DETERMINANTS OF SHARE PRICE FLUCTUATIONS AT THE NAIROBI SECURITIES EXCHANGE

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Determinants of Share Price Fluctuations at the Nairobi Securities Exchange

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other University

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DEDICATION

I dedicate this work to my father, the late Matthew Sasi and my mother Rose Sasi. My father always encouraged me to excel in my studies. I remember his words "education acquired never goes to waste". I thank my mother for her discipline that put order in my life.

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ABBREVIATIONS AND ACYRONMS

ASEA: African Securities Exchange Association

BIS: Bank of International Settlement

CMA: Capital Market Authority

FATF: Financial Action Task Force

FTSE: Futures Trading on the Securities Exchange

GAAPs: Generally Accepted Accounting Principles

GOK: Government of Kenya

IMF: International Monetary Fund

KES: Kenya Shillings

KIPPRA: Kenya Institute of Public Policy Research and Analysis

KNBS: Kenya National Bureau of Statistics

KPMG: Klynveld Peat Marwck Goerdeler

LSE: London Stock Exchange

NSE: Nairobi Securities Exchange

NYSE: New York Stock Exchange

S&P: Standard & Poor's

SPSS: Statistical Package for Social Sciences

ABSTRACT

In recent times, retail investors have been exiting the Nairobi Securities Exchange (NSE) in large numbers. The net exit is attributable to erratic share price fluctuations, which make investors anxious about the safety of their capital. The research, which adopted the descriptive design sought to determine whether independence of securities firms, public announcements, investor perception, interest rate changes and company performance influence share price fluctuations at the NSE. The population of the study included all the employees of securities firms listed on the NSE. The researcher used purposive sampling to randomly select research participants on the basis of professional stratification. The stratification samples were based on at least four services offered by securities firms that include broking, portfolio management, research and investment banking and underwriting. The researcher utilized seventy-two parcipants by selecting four participants from all the eighteen securities firms listed on the NSE as at 31 December 2012. Primary data was collected through a survey approach by the use of a questionnaire. The researcher utilized SPSS to process and carry out descriptive and inferential statistical analysis on the data. Research findings show that independence of securities firms, public announcements, investor perception, interest rate changes and company performance combine to significantly influence share price fluctuations at the NSE. The researcher recommends that the Capital Market Authority (CMA) should put in place technologies to monitor all market activities in real time to flag out abusive behavior at the NSE. The CMA can use audit trail to prevent potential market manipulators from hiding their identies. Financial advisors should ensure their clients adopt a long-term investment strategy to offer market stability. The researcher recommends that a further study that intertwines psychology and finance be undertaken to explain individual investment decision-making.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The purpose of this study was to investigate the determinants of share price fluctuations at the NSE. The objective of the study was to determine empirically whether independence of securities firms, public announcements, investor perception, interest rate changes and company performance influence erratic share price fluctuations at the NSE. The NSE 20 share index, the oldest on the exchange, fluctuates erratically in tandem with changing prices of securities. Investors, specifically retailers become anxious and sideline the stock market. The study is important to investors who will learn to trade in response to events after carefully analyzing these rather than on judgments that result from the actions and initiatives of other market participants.

Provision of multiple services and information asymmetry among stock market stakeholders moderates the independence of securities firms. This variable is dictated by governance issues that result from conflict of interest and competing pressures due to serving many clients with diverse needs and the temptation to trade for self benefit. Money laundering and terrorist activities moderate public announcements, just to deviate from the usual use of economic variables for similar studies. Cognitive and emotional biases moderate investor perception. Interest rate changes are moderated by alternative investments available at the financial markets and government monetary policies. Company performance is moderated by accounting policies, firms adopt in preparing and presenting their financial statements. All these variables are presented in a conceptual framework of figure 2.1 in chapter two of this study.

Volatility at the securities exchange is a normal expectation in the short-term (French & Roll, 1986). Volatility is described in terms of price divergence from their expected level (French & Roll, 1986). Share price volatility refers to unexpected return due to unexpected events resulting in huge price movements with nonconstant variance (French & Roll, 1986). Investors prefer low volatility to minimize on unnecessary risk they would bare and to be able to liquidate their shares without the threat of unfavourable large price movements (Zulin, 1995). High erratic share price movements can lead to erosion of capital from the market (Bekaert & Harvey, 1995).

The presence of erratic share price movement in a stock market causes the market to develop an unexpected behavior that may confuse the investors (Shiller, 1998). The behavior, actions and reactions of market participants at the stock exchange have continuous impact on the stock prices that traditional models in finance fail to explain (Shiller, 1998). Stock market volatility is an obstacle to the process of channeling funds to efficient investments to facilitate economic growth and development (Arestis, Demetrades & Luintel, 2001).

Along with this introduction, the research was organized to have chapter two to present literature review and chapter three to depict the methodology used to collect and analyze data. In chapter four, the researcher describes and discusses the results. Chapter five presents the conclusion, policy recommendation and suggestion for further research.

1.1.1 Determinants of Share Prices

The price of a share based on finance theory is determined by the sum of all its future dividend payments discounted to their present value using the dividend discount model (Farrel, 1985). The model is based on the idea that the intrinsic value of a share can be estimated using the expected value of cash flows it will generate in the future (Farrel, 1985). Such a model can be useful in circumstances where the firms pay high and stable dividends on their shares (Farrel, 1985). The value of a share is determined by more than the present value of expected dividends (Hurley & Johnson, 1994).

The dividend discounted model cannot incorporate all the assets of a company such as the brand name and the other methods the company employs to return cash to investors such as stock buyback (Hurley & Johnson, 1994). Inadequate disclosure of accounting information negatively impacts share values (Healy & Palepu, 2001). A series of corporate scandals at the start of this millennium, to accounting and financial irregularities, too substantially contribute to investor jittery towards the stock exchange (Healy & Palevu, 2001).

One of the more predictable influences of the stock market is the periodic adjustments of interest rates to combat inflation (Avango, Gonzalez & Posada, 2002). Inflation and interest rates affect the stock market in various ways (Avango, Gonzalez & Posada, 2002). Foreign exchange rate is also a major factor that influences share price

movement especially in global trading (Hsing, 2004). Sometimes policy makers advocate a less expensive currency in order to boost the export sector (Hsing, 2004). Policy makers must be alert to the fact that, such a policy might depress the stock market if the economy is engaged in both import and export business (Hsing, 2004).

Political, economic and social events in countries affect share prices (Miguel, Satyanath & Sergenti, 2004). The three aforementioned factors may provide diversification, but they also contribute to the risk of international investing (Miguel et al., 2004). Though neo-classical and standard economic theories predict that capital should flow from rich to poor countries, the so-called Lucas paradox contradicts this theory (Stiglitz, 2004). Depending on the direction of capital flow, funds available in an economy influence interest rates that have an effect on values of equity shares (Stiglitz, 2004). One of the important anomalies associated with funds flow is that a significant portion of international capital flow has gone in the "wrong" direction from poorer to richer countries (Stiglitz, 2004). Hostile or poorly performing markets may fail to attract financing capital and this leads to capital outflows and illiquidity in the domestic economy, which is negative to the stock market performance (Stiglitz, 2004).

Companies compete for investment funds with other asset classes in an economy (Jones, 2004). Existence of substitute investments such as corporate bonds, government bonds, commodities and real estate could cause a decline in demand for shares and a decline in share value (Jones, 2004). Besides substitutes at the market, there could be incidental transactions motivated by factors other than intrinsic values of shares (Jones, 2004). Speculators also massively short sell shares to take advantage of the free fall of prices to further push up supply of shares that cause prices to decline (Jackson, 2005). Greed and manipulation influence the stock market as investors dump their shares en-masse (Fisher & Lowell, 2006).

Share trading at any stock exchange is determined by forces of demand and supply in addition to other macroeconomic factors such as interest and inflation rates (Sunde & Sanderson, 2009). There are many arguments on actual factors that determine the general performance of the stock market and hence share prices (Sunde & Sanderson, 2009). The arguments of factors that determine share prices go beyond economic variables to include social and political variables (Sunde & Sanderson, 2009). It is

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worthwhile to identify all factors that impact share prices to guide future investment strategies (Sunde & Sanderson, 2009)

Different events, including the growth in dividends and other market factors influence the equilibrium prices of shares (Akbar & Craig, 2010). Financial traders display extreme caution in circumstances where there has been a significant market drop, such as seen during the global financial crisis of 2008 (Christopooulos, Mylonakis & Koromilas, 2011). Extreme caution reduces demand for shares thus forcing share prices to decline (Christopooulos et al., 2011). Natural disasters such as a hurricane or terrorist attack hitting part of a country can temporarily affect the stock market negatively (Baker & Bloom, 2011). A case in point is the terrorist attack of September 11, 2001 in the USA (Baker & Bloom, 2011).

Political unrest and wars have a negative impact on share prices (Sanjaya, 2012). The initial reaction to such events is for the share prices to fall, more often quite appreciably (Sanjaya, 2012). An announcement of a new military venture by a country in response to an outbreak of civil unrest abroad is likely to cause the price of shares of military equipment and weapon manufacturers to rise (Sanjaya, 2012)). Oil prices tend to rise whenever there is unrest or war (Sanjaya, 2012). Rising oil prices signal falling share prices (Sanjaya, 2012). Investment in foreign stocks leads to additional volatility due to political and regulatory risk exposure that is difficult to monitor from remote areas (Amiram, 2012). Information asymmetries between local and foreign investors and behavioural biases caused by unfamiliarity of foreign markets contribute to investors preferring to invest in their own home markets (Amiram, 2012). Investors fail to exploit international diversification to minimize on risk of price volatility (Amiram, 2012). Foreign investment in shares is also subject to currency risk due to movement in exchange rates (Kodongo & Ojah, 2012.

Knowledge of factos that impact share prices can be useful to firms and investors. Share prices convey information about the current and future performance of firms. It is important for firm managers to pay due attention to the factors that influence share prices to enhance firm value at the market. Investors can use such factors to make appropriate investment decisions for maximum returns on their investment.

1.1.2 The Performance of the Nairobi Securities Exchange

The NSE started in 1954 as a voluntary association of brokers with the permission of the London Stock Exchange (LSE), when Kenya was still a British colony (NSE website). The purpose of the association was to facilitate mobilization of resources for long-term capital to finance investments (NSE website). The NSE is one of the most vibrant securities in Africa and has attracted investors from all over the world (NSE website). The exchange was rated in 1994 by the International Finance Corporation (IFC) as the best performing emerging market in the world (NSE website)

Many counters at the NSE have experienced declining share prices in the recent times, which has had the effect of attracting foreign investors (Kibuthu, 2005). Private capital inflow from the foreign investors improves liquidity at the market and therefore, stock market development (Kibuthu, 2005). At the dawn of independence from British rule, trading at the NSE slumped due to uncertainty about the future of independent Kenya (KNBS, 2007). In recent times, there have been a sudden surge of capital inflows from foreign investors (Rodrik & Subramanian, 2008). Foreign capital can undermine previously protected domestic financial sectors, besides influencing exchange rates (Rodrik & Subramanian, 2008). If a country is unable to attract private capital inflows on a sustained basis, this can be a great source of volatility (IMF, 2010).

Through time, few traders (Ngugi, Amanja & Maina, 2009), have dominated trading at the NSE, and this may not enable market deepening. The Government of Kenya (GOK), has put many measures in place to improve the performance of the NSE (Chepkoiwo, 2011). Despite all these measures, the NSE has not been a good performer in recent times compared to other emerging and frontier stock markets (Chepkoiwo, 2011). There has been increased foreign iinvestor participation at the NSE (Nyang'oro, 2013). Despite the economic benefits such as access to foreign savings and support for financial sector development, capital inflows can cause major challenges for policy makers (Nyang'oro, 2013). Investors from economies that experienced the global financial crisis are looking for safety of their funds in markets that are free to shocks from major markets (Nyang'oro, 2013). Improved conditions in their countries would mean net selling by foreign investors (Nyang'oro, 2013). The net selling will cause share price volatility (Nyan'oro, 2013).

The strength of any securities exchange is its ability to mobilize long-term savings to finance capital projects and to ensure optimal resource allocation through competitive pricing mechanism. The development of an effective and efficient securities exchange will ensure access to equity capital in a market where prices are relatively stable. Excessive price volatility will hinder a market from performing its information processing and signaling function.

1.2 Statement of the Problem

For the NSE to function properly, the market must attract both individual traders to provide liquidity for trading and institutional investors to provide the basis for trading. However, in recent times, retail traders have been exiting the the market in large numbers. In 2008, individual investors held 27% of market capitalization compared to 14% in 2010 (CMA, 2010). Two-thirds of of NSE listed companies have recorded net exits of individual shareholders to leave institutional investors to increase their stake (Mulwa, 2011). The net exit is attributed to erratic share price fluctuations, which make investors anxious about the safety of their capital (Mulwa, 2011).

Using the NSE 20 Share Index as a basis for price movement, the index values for the period of study, 2002-2012 were 1362.85, 2737.59, 2945.58, 3973.04, 5645.65, 5444.83, 3521.18, 4432.60, 3247.44, 3205.00 and 4133.00 respectively (Appendix I). In percentage terms, the values changed from one period to the next as 100.8%, 7.6%, 34.9%, 42.1%, -3.6%, 2.6%, -2.7%, -1.3% and 29.0%. As individual local investors exit the market, there have been an insurgence of foreign institutional investors who find share prices very low at NSE due to foreign currency exchange advantage (Nyang'oro, 2013). Though foreign capital is good for market development, it cannot be relied upon as these investors are short-term in nature (Njiiru, 2012).

In financial economics, the efficient market hypothesis (EMH), postulates that it is impossible to "beat the market" consistently on a risk-adjusted basis (Malkiel, 2003). The current situation at the NSE suggests information asymmetry. According to Asea (2003), NSE faces challenges such as diminished level of professionalism and governance malpractices among stock brokers. The statutory framework for CMA, the regulator enshrines self-regulation, which is ambiguous and ineffectual, since the regulator is not subject to any meaningful accountability (Gakeri, 2012). The study sought to find out the determinants of share price fluctuations at the NSE to ensure the

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movements are in line with financial fundamentals that ensure a level trading ground for stability of the market. The study therefore investigated whether independence of securities firms, public announcements, investor perception, interest rate changes and company performance influence share price fluctuations at the NSE.

Comparative studies on determinants of share price fluctuations at the NSE, just to mention a few: Aroni (2011), Muthike and Sakwa (2012), Olweny and Omondi (2012) and Kimani (2013) focus on macro and micro-economic variables that cause share price fluctuations. However, they all fail to consider that fluctuations in share prices may go beyond economic variables, to incorporate actions of some market participants and investor psychological biases. Most of the research on share price fluctuations is on stock markets in developed countries.

1.3 Study Objective

1.3.1 General Objective

The general objective of this study was to examine the determinants of share price fluctuations at the NSE.

1.3.2 Specific Objectives

1. To determine the effect of independence of securities firms on share price fluctuations at the NSE.

2. To evaluate the effect of public announcements on share price fluctuations at the NSE.

3. To establish the effect of investor perception on share price fluctuations at the NSE.

4. To analyse the effect of interest rate changes on share price fluctuations at the NSE.

5. To ascertain the effect of company performance on share price fluctuations at the NSE.

1.4 Research Hypotheses

H_{01}. Independence of Securities Firms has no significant effect on share price fluctuations at the NSE

H$_{O2}$. Public Announcements have no significant effect on share price fluctuations at the NSE

H$_{O3}$. Investor Perception has no significant effect on share price fluctuations at the NSE

H$_{O4}$. Interest Rate Changes have no significant effect on share price fluctuations at the NSE

H$_{O5}$. Company Performance has no significant effect on share price fluctuations at the NSE.

1.5 Importance of the Study

Researchers contextualize findings and generate knowledge to inform action. Users may locate and consume research on a topic of interest or translate the findings in order to develop innovative interventions (Critchfield, 2015). The current research will be useful to the beneficiaries stated below.

1.5.1 Retail Investors

Participants at the securities exchange include investors of varying degrees of sophistication in terms of the technical knowledge that is necessary for investment. The study will assist retail investors to avoid unnecessary frequent trading based on their judgement resulting from actions and initiatives of other market participants. Frequent trading makes investors who are not so sophisticated fall to the whims of market manipulators. Investors will learn to respond to events after carefully analyzing these. Investors will then adopt a longer-term investment horizon and refrain from purchasing shares that recently caught their attention and the frenzy of speculative trading.

1.5.2 Investment Advisors

Investment advisors will also benefit from this research when investors observe the records of accomplishment of recommendations of stock market analysts. Success of past recommendations increases future businesses for financial advisors. Investment advisors will also learn to adjust the risk and return levels to match behavioral tendencies of clients in a stable market.

1.5.3 Companies Listed on the NSE

Companies will benefit from this research by decreased uncertainty of future amounts to raise in an additional capital from the stock market when prices are relatively stable. The NSE will benefit from this research due to improved price discovery and lower costs of transactions. In a global economy with opportunities to invest on any exchange, the NSE will be able to counter competition from other exchanges and deter capital outflows.

1.5.4 The Capital Market Authority

The CMA will benefit from this research by developing an effective regulatory and enforcement philosophy that enshrines accountability to protect all investors. An orderly, fair, transparent and efficient capital market through good governance will attract more investors to nurture wealth.

1.5.5 The Academicians

Academicians will benefit from the research through increased knowledge of relevance to policy makers at the securities exchange. The addition to the stock of global knowledge provides a basis for generation of new ideas for further research.

1.6 Scope

Various variables including macro-economic and micro-economic variables cause share prices to fluctuate. The researcher examined how independence of securities firms, public announcements, investor perception, interest rate changes and company performance, influence the erratic fluctuation of share prices on the NSE from 2002 to 2012. Independence of securities firms focused on brokerage firms' proprietary activities, stakeholder relationships among both retail and institutional investors and brokers and the scope in securities firms' use of information. Public announcements were restricted to terrorist activities, money laundering and the effectiveness of combining political and economic governance.

The scope of investor perception included the attitude, emotion and the intelligence of investors. Interest rate changes was limited to availability of alternative investments, government monetary policies and the level of interest rates in other economies. Company performance was restricted to accounting policies firms adopt, capacity of

investors or financial analysts to interpret data and the measures of performance used by companies.

