate returns (Alesina and Rodrik, 1994). The markets perform a wide range of economic and political functions while offering trading, investment, speculation, hedging, and arbitrage opportunities. In addition they serve as a mechanism for price discovery and information dissemination while providing vehicles for raising finances for companies. Stock markets are used to implement privatization programs, and they often play an important role in the development of emerging economies (Lee, 1998). The performance of a stock market of an economy is of interest to various parties including investors, capital markets, the stock exchange and government among others.

Stock market performance is influenced by a number of factors key among them being the activities of governments and the general performance of the economy. Other factors that affect stock markets performance include, availability of other investment assets, change in composition of investors, and market sentiments among many other factors (Siegel, 1998).

### 1.1.1 Elections

Alesina and Rodrik (1994) argue that politics can shape economic outcomes, affect asset prices, and change financial risk. Political scientists and economists alike are increasingly interested in the interplay between politics and stock markets (Schneider and Tröger 2006). One reason for this increased attention can be seen in the opportunity to test the explanatory power of established politico-economic models. If different parties strategically manipulate the economy to optimally benefit their voter base, their economic policies should produce distinct reactions by stock markets.

Election periods more often than not, lead to a significant decrease in stock returns of a firm. This is mainly because investors are afraid of investing at the time when there is a likelihood of political and economical instability (Black, 1988). Factors related to growth potential indicate the probability for faster (or slower) than average future growth in stock earnings and dividends. Based on the assumption that firms that are currently relatively profitable have greater potential for future growth, we include several measures of profitability as predictive factors. Differences in the liquidity of stocks is a major factor in rebalancing their portfolios, traders must buy at asked prices and sell at bid
prices. Individual stocks have widely differing degrees of liquidity. To keep the expected rates of return, net of trading costs, commensurate, stocks must have gross expected returns that reflect the relative cost of trading (Stoll and Whaley, 1983; Amihud and Mendelson, 1986).

### 1.1.2 Market Stock Returns

A stock return is a monetary gain or loss on an investment which is highly sensitive to both fundamentals and expectations in a market (Lee, 1998). It's the gain or loss of a security in a particular period consisting of the income and the capital gains relative on an investment usually quoted as a percentage (Gartner, 1995). Stock returns are affected by a number of factors including elections, growth potential, market liquidity, information, and financial system structure.

The performance of the stock market is influenced by a number of factors the main ones being the activities of governments' policies, political process and the general performance of the economy. Other factors that affect the stock markets performance include availability of other investments assets, change in composition of investors, Economic activities and markets sentiments among other factors (Mishkin and White Eugene, 2002).

### 1.1.3 Effects of Elections on Market Stock Returns

The performance of the stock market is influenced by a number of factors the main ones among them being the activities of governments and the general performance of the
economy. Several studies have reviewed the relationship at whether security returns are impacted by politics. Booth and Booth (2003) report that the U.S. stock market tends to perform better in the second half of the presidential term. They however argued that this phenomenon could be a reflection of the political business cycle although it could also be explained behaviorally. This could be attributed to the uncertainty about the election outcome which has important implications for risk averse investors. The sole event of elections could have serious implications for the risk level of investment portfolios. Market-wide fluctuations in response to election shocks will augment the systematic volatility of all stocks listed on a stock exchange. It is therefore conceivable that investment prices could increase around the time when voters cast their ballots.

It is well documented that political violence is an impediment to economic activity. Stock exchanges provide an avenue for raising funds, for trading in securities including futures, options and other derivatives which provide opportunities for investors to generate returns. The behavior of stock market around election periods has been investigated for several decades. It has been found that stock markets generate positive abnormal returns fifteen-day period before and after the presidential elections, and that the magnitude of abnormal return is greatest in the presidential elections held in less-free countries when an incumbent loses. In addition, other financial and political factors have been found to play an important role in influencing the return pattern around presidential elections (Foerster, 1997).

### 1.1.4 Nairobi Securities Exchange

The Nairobi Securities Exchange was constituted as a voluntary association of stock brokers registered under the societies Act in 1954 and in 1991 the Nairobi Security Exchange was incorporated under the companies Act of Kenya as a company limited by guarantee and without a share capital (Kibuthu, 2005). Subsequent development of the market has seen an increase in the number of stockbrokers, introduction of investment banks, establishment of custodial institutions and credit rating agencies and the number of listed companies have increased over time. Securities traded include, equities, bonds and preference shares (NSE, 2013).

In 1996, the largest share issue in the history of NSE, the privatization of Kenya Airways, came to the market. In May 2006, NSE formed a demutualization committee to spearhead the process of demutualization. In September 2006 live trading on the automated trading systems of the Nairobi Securities Exchange was implemented. In July 2007 NSE reviewed the Index and announced the companies that would constitute the NSE Share Index. The review of the NSE 20 - share index was aimed at ensuring it is a true barometer of the market. In 2008, the NSE All Share Index (NASI) was introduced as an alternative index (NSE, 2012). Its measure is an overall indicator of market performance. The Index incorporates all the traded shares of the day. Its attention is therefore on the overall market capitalization rather than the price movements of select counters.

The Nairobi Securities Exchange marked the first day of automated trading in government bonds through the Automated Trading System (ATS) in November 2009. The automated trading in government bonds marked a significant step in the efforts by the NSE and CBK towards creating depth in the capital markets by providing the necessary liquidity (NSE, 2013).

In July 2011, the Nairobi Security Exchange Limited changed its name to the Nairobi Securities Exchange Limited. The change of name reflected the strategic plan of the Nairobi Securities Exchange to evolve into a full service securities exchange which supports trading, clearing and settlement of equities, debt, derivatives and other associated instruments. In September 2011 the Nairobi Securities Exchange converted from a company limited by guarantee to a company limited by shares and adopted a new Memorandum and Articles of Association reflecting the change. In October 2011, the Broker Back Office commenced operations. The system has the capability to facilitate internet trading which improved the integrity of the Exchange trading systems and facilitates greater access to our securities market (NSE, 2013).

### 1.2 Problem Statement

Elections do matter for the markets because politics can shape economic outcomes, affect asset prices, and change financial risk. Activities of governments continue to affect the performance of the stock market and the general performance of the economy. Election results may influence corporate performance by general changes in government spending and tax changes as some companies or sectors benefit or suffer from sector-specific
governmental decisions (Bloomberg and Hess, 2001). The economy is still a major factor in determining financial security or whether investments rise or fall in value at the stock exchange but the outcome of key elections are likely to have a bigger impact on moneyrelated issues for the rest of the year and beyond on a stock exchange.

The 2002 general election in Kenya was a transitional one after the term of service of President Moi came to an end after he had served two terms after 1992 and 1997 election and was constitutionally barred from any further term in office (Kibuthu, 2005). In 2008, the presidential election resulted in protests that rapidly descended into a spate of ethnic violence Irungu (2012). The Nairobi Security Exchange indicated a loss of USD 591 million on 2008's first day of trading. During the elections held on March $4^{\text {th }} 2013$, Kenyan stocks defied election jitters and gave the highest return globally in the first quarter of this year, making the Nairobi Securities Exchange the best performing in the world (Irungu, 2012).

A number of studies have been undertaken establishing the relationship between the performance of stock exchanges and political activities in various countries. For example, a study conducted by James (2006) focused on the effect of partisanship, policy risk, and electoral processes on the performance of stock markets. The study found that partisanship and electoral processes had an effect on the overall performance of stock markets. Allvine and O'Neill (1980) also conducted a study on stock market returns and the presidential election cycle.

A previous study conducted in Kenya, by Gitobu (2000), focused on the influence of macro-economic indicators on stock market returns. Irungu (2012) did a study on the informational content of general election results announcement at the Nairobi Securities Exchange and established that general election results carried a lot of information which affected the performance of shares trading at the NSE. Lusinde (2012) reviewed volatility in stock returns of NSE listed companies around general elections in Kenya. The findings revealed that volatility in stock returns of Kenyan listed companies’ increases around general elections within which period investors are sensitive to the developing political landscape which then influences their decisions on whether to invest at the NSE or not. The study was in agreement with some local studies that portray general elections as having an impact on the stock returns of companies listed at the NSE.

From the above discussion, it can be seen that limited studies if any have been conducted on the effect of elections on stock returns. This study therefore sought to fill this research gap by answering one research question: How do elections affect stock returns at NSE?

### 1.3 Objective

The objective of the study was to establish the effect of elections on stock returns at Nairobi Securities Exchange.