1.7 Limitation of the Study

The study focused on erratic share price fluctuations of firms listed on the NSE from 2002 to 2012. It is important to understand the influence of investor behavior on the performance of financial markets and hence one of the variables as a determinant of erratic share prices at the NSE was investor perception. Employees of securities firms were used to respond to questions relating to this variable. The questions could have been answered properly by real investors since financial analysts cannot effectively act as psychologists. In addition, the behavioural approach is too subjective to analyze due to the unstructured basis that allows virtually any anomaly to be explained by some combination of irrationalities choosen from a list of behavioural biases. Investors' intentional actions can easily be mistaken to be investors' behavior.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The literature review is on concepts, studies and theories on share valuations as guided by the research hypothesis that examines, independence of securities firms, public announcements, investor perception, interest rate changes and company performance as determinants of share price fluctuations at the NSE.

2.1 Theoretical Framework

To estimate an indicator that is not stable is challenging not only for investors but also for the economy as a whole (Morana & Sawkins, 2000). The price of a share, as any other economic indicator may change rapidly from time to time and be said to be volatile (Shuburi, 2010). The paragraphs that follow explain various theories on share price variations.

2.1.1 Stakeholder Theory as it Explains Independencce of Securities Firms

According to Donaldson and Preston (1995), there are many groups of individuals who participate in an organization to obtain benefits. The business organization is a system with stakeholders who expect the organization to create wealth for them. The theory focuses on managerial decision-making and the interests of all stakeholders have an intrinsic value and that no set of interests is assumed to dominate the others (Donalson & Preston, 1995). Under stakeholder theory, it is important to note that the metric proposed by management in fulfilling firm objectives maximizes collective benefits to the company and all stakeholders (Donaldson & Preston, 1995).

The network of relationships with many groups can affect decision-making processes (Clarkson, 1995). The stakeholder theory is concerned with the nature of these relationships in terms of both processes and outcomes for the firm and its stakeholders (Clarkson, 1995). Stakeholder theory was embedded in management discipline in 1970 and later refined by Freeman in 1984 to incorporate accountability to a broad range of stakeholders (Mitchell, Wood & Agle, 1997). The degree to which firms should give priority to the claims of different stakeholders depends on their salience, which includes stakeholder market power to influence the firm (Mitchell, Agle & Wood, 1997).

Stakeholder theorists suggest that managers in organizations have a network of relationships to serve. The relationships include suppliers, employees and other various business partners (Freeman, 1999). The definition of stakeholder keeps evolving over time (Freeman, 1999).

Stakeholders provide critical support to business firms and bear benefits and risks in respect of their involvement with the firms (Jensen,2000). The duty of business executives is to balance the interest of shareholders with those of other stakeholders (Jensen, 2000). Managers are therefore expected to articulate the shared sense of the value they create and to determine what unites core stakeholders (Jensen, 2002). The managers should show clarity on the kind of relationships they want and the need to deliver on stakeholder purpose (Jensen, 2002).

Organizations are thought of as groupings of stakeholders and the management of firms are expected to manage the interests of the various stakeholders to ensure the survival of the firm and to safeguard the long-term stakes of each group (Boatright, 2002). Firms owe responsibility to wider groups of stakeholders other than shareholders (Friedman & Miles, 2002). The stakeholder theory is derived from a combination of sociological and organizational disciplines (Wheeler, Heike & Boele, 2002). The stakeholder theory assumes that values are necessarily and explicitly a part of doing business (Wheeler et al., 2002). Stakeholder theory is a conceptual framework of business ethics and organizational management, which addresses moral and ethical values in the management of a business or other organization (Hurst & Lusardi 2004). Although top managers are technically stakeholders, their primary role is one of contracting on behalf of the firm with other stakeholders as well as themselves (Hurst & Lusardi 2004).

The activities of the stakeholders are very important and should be taken into consideration in the management of companies (Freeman, 2004). In his latest definition, "the father of the stakeholder concept", Freeman, 1984 defines stakeholders as "those groups who are vital to the survival and success of the corporation" (Freeman, 2004). The most acceptable definition of a stakeholder is "any group or individual who can affect or is affected by the achievement of the organization's objectives" (Freeman 2004). The stakeholder theory identifies the group of stakeholders who deserve and require management attention (Sundaran & Inkpen, 2004). Provided management employ legal, non-fraudulent means and take a long-term view in carrying their

fiduciary responsibility, they will fulfill the needs of all the stakeholders (Ramakrishna & Venkataraman, 2005). Stakeholder theory is one of the major theories of organizational management and business ethics that relate to morals and values in managing organizations (Clearfield, 2008). For institutional investors as majority shareholders to play an increasingly influential role in promoting corporate governance, it is inevitable and proper that the institutions' own governance should come under more critical scrutiny (Clearfield, 2008).

When organizations are opaque in their dealings and their interests are secret, decision-making distorts efficiency and equity (Hebb, 2008). Changing ownership structure of organizations, with a larger institutional investor representation puts pressure on boards of directors to deliver shareholder value (Hebb, 2008). Neubaum and Zahra (2008) pursue in detail the debate on whether institutional investors as market makers are interested in maximizing their short-term performance or are capable of a long-term perspective that is in line with the stakeholder approach. Long-term horizon involment of investment institutional managers' reliance on third party agents, compromise their ethics in investment dealings (Neubaum & Zahra, 2008).

In reality, institutional investors have failed to achieve their real potential to exercise governance oversight (Useem & Mitchell, 2008). The challenge has been brought about by structural factors in the governance of complex investment value chain (Useem & Mitchell, 2008). The legitimate claim of risk of loss and the urgency of the claim as determined by the dedicated nature of the asset supplied to the firm, dictates who the firm prioritizes in serving (Abdullah & Valentine, 2009). The definition and the purpose of a stakeholder, the character of the organization and the role of managers are very unclear and contested in literature (Miles, 2011). Normative theories of business ethics propose that stockholder-manager's duties are bound to the interests of the shareholders, which is to maximize their wealth (Mansell, 2013).

It is important that organizations never lose sight of every one involved in its success. According to stakeholder theory, a company that treats its employees badly will eventually fail. Similarly, a company that forces its projects with detrimental effects on a community will face failure. There might be short-term gains in decisions a firm makes without regard to what effect that has on other stakeholders. As these

stakeholders become dissatisfied and feel let down, their reactions will be detrimental to the survival of a company.

2.1.2 Public Choice Theory as it explains Public Announcements

The most important contribution of public choice theory is that it recognizes that politicians are motivated by self-interest and their actions can be disastrous for the rest of the citizens (Borooah & Van-der, 1982). According to public choice theory, individuals with "concentrated benefits" in increased expenditure take a "free ride" on those with "diffuse costs" in lower tax-brackets (McChesney, 1987). Politicians pay no costs to earn benefits such as increased power and wealth on under-takings on projects that are not desirable by the overall public (McChesney, 1987). The private sector on the other hand is credited with efficiency in economic activities but it is not free from government involvement (McChesney, 1987).

The question one should answer is if government solves all our problems and whether it delivers on its promises (Felkins, 1997). Public choice theory is stated to be a subset of positive political theory that studies self-interested agents that include voters, politicians and bureacrats and their interactions (Felkins, 1997). These interactions can be presented in a number of ways including standard constrained utility maximization, game theory or decision theory (Felkins, 1997). Public choice theory analyzes the role of bureacrats in the government (Boyne, 1998). Their incentives explain why many regulatory agencies appear to be captured by special interest groups (Boyne, 1998).

Bureacrats don't have a profit motive to guide their behavior (Boyne, 1998). Bureacrats serve in government to pursue a mission, where beneficiaries of such a mission can influence the legislators to provide more funds to the interest group such as lobbysts for regulated industries or leaders of environmental groups (Boyne, 1998). Legislators are expected to pursue public interest in using public resources provided by taxpayers (Vickers, 1999). The regulations politicians put in place hurt the same people who provide the resources they spend (Vickers, 1999). Politicians don't receive a direct reward for fighting poweful interest groups to benefit the public (Vickers1999). The public is not even aware of such benefits or who conferred these to them (Vickers, 1999).

Public choice "is ill-labeled" because the only choices it recognizes are "private" (Vickers, 1999). Politicians may have the intention to spend taxpayers' money wisely but such efficient decisions don't benefit the legislators (Holcombe, 2000). The major underpinning of public choice theory is the lack of incentives for voters to monitor government effectively (Blaise, 2000). Voters are quite ignorant of political issues and this ignorance is considered rational as the results of an election may be important but an individual's vote rarely decides an election (Blaise, 2000). The direct impact of casting a well-informed vote is almost nil (Blaise, 2000). To spend time to follow political issues is not personally worthwhile for the voter (Feddersen & Alvaro, 2002).

Public choice scholars have analyzed the ways politicians interact with each other, the voters and their supporters to achieve their own goals (Shaw, 2002). Vote-trading or log-rolling and wealth transfers are some of the methods they use to reach their own selfish ends and occasionally, the desires of the citizens (Shaw, 2002). Public choice employs economic tools used to analyze people's actions in the market place and applies these to their actions in collective decision-making (Shaw, 2002). The theory is a branch of economics that was developed from the study of taxation and public spending (Buchanan, 2003).

In the case of money laundering, which has an effect on public decisions, "denial strategy" of games theory by the first player in a particular country in a game involves tolerance of the activity and the second player in a second country will have to bear, a greater portion of the costs of fighting this international criminal activity (Reuter & Truman, 2004). The financial institutions in the first player's country will benefit from the criminal activity of money laundering (Reuter & Truman, 2004).

Public choice theory, which at times is referred to as "political economics" can also be defined as the study of the interaction between economics and political behavior (Borooah, 2005). The "prisoner's dilemma" of games theory adapts well to international trade where players choose between cooperation, which is to remain open to free trade or denial, which is to grant protection to certain industries (Masciandano, 2005). Interrelations lead to bureacrats being captured by interest groups (Becker, 2008). Bureacrats are staffed with self-interested people and are unlikely to pursue optimal set of regulations for the public sector (Becker, 2008). Various special interest groups have a lever they can push to force certain policies that benefit specific players,

thus generating economic rents (Becker, 2008). An example of such a choice is where an unscrupulous nation fails to comply with money laundering agreements to fulfil the desire of an interest group at the expense of the larger public (Unger & Rawlings, 2008).

Public choice theory can be described as the economic study of non-market decision-making or simply an application of economics to political science (Mueller, 2011). Under vote-trading, an urban legislator may vote to subsidize a rural project in order to win another legislator's vote for a city project (Mueller, 2011). The two projects may be part of a single spending bill (Mueller, 2011). Through log-rolling, both legislators get what they want (Mueller, 2011). Neither of the projects may use resources efficiently but their voters appreciate that their representatives secured a project for them (Mueller, 2011). These voters may never understand that they are paying for a pro-rata share of a bundle of inefficient projects (Mueller, 2011). The theory explains how political decision-making results in outcomes that conflict with the preferences of the general public (Reffgen, 2011).

Games theory explains why current initiatives inefficiently combat money laundering (Ostron, 2014). In this "game", a strategy which improves the the lot of both players is Pareto efficient, a situation where there is no way to make any individual better off without hurting anybody else (Ostron, 2014). In this case, the second-best outcome for both players, here referred to as the "dominant strategy" that satisfies both players would be the "denial strategy" (Ostron, 2014). Public choice theory is a body of theory developed by James Buchanan and Gordon Tullock to explain how public decisions are made (Friedman, 2017). The theory involves the interaction of the voting public, the politicians, the bureaucracy and political action committees (Friedman, 2017). Public choice economists argue that the incentive to be ignorant in the private sector is rare (Manoti, 2017). Market participants want to be well informed about their investments because their choice to invest is decisive and so investors must get what they pay for (Manotti, 2017).

Public choice theory is relevant to the developing nations as can be seen, for most part, "Western" politicians keep their promises and public choice theory may not be a general theory in the developed world (Southwood, 2017). It took hundreds of years of nation- and institutional building to get the "Westerners" to trust government officials Southwood, 2017). In the "third world", most people believe that the bureacrats are out

to fulfill their interest (Dasandi, 2017). The pattern appears the same practically in every meaure used to trust government officials, such as perception of corruption, prevalence of bribery, security of property rights, social trust, tax evasion and crime (Dasandi, 2017).

Persons who derive benefits from public irrational policies ought to understand that they receive these private benefits while imposing costs to the general public. There is a way in which self-interest rather than public interest drive communal, commercial or political activity. Activities of few individuals at the securities exchange can be of benefit only for a short-time but in the long-run the general public will suffer as the market fails.

2.1.3 The Prospect Theory as it Explains Investor Perception

Prospect theory describes how people make choices between two different alternatives, here referred to as prospects (Kahneman & Tversky, 1979). When confronted with choices under uncertainty, investors who consider risky investments or prospects separate prospective gains from losses (Kahneman & Tversky, 1979). Losses cause greater emotional impact on an individual compared to equivalent amount of gains (Kahneman & Tversky, 1979). To live with the negative consequences of decisions made under uncertainty, gives rise to regrets of omission and commission (Slovic, Fischoff & Litchtenstein, 1982). Kahneman and Riepe (1998) examine aspects of investor psychology including beliefs, preferences and biases that cause errors in decision-making and the subsequent consequences of living with the outcomes of their decisions.

The prospect theory is also referred to as loss-aversion theory and is a behavioural model that shows how people decide between alternatives that involve risk (Odean, 1998). Investors hold onto loser shares for long to avoid realizing a loss and sell winner shares too early before they start losing thus exhibiting a disposition effect, (Odean, 1998). An investor's background and experiences play a significant role in decisions made during asset allocation process (Zuckerman & Kuhlman, 2000). The theory, which was developed by Kahneman and Tversky in 1979 describes how individual's separate risks into two categories that contribute to either gains or losses (Genesove & Mayer, 2001). To separate and evaluate losses and gains is to start from a reference

point, here referred to as psychological concept of narrow framing (Weber, Blaise & Betz, 2002).

The purpose of isolation is to economize on mental effort of decision-making due to information overload (Weber, Blaise & Betz, 2002). The reference point is assumed to refer to the individual's current status quo (Weber, Blais & Betz, 2002). Under the prospect theory, investors exhibit risk-taking with losses and risk-aversion with gains as they feel there is too much to lose with their gaining shares and too little to gain with their losing shares (Hang, Barberis & Santos, 2003).

Prospect theory differs from standard economic models that always encourage prudence as the better part of decision-making (Fama & French, 2004). Separating prospects goes against decision-making theory that involves analyzing a project in terms of its effect on overall wealth (Abdellaoui, Vosmann & Weber, 2005). Human beings find it difficult to make decisions based on probabilities because they are more attuned to changes in attributes such as brightness, loudness and temperature rather than their absolute values (Botond & Rabin, 2006). Prospect theory was developed by framing risky choices, which indicates that people are loss-averse (Abdellaoui, Bleichrodt & Paraschiv, 2007). The central idea of prospect theory is that people derive utility from 'gains' and losses measured relative to a referent point (Botond & Rabin, 2007).

In any given context, it is not clear to define precisely what a gain or loss is (Barberis & Ming, 2008). Individuals conteptualze gains and losses in different contexts and treat outcomes that are deemed to be either certain or impossible very differently from those whose changes take place in the mid-range (Barberis & Ming, 2008). Individuals attach more psychological weight and importance to outcomes that they characterize with greater certainty (Barberis & Ming, 2008). The prospect theory examines the way in which value is related to the original reference point or the start of an action or choice (Botond & Rabin, 2009). Losses and gains from investment are valued differently to make investment decisions based on perceived gains rather than on perceived losses (Kahneman, 2011). An essential feature of the prospect theory is that economic values are based on changes in wealth or welfare rather than the final state or the absolute magnitude (Kahneman, 2011).

In prospect theory, individuals derive utility from gains and losses measured relative to some referent point rather than from absolute levels of wealth (Juanjuan, 2012). Prospect theory forms part of behavioural finance and describes how individuals choose between two probabilistic alternatives that involve risk and the probability of different outcomes that are unknown (Bordalo, Gennaisli & Shleifer, 2012). The theory is based on a series of experimental empirical demonstrations of actual human choice behaviour on decisions involving a series of financial bets and gambles (Balaz et al, 2013).

Prospect theory assumes decisions under risk are based on objective probabilities that are adjusted by applying decision weights stipulated in the extended cumulative prospect theory. In reality, it is difficult for individuals to obtain objective probabilities about possible outcomes of uncertain future events. Probabilities inherent in beliefs are unlikely to be systematically connected to actual randomness of the real world.

2.1.4 Loanable Funds Theory as it explains Interest Rate Changes

According to the loanable funds theory (LTF), the rate of interest is determined by the demand for and supply of funds in the economy at the level where the two equate (Hoerscher, 1983). The rate of interest is the price paid for using borrowed money for a specified period (Hancock, 1985). According to neo-classical economists, this price is determined by the demand for and the supply of loanable funds (Hancock, 1985). Investors in financial assets have a choice to make on whether to invest in risky equity or less risky bonds (Lavoie, 1996). When there is an increase in price of bonds relative to equity and therefore movement in corresponding yields on each asset, liquidity preference will dictate the choice of investment (Lavoie, 1996). Considering that portfolio managers have minimum target rates of return, there will be a shift into higher risk assets (Lavoie, 1996).

Supply of loanable funds comes from private savings, dis-hoardings and bank credit (Aretis & Howells, 1999). Personal savings depend upon the income level, which is regarded as interest-elastic. The higher the interest rate, the greater will be the inducement to save and vice-versa (Arestis & Howells, 1999). The supply curve of funds is upward sloping, while the demand curve is downward sloping (Arestis & Howells, 1999). Given any level of supply for loanable funds, an increase in demand for the funds causes interest rates to rise and a decrease will lead to a fall in the rates (Arestis & Howells, 1999). The LFT is a theory of macro-economic equilibrium in a

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specific market, which intermediates total net saving with total capital investment in a closed economy (Rochon, 1999).

Empirical evidence suggests that firms' investment decisions are fairly interest-inelastic and hence the supply and demand curves will have steep slopes and these curves will shift as output changes (Bibow, 2001). There is no "natural rate" of interest, which brings the macro-ecomic system into equilibrium (Bibow, 2001). Not withstanding that the LFT has certain validity, it assumes that money is borrowed for the purpose of capital assets (Bibow, 2001). In circumstances where a higher share of nominal income is saved, there will be weak demand for goods but strong demand for financial assets that leads to deflation in the goods market and inflation in the market for financial assets (Woodford, 2003). Strong demand for financial assets will reduce rates of return on financial assets (Woodford, 2003).

The rate of interest can also be said to be the price of credit, which is determined by the demand of and supply for loanable funds (Fullwiler, 2006). In a similar manner, at any given level of demand for loanable funds, interest rates will rise with a decline in the supply of loanable funds and fall with an increase in the supply of funds (Fullner, 2006). The Neo-classical or the Loanable Funds Theory (LTF) was formulated by the famous Swedish economist Knot-Wick-Sell and elaborated on by Ohlin Roberson, Pigou and some other neo-classical economists (Fontana, 2007). As the rate of interest rises, the volume of funds available for lending increases but the volume of desired borrowing falls (Bertocco, 2007).

In equilibrium, the rate of interest will settle at the market-clearing rate, which is when the rate of interest for supply and demand equate (Bertocco, 2007). According to Bertocco (2009), It becomes difficult to tell what variable between the volume of funds for borrowing and supply is independent and which one is dependent (Bertocco, 2009). In the LFT, the equilibrium between demand for and supply of loanable funds cannot result from changes in interest rates (Bertocco, 2009). Money can be borrowed to purchase consumer goods such as cars and houses (Bertocco, 2009). The decision to borrow and invest may not necessarily be influenced by the level of interest rate (Bertocco, 2009). Similarly, the assumption that people save when interest rates are high is misleading (Bertocco, 2009). People save for precautionary reasons to mitigate against negative future events (Bertocco, 2009).

For supply of loanable funds to be equal to the demand of loanable funds, it would mean that investment decisions are more important for determination of macro-economic variables than saving decisions (Woodford, 2010). Investment in the demand for loanable funds and savings in the supply of loanable funds are two important elements in the LFT (Hayes, 2010). The two elements are more influenced by the level of income rather than the level of interest rates (Hayes, 2010).

The LFT tends to exaggerate the effect of the rate of interest on savings since people can save out of precautionary motives and not for the reason of changes in interest rates (Hayes, 2010). For the afore-mentioned reason, saving can be said to be interest-inelastic (Hayes, 2010). Business expectations play a major role in the decision to invest (Hayes, 2010). If these expectations are high, investors will borrow to invest even if interest rates are high (Hayes, 2010). Low business expectations will not induce borrowing for investment even if the interest rates are low (Hayes, 2010). The LFT has been referred to as the indeterminate theory as an increase in total savings will cause a rise in all financial assets, which will lead to reduction in yields across board (de Carvalho & Cardim, 2012). It is worth noting that savings depend on income and income depends on investment, which in turn depends on interest (Wynne & Lavoie, 2012).

Central banks in many countries set their monetary policies as dictated by various factors and not just the demand for and the supply of loanable funds (Wynne & Lavoie, 2012). Demand for and supply of loanable funds keep fluctuating and no central bank may be willing to frequently change their interest rates (Wynne & Lavoie, 2012). It would be difficult to achieve an equilibrium in demand for and supply of loanable funds through frequent changes in the interest rates (Wynne & Lavoie, 2012). The demand of loans arises out of firms desire to invest and lower interest rates generate profitable projects (Mankiw, 2013). Supply of loanable funds is from savings and for surplus agents to save, they are promised interest to compensate them for foregoing present consumption (Mankiw, 2013).

The LFT explains the determination of interest rates in terms of demand and supply of loanable funds or credit. The rate of interest is assumed to stabilize at the point when the demand and supply of funds equate. It is not practical to find a situation in an economy where planned investment will equate planned savings. Funds available for

investment are from savings, which is not interest elastic. People can save for precautionary purposes and not as a response to increased interest rates. It is difficult to tell whether increased investment results into increased savings or flows from it to determine the level of interest rates.

2.2 Conceptual Framework

The research investigated determinants of share price fluctuations at the NSE as the dependent variables. The share price denotes a value for the worth of the security, derived from the expected future cash inflows, discounted at the required rate of return (Lo & McKinlay, 1988). Conceptual framework is a visual or a written product that expalains either graphically or in a narrative form, the main things to be studied that include the key factors, concepts or variables and the presumed relationships among them (Miles & Huberman, 1994).

The factors postulated in this research, to influence erratic share price fluctuations at the NSE included; independence of securities firms as moderated by the firms providing multiples services and information asymmetry. Independence refers to freedom from outside control or potential conflict of interest. Outside control, leads to an unfair investment field where share prices may be manipulated (Hans, 2006) and conflict of interest refers to competitive pressures (Hans, 2006).

Public announcements are proclamations containing information about an event that has happened or is going to happen (Campbell, 2016). Investors under react to public information and overreact to private information (Daniel, Hirshleifer & Subrahaman, 1998). Public announcements are moderated by money landering and terrorist activities. Investor perception refers to the reputation the investment community has towards a firm's share and the cognitive biases of investors (Sharma, 2012). Investor perception is moderated by cognitive and emotional biases.

Interest rate, often expressed as an annual percentage rate (APR) is a charge for use of money (Ahmed, Catte & Price 2006). Interest rate changes are moderated by alternative investments in the economy and government monetary policies. Company performance is measured by profitability, a subjective measure of how a firm uses its assets from its primary activity to generate revenues (Chenhall & Langfield, 2007). Company performance is moderated by accounting policies in this research.

Five pre-coded response categories on a Likert-Scale measured the relationships between the concepts and their relationships with the fluctuations of share prices at the NSE through questionnaire items in a survey. The following conceptual model in figure 2.1 summarizes the relationship between the constructs and the fluctuations of share prices at the NSE.
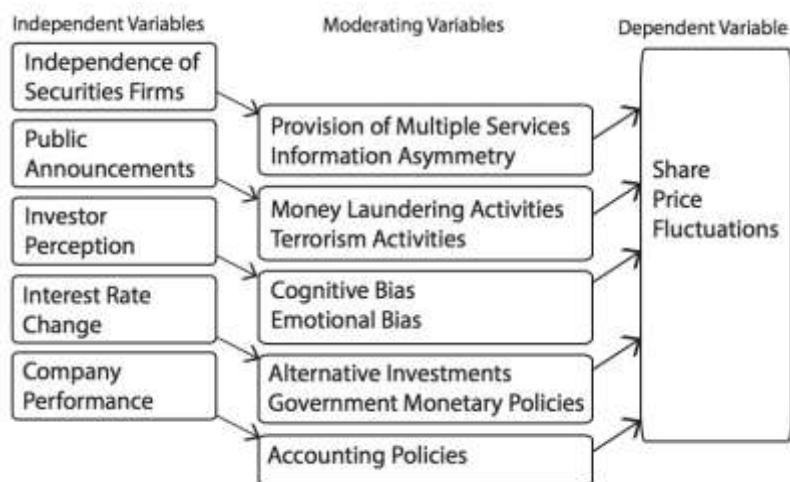
Figure 2.1: Conceptual Framework

2.2.1 Independence of Securities Firms and its Effect on Share Price Fluctuations

Securities firms provide multiple services to their clients (Grossman & Stiglitz, 1980). Provision of overlapping services creates conflict of interest, which interfere with market transparency (Grossman & Stiglitz, 1980). One of the methods used by brokerage firms to manipulate the stock market is through insider trading (Kylie, 1985). There are those who support insider trading and these proponents believe that since commentators do not cast aspersions on insider traders in other markets with substantial variations in price, they should do the same for share trading (Kylie, 1985).

Data vendors for investment information use insiders' trades to predict returns for institutional investors (Haddock & Macey, 1987). Insider trades scare off many investors and these are not willing to trade in a market with information asymmetry (Haddock & Macey, 1987). Companies prefer that their securities trade in "thick

markets" with many traders who have substantial capital and opportunities to trade at readily observable prices (Haddock & Macey, 1987). Insider traders often defend their actions by claiming that they do not injure anyone (Estrada, 1995). Moral concerns arise from both direct and indirect injury (Estrada, 1995). What causes injury or loss to outsiders is not what the insiders knew or did, rather it is what the outsiders did not know (Estrada, 1995).

Money managers have direct access to insiders' activities, which gives them informational advantage (Fishman & Hagerty, 1995). Dialogue often occurs among company executives, investors and analysts (Fishman & Hagerty, 1995). Long-term relationships established among these individuals may result in provision of background information from insiders to major investors or potential investors in the company (Fishman & Hagerty, 1995). Technological advances create new products that expand the scope of investment banking to include other activities that create potential for unethical trading (Spuma & Brooke, 1996).

There are circumstances where analysts' compensation for research work and investment banking business are connected (Lin & McNichols, 1998). When an investment bank serves two clients, one for research on possible investment and the other for underwriting, the bank serves both the issuer and the buyer at the same time (Clement, 1999). The issuer receives optimistic biased research and the buyer also gets the same information, yet proper unbiased information is required for the buyer (Clement, 1999). When potential underwriting revenues substantially exceed potential revenues from brokerage activities, the bank has an incentive to alter information to favour the issuing firm's needs (Clement, 1999).

Positive research reports provided by an analyst from a brokerage firm induces a company to hire that firm to underwrite securities offering and to attract new clients (Roni & Womack, 1999). If broker-dealers fail to identify, prevent and manage conflict of interest between brokerage and dealing business of the firm, there is the possibility of prejudicing the execution of client orders in favour of proprietary interests (Roni & Womack, 1999). Bias research reports impair the credibility of analysts' recommendations and these have a negative influence on share prices (Krugman, Shaw & Womack, 2001). Due to information asymmetry, investors may not know as much

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about securities offered for sale by firms as compared to firm insiders such as brokers and dealers Chakravarty, 2001).

Securities firms act on behalf of clients, some of whom may be in the same departments of these firms (Benn, 2002). The firms also take positions of their own, more commonly referred to as proprietary trading, that creates conflict of interest (Benn, 2002). Through the formation of investment pools and relationships with securities firms, investors manipulate the market (Bommel, 2003). A group of investors may band together and spread negative or positive information to change share prices (Bommel, 2003). The intention of spreading false information to drive share prices down and up would be to purchase and later sell these shares (Bommel, 2003).

Investment banks in recent times have faced an intensely competitive environment because of deregulation and globalization (Ramos, 2003). Subsequently, this has forced the firms to maintain a presence in all of the world's major markets (Ramos, 2003). Securities firms serve both individual and institutional clients who are not at the same level of sophistication in terms of trading (Malkiel, 2004). Brokerage firms are willing to sacrifice potential returns for individual investors to benefit larger institutional investors (Malkiel, 2004). Securities firms carry out perfect market timing for institutional investors who they consider as market makers (Malkiel, 2004). Policy makers and commentators are concerned by the fact that insider trading undermines public confidence in the securities markets (Fisher & Robe, 2004). If investors fear that insiders regularly profit at their expense, they will not be nearly as willing to invest (Fisher & Robe, 2004).

Analysts exert considerable influence at the stock market and their recommendations can influence the price of a company's share (Asquith, Mikhail & Andrea, 2005). Many analysts work in a world with built-in conflict of interest and competitive pressures (Jackson, 2005). The sell-side firms want their individual investor clients to be successful over time (Jackson, 2005)). Investment analysts are known to assist with due diligence and research into a company whose shares are on offer (Cowen, Groysberg & Healy, 2006). Positive research and recommendations may "support" the new share issued by a firm's investment banking clients and elicit future business (Cowen et al., 2006). The reason analysts give positive advice most of the time emanates from unwillingness to say anything bad about a client's business (Cowen et al., 2006).

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Several factors can create pressure on an analyst's independence and objectivity (Madueira & Underwood, 2008)). There are queries on recent investment banking practices especially as concerns independent research (Madueira & Underwood, 2008). In the aftermath of Enron, observers queried how it was possible for research analysts to fail to discover the types of, off-balance sheet transactions the company was engaging in (Madueira & Underwood, 2008). Information leaked that the sell-side independent analysts recommended shares underwritten by investment banks they worked for (Madueira & Underwood, 2008). Analysts threaten to withhold a favourable research rating to induce clients to offer investment-banking business (Madueira & Underwood, 2008).

Malpractices occur, where an investment bank oversees an issue while a business department of the same bank trades in those shares prior to an issue of the company (Odugbemi & Jacobson, 2008). Brokerage firms have membership on stock exchanges, which allow them to vote on exchange policy, giving them opportunities to fulfill self-interest (Ohad, Madueira & Wang, 2009).

2.2.2 Public Announcements and their Effect on Share Price Fluctuations

Public announcements centre on the intervention of the government in the economy (Gilligan & Krehbiel, 1990). The role of government evolves as it attempts to address complex challenges that transcend bureaucracies and borders (Dodd, 1994). The government establishes the infrastructure that encompasses the financial system, which is the "brain" of the economy and the area within which market failures are most marked (Stiglitz, 1994). The government shifts its policy targets from time to time, which creates an unstable financial environment (McCombs & Jian-hua, 1995). Changes in the economic environment fundamentally alter what the government can and should do (McCombs & Jian-hua, 1995).

The policies, which the government puts in place in an interactive system are applied to solve public problems (Dixit, Grossman & Helpman, 1997). Public problems originate in different ways and require different policy responses to solve (Dixit et al., 1997). Some of the problems transcend national borders and include issues such as corruption, terrorism and money laundering (Johnson, Kaufman & Zoido-Lobaton, 1998). The World Bank (2000), in its study of the relationship between governance and economic development found that in the African context, political and economic

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governance are inseparable. Governments with good governance can resist the temptation to soak up to short-term flows from money laundering to lay the foundation of a strong financial sector (Eizenstat, 2000).

Criminal money flows rapidly into an economy, providing an illusion of success and short-term boost to national savings (Blades & Roberts, 2002). Funds are then moved into new centres when the financial environment becomes unattractive for the criminals (Blades & Roberts, 2002). The criminal proceeds can also be moved to complicate detection of the illegal funds (Blades & Roberts, 2002). Money laundering subverts the legitimate financial mechanism and the banking relationship by using them as protective covering for the movement of criminal proceeds and financing crime and terrorism (Bartlett, 2002). The conversion of criminal incomes into assets that cannot be traced back to the underlying crime through money laundering impacts the financial system (Bartlet, 2002).

The goal of a financial market is to protect the integrity of the financial system, more so banks, which are the core of that system (Transparency International, 2003). Bank's reputation suffers if it becomes associated in the public mind with the crime of money laundering (Pieth & Aiolfl, 2003). If banks and other financial institutions play their assigned role in the economy, their customers should at least trust them (KPMG, 2003). Such trust will prevent "runs" on banks that have a potential to undermine the stability of the financial system and the economy (KPMG, 2003). The accumulation of criminal assets in a country's financial system can influence decisions about national banking policies or about co-operations in international investigations, transparency and accountability rules (Kaufmann, 2003).

The expansion of global financial markets has not been without problems (Reuter & Truman, 2004). There is increased volatility of capital flows as money moves from one market to another in search of short-term returns (Reuter & Truman, 2004). A comparable threat comes from the increasing quantities of criminally derived and criminally controlled money flowing through the international system (Reuter & Truman, 2004). The integrity of financial institutions and the trading system upon which prosperity and growth depends is compromised when huge amounts of criminal funds flow in the system (Reuter & Truman, 2004). Such funds do not necessarily respond to normal economic stimuli (BIS, 2004)

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Public economic crimes such as corruption and money laundering generate significant proceeds that require to be "cleaned" to enter the financial system without stigma of illegality (Rafi & Rafi, 2004). Corruption facilitates money laundering as government corrupt officials enable launderers to escape all controls and sanctions (Rafi & Rafi, 2004). Countries with low levels of governance and control over corruption vices tend to have lower levels of compliance with anti-money laundering and combating the financing of terrorism (Rafi & Rafi, 2004). Attention focuses on the possibility that terrorists might disrupt countries' financial systems (Byman, 2005). There may be back up systems in remote areas but delays can occur in payments or securities clearings (Byman, 2005).

The flow of criminal money responds to changes in banking secrecy or financial regulation (Common Wealth Secretariat, 2006). Such movements result in unpredictability and hence instability of the financial institutions through which they occur (Common Wealth Secretariat, 2006). The 2008 financial crisis sparked a renewed interest in the international community to step up its efforts against corruption and money laundering (Ferwerda, 2009). A study conducted by Egmont Group and the Wolfsberg Group in conjuction with FATF indicates an increase in the commission of certain types of predicate offenses and highlights a shift in the preferred mechanisms used to launder money (Ferwerda, 2009). The study shows that there is a higher frequency of fraud-related and stock market offenses caused by money laundering risks (Ferwerda, 2009).

Flow of proceeds of crime into the financial system undermines the integrity of financial markets, creates economic distortion and financial instability in an economy. Money laundering provides "fuel" for terrorism, drug dealing, corruption of public officials and the expansion of predicate offenses that deter a conducive environment for investment, even so in stock trading.

2.2.3 Investor Perception and its Effect on Share Price Fluctuations

Behavioral finance has two building blocks namely; cognitive psychology and limitations to arbitrage ((Shleifer & Vishny, 1997). The former refers to how people think and the latter occurs when the market is inefficient (Shleifer &Vishny, 1997).

Behavioral finance relaxes the traditional assumptions of financial economics to incorpoarate human departures from rationality into standard models of financial markets (Barber & Odean, 1999). The two common mistakes investors make due to emotional and cognitive biases in economic decision-making include excessive trading and the tendency to disproportionately hold on to losing investments while selling "winners" (Barber & Odean, 1999). The tendency of human beings to be overconfident causes the first bias and human desire to avoid regret prompts the second bias (Barber & Odean, 1999). Psychology is a force guiding individual investors' decisions as it affects human emotions and cognitive error in financial decisions (Statman, 2001).

Behavioral finance disputes rational markets and rational economic decisions (Statman, 2001). People possess diverse combinations of rational and irrational characteristics (Barber & Odean, 2002). Eugene Fama, one of the pillars of the efficient market school of thought admits that the stock market prices could become somewhat irrational (Hilsenrathy, 2004). From neoclassical economics, "homo economicius" is a simple model of human economic behavior (Hilsenrathy, 2004). The principle assumes that perfect self-interest, perfect rationality, and perfect information govern individual economic decisions to maximize their utility (Hilsenrathy, 2004). Human rationality is quantifiable but rationality is not the only driver of human behaviour (Hilsenrathy, 2004). It may not even be the primary behaviour because psychologists believe that human intellect is actually subservient to human emotion (Hilsenrathy, 2004).