### 1.4 Value of the Study

The study contributed to the existing literature in the area of general elections and the performance of Nairobi Securities Exchange. The findings of the study will be important
to future scholars and academicians because it will serve as a source of reference on the subject besides providing suggestions on areas requiring future study in as far as the performance of stocks at the NSE is concerned.

The findings of this study will also be important to investors investing at the Nairobi Securities Exchange because it will provide vital information for consideration during election periods. It will provide vital information to investors which they can use to judge whether to buy or sell their shares at the NSE during election period. The findings of this study will also be important to managers at the Nairobi Securities Exchange in understanding the effects of General election on the stock returns for the listed shares. This will help them institute measures required to stabilize the market and avoid abnormal performances at the market during such periods.

The findings of this study will also be important to government policy makers because it will inform their policy formulation and implementation regarding the management of the security exchange market during elections to ensure capital market stability and reduce capital flights which may lead to huge losses to investors.

## CHAPTER TWO

## LITERATURE REVIEW

### 2.1 Introduction

This chapter reviewed existing literature in the area of study. It looked at the work by other scholars on the subjects of stock market performance during elections. In particular, the chapter covered, review of theories, review of empirical studies and chapter summary.

### 2.2 Theoretical Framework

This section reviewed the theories that guided this study. Specifically, it reviewed theories explaining stock market performance and how it can vary. The section specifically reviewed four theories including efficient market hypothesis, the random walk hypothesis, prospect theory and the political policy theory. These theories were deemed relevant because of their explanations concerning the two variables in this study.

### 2.2.1 Efficient Market Hypothesis

Fama (1965) was the first scholar to use the term "efficient market". An efficient market is defined as a market in which securities' prices fully reflect all available information. This implies that when news about the value of a security hits the market, its price should react and incorporate this news quickly and correctly, and the price should neither underreact nor overreact to particular news announcements.

In addition Fama (1970) categorized market efficiency into three classifications based on the information set to which each of them responds. The three forms of efficiency are: The weak form efficiency, semi-strong form and strong form market. According to Fama's study, in a weak-form market stock prices reflect all past information. This implies that prices have no memory and successive price differences are independent. Therefore, if a market is weakly efficient it is impossible for a trader to make abnormal returns using the history of share prices. That is to say, technical analysis cannot be used to beat the market.

The theory of semi-strong form efficiency asserts that all publicly available information is fully reflected in security prices. It is impossible for technical or fundamental analysts to beat the market by exploiting public information. This theory also provides the basic theoretical background in this study. The main purpose of this study is to examine how the markets react to presidential elections (Fama, 1970). The elections are unique events in that the date of an election is known for certain in advance and only the outcome is uncertain. The outcomes that are anticipated from the market often cause prices to move to the implied direction before the date of elections. If the market is semi-strong efficient, the adjustment of prices to the outcome of elections should occur in a very short period of time and there are no trading strategies adopted to earn abnormal returns. On the other hand, if any systematically abnormal returns can be found around elections and used to beat the market, then this phenomenon of election patterns can be viewed as challenging market efficiency. A market where prices reflect all past, public and private information
is defined as strong form efficiency. In this market even if certain investors have monopolistic access to inside information, they cannot make superior returns.

### 2.2.2 The Random Walk Hypothesis

The importance of the EMH stems primarily from its sharp empirical implications many of which have been tested over the years. Much of the EMH literature before Lerol (1973) and Lucas (1978) revolved around the random walk hypothesis (RWH) and the martingale model, two statistical descriptions of unforecastable price changes that were initially taken to be implications of the EMH (Fama and Blume, 1966). One of the first tests of the RWH was developed by Cowles and Jones (1937), who compared the frequency of sequences and reversals in historical stock returns, where the former are pairs of consecutive returns with the same sign, and the latter are pairs of consecutive returns with opposite signs.

French and Roll (1986) document a related phenomenon: stock return variances over weekends and exchange holidays are considerably lower than return variances over the same number of days when markets are open. This difference suggests that the very act of trading creates volatility, which may well be a symptom of Black's (1988) noise traders.

### 2.2.3 Prospect Theory

Tversky and Kanheman (1979) showed how people manage risk and uncertainty by way of developing the Prospect Theory. The theory explains the apparent regularity in human behaviours when assessing risk under uncertainty and assumes that human beings are not
consistently risk-averse; rather they are risk-averse in gains but risk-takers in losses. According to Tversky and Kanheman (1974), people place much more weight on the outcomes that are perceived more certain than that are considered more probable, a feature known as the "certainty effect".

People's choices are also affected by 'framing effect' which refers to the way a problem is posed to the decision maker and their 'mental accounting' of that problem. The value maximization function of the Prospect Theory is different from that of the value maximization function of MPT. Wealth maximization is between gains and losses, rather than over the final wealth position as in MPT (Markowitz, 1952). As such, people may make different choices in situations with identical final wealth levels. Critical to the value maximization is the reference point from which gains and losses are measured. Usually, the status quo is taken as the reference point and changes are measured against it in relative terms, rather than in absolute terms.

### 2.2.4 The Political Policy Theory

The so-called partisan view of macroeconomics, as described by Alesina (1987), acknowledges that different political parties may have different preferences concerning their economic policy which may be explained by the fact that different parties aim to represent a different part of the elective, and therefore may have different objectives to be reached with their economic policy.

As Nofsinger (2007) points out, the political policy theory implies that if one party has superior economic policies over the other, then a governmental period of this party should lead to a better performance of the economy. This better performance should not only be noticeable through the more conventional economic indicators as inflation and unemployment, but also on the stock market, which then as an indicator of the economy should show higher returns.

### 2.3 Event Study Methodology

An event study is concerned with the impact of an event on corporations. An event study measures the impact of an event study measures the impact of a specific event on the value of the firm relying on market efficiency (Konchitchki and O'Leary, 2011). Information about corporate events is key to investor performance and investor performance signals information about corporate events.

A number of studies have suggested that there exists a high level of efficiency in capital markets. However, security prices do not always continuously reflect almost all available information in the market because of information asymmetry (Roztochi and Weistroffer, 2009). If security prices are a function of all available information, and new information occurs randomly, then one would expect that security prices would fluctuate randomly as randomly generated news is impounded in security prices. Thus, the "purchase or sale of any security at the prevailing market price represents a zero net present value transaction. In a perfectly efficient market, any piece of new relevant information would be immediately reflected in security prices.

One should be able to determine the relevance of a given type of information by examining the effect of its occurrence on security prices (Pettengill and Clark, 2001). The impact of any event on security prices is measured as a function of the amount of time that elapses between event occurrence and stock price change. In a relatively efficient market, one might expect that the effect of the event on security prices will occur very quickly after the first investors learn of the event. Event studies are usually based on daily, hourly or even trade to trade stock price fluctuations. However, many studies frequently are forced to study only daily security price reactions since more frequent data is not readily available (Roztochi and Weistroffer, 2009).

### 2.4 Empirical Review

Several scholars and researchers have reviewed the concept of elections and stock market returns. Mbugua (2003) evaluated the information content of stock dividend announcements using the case of companies quoted at the Nairobi Security Exchange. Mbugua (2003) findings imply that the market, in the aggregate uses the stock dividend information in setting the equilibrium security prices that much of the NSE's market reactions to such information occurs no later than the declaration date, and that such information tends to produce positive unexpected returns. Kiptoo (2006) studied information content on dividend announcements by companies quoted in NSE. Kiptoo established that following dividends announcements, the investors interpreted information of dividend declaration in different ways depending on their investment objectives.

For long term investors, they regarded dividends as an erosion of their value in the company. These individuals reacted by taking advantage of the risen prices to sell their shares and purchase undervalued shares.

Bachtel and Fuss (2006) studied partisan politics and stock market performance where they looked at the effect of expected government partisanship on stock returns in the 2002 German federal election. From this study, partisan theory and extant evidence from parties' ideal policies suggest that firms should perform better under right- than under left-leaning governments. If investors anticipate these effects of different parties holding office, changes in expected government partisanship should produce distinct patterns of stock market performance, with prices reflecting the electoral prospects of the competing parties in the pre-election time.

Wong and McAleer (2007) did a study on mapping the presidential election cycle in United States stock markets. Their study shows that in the almost four decades from January 1965 through to December 2003, US stock prices closely followed the four-year Presidential Election Cycle where in general, stock prices fell during the first half of a Presidency, reached a trough in the second year, rose during the second half of a Presidency, and reached a peak in the third or fourth year. This cyclical trend was found to hold for the greater part of the last ten administrations, starting from President Lyndon Johnson to the present administration under President George W. Bush, particularly when the incumbent was a Republican.