Investment advisors' interface with client investor types where they categorize investors as either passive or active (Fellner, 2004). The passive group has greater need for security than they have tolerance for risk (Fellner, 2004). Active investors risk their own capital and have a high tolerance for risk and a low need for security (Fellner, 2004). Overconfident and volatile investors utilize this personality to put all their funds in one bet (Fellner, 2004). As a result, they are the best prey for maximum broker turnover (Fellner, 2004).

Behavioural biases that hinder optimal economic decisions are heuristics or rules of thumb that involve systematic errors in judgment due to beliefs or preferences (Coval & Shumway, 2005). The biases fall into two broad categories including cognitive and emotional biases that stem from faulty reasoning (Coval & Shumway, 2005. Better information and accepting advice from experts can correct the biases (Coval &

Shumway, 2005). Financial advisors may not feel comfortable asking their clients personal questions and so, they let investors to continue distorting market activity outcomes (Ziegler & Skinner, 2006). Some of the irrationality in investment that results from cognitive psychology includes herd behavior, mental accounting, over-confidence and self-attribution, gambler's fallacy and anchoring and adjustment (Forsyth, 2006).

Herd behaviour refers to the tendency of individual investors to imitate the actions of a larger group on the precepts that the group cannot be making a mistake in the decisions they take (Barber & Odean, 2002). Individually, most people would not necessarily make the same choice (Barber & Odean, 2002). People conform to herd behaviour due to social pressure to avoid isolation (Barber & Odean, 2003). Investors follow the herd and are not bothered whether the yield curve will be rising, constant or falling (Forsyth & Wadsworth, 2006). Investment clubs are social clubs in which small groups of people pursue together a hobby of investing (Forsyth & Wadsworth, 2006).

There are investors who lack any clear sense of objective evidence regarding prices of speculative assets (Forsyth & Wadsworth, 2006). The process by which they derive their opinions are especially social (Forsyth & Wadsworth, 2006). It should be appreciated that, just because groups are useful does not mean that we should be instinctively drawn to them and their thinking patterns (Forsyth & Wadsworth, 2006). Other factors play an important role in determining our decisions and these factors include our own experiences and the balance of one's needs against those of the group (Forsyth & Wadsworth, 2006).

Mental accounting as a cognitive irrationality describes people's tendency to code, categorize and evaluate economic outcomes by grouping their assets into any number of non-interchangeable mental accounts (Grinbatt & Hans, 2005). Mental accounting consider that people take irrational steps in treating various sums of money differently based on where these sums are mentally categorized (Grinblatt & Hans, 2005). The concept of framing is important in mental accounting analysis (Grinblatt & Hans, 2005). People alter their perspectives in framing in respect to money and investments according to the circumstances that surround them (Grinblatt & Hans, 2005).

Investors jointly evaluate distinct financial decisions as though they pertain to the same mental account or separately if they do not (Lim, 2006). The detrimental oversight stems from mental accounting bias that cause investors to be irrational in distinguishing

between returns derived from income and those derived from capital appreciation (Lim, 2006). The portfolio investment is not unitary to obtain an overall risk-return profile (Lim, 2006). The manifestations of mental accounting include the placement of investment assets into discreet buckets according to asset type (Lim, 2006). There is no regard for potential correlations connecting investments across categories (Lim, 2006).

Investors engage in irrational behaviour such as acquiring a bank loan to invest in the stock market or for some other purpose when at the same time, they have huge savings in their bank accounts (Shumway & Wu, 2006). Mental accounting provides the structure under which the disposition effect holds when realization proceeds are, re-invested in a "swap" (Shumway & Wu, 2006). Investors are likely to refrain from re-adjusting their reference point for a share (Mirfeiz, Kordlouie & Khajezaden, 2012).

The purchase of a share opens a new mental account with the reference point being the purchase price (Mirfeiz et al., 2012). Such an action is to ensure that investors maintain the status quo and stay with what is familiar (Mirfeiz et al., 2012). The score of gains and losses is relative to the purchase price (Mirfeiz et al., 2012). Decision-makers encounter considerable difficulty in closing mental accounts at a loss due to the break-even point effect (Mirfeiz et al., 2012). Rather than recover to an original entry price, many investors plunge sickeningly to even deeper losses (Mirfeiz et al., 2012).

Overconfidence and self-attribution are an additional bias that contributes to anomalies at stock market trading (Dunn, 1989). Self-serving attribution bias refers to the tendency of individuals to ascribe their successes to innate aspects such as their talent or foresight (Graham, 1991). In self-attribution, a cognitive phenomenon exists by which individuals, attribute failures to situational factors and successes to dispositional factors (Graham, 1991). The self-attribution bias has two constituent tendencies that involve self-enhancing bias that has a propensity to claim an irrational degree of credit for successes (Graham, 1991).

On the other hand, self-protecting bias represents the corollary effect that is the irrational denial of responsibility for failure (Graham, 1991). The regret of having made an error in judgment places emotions associated with the ex-post knowledge that a different prior decision would have been better (Graham, 1991). Under certainty overconfidence, people tend to have too much confidence in the accuracy of their own judgment (Odean & Gervas, 2001). Overconfidence is an irrational behaviour that

results from the tendency for an individual to exaggerate one's ability, to successfully, perform a particular task (Odean & Gervas, 2001). Overconfidence is a function of ego that addresses the curiosity behavior (Odean & Gervas, 2001).

Overconfident investors believe they are better than others and that they can beat the market through their ability to time accurately when to enter and exit the market (Odean & Gervas, 2001). Such investors tend to receive lower yields relative to the market (Billet & Qian, 2005). Too many people over-value what they are not and under-value what they (Billet & Qian, 2005). Individuals susceptible to certainty overconfidence often trade too much in their accounts and hold undiversified portfolios (Billet & Qian, 2005). There is unwarranted faith in one's intuitive reasoning, judgment and cognitive abilities (Bhandari & Deaves, 2006). Men in particular, single men trade far more than women (Bhandari & Deaves, 2006). In psychology literature, men are more confident than women (Bhandari & Deaves, 2006). Overconfident, traders trade more and in turn create an association between trading volume and market returns (Deaves, Luders & Schroeder, 2010). Such overconfidence tendency may be responsible for the prevalence of active versus passive investment management (Deaves, Luders & Schroeder, 2010).

People are poor in estimating probabilities (Gloede & Menkhoff, 2011). Events they think are certain to happen are often far less likely to occur (Gloede & Menkhoff, 2011). There is a tendency of investors to fall prey to a misguided quest to identifying the "next hot stop" (Gloede & Menkhoff, 2011). Individuals choose curiosity over defensiveness without considering the fact that it is easier-said than done (Menkhoff, Schmeling & Schmidt, 2013). The overconfident tendency is detrimental, in the end if applied in making economic decisions to invest (Menkhoff et al., 2013).

Investors who trade at the stock exchange as if they were participating in a lottery contribute to the irrationality in stock prices (Clotfelter & Cook,1993). Gambling is a luck business where investors use misleading information to make decisions for economic benefits (Clotfelter & Cook, 1993). There is a desperate scramble to find quick returns to beat other market participants (Clotfelter & Cook, 1993). It is indeed, "a fool's" game as players scramble to neutralize losses (Gilovich, 1993). Chance business has costs that can be immense and it is severe if gambling becomes addictive to compare to neuropsychological disorder (Gilovich, 1993). A good poker player knows that one thing he should never do is chase after his losses in the hope of reversing

his luck (Gilovich, 1993). The player who "chases" after losses becomes obsessed with winning that he starts making mistakes (Gilovich, 1993).

Investors' lack of understanding can lead to their making of incorrect assumptions and predictions about the onset of events (Fisher & Statman, 1999). An individual investor can believe that the onset of a certain event is less likely to happen following another event or a series of certain events (Fisher & Statman, 1999). As an illustration, if interest rates begin to rise, an investor may trade in fixed-income instruments with the belief that very soon the rates will fall (Fisher & Statman, 1999). Human beings tend to subscribe to the law of small numbers (Rabin, 2002). There is an assumption that small samples faithfully represent entire population (Rabin, 2002). Sample size neglects representativeness bias in gambler's fallacy or the law of small numbers (Rabin, 2002).

Gambling and chance have a high potential of resulting in losses similar to those suffered by unsuccessful bettors (Croson & Sundali, 2005). There is a commonly held impression that gambling luck is in streaks (Asparouhova, Hertzel & Lemmon, 2008). Psychological dynamics and not mathematical realities inspire this perception (Asparouhova, Hertzel & Lemmon, 2008). Statistically, the streak concept lacks sense (Asparouhova, Hertzel & Lemmon, 2008).

Anchoring, another cognitive bias involves mental processes that engage knowledge representation for people to estimate a value with unknown magnitude (Kahneman & Riepe, 1998). People start by envisioning some initial, default number that is an anchor and then adjust up or down to it (Kahneman & Riepe, 1998). The anchor goes through fine-tuning and reassessment until it matures into a final estimate (Kahneman & Riepe, 1998). Studies have shown that regardless of the method of choosing an anchor, people tend to adjust their anchors insufficiently and produce approximations that are biased (Campell & Sharpe, 2009). People are better at estimating relative comparatives rather than absolute figures (Campbell & Sharpe, 2009)).

Anchoring and adjustment is a psychological heuristic that influences the way people perceive probabilities (Campbell & Sharpe, 2009). Purchase points or arbitrary price levels or price indexes influence investors who exhibit this bias (Campbell & Sharpe, 2009). They stick to these numbers as they decide whether to buy or sell securities (Campbell & Sharpe, 2009). This is so because they may not be able to tell whether the market is currently undervalued or overvalued (Campbell & Sharpe, 2009).

In situations where a purchase price becomes an anchor, a price rise to extremely high levels followed by a fall, which is relatively higher than the purchase price makes investors experience conflicting emotions (Bergman et al., 2010). Investors have to evaluate the situation to determine whether to hold or sell the share (Bergman et al., 2010). A rational investor would analyze the company's financial situation and make an objective assessment of the company's business fundamentals (Bergman et al., 2010).

The market value of a share depends not on the future cash flows it gives rise to, but rather on investors beliefs about that value (Alevy, Laundry & List, 2011). Investors then engage and devote their intelligence in guessing what the average value will be to reach a dominating opinion (Alevy, Laundry & List, 2011). Dominated strategies have no chance of winning and rational participants eliminate such strategies to reach a Nash equilibrium where only one strategy remains to result in an aggregate outcome of zero (Alevy, Laundry & List, 2011).

According to Cen, Hilary and Wei (2013), Investment professionals are not immune from the effects of anchoring and adjustment biases as observed from analysts plotting patterns in securities' earnings variations (Cen, Hilary & Wei, 2013). The analysts upgrade or downgrade on a number of securities and decide to buy or sell these shares in accordance to the patterns they form (Cen et al., 2013). Analysts undervalue both positively and negatively the magnitude of earnings' fluctuations due to anchoring and adjustment bias (Cen et al., 2013). Many times, individuals have a tendency to attach on anchor investors as reference points (Cen et al., 2013).

Behavioural finance has evolved based on observing how individuals make decisions. Current advancement in neuroscience makes it possible to measure thoughts and feelings and offer the potential to understand why individual investors make the decisions they make. Such information may help explain anomalies in investment decision-making.

2.2.4 Interest Rate Changes and their Effect on Share Price Fluctuations

Interest rate is one of the most important macroeconomic variables directly related to economic growth (Valeriano, 1999). In an inefficient market, financial institutions lend at higher rates, which causes funds to move from the stock exchange to financial

institutions (Valeriano, 1999). Demand for shares will decrease leading to a decline in share values (Valeriano, 1999). Higher interest rates depress share prices through the substitution effect (Jefferis & Okeahalam, 2000). Interest bearing assets become more attractive relative to shares (Jefferis & Okeahalam, 2000). An increase in the discount rate, translates to reduced present value of future expected returns (Jefferis & Okeahalam, 2000).

A negative correlation exists between the changes in the required rate, referred to as the denominator effect in a valuation model (Jefferis & Okeahalam, 2000). Interest rate also affects the numerator in the valuation model (Jefferis & Okeahalam, 2000). According to Interest rate as a cost on debt financing impacts corporate earnings (Ryan & Worthington, 2004). The higher the interest rate, the lower a firm's profits and cash flows (Ryan & Worthington, 2004). Rising interest rates cause, a firm to experience problems paying off its debt, and this may threaten its survival (Rauh, 2006). Lenders charge a risk premium that pushes interest up on loans to compensate for possible default (Rauh, 2006). Higher interest rates as discount factors reduce share values (Rauh, 2006).

Interest rate targets are a vital tool of monetary policy (Hsing, 2010). The effect of interest rates on variables such as investment, inflation and unemployment should be accounted for (Hsing, 2010). Maintaining low interest rates as a macro-economic policy can be risky and may lead to the creation of an economic bubble, when large amounts of money are committed into real estate as well as the stock market (Hsing, 2010). The presence of an economic bubble, would imply that large under-performing loans could lead to bankruptcy of many banks (Hsing, 2010). Most economists think that low interest rates, give a short-run gain in economic activity but inflation offsets such benefits (Blanchard, Giovanni & Mauro, 2010). Those with a contrary view, see higher interest rates to lead to greater investment for recouping higher returns to pay the depositors (Blanchard et al., 2010).

Higher rates are seen to discourage economically unproductive lending for consumer credit used to buy imported goods that boost stock markets in other economies (Blanchard et al., 2010). The higher required rate of return by investors has the effect of depressing the fair value of the company's shares (Blanchard et al., 2010). Inflation as a proxy of short-term interest rates has an inverse relation with the stock market

(Malcom & Wurgler, 2012). Expected inflation, negatively affects the expected economic activity (Malcolm & Wurgler, 2012). Economic activity on the other hand, has a direct relation to the returns on the stock market (Malcolm & Wurgler, 2012). There is historical evidence, which illustrates that in circumstances when inflation has been low, interest rates have also been low and stable (Malcom & Wurgler, 2012).

Shares perform well during such periods, both in nominal and real terms (Malcom & Wurgler, 2012). The influence of long-term interest rates as discounting factors on share values stems directly from the present value model (Malcom & Wurgler, 2012). The term structure of interest rates is effective in predicting returns on the stock market (Bekaert, Engstrom & Ermolov, 2016). The high volatility of the stock market results from the high volatility of long-term bond yields (Bekaert et al., 2016). Funds available in an economy influence interest rate change (Makheta, Mishi & Ngonyama, 2016). Interest differentials in different economies cause capital to flow from one economy to another (Makheta et al., 2016). Despite positive interest rate potentials in developing countries, this has not attracted higher capital inflows to these countries (Makheta et al., 2016)

The government uses interest rate changes to manage its monetary policy. The changes in interest rate affect stock prices through the discount factor used to determine the present value of future cash flows. Interest rate changes as a cost of borrowing also impact future performance of a company.

2.2.5 Company Performance and its Effect on Share Price Fluctuations

Company performance refers to the management and the evaluation of a company's value through the use of various selected indicators that measure the achievement of its goals (Barnet, 2004). Company performance can be evaluated using the traditional approach that employs many indicators of performance that are most of the time incompatible with each other (Barnet, 2004). The traditional approach centres on profit maximization and contrasts with the modern approach, which is value-based management that attempts to connect all company activities and the people involved in business processes (Barnet, 2004).

As an economy goes through different stages of the business cycle, the relative profitability of different industry groups varies (Sangafi & Salimi, 2005). When

perceptions about the health of an economy become more optimistic, the prices of most shares will increase as forecasts of profitability rise (Sangafi & Salimi, 2005). Cyclical firms are more sensitive to such developments and hence their shares will rise the most (Sangafi & Salimi, 2005). Earnings are a fundamental component of many performance measures (Murby & Gould, 2005). These measures implicitly assume that past earnings are a good predictor of future returns, which are associated with the share value of a company (Murby & Gould, 2005).

The overriding objective of a business is to increase shareholders' value but there is a complicated chain of means and relationships to consider that impair shareholders' value (Aboody, Hughes & Liu 2005). Accounting provides such a common language that the effect of very different activities, aggregate into overall measures such as sales, revenues, costs and profitability (Aboody, Hughes & Liu, 2005). Share prices follow company performance and if a company's earnings increase over time, the share price rises (Yan & Hu, 2006). Share price has a direct relation to the demand of the company's shares (Yan & Hu, 2006). The company's performance is one aspect that affects the demand of the firm's shares (Yan & Hu, 2006). Over the long-term, there is a direct correlation between a company's performance and its share price (Yan & Hu, 2006).

In a world of perfect information, the history of a company's performance is irrelevant to predicting share price movements (Barth & Schipper, 2008). Accounting measures of performance are restricted largely to providing confirmatory evidence that the beliefs of investors concerning current earnings are based on audible facts (Barth & Schipper, 2008). The arena of "creative accounting" indicates the lengths to which accounting judgments go in the cause of reporting profit figures (Barth & Schipper, 2008). The profit figures generated by accounting judgments are helpful to directors and others with positions in the company, to the extent that future earnings streams and value creation have become less predictable (Barth & Schipper, 2008).

Delivery of returns to shareholders is the overall aim and objective of a business enterprise but in reality, reported accounting earnings provide only a weak surrogate for overall shareholder returns (Barth & Schipper, 2008). Empirically, share values tend to rise when firms announce earnings greater than what investors expect or market analysts anticipate (Akbar & Baig, 2010). At the heart of fundamental analysis is the

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determination of earnings prospects and the success of a firm depends on the dividends it pays from such earnings (Akbar & Baig, 2010). Shares experience high average returns, which are not consistent with simple present values and clean surplus accounting (Houqe & Zijl, 2010). There have been governance problems prevalent in companies managed by controlling shareholders whose cash flow rights in the firm are smaller than their controlling rights (Houqe & Zijl, 2010).

The size of private benefits to managers depends in large part on the extent of investor protection and corporate governance (Hoque & Zijl, 2010). Imperfect investor protection lowers firm value (Hoque & Zijl, 2010). Under perfect investor protection, the controlling shareholder rationally pursues no private benefits because of the infinite marginal cost of stealing (Hoque & Zijl, 2010). He believes in the interest of outside shareholders because most of these investors are risk-averse and dislike the volatility in their output (Hoque & Zijl, 2010). The inclusion of non-cash items in financial reports is a strategy used to manipulate the earnings of a company, which leads to the share price capturing such inaccurate information (Beneish, Lee & Nichols, 2013). An earnings picture disclosed could display what management wishes to express (Beneish et al., 2013). In selecting accounting policies, many companies choose those that present their financial statements in the best possible light (Beneish et al., 2013).

Financial analysts encounter problems interpreting financial data when accounting policies used to prepare financial information are inconsistent (Standard & Poors, 2014). Companies use profitability, a measure that means different things to different people to evaluate company performance (Standard & Poors, 2014). Several conventions regarding the valuation of assets affect accounting earnings and creates difficult in interpreting data, which complicates the valuation of shares (Standard & Poors, 2014).

Firms in international trade face price competition on their exports from foreign competitors due to global factors (Caporale, Hunter & Ali, 2014). Global trading also impacts profits on investments abroad (Caporale et al., 2014). National economic environment can be a crucial determinant of industry performance (Caporale et al., 2014).

Corporate performance measurements are carried out on financial statements prepared using some standardized methods applied to a variety of account items in monetary terms. Not all information about a firm's performance can be expressed in monetary terms, which implies that measures derived from the use of these standardized methods do not provide all the information that is relevant to understand company performance during any period, to enable economic decision-making.

2.3 Empirical Review

Research in finance has been carried out on stock market volatility, mostly in developed countries such as the US, Canada and Japan. There is minimal research on erratic share price movement in Africa, more so in Kenya. Research on independence of securities firms as explained by governance issues include research by Nyangara and Musikavanhu (2014), which analyses the impact of demutualization and automation on fifty stock exchanges' performance as a lesson for the Zimbabwe Stock Exchnage. Demutualized exchanges separate ownership and management to create conflict of interest (Mensah, 2005). The researchers examine the nature and significance of the relationship between stock exchange ownership structure and performance.

The study was guided by the positivism philosophy that relied heavily on empirical analysis using econometric technique and hypothesis testing. The researchers used the Least Square Dummy Variable (LSDV) regression model to investigate market indicators as discussed by Yartey (2008) that include capitalization ratio, value of stock traded as a percentage of GDP and the number of companies listed on each of fifty stock exchanges to measure performance. The researchers also used stock exchange ownership structure, technological advancement of the stock exchange, especially automated trading system, level of economic development of the stock exchange and the age of the exchange as key drivers of the stock exchange performance. The reseachers found that demutualization and economic status of a country have the greatest positive impact on market capitalization. The study revealed that when combining demutualization and automation, there is positive effect on market capitalization and listings. Automation reduces trading volumes probably due to information efficiency. The findings show that demutualized exchanges in developed economies experience the best performance after controlling for age and technology. The researchers found that the age of an exchange has significant positive effect on

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listings but a significant negative effect on market capitalization. There was insufficient evidence to suggest that simply automating an exchange improves the performance of an exchange.

Orleans and Edilson (2014) research investigated the relationship between information asymmetry in the stock trading, economic and financial characteristics and corporate governance of listed companies on the Brazilian Stock Exchange (BSE) from 2010-2011. The researchers examined 194 companies listed on the BSE. The study employed the Probit regression model with panel data for the 194 companies. Information asymmetry was measured by the Probability of Informed Trading (PIN) as the dependent variable. Independent variables included economic, financial and governance sub-variables. The PIN is estimated directly from minute-to-minute trading data of each share from the beginning of 2010 to the end of 2011 through the imbalance between purchases and sales of shares, during a given period as postulated by Abad and Rubia (2005). The findings indicated that information asymmetry in stock trading is positively related to the risk, return and the liquidity of the shares as well as the cost of equity and the size of the company. The asymmetry is negatively related to the abnormal return of shares.

Research on public announcements, include the study by Obradovic and Tomic (2017) on the effect of presidential elections in the USA on stock return flow using an event study. The study determined the statistical significance of abnormal returns on the New York Stock Exchange (NYSE) after the presidential elections in the USA in November 2012. The analysis was based on a sample of 85 financial institutions listed on the NYSE. Financial institutions were selected due to the large contributions they make to presidential campaigns through donations. The study analyzed a five-day event period to replicate Beccheti and Cicireti (2011). The event study determined the abnormal return during the event window and investigated the statistical significance of abnormal returns.

Normal returns were determined by the use of MacKinlay 1997 Market Model. The researchers used the market flow indicator, which is the Standard and Poors or SP 500 index that covers a wider portion of the market on a six-month period starting 7 May 2012 to post event-window period at the end of November 2012. The study showed that the post event window returns are negative to imply that the market responded

negatively after the elections. The t-test statistics for the rest of the period showed that there are no stastically significant abnormal returns.

Khalil and Akhtar (2017) investigated the effect of terrorist events on the variation of returns on KSE-100 Index on the Karachi Stock Exchange (KSE) from 2004 to 2014. The researchers included 2714 terrorist events in Pakistan and used a Generalized Autogressive Conditional Heteroskedasticity (GARCH) model to measure the impact of terrorist attacks on the volatility of share values and EGARCH to capture the leverage effect that showed to what magnitude positive and negative news have on share price volatility. The study used a series of dummy variables to assess how the stock market responds to terrorist events in different regions, with respect to different attacks like armed assault, assassination, bomb blast and hostage capture. The series of dummy variables incorporated the type of target for attack, such as the military, journalists, business and educational institutions.

The research showed that different types of attacks and different targets have divergent impact on the stock market. Impact by location showed that a region referred to as KPK province had a higher negative impact on KSE 100-Index compared to the Karachi area. Attacks on the military and journalists were giving the highest negative impact on returns. Journalists tend to exaggerate trivial issues and attacks on the military bring uncertainty in a country and that could be the reason for higher impact on performance when these two targets are attacked. Being held as a hostage significantly contributes to negative returns of the KSE 100-Index. The researchers used a three-day event window separated as "the day before", "the event day" and the "day after" respectively.

The study indicated that the value of the dummy before the event day is negative and highly significant to indicate that the market return is negative and the effect of the terrorist attack is significant in Pakistan. All the attacks have negative returns but news of kidnapping in both local and international media create a significant negative impact on KSE 100-Index, while assassinations have less negative impact due to lower number of incidences since the war on terrorism started. Investors have diverse perceptions about the severity of the attack. They regard some attacks as being more dangerous for the economy and hence the stock market.

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Research on investor perception includes a study by Vishanadham, Dorika and Mwakapala (2014) determination of perceptial factors influencing buying behavior of investors on Dar-es-Salam Stock Exchange (DSE), Tanzania. The study used cross-sectional survey design to interrogate forty former investors and ten employees of DSE from 2010 to 2012, who have academic qualifications ranging from high-school level to masters' degree. Various methods including interviews, questionnaire and documentary evidence were used to collect data. The questionnaire was classified into five-sections to collect data on social, demographic, economic, psychological and political factors that influence investment decisions of individual investors. The research findings showed that majority of the respondents at 60% were of the age-group ranging from 36-55 years and the majority had an under-graduate qualification.

The proportion of the male research participants was at 70% compared to females at 30%. The drivers of economic factors include surplus income, income changes in the economy, capital adequacy of companies, market share of companies and efficiency ratios. Political stability, standard tax rate, interest rate and other government policies towards stock market development drive political factors. The price of a share, brand name of company, financial stability of a company and quality of management decisions were included in unspecified other factors that impact on investor decisions to invest and that demographic factors highly depend on all the other factors mentioned. The researchers concluded that investors are concerned about companies' future market risk strategies.

Isnurhadi and Jie (2017) carried out research on risk perception and psychological behavior of investors in emerging markets, with reference to the Indonesian Stock Exchange (ISE). The study utilized Structured Equation Model (SEM) based component or variance, which is recognized as Partial Least Square (PLS) due to the use of more variables, in this case, four to include risk perception of the stock, investor psychology, stock market confidence and the stock market performance. The study used a sample of 100 individual investors, with 37% being females and 63% males. The study shows that risk perception has significant positive effect on the stock market performance. On average, investors in a region referred to as Palembang in Indonesia has moderate risk characteristics. These investors have a target return that can be obtained at a certain acceptable risk. Perception of risk and psychology significantly affect the confidence of investors.

Investor psychology is reflected by three indicators namely cognative, affective and cognitive. Confidence has a significant positive impact on performance on the stock market. The level of literacy of individual investors leads to over-confidence and investors who understand risk are able to control the level of confidence. Cognitive, affective and cognative characteristics influence the level of confidence and these factors combine to affect the decision to buy or sell shares.

Empirical studies on interest rate changes include a study by Amarasinghe (2015), which examined the dynamic relationships between the stock market performance and the interest rates in Sri Lanka during January 2007-December 2013. The study used all share price index (ASPI) on the Colombo Stock Exchange (CSE) as a measure of stock market performance indicator and the Sri Lanka Interbank Offer Rate (SLIBOR) as a measure of interest rate levels. The researcher employed time series econometric technique to quantify the relationship between stock market performance and interest rate level. The methodology encompassed the Augmented Dickey-Fuller Unit root test to examine the stationarity of variables and Granger Causality test to determine any causal relationship between stock prices and interest rate levels.

The results show that there is one-way causal relationship between stock returns and interest rate changes and that the ASPI data and the interest rate is stationary at first difference. The results also indicated that stock returns do not influence the interest rate movements but interest rate changes do influence stock returns. The regression model has a high negative correlation of 0.8083 and a p-value of 0.0000, which shows that the correlation is significantly different from zero. Interest rate changes have a significant impact on share price changes and the relation is negative.

Research by Martinez, Lapena and Sotos (2015) examined the interrelationships between changes in 10-year government bond yields and the performance of the Spanish Stock Market from an industry perspective across time and frequency starting from January1993 to February 2012. The study used an Econometric Wavelet Analysis, a relatively novel phenomen that has an ability to partition any signal into components associated with different time scales. The Haar a trous wavelet (HTW) transform, proposed by Murtagh et al. (2004) was applied to determine the relationship between interest rate changes and industry equity returns.

To determine the relationship, three wavelet-based statistics that included wavelet variance, correlation and cross correlation were applied. It is postulated that the interest rate and stock market link may differ across time investment horizons, here referred to as scales. The study used monthly data of all the 249 companies listed on the Spanish Stock Exchange (SSE), where value weighted industry stock indexes were constructed from stock prices, adjusted for splits and dividends of individual firms within each of the fourteen-industry portfolio.

The research results show linkages between changes in the 10-year Spanish government bond yield and industry equity returns at different time horizons by HTW transform with a six-time scale as each scale is associated with a particular time period. There is a contemporaneous correlation between the 10-year bond yield fluctuations and industry returns. The variations are in accordance with the time horizon to suggest that the interest rate and stock market link is a multi-scale phenomen. The highest value in absolute terms of HTW correlation tends to be detected at longer time horizons and the conclusion is that long-term horizons are the most important contributors to the association between yields on 10-year bonds and stock market performance.

The wavelet correlation is not significantly different from zero at shorter horizons. Spanish industries exhibit in general a significant interest rate sensitivity, although the degree of interest rate exposure differs considerably across industries and the time horizon under consideration. Regulated industries such as utility firms and firms that have high financial leverage such as real estate, technology and telecommunications and banking, emerge as the most vulnerable to interest rate changes. The finding is in line with the idea that investors with long-term horizons are more likely to follow macro-economic fundamentals such as interest rates in their investment decisions.

Empirical inquiry into the relationship between company performance and share performance at the stock exchange includes research by Lulia-Oana (2016) that examined and quantified the implication of financial indicators of performance on share returns of companies listed on the Bucharest Stock Exchange (BSE), Romania. The research used a multiple regression model and investigated 33 companies listed on the BSE from 2011 to 2013. The model quantifies the variation in price to book value (PBV) of shares, depending on the evolution of nine financial indicators of performance out of thirty-eight, such possible indicators.

The PBV was selected as the most representative stock exchange indicator to reflect how the financial performance of the shares of listed companies selected, impact the evolution of the capital market at the end of each period. The research employed the Ordinary Least Squares (OLS) method to estimate the regression model after respecification to correct for serial correlation to the generalized differences procedure. The results show that eight out of nine ratios influence share returns at 1% level of significance and that the model explains 54.3% of the returns on shares of companies listed on the BSE.

Research by Kwame and Awunyo (2017) sought to examine the influence of firm-specific determinants of stock prices in an emerging market with particular reference to firms listed on the Ghana Stock Exchange (GSE) after the adoption of International Financial Reporting Standards (IFRSs). The study employed data-set from all listed firms on the GSE, audited financial statements of the listed companies and information from the fact book of the GSE. The study used Panel regression to analyse secondary data of stock prices and published accounts of companies listed on GSE.

In general, the study found that accounting information, specifically earnings per share (EPS), return on equity (ROE) and market to book-value of shares (MBVS) and market capitalization of firms is relevant in explaining stock prices after the adoption of IFRSs in Ghana. The empirical findings revealed that there is a positive and significant relationship between ROE, EPS, MBVS and market capitalization suggesting that these variables are major determinants of the market price of shares on GSE. However, a significant negative relationship was found between the market price of shares and dividend yield. The out-come suggests that dividend decisions are not critically important in influencing the market price of shares. The study acts as a guide to potential investors on the GSE to focus on factors that influence investment decisions.

Critique of the Review

Critiquing research articles is a systematic way of objectively reviewing a piece of study to highlight both strengths and weaknesses and to determine the applicability of the study to practice (Ryan, Coughman & Cronin, 2007). Professionals desire to identify best current practice and their ability to evaluate and use published research provides a critical way of achieving this (Ryan et al., 2007). In this study, the researcher identified five variables including; independence of securities firms, public announcements,

investor perception, interest rate changes and company performance as determinants of share price fluctuations at the NSE. Empirical review was carried out on parallel research on each of these variables and these are critiqued in the order indicated above.

Nyangara and Musikavanhu (2014) carried out an empirical analysis of the impact of demutualization on stock exchange performance, as a lesson for Zimbabwe. The research published in the International Journal of Economics and Management Sciences employed panel data from 50 stock exchanges and used the positivism approach with the application of an econometric model. The use of panel data was appropriate as this took into account the heterogeneity of different stock exchanges under study. The positivism approach was also appropriate since the panel data is factual to provide an objective analysis for observable and quantifiable research findings. However, the positivism paradigm relies on experience and status quo as valid sources of knowledge. There is a wide range of basic and important concepts such as cause, time and space, which are not based on experience. The findings in positivism studies are only descriptive and hence these lack insights into in-depth issues such as actions and relationships of various individuals.

Research by Orleans and Edilson published in Accounting and Finance Review (2014) investigated the relationship between information asymmetry in the stock trading, economic, financial characteristics and corporate governance of listed companies in the Brazilian Stock Exchange (BSE) in 2010-2011. The researchers relied on the theoretical information asymmetry in the capital market to measure asymmetry magnitude based on the intra-day stock trading of 194 companies listed on the BSE, using a probit model and the Probability of Informed Trading (PIN) as the dependent variable. The researchers used economic, financial and corporate governance issues as the independent variables. The research findings show that information asymmetry in stock trading is positively related to the risk, return and the liquidity of the shares as well as the cost of equity and the size of the company.

The title of the research is too long and it seems to have incorporated both the dependent and the independent variables. The choice of the probit model suggested responses of a binary nature that fall into only two categories. The PIN is a model to measure the imbalance in purchases and sells orders that suggest information asymmetry but it is used here as the dependent variable. The PIN as a model for determining information

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asymmetry is not fool proof measure of order imbalances since order flow imbalances can occur due to other events such as earnings or mergers and acquisitions announcements. There are too many variables included in the model and this can lead to a problem of multicollinearity. The research findings included too many variables, such as risk, return, liquidity, cost of equity and the size of the company as economic variables, which are positively related to information asymmetry. The many variables cloud the objective of the study.

Research on public announcements include a study by Obradovic and Tomic, published in the Economic Review (2017) that investigated the effect of presidential elections in the USA on stock return flow using an event study. The data sourced from financial institutions listed on the NYSE is appropriate for the study as these organizations fund presidential elections and their share values would react to unanticipated event, which would be the outcome of the election in this case. The title, the objective and findings of research are clear. The use of an event study for the research is also appropriate to measure market-based performance in terms of abnormal stock returns. The researchers can use the methodology to prune out inaccuracies in financial information that can distort measures of company performance.

There are limitations in the event study methodology such as market inefficiency that prevents the observed stock prices from fully and immediately reflecting all information. The precise estimation periods for the study are not easy to determine. The reseachers tradeoff between improved estimation accuracy and potential parameter shifts complicates the determination of an appropriated event period. The estimation period is difficult to control for other confounding effects especially if the researchers choose long test periods. All these limitations are beyond the control of the researchers unless they modified the model.

Research by Khalil and Akhtar (2017) investigated the impact of terrorist attacks on stock market performance on Karachi Stock Exchange (KSE) in Pakistan. The study published in the Asian Journal of Economic Modelling used the Generalized Autoregressive Conditional Heteroskedasticity (GARCH) and EGARCH models to measure volatility and to capture asymmetry in volatility. Dummy variables were used to assess how the stock market responds to terrorist events in different regions with respect to different attacks such as assassination, bomb blast, armed assalt and hostage

capture. The dummy variables were extended to incorporate the type of target such as the military, journalists, businesses and educational institutions. The results show divergent types of targets have different magnitude of riskiness for the stock market and investors regard some attacks as more dangerous for the economy. The three dummy regressors used in the model create too many parameters and with the three group intercepts, the researcchers could not have been able to calculate unique estimates for the model. There are too many diverse observations that results in anoverfitted model.

Research on investor perception included a study by Viswanadham, Dorika and Mwakapala (2014) on perceptual fators influencing investors buying behavior in Tanzanian equity market. The research published in the Journal of Finance and Investment Analysis uses cross-sectional survey design to establish the determinants of investors' behavioural issues in investment decisions. The study participants included 40 former investors and 10 former employees of Dar-es-salam Stock Exchange (DSE) from 2010-2012. The researchers examined social, demographic, economic, psychological and political factors postulated as determinants of investors' behavioural issues in making investment decisions. Very many other factors, which crowd the model are selected to be proxies of the set determinants.

Some of the research findings showed that 70% of males against 30% of females participated in the research. Most of the participants had undergraduated degree and fell in the age bracket of 46-55. Capital adequacy of a company as a proxy of an economic factor influences investor investment decision. The use of Tanzanian equity market in place of DSE in the title is inappropriate. The term perception would subjectively be taken to relate to effortless processing of information, which is outside conscious awareness. To assess economic or political factors to make an investment decision requires deliberate effort.