Kariuki (2007) did an analysis of the information content of economic value added as a performance measure of banks in Kenya. The aim of this study was to investigate the relationship between Economic Value Added, traditional performance measures (ROA and ROE) and ability of creation of shareholder wealth for banks in Kenya. The results of regression analysis indicate in all cases a positive correspondence between EVA and financial performance metrics with very low dependency of EVA on the financial metrics and show higher quality information content of EVA indicator in the relationship to the ability of shareholder wealth creation than traditional performance measures.

The data findings analyzed also showed that taking all other independent variables at zero, a unit increase in liquidity will lead to a 0.423 increase in company performance; a unit increase in leverage will lead to a 0.215 increase in company performance; a unit increase in earnings per share will lead to a 0.305 increase in company performance. This infers that liquidity contribute more to company performance followed by earnings per share. At $5 \%$ level of significance and $95 \%$ level of confidence, liquidity had a 0.001 level of significance; leverage showed a 0.003 level of significant, earnings per share showed a 0.002 level of significant hence the most significant factor is liquidity.

Kairu (2007) studied the effects of secondary equity offering on stock returns of firms quoted on the Nairobi Security Exchange. The objectives of the study were to determine the effect of announcement of secondary equity offerings on stock prices of firms listed on the NSE as well as to investigate the impact of the announcement on trading volume before and after the secondary issue. The study adopted an event study methodology as
its research design. This design was used to identify companies that had issued secondary shares to the market. This led to the involvement of ten companies that had been listed in the NSE and had issued secondary shares. Secondary data was used for this study and it was collected from the Nairobi Security Exchange in Nairobi. The result of the study showed that the direction of share price and abnormal returns after the announcement was inclusive. The market reacted differently for different types of stocks. The abnormal returns were however so small and this meant that the details of a secondary issue or rights issue do not shock the market in a significant way. However the amount of shares traded was more at the post announcement period than in the pre announcement period for most companies involved in the study. This provided an explanation that the announcement had an effect in increasing the volume of trade.

Gichema (2007) studied the effect of bonus share issues on stock prices of companies quoted at the Nairobi Security Exchange. The study focused on the effect of bonus share issues on stock prices of companies quoted at the Nairobi Security Exchange. The objectives of this study were to determine whether there were abnormal returns surrounding the bonus issues announcement and to establish the direction and magnitude of the stock price adjustment on announcement of bonus issue. The sample consisted of all the companies quoted at NSE which declared bonus issues between the periods of interest, I January 2004 to 31 July 2007, and were drawn from all the segments of the Nairobi Security Exchange. In order to achieve this objectives secondary data obtained from the NSE Secretariat informational database and the companies' financial statements were used. Further, this study entailed the determination of the precise day of the bonus
share issue announcement and this day was made to be day zero; definition of the period to be studied; in this study the study period was 101 days surrounding the announcement date. The magnitude of bonus issue announcement was expected to vary across the firms because the announcements were made by companies in different industries and at different times. It was hence useful to examine the behavior of each company independently. Data was presented using tables and graphs. Descriptive statistics i.e. mean and standard deviation and $t$-tests were used to analyze data. The findings of this study were such that bonus issues typically generate positive stock prices reactions in the short run but produce no lasting gains in the market price for widely held stocks in the Nairobi Security Exchange.

Oehler, Walker and Wandt (2009) studied effects of election results on stock price performance using evidence from 1976 to 2008 in the United States. They established that election results may influence corporate performance by general changes in government spending and tax changes. In addition, specific companies or sectors might benefit or suffer from sector-specific governmental decisions. Stock market participants will incorporate expectations about political change into stock prices prior to an election and adjust their opinion according to the actual decision making following the election. They analyzed abnormal stock price returns around the United States presidential elections from 1976 to 2008 with focus on party-specific favoritism.

The results demonstrated statistically significant positive or negative cumulative abnormal price returns for most industries. Most effects appeared to be related to the individual presidents and changes in political decision making irrespective of the underlying political ideology.

Muikiria (2010) looked at the reaction of share prices to issue of IPOs from the NSE: the study sought to establish if there exists a relationship between stock prices as may be influenced by the news of initial public offerings in the Nairobi Security Exchange. The event defined for these studies are issues of IPO's. The population of this study composed of all companies listed in the Nairobi Security Exchange (NSE). A portfolio of all the companies in the stock market was taken and an equal weighting assumed in the calculation of the mean portfolio daily return within the window period. The study time period was between 2004-2009.The secondary data was being obtained from the NSE informational database for the period 2004-2009.

Data analysis was carried out using the comparison period return approach (CPRA) by Wooldridge (1983). The mean portfolio daily return was calculated for the IPO and comparison periods. For each day, t-statistics and test of significance was done using SPSS statistics analysis. The study found that issuing of IPO's at NSE has both positive and negative effects on daily mean returns, negative effects are on the days nearing the IPO's event days which are as result of buyer and seller expectation in the market, while positive effects are in the days far from the IPO's event day which are result of buyer seller initiated trading.

Durnev (2011) studied the real effects of political uncertainty specifically looking at elections and investment sensitivity to stock prices. This study showed that political uncertainty surrounding elections can affect how corporate investment responds to stock prices. Durnev (2011) argues that during periods of increased political uncertainty, stock prices play a limited role in guiding corporate investment decisions. Using national elections as a sample of politically uncertain events, Durnev found that during election years; investment is less sensitive to stock prices, the drop in investment-to-price sensitivity is larger when election outcomes are less certain, and the drop in investment-to- price sensitivity is associated with lower post-election company performance. Durnev (2011) therefore concluded that politics has a real impact on corporate performance by altering how managers respond to stock prices when making investment decisions.

Lusinde (2012) examined volatility in stock returns of listed companies around general elections in Kenya. The study considered twenty companies out of the forty seven quoted firms at the NSE between1997 to 2007. Secondary data was collected from NSE database and analyzed using the GARCH model. The findings revealed that volatility in stock returns of Kenyan listed companies' increases around general elections. Within this period investors are sensitive to the developing political landscape which then influences their decisions on whether to invest at the NSE or not. The study is in agreement with some local studies that portray general elections as having an impact on the stock returns of companies listed at the NSE.

Kinyua, Nyanumba, Gathaiya and Kithitu (2013) reviewed the effects of Initial Public Offer (IPO) on performance of companies Quoted at the Nairobi Security Exchange. The study focused on the effects of initial public offer on performance of companies quoted at the Nairobi Security Exchange, by studying three variables i.e. liquidity, leverage and Profitability (earnings per share). The literature reviews the effects of initial public offer on performance of companies quoted at the Nairobi Security Exchange between 2006 and 2011. The study adopted a descriptive research design. The target population was employees of the 56 listed companies at the NSE. Primary data was gathered using semi structured questionnaires. Secondary data was gathered from past published scholarly articles explaining theoretical and empirical information on employee issues. Descriptive analysis was be used including the use of weighted means, standard deviation, relative frequencies and percentages. According to the regression equation established, taking all factors into account (liquidity, leverage and earnings per share) constant at zero, company performance will be 0.423 .

### 2.5 Summary of Literature Review

From the above literature, it was evident that elections have significant effect on stock market returns. Oehler, Walker and Wandt (2009) studied effects of election results on stock price performance using evidence from 1976 to 2008 in the United States. Durnev (2011) studied the real effects of political uncertainty specifically looking at elections and investment sensitivity to stock prices. Durnev (2011) argues that during periods of increased political uncertainty, stock prices play a limited role in guiding corporate investment decisions. Wong and McAleer (2007) did a study on mapping the presidential
election cycle in United States stock markets. Bachtel and Fuss (2006) studied partisan politics and stock market performance where they looked at the effect of expected government partisanship on stock returns in the 2002 German federal election. From the literature reviewed above, it was evident that limited research has been done on the effect of elections on stock returns at Nairobi Securities Exchange. This study therefore sought to fill this research gap.

## CHAPTER THREE

## RESEARCH METHODOLOGY

### 3.1 Introduction

This chapter presented various stages and phases that were followed in completing the study. The following subsections were included; research design, target population, data collection and data analysis.

### 3.2 Research Design

The study adopted an event study methodology. An event study is an analysis of whether there is a statistically significant reaction in financial markets to past occurrences of a given type of event that is hypothesized to affect public firms' market values (Armitage, 1995). The event study design was chosen because the study was concerned with the establishment of the information content of election results announcement on share performance at the NSE.

The event that affects a firm's market value which in turn affects the returns on a security may be within the firm's control, such as the event of the announcement of a stock split. Or the event may be outside the firm's control, such as the event of a legislative act being passed, or a regulatory ruling being announced, that will affect the firm's future operations in some way (Armitage, 1995).