Research by Insnurhadi and Jie (2017) on risk perception and psychological behavior of investors in emerging markets, the case of Indonesian Stock Exchange (ISE), uses the Structured Equation Model (SEM) based component, whichis a Partial Least Square (PLS) applicable to more than one variable. The research is published in the Journal of Investment Management and Financial Innovations. The study results showed that perception of risk and psychology significantly affect the confidence of investors. The

level of literacy of an individual, leads to over-confidence and investors who understand risk are able to control the level of confidence. The SEM is appropriate for the study because it is a versatile multivariate approach that measures unobservable latent variables such as perception and the structural relationships among study variables. There is clarity in reporting research findings, which are in line with the objective of the study.

Research on interest rate changes included the study by Amarasinghe (2015) on dynamic relationships between interest rate changes and stock price, empirical evidence from the Colombo Stock Exchange. The research, which is published in the International Journal of Business and Social Science used an econometric model, with Granger Causality test to check causality and the Augmented Dickey-Fuller test to determine stationarity of data series. The results show a one-way causal relationship between the variables to indicate that changes in interest rates cause changes in stock prices and the relationship is negative. The methodology is appropriate for the real-world data that is readily available. The specific objectives of the research to determine direction of the relationship, cointegration between variables and existence of practical implications of predicting future values of a time series, using a prior series were achieved.

Research by Martinez, Lapena and Sotos (2015) examined interrelations between changes in 10-year government bond yields and performance of Spanish Stock Market from an industry perspective across time and frequency from January 1993 to February 2012. The research published in Business Research Quarterly employed econometric wavelet analysis that partitions signals into components associated with different investment time scales or horizons. The researchers postulated that interest rate and stock market link may differ across time investment scales. The researchers used Haar a trous wavelet (HTW) transform to determine the relationship between interest rate changes and industry equity returns. The research findings show a contemporaneous correlation between the 10-year bond yield fluctuations and industry returns. The variations are in accordance with investment time scale to suggest that the interest rate and stock market link is a multi-scale phenomenon.

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The wavelet econometric methodology is appropriate due to its ability to decompose data signals of different time scales. The researchers had access to information from both time-domain and frequency-domain to study correlations between two variables. However, the model is only limited to correlations. If the researchers were interested in the underlying processes such as the determination of whether the effect of interest rate changes on largest industry equity returns cause movement in returns for the smaller industry equity returns, they would have to use Granger Causality model.

Research on company performance as this affects share price fluctuations included a study by Lulia-Oana (2016) on the implications of financial performance on stock exchange indicators of listed companies, empirical evidence for the Romanian capital market. The research published in the "Audit Financiar" employs multiple regression and regresses nine financial performance ratios as independent variables on price-to-book value of shares as the most representative stock exchange indicator as the dependent variable. The research findings show that eight out of nine ratios are signicant in predicting market performance and that the influence of financial performance indicators is incorporated in the share price on the Bucharest Stock Exchange (BSE).

The title of research is misleading with the use of the word "implications" in place of "impact or effect". The title in general fails to clearly show what the research is about. The use of financial performance indicators, in other words ratio analysis for different companies is inappropriate. Ratios are not standardized and financial reports are prepared under a fairly loose set of procedural rules commonly referred to as Generally Accepted Accounting Principles (GAAPs). The research findings that the influence of financial performance indicators is incorporated in the share price appears, far-fetched for a frontier market like the BSE, which is unlikely to have the requisite efficiency for this to happen.

Kwame and Awunyo (2017) carried out a research on firm specific determinants of stock prices in an emerging capital market using evidence from Ghana Stock Exchange (GSE). The research published in the Cogent Economic and Finance used Panel Regression Analysis with panel data collected from the GSE and published accounts of companies listed on the GSE. The information was used to examine the effect of several financial indictors including EPS, ROE, MBVS and market capitalization on share

prices on the GSE after the adoption of IFRSs. The study found that the aforementioned indicators are the major determinants of the market prices of shares on GSE. However, a negative relationship was found to exist between the market price and the dividend yield.

The use of Panel regression on panel data, which is easily available enables the study of the dynamics of adjustments of the variables under examination. Adoption of IFRSs by emerging markets provide comparability, increased audit efficiency, reduced information misinterpretation and increased dissemination of common information across all firms in an industry. The adoption of IFRSs in emerging markets is still questionable since these markets are not good sources of quality data. The quality of financial indicators is as good as the information from which they flow. It has been argued that most accountants do not tell the truth and the quality of information suffers since those who prepare the information make compromises to achieve consensus due to various political pressures and economic interest. The movement of share prices could be due to factors other than financial fundamentals.

2.4 Summary of the Literature Review and Research Gaps

In respect to theoretical literature, stakeholder theory explains independence of securities firms for management to maximize collective benefits of all the stakeholders in an organization. Public choice theory explains public announcements and expounds on the interaction between economics and political behavior. The prospect theory expounds on investor perception and that when confronted with prospects under risk, investors separate prospective gains from losses. The loanable funds theory unravels the determination of interest rates and postulates that interest rate is a function of the interaction of demand for and supply of loanable funds. The theory postulates that individuals save more when interest rates are high but this can be challenged because individuals can save out of precautionary motives. Company performance is explained by stakeholder theory.

The empirical literature examined research on demutualization, which separates ownership and control to create agency problems. Further research was on the relationship between information asymmetry and share performance. Insiders in securities firms have access to information on trading that is not available to the other market participants and if motivated by unethical forces, they can use that information

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to their advantage. Research on public announcements include studies on the effect of presidential elections and terrorist attacks on share performance. Research on investor perception include studies to determine perceptual factors that influence investment in shares and perception of risk and psychological behavior of investors in emerging markets. Research on the effect of interest rate changes on share returns include a study on Granger Causality test between interest rate changes and share prices and also the effect of different investment horizons on share values as influenced by interest rate changes. Studies on the effect of company performance on share values include the effect of financial indicators on share values and the effect of adopting IFRSs in emerging markets on share performance.

Research has been done on factors that influence share price fluctuations in developing and developed countries. Many of these studies focus on macroeconomic and microeconomic variables as these influence share price fluctuations. There is limited information on non-economic variables that may be responsible for share price fluctuations, more so erratic price movements. In making investment decisions, more often investors respond to events without carefully analyzing these. Investors, specifically individual investors buy shares that recently caught their attention. Investors make systematic errors in processing information, a fact that makes them susceptible to exploitation by others. These gaps inform the current study to consider the effect of a combination of economic and non-economic variables on share price fluctuations at the NSE.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter presents the methods and procedures that were applied to achieve the research objectives. The chapter comprises of the research design adopted, the population of the study, the sampling frame, the instruments and techniques used to collect and analyze data.

3.2 Research Design

The research design has been defined as the blue print for the collection, measurement and analysis of data (Khan, 2008). Research design can also be defined as the overall strategy that integrates the different components of the study in a coherent and logical way to ensure the researcher addresses the research problem (Silverman, 2012). Descriptive research design was adopted for this study to describe a phenomen which already exists and to obtain information concerning the effect of the independent variables on the dependent variable. The research adopted positivism approach as a research philosophy, in which the researcher, maintained distance from research subjects

3.3 Target Population

The researcher investigated a population of all the employees of the eighteen (18) securities firms, comprising of thirteen (13) brokerage firms and five (5) investment banks listed on the NSE between 1 January 2002 and 31 December 2012. Non-of the management of these organizations were willing to provide information on the total number of employees. However, brokerage firms employ relatively few personnel due to their size and the changing market as a result of technological developments and high fixed compliance costs (Hung et al., 2008). The selection of four (4) employees per firm as indicated in (3.6) below is a good representation of the population. The decision to use brokers and investment banks is due to the essential role these firms play in enabling investors to participate at the securities exchange.

3.4 Sampling Frame, Sampling Size and the Sampling Technique

The sampling frame for the study included all the technical employees of the eighteen (18) brokerage firms and investment banks listed on the NSE as at the end of 31 December 2012. Technical employees include personnel who provide services such as broking, portfolio management, research and investment banking and underwriting. A purposive sample of four (4) participants was selected randomly using professional stratification as dictated by the four (4) main activities the securities firms provide. Stratified sampling involves simple random samples selected from a predetermined sub-population or strata (Jackson, 2009). The purpose of adopting this technique was to minimize on survey costs.   The researcher interrogated four (4) employees from each of the eighteen (18) firms to have a total of seventy-two (72) research participants, to secure their opinions on their mode of operation in the provision of the the four (4) different services.

3.5 Operationalization of Definitions

Operarationalization of definitions refers to the articulation of the statement of procedures used in defining terms of a process to determine the nature of a phenomenon. An operational definition specifies how to measure or detect something (Ribes-Inesta, 2003). Below are the operational definitions of the concepts used in the study:

Table 3.1: Operational Definitions of Variables

Variable	Operational Definition	Source
Independence of Securities firms	Absence of external control and conflict of interest	Hans (2006)
Public Announcements	Proclamations of information about an event that has happened or is about to happen	Campbell (2016)
Investor perception	Reputation of investment community towards a firm's share	Sharma (2012); Isnurhadi and Jie (2017)
Interest rate changes	Variation in the annualized cost of credit	Ahmed, Catte and Price (2006)
Company performance	Use of a firm's assets on primary activity to generate revenue.	Chenhall and Langfield (2007)

3.6 Pilot Study

The researcher carried out a pilot study to get oriented with the research instruments and to achieve the validity of the instrument used to measure the concepts in the study. Pre-testing of the instrument was applied on a small number of participants who had the same characteristics as the participants in the main study. Reliability tests were also carried out to ensure that the measurement procedures yielded the same results in repeated trials and that the estimation of parameters that were used in the study is appropriate. Reliability ensures accuracy of measurement and validity focuses on measuring the right thing (Sekaran, 2003). The pilot study enabled the screening of procedures to guarantee success in the main study.

3.7 Data and Data Collection Procedures and Instrument

Survey based approach was used to collect primary data. The research procedure involved the development of a data collection instrument in the form of a questionnaire. The questionnaire design had statements and questions constructed to match research objectives. The questionnaire had broad close-ended questions, subdivided in the order of the research objectives that answered the research question. The researcher self-

administered the questionnaire by personally delivering it to the identified sample of respondents. The researcher collected the instrument two weeks after completion.

3.8 Data Analysis Methods

Data analysis entailed editing, coding using numerical symbols and tabulation of primary data into manageable summaries. All the independent variables had questionnaire items, which were combined and averaged to form composite indexes for these variables. Data analysis utilized descriptive and inferential statistics. The researcher used SPSS in processing and analyzing primary data and the important results of both descriptive and inferential statistics are presented in charts and tables. Analysis of Variance (ANOVA) tested for the significance of the differences between more than two sample means of the independent variables (Levin & Robin, 2006).

The ANOVA) used the Pearson's Chi-square analysis and the F-distribution to find out if the survey results are significant in order to reject the null hypotheses or otherwise accept the alternative hypotheses. The degree of freedom (df) as per expectations in the F-distribution table and the p-values were compared with the results of the research for the purpose of rejecting or failing to reject the hypotheses derived from the research objectives. The F-distribution table utilized confidence levels set at 95% or 5% level of significance. The researcher used multiple regression to study the relationship between all the independent variables and share price fluctuations at the NSE and cross-correlation analysis to determine the strengths of relationships among the variables. The following multiple regression model was applied:

$$Y = \beta_O + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon \dots \dots \dots \text{Equation 1}$$

Where:

Y = Share price fluctuations at the NSE

X_{is} = Independent variables

β_O = the intercept

$\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 are Beta coefficients that represent the influence of the independent variables on the dependent variable.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The chapter presents and explains the results and findings of the analysis of data collected in a survey through a questionnaire and from the NSE and KNBS. The results are presented in charts and tables generated by SPSS for primary data and a summary of the excel output on secondary data on the event study. The chapter presents both descriptive and inferential statistical analyses.

4.2 Response Rate

The chapter provides case processing summaries to indicate that 61 out of 72 respondents, representing 84.7% response rate was utilized. The response rate is considered very good (above the threshold of 70%) and representative of the target population for the purpose of making generalizations to the larger population (Punch, 2003).

4.3 Results of the Pilot Test

The researcher carried out a pilot study without following all the protocols of the research to validate the tools and the estimation of parameters that were used in the study. The pilot study was used to screen the procedures to guarantee success in the main study. The results of the pilot study are presented in the discussions that follow.

4.3.1 Descriptive Statistics on the Effect of Independence of Securities Firms on Share Price Fluctuations at the NSE

The table 4.2 below displays the summary statistics of the pilot result for the descriptive statistics on the effect of the independence of securities firms on share price fluctuations at the NSE. The research randomly selected and analysed a few research items to test the research instrument. The data in the table 4.1 below and the rest of questionnaire items for each independent variable has been averaged to form composite indexes for the variables.

Table 4.1: The Effect of Independence of Securities Firms on Share Price Fluctuations

	Brokerage Firms performance	Membership of Brokerage firms encouraged	Info to max on economies of scale	Negative Research loss of business	Research Analysts earnings	Analysts reports influenced by posible revenue	Analyst observe insider trades	Long term relationships ease exchange of information
N Valid	10	10	10	10	10	10	10	10
Missing	0	0	0	0	0	0	0	0
Mean	3.60	3.40	3.70	3.40	3.40	3.10	2.90	3.80
Median	3.00	3.00	3.00	4.00	4.00	3.00	3.00	4.00
Mode	3	3	3	4	4	4	2	4
Std. Deviation	.966	1.075	.823	1.350	1.075	.876	.876	.919
Variance	.933	1.156	.678	1.822	1.156	.767	.767	.844
Skewness	.111	.322	.687	-.583	-.349	-.223	.223	-.601
Std. Error of Skewness	.687	.687	.687	.687	.687	.687	.687	.687
Kurtosis	-.623	-.882	-1.043	-.756	-1.274	-1.734	-1.734	.396
Std. Error of Kurtosis	1.334	1.334	1.334	1.334	1.334	1.334	1.334	1.334

From table 4.1 above, the researcher carried out 10 observations to elicit responses from the pilot test participants on questionnaire items. The median, which is the middle value is used in this research as a measure of central tendency since the mean for ordinal data is meaningless. The median to the statement that brokerage firms should engage in proprietary activities to improve on financial performance is 3.00, which represents "neutral" response category. The mode for this statement is also 3.00, the standard deviation is 0.966, which is high to indicate wider distribution of scores around the mean-value. The skewness is positive 0.111, which is close to 0.000 for normal distribution and skewed to the right to indicate that the right tail is longer relative to the left, which means most scores are below the mean. The kurtosis is -0.623, which is low

compared to the standard value of 3 for normal distribution to indicate normal data distribution and negative to show too many cases in the tails of the distribution.

4.3.2 Descriptive Statistics on the Effect of Public Announcements on Share Price Fluctuations at the NSE

The table 4.2 represents summary statistics of the pilot test on the effect of public announcements on share price fluctuations at the NSE.

Table 4.2: The Effect of Public Announcements on Share Price Fluctuation

	Govts as surrogate entrepreneurs	National Politics impact perfromance of exchange	Corruption and insecurity	Criminal money create instability and upredictability	Criminal groups corrupt financial system	Poor legal framework allows dysfunctional behaviour
N Valid	10	10	10	10	10	10
Missing	0	0	0	0	0	0
Mean	4.20	4.50	3.90	3.10	3.20	4.10
Median	4.00	4.00	4.00	3.00	3.00	4.00
Mode	5	4[a]	4	3	4	4
Std. Deviation	1.229	.527	.994	.994	1.229	.738
Variance	1.511	.278	.989	.989	1.511	.544
Skewness	-2.261	.000	-.610	.610	-.467	-.166
Std. Error of Skewness	.687	.687	.687	.687	.687	.687
Kurtosis	5.879	-2.571	-.157	-.157	-.544	-.734
Std. Error of Kurtosis	1.334	1.334	1.334	1.334	1.334	1.334

a. Multiple modes exist. The smallest value is shown

From table 4.2 above, the measure of central tendency as the median is 4.00, which represents response category "agree" to the statement that governments as surrogate entrepreneurs with their bureaucratic inefficiencies, negatively impact the stock market and the economy in general. The standard deviation is high at 1.229 to indicate wider distribution from the mean. The mode is 5 to indicate most respondents strongly agree to the statement, the skewness is -2.261 to show data is skewed to the left and the

kurtosis is positive and relatively high at 5.879 to show too few cases in the tails and a "fat tail".

4.3.3 Descriptive Statistics on the Effect of Investor Perception on Share Price Fluctuations at the NSE

Table 4.3 shows the summary of descriptive statistics of the pilot results on the effect of investor perception on share price fluctuations at the NSE.

Table 4.3: Descriptive Statistics on the Effect of Investor Perception on Share Price Fluctuations

	Emotions and Intuition improve investment decisions	Investors sell better performing shares, hold poor performers	Fin advisors uncomfortable asking personal questions	No statistical methods employed	Observation of actions deemed knowledgable	Overconfident investors trade frequently
N Valid	9	10	10	10	10	10
Missing	1	0	0	0	0	0
Mean	2.56	3.80	2.70	3.70	4.30	4.20
Median	3.00	4.00	3.00	3.00	4.00	4.00
Mode	3	3ᵃ	3	5	4	4ᵃ
Std. Deviation	1.130	1.033	.949	1.252	.483	.789
Variance	1.278	1.067	.900	1.567	.233	.622
Skewness	-.176	-.272	-.234	-.144	1.035	-.407
Std. Error of Skewness	.717	.687	.687	.687	.687	.687
Kurtosis	-1.171	-.896	-.347	-1.773	-1.224	-1.074
Std. Error of Kurtosis	1.400	1.334	1.334	1.334	1.334	1.334

The measure of central tendency as the median in this research is 3.00 that represents a neutral response to the statement that a combination of emotions and intuition can greatly improve investment decisions at the securities exchange. The mode is also 3,

the standard deviation is 1.130, which is high to show wider spread from the mean. The kurtosis is -1.171 to indicate a flat distribution with too many cases in the "tail".

4.3.4 Desrcriptive Statistics on the Effect of Interesst Rate Changes on Share Price Fluctuations at the NSE

Table 4.4 below displays summary statistics of the pilot study results on the effect of interest rate changes on share price fluctuations at the NSE.