### 3.3 Population and Sample of the Study

Population in statistics is the specific population about which information is desired. According to Ngechu (2004), a population is a well defined or set of people, services, elements, events, group of things or households that are being investigated. The target population for this study included: companies trading at the Nairobi Security Exchange as at December $31^{\text {st }}, 1997,2002,2007$ and March $4^{\text {th }} 2013$. As per the records at the Nairobi Securities Exchange there were 56 companies listed at the NSE by March 2013. Therefore the population of this study was 56 Companies. Since consolidated data on the variables of the study was available at the NSE, this study sampled the NSE twenty share index which is representative of the securities exchange performance.

### 3.4 Data Collection

The study used secondary data from the Nairobi Securities Exchange and the financial statements of the concerned companies. Data obtained from the NSE covered the period between $29^{\text {th }}$ December 2002 and $4^{\text {th }}$ March, 2013.

### 3.5 Data Analysis

The collected secondary data was coded and entered into Statistical Package for Social Sciences (SPSS, Version 21.0) for analysis. The study collected data on NSE 20 share index for the identified general election dates. These dates included $29^{\text {th }}$ December, 2002, $30^{\text {th }}$ December 2007 and $4^{\text {th }}$ March 2013.

MacKinlay (1997)outlined an event study methodology involving the following steps: (i) identification of the event of interest; (ii) definition of the event window; (iii) selection of the sample set of firms to be included in the analysis; (iv) prediction of a "normal" return during the event window in the absence of the event; (v) estimation of the "abnormal" return within the event window, where the abnormal return is defined as the difference between the actual and predicted returns, without the event occurring; and (vi) testing whether the abnormal return is statistically different from zero. The study computed the changes recorded in share prices as measured by the NSE 20 Share index. To arrive at conclusive results, the study compared the performance of the NSE 20 share index before, during and after general elections for the four general elections 2002-2013.


The market model that was applied was;
$\mathrm{Y}=\mathrm{a}+\mathrm{b} 1 \mathrm{x} 1+$ error term
Where
$\mathrm{Y}=$ actual returns
$\mathrm{X} 1=$ market return
B1=market risk
The research applied a mean adjusted return model below to measure abnormal returns on securities in the investigation period.

$$
A R_{i t}=R_{i t}-\left(\alpha_{i}+\beta R_{\mathrm{mt}}\right)
$$

Where
$\mathrm{AR}_{\mathrm{it}}=$ abnormal return of stock i at date t
$\mathrm{R}_{\mathrm{it}}=$ actual return of stock i at time t
$\mathrm{R}_{\mathrm{mt}}=$ market return
$\alpha$ and $\beta=$ firm specific constants or parameters
From the estimation period.
In event studies abnormal returns were aggregated over both observation of events and investigation windows. Individual securities' abnormal returns were aggregated $\mathrm{AR}_{\mathrm{it}}$ for each period for any given number of N events. Accordingly average abnormal returns (AARs) and the cumulative abnormal returns (CAARs) for the stocks were calculated by: $A A R_{I}=\frac{1}{N} \sum_{I-1}^{n} A R_{i t}$

Cumulative average abnormal returns
$C A A R_{(T 1, t 2)}=\sum_{t 1}^{t 2} \frac{1}{N} \sum_{T-1}^{n} A R_{I T}$
Test statistics were used to measure the statistical significance of the $\mathrm{AAR}_{s}$ and the $\mathrm{CAAR}_{\mathrm{S}}$ reported on the event day and the interval around the event date of a significant level of $95 \%$. To test for the strength of the model, an Analysis of Variance (ANOVA) was conducted. On extracting the ANOVA table, the researcher looked at the significance value. The study tested at $95 \%$ confidence level and 5\% significant levels. If the significance number found is less than the critical value ( $\mathbb{N}$ ) set 0.05 , then the conclusion would be that the model is significant in explaining the relationship. Else the model would be regarded as non significant.

## CHAPTER FOUR

## DATA ANALYSIS AND FINDINGS

### 4.1 Introduction

This chapter consists of data analysis, findings and interpretation on the data gathered to address the objective of the study. Descriptive statistics and model results were also presented in the chapter.

### 4.2 Annual Trends of Returns

This section presents the trend analysis of the dependent and independent variables of the study. Abnormal returns present the difference between the actual returns and the expected returns over a certain period of time. The formula for calculating abnormal returns was arrived at by using the alpha and the beta in the formula below;

$$
\mathrm{R}_{\text {stock }}=\alpha_{\mathrm{i}+} \beta \mathrm{R}_{\mathrm{mt}}
$$

$$
\text { Expected Return }=\alpha_{i}+\beta \mathrm{R}_{\text {stock }}
$$

## Abnormal Return $=$ Actual Return - Expected Return

where;
$\mathrm{R}_{\mathrm{mt}}=$ market return
$\mathrm{R}_{\text {stock }}=$ Actual Returns
$\alpha$ and $\beta=$ firm specific constants or parameters
Substraction of the actual returns from the expected returns gave rise to the abnormal stock returns.

The trend analysis of the abnormal return represented in figure 4.1 shows that there was a drastic decline from year 2002 to year 2007 followed by an increase in abnormal returns in year 2013. This changes that caused the drift in abnormal returns as represented by the graph can be explained by the election period. In 2007 the post election violence caused the drop in abnormal returns compared to the other election years. This further is because abnormal returns are sometimes triggered by events. In finance events can typically be classified as occurrences or information that has not already been priced by the market. The decline in 2007 may be as a result of a decline in the firms' market value which exceeded the expected amount, this therefore is a loss.


Figure 4.1: Trend Analysis of Abnormal Return
Figure 4.2 presents the trend analysis of actual returns between years 2002, 2007 and 2013 which were the election years for Kenya. The graph shows a decrease in actual or real returns of stock in year 2007 and an increase in election year 2013. The decrease in
year 2007 was affected by the then elections which brought about instability in the country affecting the social and economic pattern of the economy.


## Figure 4.2: Trend Analysis in Actual returns

Trend analysis in market return presented in figure 4.3 indicates a decrease in market return in year 2007 and an increase in 2013. The mean market return of year 2007 is less than that of the performance of market of the preceding year 2006. This indicates that the market was more volatile in the election year 2007 compared to the previous years.


## Figure 4.3: Trend Analysis in Market Returns

### 4.3 Regression Analysis

This section illustrates the fitness of the model used in the study as well as the calculation that derived the alpha and beta coefficients for generation of the abnormal returns. The regression model (market model) used was as follows; $\mathrm{R}_{\mathrm{it}}=\alpha_{\mathrm{i}}+\beta \mathrm{R}_{\mathrm{mt}}$. Where;
$R_{i t}=$ actual return of stock i at time $t$
$\mathrm{R}_{\mathrm{mt}}=$ market return
$\alpha$ and $\beta=$ firm specific constants or parameters
Table 4.1 shows fitness of the regression model in determining the abnormal returns. The variables that were used to determine abnormal returns were actual returns and market returns. From the results presented below, an R square of 0.04 represents that the independent variables; actual and market return derived $4 \%$ of the abnormal return which is not satisfactory.

Table 4.1: Fitness of Model

| Indicator | Coefficient |
| :--- | :---: |
| R | 0.2 |
| R Square | 0.04 |
| Std. Error of the Estimate | 0.15697 |

ANOVA statistics presented on Table 4.2 indicate that the overall model was statistically significant. This was supported by an F statistic of 4.905 and probability (p) value of 0.029. Probability value (p) is usually given the value of 0.05 , therefore any value below the same is statistically significant while any value above 0.05 is not significant. Therefore from the results the reported p value 0.029 was less than the conventional probability of 0.05 significance level thus its significance. The ANOVA results imply that the independent variable was a good predictor of return and alpha and beta coefficients.

Table 4.2:Analysis of Variance(ANOVA)

| Indicator | Sum of Squares | Df | Mean Square | F | Sig. |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Regression | 0.121 | 1 | 0.121 | 4.905 | 0.029 |
| Residual | 2.907 | 118 | 0.025 |  |  |
| Total | 3.028 | 119 |  |  |  |

Table 4.3 presents results of the alpha and beta constants that were used to derive the abnormal return. The model presented below shows how the abnormal return was calculated. The regression of coefficients results further indicate that the variable market
return had a positive and significant relationship with the actual return, which is evident from the value 0.029 . The conventional value of 0.05 is the scale that determines the significance of an independent variable, thus any value below 0.05 is significant and a value above the same is not significant. Therefore in the results, 0.029 is lower than the conventional value 0.05 thus making the market return variable significant in explaining actual return and determining the beta and alpha coefficients.

Table 4.3: Linear Regression of Coefficients

| Indicator | B | Std. Error | Beta | T | Sig |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Constant | 0.032 | 0.016 |  | 2.035 | 0.044 |
| Market Return | 0.752 | 0.34 | 0.2 | 2.215 | 0.029 |

$\mathrm{Y}=0.03+0.75 \mathrm{X}$
$Y=$ expected return
$\mathrm{X}=$ actual returns

### 4.4 Analysis of variance Between Groups and t-test Analysis of Abnormal

## Returns

The table below provides descriptive statistics for the returns, actual, market, expected and abnormal returns before and after election period. The results indicate a high score in the mean of actual return before elections than after the election period. This is presented by a mean of 0.04 before election and a negative mean of 0.01 after election. The market return had a mean of 0.01 before election and a mean of -0.05 after the election. The same case is also presented in the expected returns mean where the returns before election are higher than after the election period, with means of 0.03 and -0.00
respectively. The mean of the abnormal return before election is 0.01 a value higher than the mean after the election period which is -0.01 . These results show that abnormal returns are higher before elections than after elections.

Table 4.4: Descriptive Statistics for Returns

|  |  |  |  | $95 \%$ <br> Confide <br> nce |  |  |  | $95 \%$ <br> Confide <br> nce |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Variable | Period | Mean | Std. <br> Devia <br> tion | Std. <br> Error <br> Interval <br> for <br> Mean <br> lower <br> bound | Interval <br> for <br> Mean <br> upper <br> bound | Minim <br> um | Maxim <br> um |  |
|  | Before <br> Election <br> After | 0.04 | 0.13 | 0.02 | 0.01 | 0.08 | $(0.28)$ | 0.59 |
|  | Election <br> Before | $(0.01)$ | 0.18 | 0.02 | $(0.05)$ | 0.04 | $(0.90)$ | 0.61 |
|  | Election <br> After | 0.01 | 0.03 | 0.00 | $(0.00)$ | 0.01 | $(0.03)$ | 0.03 |
|  | Election <br> Before | $0.05)$ | 0.04 | 0.01 | $(0.06)$ | $(0.03)$ | $(0.10)$ | $(0.01)$ |
|  | Election <br> After | 0.03 | 0.02 | 0.00 | 0.03 | 0.04 | 0.01 | 0.05 |
| Election <br> Before | $(0.00)$ | 0.03 | 0.00 | $(0.01)$ | 0.00 | $(0.05)$ | 0.02 |  |
|  | 0.01 | 0.13 | 0.02 | $(0.03)$ | 0.04 | $(0.28)$ | 0.58 |  |
|  | Election <br> After <br> Election | $(0.00)$ | 0.18 | 0.02 | $(0.05)$ | 0.04 | $(0.92)$ | 0.59 |

Statistics in table 4.5 indicate that all the returns were statistically significant before and after the elections. This is represented p values of 0.008 for actual returns, 0.000 for market return, 0.006 abnormal returns and 0.000 for expected return which were all statistically significant in relationship between the stocks and election period.

Table 4.5: Analysis of Variance (ANOVA) Between Groups

| Variable |  | Sum of <br> Squares | df | Mean <br> Square | F | Sig. |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Returns | Between Groups | 0.076 | 1 | 0.076 | 30.51 | 0.008 |
|  | Within Groups | 2.956 | 118 | 0.0025 |  |  |
| Market Return | Between Groups | 0.079 | 1 | 0.079 | 68.506 | 0.000 |
|  | Within Groups | 0.137 | 118 | 0.001 |  |  |
| Expected | Between Groups | 0.045 | 1 | 0.045 | 68.506 | 0.000 |
|  | Within Groups | 0.077 | 118 | 0.001 |  |  |
| Abnormal | Between Groups | 0.004 | 1 | 0.004 | 16.0 | 0.006 |
|  | Within Groups | 2.905 | 118 | 0.0025 |  |  |

### 4.5 Summary of Findings

The results indicate a high score in the mean of actual return before elections than after the election period. This is presented by a mean of 0.04 before election and a negative mean of 0.01 after election. The market return had a mean of 0.01 before election and a mean of -0.05 after the election. The same case is also presented in the expected returns mean where the returns before election are higher than after the election period, with means of 0.03 and -0.00 respectively. The mean of the abnormal return before election is 0.01 a value higher than the mean after the election period which is -0.01 . These results show that abnormal returns are higher before elections than after elections.

Results further indicate that all the returns were statistically significant before and after the elections. This is represented p values of 0.008 for actual returns, 0.000 for market return, 0.006 abnormal returns and 0.000 for expected return which were all statistically significant in relationship between the stocks and election period.

The results in the findings agree with those of Wong and McAleer (2007) who did a study on mapping the presidential election cycle in United States stock markets. Their study shows that in the almost four decades from January 1965 through to December 2003, US stock prices closely followed the four-year Presidential Election Cycle where in general, stock prices fell during the first half of a Presidency. These findings agree with those of the study that stock prices tend to decrease in the period after election which causes a decrease in the stock return compared to periods before election.

Further, these findings did not agree with those of Kairu (2007) who studied the effects of announcement of secondary equity offerings on stock prices of firms listed on the NSE as well as to investigate the impact of the announcement on trading volume before and after the secondary issue the study showed that the amount of abnormal shares traded was more at the post announcement period than in the pre announcement period for most companies involved in the study. Kairu's study provided that the announcement had an effect in increasing the volume of trade, which is contrary to the findings in this study, where returns perform better before announcement of election results.

Muikiria (2010) looked at the reaction of share prices to issue of IPOs from the NSE: the study sought to establish if there exists a relationship between stock prices as may be influenced by the news of initial public offerings in the Nairobi Security Exchange. He found that issuing of IPO's at NSE has negative effects on the days nearing the IPO's event days which are as result of buyer and seller expectation in the market, while positive effects are in the days far from the IPO's event day which are result of buyer seller initiated trading. The days far from the IPO's issue event may represent the period prior election in the current study. These findings can be compared with those of this study that returns perform well in periods before the election than during and after the election period.

Durnev (2011) studied the real effects of political uncertainty specifically looking at elections and investment sensitivity to stock prices. This study found that that politics has a real impact on corporate performance by altering how managers respond to stock prices when making investment decisions which agree to the findings of this study. The finding in the study that stock returns increases in the period before and around election support those of Lusinde (2012) who examined volatility in stock returns of listed companies around general elections in Kenya between1997 to 2007. The findings revealed that volatility in stock returns of Kenyan listed companies' increase around general elections. Within this period investors are sensitive to the developing political landscape which then influences their decisions on whether to invest at the NSE or not. The study is in agreement with some local studies that portray general elections as having an impact on the stock returns of companies listed at the NSE.

## CHAPTER FIVE <br> SUMMARY, CONCLUSION AND RECOMMENDATIONS

### 5.1 Introduction

This chapter presents the summary of key data findings, conclusions drawn from the findings highlighted and recommendations thereof. The conclusions and recommendations drawn were in quest of addressing research objectives of establishing the effect of elections on stock returns at Nairobi Securities Exchange.

### 5.2 Summary

The objective of the study was to establish the effect of elections on stock returns at Nairobi Securities Exchange. The means performance of the market, actual return and abnormal return are low after election and indicate good performance before election period. The increase in market return in year 2013 as indicated in the trend analysis can also be explained by the increase in stock prices. Increase in market rates of stocks leads to an increase in prices. The increase and decrease in stock prices can be termed as volatility. When volatility increases, risk increases and returns decrease. Risk is represented by the dispersion of returns around the mean. The greater the dispersion of returns around the mean, the larger the drop in the compound return.

The mean performance of abnormal returns was higher in years 2002 and 2013 while low performance was recorded in year 2007. Abnormal returns present the difference between
the actual returns and the expected returns over a certain period of time. This changes that caused the drift in abnormal returns as represented by the graph can be explained by the election period. The performance in year 2007 was affected by the then elections which brought about instability in the country affecting the social and economic part of the economy. Results in the actual returns shows a low performance of the actual stocks in year 2007 and high performance in years 2013. Results further show that the overall performance of actual returns in the periods before elections performed better than actual returns on stocks after elections. Further the rise in the market performance after 2013 followed the smooth transition of the political regime to the new government.

Study findings from the market model indicated that the market return is a good predictor of stock returns. ANOVA results indicated that abnormal returns before elections were significantly higher than abnormal returns after the elections. ANOVA results also indicated that actual stock returns were significantly higher before elections than after election periods. Finally, ANOVA results revealed that the expected returns as well as the market returns were significantly higher before elections than after the elections.