Table 4.4: Descriptive Statistics on the Effect of Interest Rate Changes on Share Price Fluctuations

		Rise in int rates cause shift from Stock to Bond mkt	Decline in int rates more investors trading	High int rates counter productive	High int rates discourage lending	Shares perf better in low int periods	Diff levels of int rates cause capital flow
N	Valid	10	9	10	10	10	10
	Missing	0	1	0	0	0	0
Mean		3.10	3.44	2.80	2.90	4.10	3.90
Median		3.00	4.00	3.00	3.00	4.00	4.00
Mode		4	4	3	2[a]	5	4
Std. Deviation		1.370	.726	1.135	1.197	.876	1.197
Variance		1.878	.528	1.289	1.433	.767	1.433
Skewness		-.544	-1.014	.478	.233	-.223	-1.709
Std. Error of Skewness		.687	.717	.687	.687	.687	.687
Kurtosis		-.872	.185	.552	-.369	-1.734	3.711
Std. Error of Kurtosis		1.334	1.400	1.334	1.334	1.334	1.334

a. Multiple modes exist. The smallest value is shown

The median as the measure of central tendency to the statement that rising interest rates cause investors to shift funds from the stock market to the bond market is 3, which represents a neutral response rate. The standard deviation is 1.370, which is high to show a wider dispersion from the mean. The skewness is relatively low at -0.544, which shows that the values are skewed to the left. The kurtosis is low at -0.872 to indicate too many cases in the tails of the distribution, that is, there is a flat distribution.

4.3.5 Descriptive statistics on the Effect of Company Performance on Share Price Fluctuations at the NSE

Table 4.5 shows the summary statistics of the pilot result on the effect of company performance on share price fluctuations at the NSE.

Table 4.5: Descriptive Statistics on the Effect of Company Performance on Share Price Fluctuations

		Increase earnings rise share price	Earnings easily manipulated	Accounting Policies	Analyst Problems in interpreting financial data	Past earnings good predictor	Perfomance by Profitability
N	Valid	10	10	10	10	10	10
	Missing	0	0	0	0	0	0
Mean		3.60	3.90	4.20	3.20	3.60	3.20
Median		4.00	4.00	4.00	3.50	4.00	3.00
Mode		2[a]	4	4	4	4[a]	3
Std. Deviation		1.265	.994	.632	.919	1.350	1.135
Variance		1.600	.989	.400	.844	1.822	1.289
Skewness		-.280	-.610	-.132	-.473	-.772	.661
Std. Error of Skewness		.687	.687	.687	.687	.687	.687
Kurtosis		-1.663	-.157	.179	-1.807	-.125	-.709
Std. Error of Kurtosis		1.334	1.334	1.334	1.334	1.334	1.334

a. Multiple modes exist. The smallest value is shown

The median as measure of central tendency is 4.00, which represents the response category of "agree". The standard deviation is 0.687, which represents a slightly wider dispersion from the mean. The skewness is -0.280 to show that the left tail is longer than the right tail and that the mode and the median are higher than the mean. The kurtosis is -1.663, which is low and flat to indicate that many cases fall in the tails.

4.3.6 Composite Index for Descriptive Statistics

The combined and averaged questionnaire items generated a composite index for each of the independent variables. The indexes are displayed in table 4.6 below.

Table 4.6: Composite Index for Descriptive Statistics

<div align="center">Statistics</div>

		Interest rate changes	Company performance	Independence of Securities Firms	Political and Economic public Announcement	Investor perception
N	Valid	10	10	10	10	10
	Missing	0	0	0	0	0
Mean		3.3733	3.6167	3.5300	3.8333	3.5833
Median		3.4500	3.5833	3.4000	3.7500	3.6429
Mode		3.50	3.00	3.20	3.50	3.86
Std. Deviation		.59209	.64334	.45717	.60858	.48240
Skewness		-.638	.183	.630	-.257	-.179
Std. Error of Skewness		.687	.687	.687	.687	.687
Kurtosis		-.168	-.920	-1.114	.478	-1.021
Std. Error of Kurtosis		1.334	1.334	1.334	1.334	1.334

The measure for central tendency for descriptive statistics in this study was taken to be the median as the mean for ordinal data is meaningless. Public announcements have the highest median at 3.7500, which is close to 4.0000 to indicate that most participants agree that the variable influences share price fluctuations at the NSE. The lowest median is 3.4000 to show most participants are neutral to the statement that independence of securities firms has an impact on share price fluctuations at the NSE. The highest mode is 3.8600, which close to 4.0000 to indicate that most respondents agree that investor perception influences share price fluctuations at the NSE.

The highest standard deviation is 0.64334 for the effect of company performance on share price fluctuations at the NSE and the lowest is 0.48240 for the effect of investor perception on share price fluctuations at the NSE. The data distribution in all cases show moderate closeness of the dispersions to the calculated mean. The skewness of the effect of interest rate changes to share price fluctuations is to the left with a value of -0.638. Public announcements and investor perceptions are also slightly skewed to the left at -0.257 and -0.179 respectively. Interest rate changes, company performance, independence of securities firms and investor perception have low kurtosis of -0.168, -0.920, -1.114 and -1.021 to imply relatively flat distributions.

From table above, it can be observed that all the participants gave responses that are skewed towards the negation of the hypotheses that independence of securities firms, public announcements, investor perception, interest rate changes and company performance have no influence on share price fluctuations at the NSE. The response category of "Strongly disagree" and "disagree" are on the Likert scales of 1 and 2 respectively.

4.3.7 Correlation Analysis on Pilot Data

Correlation analysis was carried out on the pilot study data and the results of analysis are presented in table 4.7 of the correlation matrix. The purpose for the examination of cross-correlations among the lead variables was to rule out multicollinearity.

Table 4.7: Correlation Matrix for the Pilot Data

Correlations

		Interest rate changes	Company performance	Independence of Securities Firms	Political and Economic public Announcement	Investor perception
Interest rate changes	Pearson Correlation	1	.244	-.024	-.175	.543
	Sig. (2-tailed)		.497	.947	.629	.105
	N	10	10	10	10	10
Company performance	Pearson Correlation	.244	1	.535	.575	.566
	Sig. (2-tailed)	.497		.111	.082	.088
	N	10	10	10	10	10
Independence of Securities Firms	Pearson Correlation	-.024	.535	1	.599	.635[*]
	Sig. (2-tailed)	.947	.111		.067	.048
	N	10	10	10	10	10
Political and Economic public Announcement	Pearson Correlation	-.175	.575	.599	1	.632[*]
	Sig. (2-tailed)	.629	.082	.067		.050
	N	10	10	10	10	10
Investor perception	Pearson Correlation	.543	.566	.635[*]	.632[*]	1
	Sig. (2-tailed)	.105	.088	.048	.050	
	N	10	10	10	10	10

*. Correlation is significant at the 0.05 level (2-tailed).

The highest correlation at 0.635 is between independence of securities firms and investor perception. The lowest correlation is between interest rate changes and independence of securities firms at -0.024. All the correlation values are below the threshhold of 0.700 to ensure low multicollinearity (Drury, 2008).

4.3.8 Inferential Statistical Analysis on the Effect of Independent Variables on Share Price Fluctuations at the NSE

Table 4.8: Summary Results of the Regression Model

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.849[a]	.721	.372	.383

a. Predictors: (Constant), Investor perception, Interest rate changes, Company performance, Independence of Securities Firms, Political and Economic public Announcement

The Pearson correlation coefficient is 0.849 to show a strong positive correlation between a combined effect of independence of securities firms, public announcements, investor perception, interest rate changes and company performance and share price fluctuations at the NSE. The value of R^2 is 0.372 to show that share price fluctuations at the NSE is explained by 37.2% of the combined effect of the variables postulated in this research. The implication is that 62.8% of the fluctuations in share prices at the NSE are due to other factors.

Table 4.9: Results of Significance of the Multiple Regression Model

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.514	5	.303	2.068	.251[a]
	Residual	.586	4	.146		
	Total	2.100	9			

a. Predictors: (Constant), Investor perception, Interest rate changes, Company performance, Independence of Securities Firms, Political and Economic public Announcement

b. Dependent Variable: Type of Financial Asset Committed (Shares, Fixed income securities)

From table 4.9 above, the observed F-value is 2.068 at df of 5. The critical F-value at α = 0.05 and at df of 5 is 230.162, which makes the observed value to fall in the non-rejection region. The researcher fails to reject the null hypothesis and concludes that the model is insignificant in predicting share price fluctuations at the NSE. The observed α of 0.251 is > 0.05.

Table 4.10: Results of Coefficients of the Multiple Regression Model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.949	1.713		.554	.609
	Interest rate changes	.753	.579	.923	1.302	.263
	Company performance	.433	.300	.577	1.443	.223
	Independence of Securities Firms	.333	.504	.315	.660	.545
	Public Announcement	.333	.551	.420	.605	.578
	Investor perception	-1.733	.920	-1.730	-1.883	.133

a. Dependent Variable: Type of Financial Asset Committed (Shares, Fixed income securities)

From table 4.10 above, the share price stabilizes at 0.949 in the absence of the hypothesized variables. For every unit rise in indepence of securities firms, public announcements, interest rate changes and company performance, the share price rises by 0.333, 0.333, 0.753 and 0.433 respectively and a unit increase in investor perception causes the share price to decline by -1.733. The observed t-values are all insignificant and the overall model is insignificant in predicting share price fluctuations at $\alpha = 0.609$, which is higher that the critical value of 0.05. From the above table, a multiple regression model was derived as shown below.

$$Y = 0.949 + 0.333X_1 + 0.333X_2 - 1.733X_3 + 0.753 X_4 + 0.433X_5 \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\text{Equation 2}$$

4.4 Respondents Background Information

The respondents who participated in the research included technical employees of securities firms at the NSE. The participants have academic qualifications ranging from tertiary level, Bachelors' degree in finance, accounting and business administration, MBAs and a few who were pursuing PhD at the time. Some of the participants had professional qualifications as Chartered Financial Analysts (CFAs) and Certified Public Accountants (CPAs) to understand laws and regulations in finance, accounting methods and investment management. The chart below represents the level of academic

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qualifications with those holding a bachelors' degree and a masters' degree, all categorized in one level as University qualification.
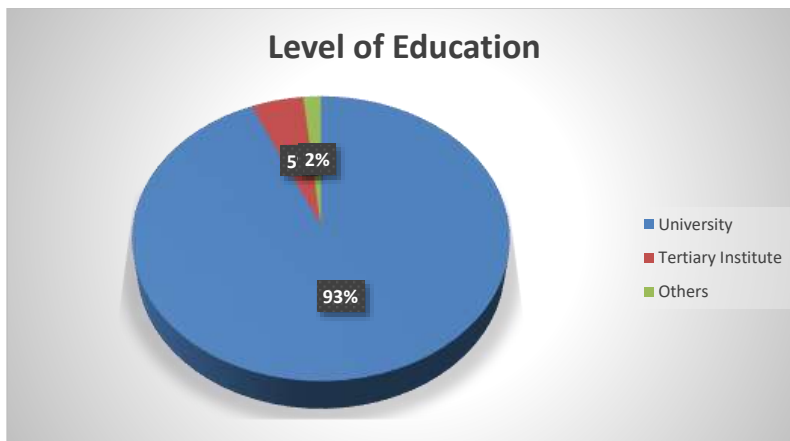
Figure 4.1: Level of Education of participants

The respondents have acquired experience in investment banking, risk management, portfolio management, investment advising, financial analysis and research. Below is a chart representing the number of respondents in each service category. Out of 61 respondents, 23 were analysts, 19 investment advisors, 9 provided services not included in the selection categories, 8 investment bankers and 2 fund managers. The level of education for the research participants was relevant for these respondents to be informed on the pertinent issues of investigation. The repondents had the requisite knowledge and the expertise that enabled them to provide valuable opinions on questionnaire items. The researcher was then able to model the knowledge they provided into information that could provide a solution to strategies to adopt in stabilizing stock performance,
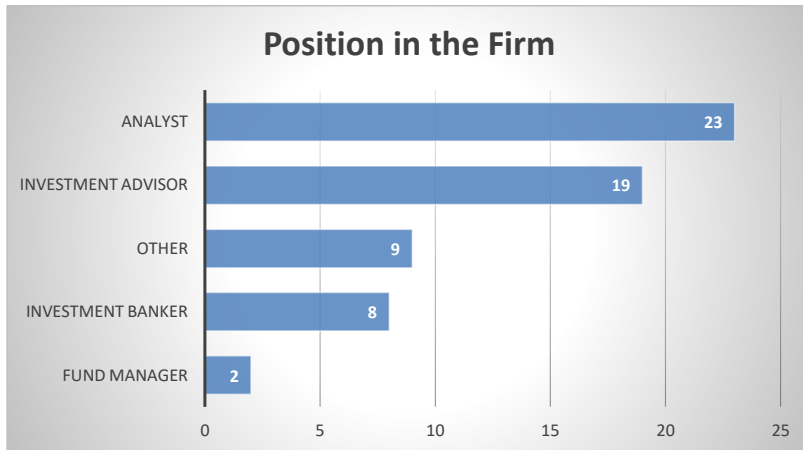
Figure 4.2: Service offered by employee in the firm

Most of the research participants were males at 66% compared to females at 34% as indicated in figure 4.3 below. From the behavioral finance point of view, males are considered to be overconfident, a tendency that is detrimental in making economic decisions to invest.
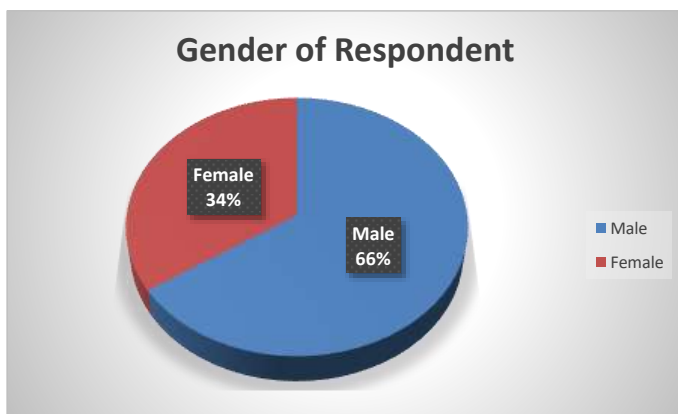
Figure 4.3: Gender of the Respondent

Share capital is stated as the most used source of long-term financing for listed companies as indicated in fig 4.4 below and this gives the study importance of investigating the determinants of share price fluctuations at the NSE.
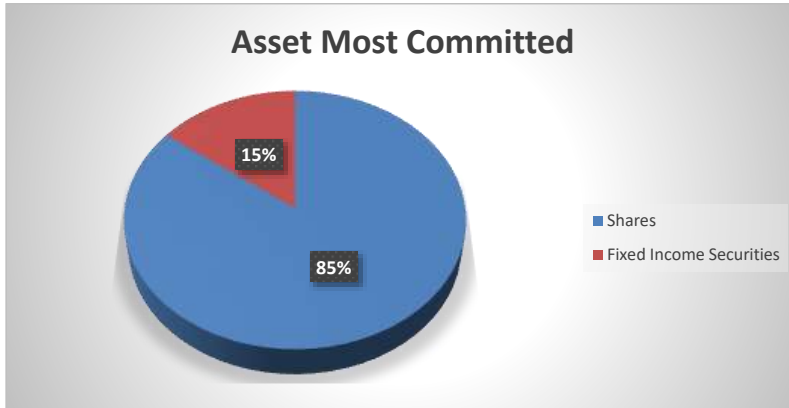
Figure 4.4: Source of long-term finance

Figure 4.5 indicates that majority of the respondents at 41 out of 61 are of the opinion that broking is the service that provides the highest revenue. Business strategies can be influenced by the service that provides the highest revenues.
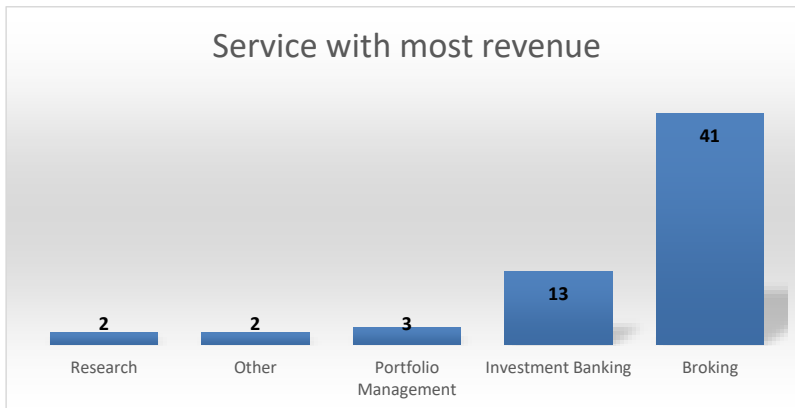
Figure 4.5: Service with most revenue

4.5 Descriptive Statistical Analysis

Qualitative data obtained from respondents through a questionnaire was converted into a quantifiable form by coding the data. The Statistical Package for Social Sciences (SPSS) was used to analyze data. Summaries of the SPSS output on responses to

questionnaire items were tabulated to show summary statistics of the research participants' opinions on these items on a five-level Likert-Scale ranging from strongly disagree to strongly agree. The output was then used to generate a composite index for each independent variable.

4.5.1 Descriptive Statistics on the Effect of Independence of Securities Firms on Share Price, Fluctuations at the NSE.

Table 4.11 shows the summary of the descriptive statistics on the effect of independence of securities firms on share price fluctuations at the NSE. The median was used in this research as a measure of central tendency since the mean of ordinal data is meaningless. The researcher analyzed few statistics including the median, the mode, the standard deviation, the skewness and the kurtosis. The kurtosis of any univariate normal distribution is 3.00 and this was the basis used in this research.

Table 4.11: The Effect of Independence of Securities Firms on Share Price Fluctuations

		Brokerage Firms performance	Membership of Brokerage firms encouraged	Info to max on economies of scale	Negative Research loss of business	Research Analysts earnings	Analysts reports influenced by possible revenue	Analyst observe insider trades	Long term relationships ease exchange of information
N	Valid	61	61	61	60	60	60	61	61
	Missing	0	0	0	1	1	1	0	0
Mean		3.59	3.49	3.25	2.98	3.13	3.10	2.52	3.77
Median		4.00	4.00	3.00	3.00	3.00	3.00	2.00	4.00
Mode		4	4	3	2	4	3	1[a]	4
Std. Deviation		1.055	1.120	1.150	1.269	1.157	1.311	1.260	.920
Variance		1.113	1.254	1.322	1.610	1.338	1.719	1.587	.846
Skewness		-.686	-.421	-.163	.290	-.405	-.097	.408	-1.113
Std. Error of Skewness		.306	.306	.306	.309	.309	.309	.306	.306
Kurtosis		.109	-.525	-.540	-1.153	-.699	-.993	-.824	1.564
Std. Error of Kurtosis		.604	.604	.604	.608	.608	.608	.604	.604

The median to the assertion that the financial performance of brokerage firms can be improved if these firms engaged in proprietary activities is 4.00, which represents a

response category of "agree". The mode as the most frequent response is also 4 and the standard deviation is 1.055, which is high to show a wider distribution of the scores around the mean. The distribution is negatively skewed at -0.686, which shows that the tail on the left side of the probability density function is longer or fatter than the right side. The kurtosis is 0.109, which indicates light tails and absence of outliers.