### 5.3 Conclusions

From the results, events that tend to affect the financial performance of stock are primarily political such as the elections. Uncontrollable losses mainly from the external environment for instance natural calamity and political instability have an effect on the market value of a firm irrespective of whether it has a weak or a strong shareholders rights.

Study findings led to the conclusion that the market return is a good predictor of stock returns. It was concluded that abnormal returns before elections were significantly higher than abnormal returns after the elections. Results led to the conclusion that actual stock returns were significantly higher before elections than after election periods. Finally, results led to the conclusion that the expected returns as well as the market returns were significantly higher before elections than after the elections.

From the study conclusions can be made that during periods of increased political uncertainty such as election periods, the stock returns declined. Political uncertainty surrounding elections can affect how corporate investment responds to stock prices. Kenya is not the only country that experiences this effect, most countries around the world have sensitive stock returns during and the short period after election years compared to periods before election. The poor performance after the election could be attributed to investor anxiety and panic associated with post-election period. It is therefore with the findings from this study that elections have a real impact on performance of returns in the Nairobi Security Exchange market.

### 5.4 Recommendation

The study provides recommendation to the investors who should carefully plan and carry out investments during and after the periods of the general elections as the returns could be affected either positively or negatively during that period. Elections can have important consequences in the stock market; therefore investors can devote a certain portion of money to invest in stocks before and another in stocks after elections. Many
investors simply invest in stocks after elections where they presume that the market will be performing well as a result of the new regime. However, this is not the best option as expanding ones mindset may lead to discovery of high returns on stocks before the election or even after the election.

Further recommendations are to government policy makers, who formulate and implement laws and policies on management of security exchange. The recommendation is that they should implement policies that reduce capital flights which may lead to huge losses especially to investors making them to draw out from investing in securities exchange which in turn may affect the gross national income of the country.

### 5.5 Limitations of the Study

A limitation for the purpose of this research regards a challenging factor that was present to the researcher when sourcing for information. The study focused on market returns which are not the only factors that affect the performance of a company during and after the election period. Other factors that ought to have been considered in the study are cash flows, gearing ratio, asset base, growth opportunities, liquidity which were not considered when estimating the returns. These factors account for the unexplained element in the regression model.

### 5.7 Suggestions for Further Studies

The study put more emphasis on the effects of elections on stock returns, thus further studies should examine what other factors affect NSE stock returns. Factors such as corporate performance, increased tax rates or dividends of shareholders could be assessed to analyze their effects on stock returns.

Further research could be done to analyze the performance of stock returns in non election periods to compare their performance with the periods prior to elections as it is in this study. Furthermore, researchers should analyze the effect of terrorist events, IPO events, regulation events, demutualization events among other events.

## REFERENCES

Alesina, A. \& Jeffrey, S. (1987). Political Parties and the Business Cycle in the United States, 1948-1984. Journal of Money, Credit and Banking, Vol. 20 (1), 63-82.

Alesina, S., \& Rodrik, D. (1994). Political Cycles and the Macroeconomy. Massachusetts Institute of Technology Press. Cambridge.

Allvine, P. \& O'Neil, D. E. (1980) Stock market returns and the presidential election cycle. Journal of Financial Analysts, Vol.36, 49-56.

Amihud, Y., \& Mendelson, H. (1986). Asset pricing and the bid-ask spread. Journal of Financial Economics, Vol. 17, 223-249.

Armitage, S. (1995). Event Study Methods and Evidence on Their Performance. Journal of Economic Surveys, Vol. 8, 25-52

Bachted T., \& Fuss, S. (2006). Financing investment. Journal of American Economic Review, Vol. 91, 1263-1285.

Black, F. (1988). An Equilibrium Model of the Crash. National Bureau of Economic Research. Macroeconomics Annual, 269-275.

Bloomberg, S., \& Hess, G. (2001). Is the political business cycle for real? Journal of Public Economics, Vol. 87, 1091-1121.

Booth, J.R. \& Booth, L.C. (2003). Is the presidential cycle in security returns merely a reflection of business conditions? Journal Review of Financial Economics, Vol. 12(1), 131-159.

Durnev, A., Morck, R. \& Yeung, B. (2004). Value enhancing capital budgeting and firmspecific stock return variation. Journal of Finance, Vol. 59, 65-105.

Durnev, A., Errunza, V. \& Molchanov, A. (2011). Property rights protection, corporate transparency, and growth. Journal of International Business Studies, Vol. 40, 99107.

Fama, E. F. (1965). The Behavior of Stock Market Prices. Journal of Business, Vol. 38, 34-105.

Fiorina, M. P. (1991). Elections and the Economy in the 1980s: Short- and Long- Term Effects. In Alberto Alesina and Geoffrey Carliner eds. Politics and Economics in the Eighties, 17-40. Chicago, University of Chicago Press,

Foerster, S. R. \& Schmitz J. J. (1997). The Transmission of US Election Cycles to International Stock Returns, Journal of International Business Studies, Vol. 28, 127.

French K.R. \& Rou R. (1966). The market pricing of accruals quality, Journal of Accounting and Economics, Vol. 39, 295-327.

Gartner, B.L., \& Wellershoff, K. W. (1995). Is there an election Cycle in American stock returns. Journal of Internal Review of Economics and Finance, Vol. 4, 387-410.

Gichema, G. W. (2007). The Effect of Bonus Share Issues on Stock Prices of Companies Quoted at The Nairobi Security Exchange. Unpublished MBA Project, University of Nairobi.

Gitobu, M. (2000). Determining the Influence of Macro Economic Indicators on Stock Market Indicators. Unpublished MBA Dissertation, University of Nairobi

Hibbs, D. A. (1977). Political Parties and Macroeconomic Policy. Journal of American Political Science Review, Vol. 7, 1467-1487.

Irungu, A. (2012). Informational content of presidential results at the Nairobi Securities Exchange. Unpublished MSC Project, University of Nairobi.

James, L. (2006). Earnings Yields, Market Values, and Stock Returns, Journal of Finance, Vol.44, 135-148.

Kairu, G. S. (2007). The Effects of Secondary Equity Offering on Stock Returns Of Firms Quoted on The Nairobi Stock Exchange. Unpublished MBA Project, University of Nairobi.

Kariuki, N. J. (2007). Effects of share split in a listed company a study of the Nairobi stock exchange. Journal of Financing investment Review, Vol. 1, 24-26

Kibuthu W. (2005) Capital Markets in Emerging Economies, A Case Study of the Nairobi Stock Exchange. Unpublished MA dissertation, Tufts University

Kinyua, J., Nyanumba, P. M., Gathaiya, .R.N.\& Kithitu, J. W. (2013). Journal of Effects of Initial Public Offer on Performance of Companies Quoted at the Nairobi Stock Exchange, Vol. 3 (1).

Kiptoo, L. (2006). Information content on dividend announcements by companies quoted in NSE. Unpublished MBA Project, University of Nairobi.

Kithinji, A. \& Ngugi, W. (2008) Stock market performance before and after general elections. A case study of the Nairobi Stock Exchange. Unpublished paper presented in African International Business and Management Conference

Konchitchki, Y. \& O'Leary, D. E. (2011). Event study methodologies in information systems research. International Journal of Accounting Information System, Vol. 12, 99-115

Leblang, D. \& Mukherjee, B. (2005). Government Partisanship, Elections and the Stock Market: Examining American and British Stock Returns, 1930-2000. Journal of American Political Science, Vol. 49(4), 780-802.

Lee, R. (1998). What is an Exchange? The Automation, Management, and Regulation of Financial Markets. New York, Oxford University Press Inc.

Lerol, S. F. (1973). Contrarian investment, extrapolation, and risk. Journal of Finance, Vol. 49, 1541-1578.

Lucas, R. E. (1978). Asset Prices in an Exchange Economy. Journal of Econometrica, Vol. 46, 1429-1445

Lusinde, M. M. (2012). Volatility in stock returns of NSE listed companies around general elections in Kenya. Unpublished MBA project, University of Nairobi

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

Markowitz, H. (1952). Portfolio Selection. Journal of Finance, Vol. 7, 77-91.
Mbugua, D. (2003). Financial markets and the allocation of capital. Journal of Financial Economics, Vol. 58, 187-214.

Mishkin, Frederic S. and White Eugene N. (2002). U.S. Stock Market Crashes and their Aftermath: Implications for Monetary Policy. National Bureau of Economic Research, Working Paper Series 8992, 1-10.

Muikiria, W. J. (2010). Empirical evidence. Journal of reaction of share prices to issue of IPOs from the NSE, Vol. 4, 30-34.

Nairobi Security Exchange (2013). Handbook for the NSE. Retrieved from www.nse.co.ke on $15^{\text {th }}$ May 2013.

Ngechu, M. (2004), Understanding the research process and methods. An introduction to research methods. Acts Press, Nairobi.

Nofsinger, J. R. (2007). Social mood and financial economics. Journal of Behavioral Finance, Vol. 6, 144-160.

Nofsinger, J. R. and Sias, R.W. (2005). Herding and feedback trading by institutional and individual investors. Journal of Finance, Vol. 54, 2263-2295.

Nohlen, D., Krennerich, M \& Thibaut, B (1999), Elections in Africa: A data handbook, ISBN 0-19-829645-2, 486.

Nordhaus, W. (1975). The Political Business Cycle. Journal of Economic Review Studies. Vol.42, 169-190.

Oehler, A. Walker, T. \& Wendt, S. (2009). Effects of Election Results on Stock Price Performance: Evidence from 1976 to 2008. Journal of political Economics, Vol.11, (18), 16.

Pettengill, G. N, \& Clark, J. M. (2001). Estimating expected returns in an event study framework: Evidence from the dartboard column. Quartely Journal of Buiness Economy, Vol.40, 3-21.

Rogoff, K. (1990). Equilibrium Political Budget Cycle. Journal of American Economic Review, Vol. (80), 21-36.

Roztochi, N. \& Weistroffer, H. (2009). Event studies in information systems research: An updated review. Americas Conference on Information Systems 2009 Proceedings, Paper 191.

Schneider, G. and Tröger, V. (2006). War and the World Economy, stock market reactions to international conflicts. Journal of Conflict Resolution, Vol. 50 (5), 623-645.

Siegel, J. J. (1998). Stocks for the Long Run. New York, McGraw Hill.
Stoll, H. R., \& Whaley, R. E. (1983). Transactions costs and the small firm effect, Journal of Financial Economics, Vol. 12, 57-80.

Throup, D. \& Charles, H. (1998). Multi-Party Politics in Kenya: The Kenyatta \& Moi States \& the Triumph of the System in the 1992 Election, 435. New York, Long House Publishing Services, Cumbria.

Tversky, A. \& Kahneman, D. (1981). The framing of decisions and the psychology of choice. Journal of Science Vol. 211, 453-458.

Tversky, A., \& Kahneman, D. (1992). Advances in prospect theory: Cumulative representation of uncertainty. Journal of Risk and Uncertainty, Vol. 5, 297-323.

Wong, W.K., \& McAleer, M., (2009). Journal of Mapping the Presidential Election Cycle in US stock markets, Mathematics and Computers in Simulation, Vol. 79 (11), 3267-3277.

## APPENDICES

## Appendix 1: List of Companies

| No | Company |
| :---: | :---: |
| 1 | Eaagads Ltd |
| 2 | Kapchorua Tea Co. Ltd |
| 3 | Kakuzi |
| 4 | Limuru Tea Co. Ltd |
| 5 | Rea Vipingo Plantations Ltd |
| 6 | Sasini Ltd |
| 7 | Williamson Tea Kenya Ltd |
| 8 | Express Ltd |
| 9 | Kenya Airways Ltd |
| 10 | Hutchings Biemer |
| 11 | Longhorn Publishers |
| 12 | Nation Media Group |
| 13 | Standard Group Ltd |
| 14 | TPS Eastern Africa (Serena) Ltd |


| 15 | Scangroup Ltd |
| :---: | :---: |
| 16 | Uchumi Supermarket Ltd |
| 17 | AccessKenya Group Ltd |
| 18 | Safaricom Ltd |
| 19 | Car and General (K) Ltd |
| 20 | CMC Holdings Ltd |
| 21 | Sameer Africa Ltd |
| 22 | Marshalls (E.A.) Ltd |
| 23 | Barclays Bank Ltd |
| 24 | CFC Stanbic Holdings Ltd |
| 25 | Diamond Trust Bank Kenya Ltd |
| 26 | Housing Finance Co Ltd |
| 27 | Kenya Commercial Bank Ltd |
| 28 | National Bank of Kenya Ltd |
| 29 | NIC Bank Ltd |
| 30 | Standard Chartered Bank Ltd |


| 31 | Equity Bank Ltd |
| :---: | :---: |
| 32 | The Co-operative Bank of Kenya Ltd |
| 33 | I and M Bank Kenya Ltd |
| 34 | Jubilee Holdings Ltd |
| 35 | Pan Africa Insurance Holdings Ltd |
| 36 | Kenya Re-Insurance Corporation Ltd |
| 37 | Olympia Capital Holdings ltd |
| 38 | Centum Investment Co Ltd |
| 39 | B.O.C Kenya Ltd |
| 40 | British American Tobacco Kenya Ltd |
| 41 | Carbacid Investments Ltd |
| 42 | East African Breweries Ltd |
| 43 | Mumias Sugar Co. Ltd |
| 44 | Unga Group Ltd |
| 45 | Eveready East Africa Ltd |
| 46 | Athi River Mining |


| 47 | Bamburi Cement Ltd |
| :--- | :--- |
| 48 | Crown Berger Ltd |
| 49 | E.A.Cables Ltd Ord |
| 50 | KenolKobil Ltd |
| 51 | Total Kenya Ltd |
| 52 | KenGen Ltd |
| 53 | Kenya Power \& Lighting Co Ltd |
| 54 | Kenya Oil Company Limited Cement Ltd |
| 55 |  |
| 56 |  |

## Appendix II: Data Input

| COMPANY | $\begin{aligned} & \text { PER } \\ & \text { IOD } \end{aligned}$ | Retu rns | Mar <br> ket <br> Retu <br> rn | a | b | Expe cted | Abno rmal | Dum my |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Eaagards Kenya Ltd | 2013 | 0.08 | -0.02 | 0.03 | 0.75 | 0.02 | 0.07 | 1 |
|  | 2013 | -0.08 | 0.02 | 0.03 | 0.75 | 0.05 | -0.13 | 0 |
|  | 2007 | -0.08 | -0.10 | 0.03 | 0.75 | -0.05 | -0.03 | 1 |
|  | 2007 | -0.09 | 0.03 | 0.03 | 0.75 | 0.05 | -0.13 | 0 |
|  | 2002 | -0.09 | -0.01 | 0.03 | 0.75 | 0.02 | -0.11 | 1 |
|  | 2002 | -0.02 | -0.03 | 0.03 | 0.75 | 0.01 | -0.02 | 0 |
| Kakuzi Limited | 2013 | 0.06 | -0.02 | 0.03 | 0.75 | 0.02 | 0.04 | 1 |
|  | 2013 | 0.14 | 0.02 | 0.03 | 0.75 | 0.05 | 0.09 | 0 |


|  | 2007 | -0.04 | -0.10 | 0.03 | 0.75 | -0.05 | 0.01 | 1 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 2007 | 0.16 | 0.03 | 0.03 | 0.75 | 0.05 | 0.11 | 0 |
|  | 2002 | -0.03 | -0.01 | 0.03 | 0.75 | 0.02 | -0.05 | 1 |
| Kapchorua Tea | 2002 | -0.03 | -0.03 | 0.03 | 0.75 | 0.01 | -0.03 | 0 |
| Company Limited | 2013 | -0.90 | -0.02 | 0.03 | 0.75 | 0.02 | -0.92 | 1 |
| REA Vipingo | 2013 | 0.02 | 0.02 | 0.03 | 0.75 | 0.05 | -0.03 | 0 |
|  | 2013 | -0.01 | -0.02 | 0.03 | 0.75 | 0.02 | -0.03 | 1 |
|  | 2007 | 0.11 | -0.10 | 0.03 | 0.75 | -0.05 | 0.16 | 1 |
|  | -0.01 | -0.01 | 0.03 | 0.75 | 0.02 | -0.03 | 1 |  |
|  |  |  |  |  |  |  |  |  |


| Plantations Ltd |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 2013 | 0.10 | 0.02 | 0.03 | 0.75 | 0.05 | 0.05 | 0 |
|  | 2007 | -0.08 | -0.10 | 0.03 | 0.75 | -0.05 | -0.03 | 1 |
|  | 2007 | 0.12 | 0.03 | 0.03 | 0.75 | 0.05 | 0.07 | 0 |
|  | 2002 | 0.61 | -0.01 | 0.03 | 0.75 | 0.02 | 0.59 | 1 |
| Limuru Tea Company |  |  |  |  |  |  |  |  |


|  | 2002 | 0.00 | -0.03 | 0.03 | 0.75 | 0.01 | -0.01 | 0 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Sasini Tea And Coffee |  |  |  |  |  |  |  |  |


|  | 2007 | -0.06 | 0.03 | 0.03 | 0.75 | 0.05 | -0.11 | 0 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 2002 | -0.21 | -0.01 | 0.03 | 0.75 | 0.02 | -0.23 | 1 |
| Access Kenya Group | 2013 | 0.43 | -0.02 | 0.03 | 0.75 | 0.02 | 0.42 | 1 |
|  | 0.59 | -0.03 | 0.03 | 0.75 | 0.01 | 0.58 | 0 |  |
|  | 2013 | 0.33 | 0.02 | 0.03 | 0.75 | 0.05 | 0.28 | 0 |
| Car And General | 2007 | -0.01 | -0.10 | 0.03 | 0.75 | -0.05 | 0.04 | 1 |
| (Kenya) Limited | 2013 | 0.18 | -0.02 | 0.03 | 0.75 | 0.02 | 0.17 | 1 |
|  | 2007 | 0.30 | 0.03 | 0.03 | 0.75 | 0.05 | 0.25 | 0 |
|  |  | 0.08 | 0.02 | 0.03 | 0.75 | 0.05 | 0.04 | 0 |
|  |  | 0.00 | -0.03 | 0.03 | 0.75 | 0.01 | -0.01 | 0 |
|  | -0.01 | 0.03 | 0.75 | 0.02 | -0.02 | 1 |  |  |
|  |  |  |  |  |  |  |  |  |


|  | 2007 | -0.17 | -0.10 | 0.03 | 0.75 | -0.05 | -0.13 | 1 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 2007 | 0.18 | 0.03 | 0.03 | 0.75 | 0.05 | 0.13 | 0 |
|  | 2002 | 0.00 | -0.01 | 0.03 | 0.75 | 0.02 | -0.02 | 1 |
| CMC Holdings Limited | 2013 | 0.00 | -0.02 | 0.03 | 0.75 | 0.02 | -0.02 | 1 |
|  | 2002 | -0.03 | -0.03 | 0.03 | 0.75 | 0.01 | -0.04 | 0 |
|  | 2013 | 0.00 | 0.02 | 0.03 | 0.75 | 0.05 | -0.05 | 0 |
|  |  |  |  |  |  |  |  |  |
|  | 2007 | 0.00 | -0.10 | 0.03 | 0.75 | -0.05 | 0.05 | 1 |
|  | 2002 | 0.00 | -0.03 | 0.03 | 0.75 | 0.01 | -0.01 | 0 |
|  | 0.00 | -0.01 | 0.03 | 0.75 | 0.02 | -0.02 | 1 |  |
|  | 0.00 | 0.03 | 0.03 | 0.75 | 0.05 | -0.05 | 0 |  |
|  |  |  |  |  |  |  |  |  |


|  | 2013 | -0.09 | 0.02 | 0.03 | 0.75 | 0.05 | -0.13 | 0 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 2007 | -0.04 | -0.10 | 0.03 | 0.75 | -0.05 | 0.00 | 1 |
|  | 2007 | 0.05 | 0.03 | 0.03 | 0.75 | 0.05 | 0.00 | 0 |
|  | 2002 | 0.00 | -0.01 | 0.03 | 0.75 | 0.02 | -0.02 | 1 |
| Kenya Airways Limited | 2013 | -0.03 | -0.02 | 0.03 | 0.75 | 0.02 | -0.04 | 1 |
|  | 2002 | -0.03 | -0.03 | 0.03 | 0.75 | 0.01 | -0.04 | 0 |
|  | 2013 | -0.05 | 0.02 | 0.03 | 0.75 | 0.05 | -0.10 | 0 |
|  | 2002 | -0.15 | -0.01 | 0.03 | 0.75 | 0.02 | -0.17 | 1 |
|  | 2007 | -0.23 | -0.10 | 0.03 | 0.75 | -0.05 | -0.19 | 1 |
|  | 0.07 | 0.03 | 0.03 | 0.75 | 0.05 | 0.02 | 0 |  |
|  |  |  |  |  |  |  |  |  |


| Marshalls (East Africa) Limited | 2013 | -0.01 | -0.02 | 0.03 | 0.75 | 0.02 | -0.02 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2013 | -0.10 | 0.02 | 0.03 | 0.75 | 0.05 | -0.15 | 0 |
|  | 2007 | 0.07 | -0.10 | 0.03 | 0.75 | -0.05 | 0.12 | 1 |
|  | 2007 | 0.08 | 0.03 | 0.03 | 0.75 | 0.05 | 0.03 | 0 |
|  | 2002 | 0.10 | -0.01 | 0.03 | 0.75 | 0.02 | 0.08 | 1 |
|  | 2002 | 0.02 | -0.03 | 0.03 | 0.75 | 0.01 | 0.01 | 0 |
| Nation Media Group Limited | 2013 | 0.19 | -0.02 | 0.03 | 0.75 | 0.02 | 0.18 | 1 |
|  | 2013 | 0.19 | 0.02 | 0.03 | 0.75 | 0.05 | 0.14 | 0 |
|  | 2007 | -0.06 | -0.10 | 0.03 | 0.75 | -0.05 | -0.01 | 1 |
|  | 2007 | 0.13 | 0.03 | 0.03 | 0.75 | 0.05 | 0.08 | 0 |


|  | 2002 | -0.10 | -0.01 | 0.03 | 0.75 | 0.02 | -0.12 | 1 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 2002 | 0.37 | -0.03 | 0.03 | 0.75 | 0.01 | 0.37 | 0 |
| Safaricom Limited | 2013 | 0.13 | -0.02 | 0.03 | 0.75 | 0.02 | 0.11 | 1 |
|  | 2013 | 0.06 | 0.02 | 0.03 | 0.75 | 0.05 | 0.01 | 0 |
|  | 2007 | 0.00 | -0.10 | 0.03 | 0.75 | -0.05 | 0.05 | 1 |
|  | 2007 | 0.00 | 0.03 | 0.03 | 0.75 | 0.05 | -0.05 | 0 |
|  |  |  |  |  |  |  |  |  |


|  | 2007 | 0.06 | 0.03 | 0.03 | 0.75 | 0.05 | 0.01 | 0 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 2002 | 0.03 | -0.01 | 0.03 | 0.75 | 0.02 | 0.01 | 1 |
| Standard Group | 2002 | -0.18 | -0.03 | 0.03 | 0.75 | 0.01 | -0.19 | 0 |
|  | 2013 | -0.08 | -0.02 | 0.03 | 0.75 | 0.02 | -0.09 | 1 |
|  | 2013 | 0.16 | 0.02 | 0.03 | 0.75 | 0.05 | 0.11 | 0 |
|  | 2007 | 0.13 | -0.10 | 0.03 | 0.75 | -0.05 | 0.18 | 1 |
|  |  |  |  |  |  |  |  |  |


|  | 2007 | -0.10 | -0.10 | 0.03 | 0.75 | -0.05 | -0.05 | 1 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 2007 | 0.01 | 0.03 | 0.03 | 0.75 | 0.05 | -0.04 | 0 |
|  | 2002 | 0.00 | -0.01 | 0.03 | 0.75 | 0.02 | -0.02 | 1 |
| Uchumi Supermarkets | 2002 | 0.00 | -0.03 | 0.03 | 0.75 | 0.01 | -0.01 | 0 |
| Limited | 2013 | -0.05 | -0.02 | 0.03 | 0.75 | 0.02 | -0.06 | 1 |
|  | 2013 | 0.00 | 0.02 | 0.03 | 0.75 | 0.05 | -0.05 | 0 |
|  |  |  |  |  |  |  |  |  |


| Barclays Bank Of <br> Kenya Limited | 2013 | 0.07 | -0.02 | 0.03 | 0.75 | 0.02 | 0.05 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2013 | 0.02 | 0.02 | 0.03 | 0.75 | 0.05 | -0.03 | 0 |
|  | 2007 | -0.11 | -0.10 | 0.03 | 0.75 | -0.05 | -0.06 | 1 |
|  | 2007 | 0.08 | 0.03 | 0.03 | 0.75 | 0.05 | 0.03 | 0 |
|  | 2002 | 0.03 | -0.01 | 0.03 | 0.75 | 0.02 | 0.01 | 1 |
|  | 2002 | 0.10 | -0.03 | 0.03 | 0.75 | 0.01 | 0.09 | 0 |