The median to the statement that brokerage firms should have membership on a stock exchange is 4.00 for "agree" response category, the mode is 4, the standard deviation is 1.120 to show a wider spread around the mean. The data is negatively skewed at -0.421, which is low to indicate that data is nearly normally distributed. The kurtosis is 0.525, which is low with few cases in the tails. The median to the statement that securitiess firms should use the same information to exploit on economies of scale and scope is 3.00, which is a neutral response category. The mode is 3, the skewness is -0.160, which low and that the distribution is symmetrical. The kurtosis is also low and at -0.540 to show that, there are many cases in the "tails".

The median to the statement that when research analysts give negative research reports to their clients, the brokerage firm is likely to lose such clients is 3.00, which represents "a neutral" response. The mode is 2, which shows most research participants disagree to the assertion and the standard deviation is high at 1.150 to show wider dispersion around the mean. The skewness is -0.163, which is low and near zero to show near normal distribution and the kurtosis is -1.153, which is low with many cases in the "tails".

The median to the statement that research analysts have the potential to increase earnings for the brokerage firms they work for if they offered underwriting businesses to investment banks that consult them for research is 3.00, which represents 'neutral' response category. The mode as the most frequent response is 4.00 to imply that most respondents agree to this assertion. The standard deviation is 1.157, which is high to show wider dispersion of response cases around the mean. The skewness is relatively low at -0.405 to imply a negative skewed distribution and the kurtosis is also low at -0.699 to imply a flat distribution.

The median to the statement that analysts' reports and recommendations are not influenced by possible revenues that can be obtained by brokerage firms by supplying additional services to their clients is 3.00, which represents a neutral response. The mode is also 3 and the standard deviation is 1.311, which shows a wider dispersion around the mean. The median to the statement that investment analysts observe insider trades to predict returns for their clients is 2.00 to show average response is "disagree". The mode is 1 to show that most respondents strongly disagree with this statement. The standard deviation is low at 0.408 to show narrow dispersion from the mean and the kurtosis is at -0.824 to show many cases in fall in the tails of distribution.

The median to statement that long-term relationships established among investors, company executives and analysts cause them to dialogue and exchange background information is 4.00 to show the average response to be of the category "agree". The mode is also 4 to show most respondents agree to the statement. The standard deviation is 0.980, which is a dispersion close to the mean. The skewness is -1.113 to show the distribution is more to the left and the kurtosis is 1.564 which is low with very few cases in the tails of the distribution.

4.5.2 Descriptive Statistics on the Effect of Public Announcements on Share Price Fluctuations at the NSE

Table 4.12 shows summary statistics of descriptive analysis on the effect of public announcements on share price fluctuations at the NSE. The data is averaged into a composite index for this variable

Table 4.12: Descriptive Statistics on the Effect of Public Announcements on Share Price Fluctuations

		Govts as surrogate entrepreneurs	National Politics impact perfromance of exchange	Corruption and insecurity	Criminal money create instability and upredictability	Criminal groups corrupt financial system	Poor legal framework allows dysfunctional behaviour
N	Valid	61	61	61	61	60	61
	Missing	0	0	0	0	1	0
Mean		3.84	4.05	4.05	3.33	2.88	3.64
Median		4.00	4.00	4.00	4.00	3.00	4.00
Mode		4	4	4	4	4	4
Std. Deviation		1.052	.921	.825	1.165	1.166	1.096
Variance		1.106	.848	.681	1.357	1.359	1.201
Skewness		-1.261	-1.027	-.461	-.417	-.363	-.879
Std. Error of Skewness		.306	.306	.306	.306	.309	.306
Kurtosis		1.564	1.137	-.479	-.627	-.973	.340
Std. Error of Kurtosis		.604	.604	.604	.604	.608	.604

The median as the measure of central tendency to the statement that governments as surrogate entrepreneurs have bureaucratic inefficiencies that negatively impact the stock market and the economy as a whole is 4.00. The mode is also 4 to indicate that most of the respondents "agree" to the statement. The standard deviation is 1.052, which is high, reflecting a wider dispersion of responses around the mean. The distribution is negatively skewed at -1.261 and the kurtosis is 1.564, which is low, with fewer cases in the tails of the distribution.

The median to the statement that in the African context, political and economic governance are inseparable and national politics impact the performance of the stock exchange is 4.00, which represents "agree" response category. The mode to the

statement is also 4 to indicate that most respondents agree to this statement. The standard deviation of the distribution is 0.921, which shows a wider dispersion of responses around the mean. The distribution is skewed to the left with a value of -1.027 and the kurtosis is low at 1.137 to imply there are a few cases in the "tails".

The median to the statement that in Kenya, corruption, internal security and the threat of terrorist attacks paint the image of the country negatively in the eyes of potential investors is 4.00 for "agree" response. The mode is also 4 to show that most respondents agree to the statement. The standard deviation is relatively higher at 0.825 to show a wider dispersion of responses around the mean. The skewness is relatively low to the left with a value of -0.461. The kurtosis is -0.479, which is low and flat with several cases in the tails of the distribution.

The median to the statement that increasing quantities of criminally derived and controlled money that flows in an economy creates instability and unpredictability of the financial markets is 4.00 for "agree" response. The mode is also 4 to indicate that most research participants agree to this statement. The standard deviation is high at 1.165 to show a wider dispersion of responses around the mean. The skewness is low and to the left at -0.417 and the kurtosis is also low at -0.627 to indicate a flat distribution with many cases in the tails of the distribution.

The statement that criminal groups intent on hiding the proceeds of their activities might gain control of banks to corrupt the financial system, which is the core of the stock market has a median of 3.00 for a neutral response. The mode is 4 to show that most of the respondents agree to this statement. The standard deviation is high at 1.166 to indicate a wide dispersion of scores around the mean. The distribution is slightly skewed to the left at -1.261 and the kurtosis is low at -0.973 to show a flat distribution with most of the cases in the tails of the distribution.

The median to the statement that a poorly enforced legal framework allows dysfunctional behavior at the stock exchange is 4.00 for "agree" response and the mode is also 4 to indicate that most respondents agree to this statement. The standard deviation is high at 1.096 to show a wider dispersion of the distribution around the mean. The skewness is high and to the left with a value of -0.879, while the kurtosis is low at 0.340 to show that there are few cases in the tails of the distribution.

4.5.3: Descriptive Statistics on the effect of Investor Perception on Share Price Fluctuations at the NSE

Table 4.13 below shows the summary statistics of the descriptive statistics on the effect of investor perception on share price fluctuations at the NSE. The summary statistics were used to generate a composite index for this variable

Table 4.13: Descriptive Statistics on the Effect of Investor Perception on Share Price Fluctuations

		Emotions and Intuition improve investment decisions	Investors sell better performing shares, hold poor performers	Fin advisors uncomfortable asking personal questions	No statistical methods employed	Observation of actions deemed knowledgable	Overconfident investors trade frequently
N	Valid	60	61	61	61	61	61
	Missing	1	0	0	0	0	0
Mean		2.82	3.79	3.05	3.59	3.98	3.80
Median		3.00	4.00	3.00	4.00	4.00	4.00
Mode		3	4	3	4	4	4
Std. Deviation		1.269	1.066	1.146	1.070	.806	.946
Variance		1.610	1.137	1.314	1.146	.650	.894
Skewness		.100	-1.006	-.167	-.538	-1.549	-.813
Std. Error of Skewness		.309	.306	.306	.306	.306	.306
Kurtosis		-.883	.661	-.631	-.389	4.692	.441
Std. Error of Kurtosis		.608	.604	.604	.604	.604	.604

The median to the statement that a combination of emotions and intuition can greatly improve investment decisions at the stock exchange is 3.00, which represents a "neutral" response. The mode as the most frequent response is also 3 to show that most of the respondents posted a neutral response to this statement. The standard deviation is high at 1.269, indicating a wider dispersion of responses around the mean. The skewness is very low at 0.100 to the right and the kurtosis is low at -0.883 to show a relatively flat distribution.

The statement that investors sell better performing shares at the stock exchange and hold onto poor performing ones has a median of 4.00 and a mode of 4, which stands for "agree" response category. The majority of participants agree to this assertion. The standard deviation is high at 1.066 to show a wider dispersion of responses around the mean. The skewness is -1.006, to indicate that most of the responses are distributed towards the left of the score. The kurtosis is low at -0.883 for a flat distribution.

The median to the statement that financial advisors find it difficult to ask their clients personal questions is 3.00 and the mode is also 3, which represents a neutral response. The standard deviation is high at 1.146, for a wider dispersion around the mean. The skewness is low and to the left at -0.167 to show that the distribution is close to "normal". The kurtosis is also low at -0.631 to show a flat distribution.

The statement that investors don't employ statistical methods in making investment decisions has a median of 4.00 and also a mode of 4 for "agree" response. Most of the research participants support this statement. The standard deviation is high at 1.070 to show a wider dispersion around the mean. The skewness is -0.538 and the kurtosis is low at -0.389 to indicate a relatively flat distribution.

The median to the statement that investors observe the actions of those they believe are more knowledgeable to make their investment decisions is 4.00. The mode is also 4, to indicate that most of the respondents agree to this statement. The standard deviation is relatively high at 0.806, to show a wider dispersion around the mean. The skewness is very high to the left and the kurtosis is also very high at 4.692 to indicate a tall distribution and infrequent extreme deviations or outliers.

The statement that overconfident traders trade frequently has a median of 4.00 and a mode of 4, which stands for the response category "agree" and that most respondents support this assertion. The standard deviation is high at 0.946, indicating a wide dispersion around the mean. The skewness is also high at -0.813 to show a distribution that is more to the left of the mean. The kurtosis is positive and low at 0.441 to indicate light tails and absence of outliers. The tails are less extreme compared to those of normal distribution.

4.5.4 Descriptive Statistics on the Effect of Interest Rate Changes on Share Price Fluctuations at the NSE

Table 4.14 summarizes the statistics of the descriptive analysis on the effect of interest rate changes on share price fluctuations at the NSE. The summaries were used to generate a composite index for this variable.

Table 4.14: Descriptive Statistics on the Effect of Interest Rate Changes on Share Price Fluctuations

		Rise in int rates cause shift from Stock to Bond mkt	Decline in int rates more investors trading	High int rates counter productive	High int rates discourage lending	Shares perf better in low int periods	Diff levels of int rates cause capital flow
N	Valid	60	60	59	56	60	60
	Missing	1	1	2	5	1	1
Mean		3.45	3.80	3.17	2.95	3.65	3.85
Median		4.00	4.00	3.00	3.00	4.00	4.00
Mode		4	4	4	4	4	4
Std. Deviation		1.307	.971	1.206	1.119	1.087	1.205
Variance		1.709	.942	1.454	1.252	1.181	1.452
Skewness		-.617	-.731	-.154	-.295	-.482	-1.085
Std. Error of Skewness		.309	.309	.311	.319	.309	.309
Kurtosis		-.632	.180	-1.010	-.956	-.419	.460
Std. Error of Kurtosis		.608	.608	.613	.628	.608	.608

The median to the statement that rising interest rates cause investors to shift their funds from the stock market to the bond market is 4.00, the mode is also 4 to imply that most respondents agree to this statement. The standard deviation is high at 1.307 to show a wider dispersion around the mean. The distribution is skewed to the left at -0.617 and the kurtosis is low at 0.632 to show absence of outliers. The statement that declining interest rates attracts more investors to trade at the stock exchange has a median of 4.00 and a mode of 4 to show that most research participants agree to this statement. The standard deviation is high at 0.971 to indicate a wide dispersion around the mean. The

distribution is skewed towards the left at -0.731 and the kurtosis is low at 0.180 to indicate absence of outliers and a slightly tall distribution.

The assertion that high interest rates as a macro-ecomic policy can be counter-productive to stock trading has a median of 3.00 for a neutral response and a mode of 4 to show that most respondents agree to this statement. The standard deviation is high at 1.206 to imply a wider dispersion around the mean. The data is slightly skewed to the left at a value of -0.154 and the kurtosis is also low at -1.010 to show absence of outliers and a few cases in the tails of the distribution. The median to the statement that high interest rates discourage economically unproductive lending for consumer credit is 3.00 for a neutral response category. The mode is 4 to imply that most respondents agree to this statement. The standard deviation is high at 1.119 to show a wide dispersion around the mean. The distribution is close to normal and slightly skewed towards the left at a low value of -0.295. The kurtosis is low at -0.956 to show absence of outliers and more cases in the tails of the distribution.

The statement that the performance of shares is always better during periods of low interest rate levels has a median of 4.00 and also a mode of 4 to indicate that most research participants agree to this statement. The standard deviation is high at 1.087 to show a wider dispersion of the distribution around the mean. The data is slightly skewed to the left and the kurtosis is low at -0.419 to show absence of outliers and a relatively flat distribution. The assertion that different levels of interest rates in different economies will cause capital to flow from one economy to another has a median of 4.00. The mode is 4 to imply that most respondents agree to this statement. The standard deviation is high at 1.205 to indicate a wider distribution around the mean. The distribution is skewed to the left at a value of -1.085 and the kurtosis is low at 0.460 to show absence of outliers and a relatively tall distribution.

4.5.5 Descriptive Statistics on the Effect of Company Performance on Share Price Fluctuations at the NSE

Table 4.15 below show the summary of descriptive statistics on the effect of company performance on share price fluctuations at the NSE. The summaries are used to create a composite index for this variable.

Table 4.15: Descriptive Statistics on the Effect of Company Perfomance on Share Price Fluctuations

		Increase earnings rise share price	Earnings easily manipulated	Accounting Policies	Analyst Problems in interpreting financial data	Past earnings good predictor	Performance by Profitability
N	Valid	61	61	61	61	61	61
	Missing	0	0	0	0	0	0
Mean		3.49	3.25	3.66	2.90	3.23	3.46
Median		4.00	3.00	4.00	3.00	3.00	3.00
Mode		4	4	4	4	4	3
Std. Deviation		1.164	1.206	1.124	1.179	1.359	1.089
Variance		1.354	1.455	1.263	1.390	1.846	1.186
Skewness		-.340	-.435	-.950	-.056	-.268	-.212
Std. Error of Skewness		.306	.306	.306	.306	.306	.306
Kurtosis		-.989	-.697	.500	-1.049	-1.110	-.687
Std. Error of Kurtosis		.604	.604	.604	.604	.604	.604

The median as the measure of central tendency to the statement that an increase in a company's earnings always causes the share price of a company to rise is 4.00. The mode is also 4, which indicates that most of the respondents agree to this statement. The standard deviation is high at 1.164 to show a wider dispersion around mean. The skewness is low and to the left of the distribution and the kurtosis is also low at -0.989 to show light tails and a flat distribution with most responses falling in the "tails".

The median to the statement that a company's earnings can easily be manipulated is 3.00, which represents a neutral response. The mode as the most frequent response to this statement is 4, which represents a response category of "agree". The standard deviation to this distribution is high at 1.206 to show a wide dispersion around the mean. The skewness is to the left at -0.435 and the kurtosis is low at -0.697 representing light tails with many cases in the "tails" and also the absence of outliers.

The statement that company managers choose accounting policies that present their financial statements in the best possible light has a median of 4.00 and the mode is also 4 to show that most respondents agree to this statement. The standard deviation is 1.124, which is high to show a wider dispersion around the mean. The skewness is to the left of the distribution at a value of -0.950. The kurtosis is low at 0.500 to indicate absence of outliers and relatively tall distribution with fewer cases in the "tails".

The median to the statement that financial analysts encounter problems interpreting data due to the choices of accounting conventions adopted by organizations is 3.00, which represents a neutral response. The mode as the most frequent response is 4 to show that most respondents agree to this statement. The standard deviation is high at 1.179 to show a wider dispersion around the mean. The skewness is very low to the left at -0.056 to show a distribution that is close to normal. The kurtosis is low at -1.049 to show absence of outliers and a distribution of thin tails with most cases appearing in the tails of the distribution.

The statement that past earnings of a company are a good predictor of future earnings of that company has a median of 3.00, which represents a neutral response. The mode to the statement is 4, which represents "agree" response. The standard deviation is high at 1.359, to show a wider dispersion around the mean. The skewness is low and to the left at -0.268. The kurtosis is also low at -1.110 to show absence of outliers and light tails for a flat distribution with many cases falling in the "tails".

The median to the statement that company's performance is often measured using profitability is 3.00. The mode as the most frequent response is also 3 to show that most research participants gave a neutral response to this statement. The standard deviation is high at 1.089 to show a wider dispersion around the mean. The skewness is low and to the left at -0.212 and the kurtosis is also low at -0.687 to imply absence of outliers and a flat distribution with many cases falling in the "tails".

4.5.6 Descriptive Statistics of the Composite Indexes for the Independent Variables

Table 4.16 below shows the composite indexes of the five independent variables, which are averages of questionnaire items under each variable and their influence on share price fluctuations at the NSE. The median was used as a measure of central tendency since the mean of ordinal data is meaningless.

Table 4.16: Composite Indexes for Descriptive Statistics

		Interest rate changes	Company performance	Independence of Securities Firms	Public Announcements	Investor perception
N	Valid	61	61	61	61	61
	Missing	0	0	0	0	0
Mean		3.4738	3.3306	3.2508	3.6339	3.5359
Median		3.6000	3.3333	3.3000	3.8333	3.4286
Mode		3.83[a]	3.50[a]	3.10[a]	4.00	3.43
Std. Deviation		.64791	.60895	.58008	.59225	.55724
Skewness		-.389	-.281	-.206	-.529	-.336
Std. Error of Skewness		.306	.306	.306	.306	.306
Kurtosis		.714	.886	-.348	-.305	.431
Std. Error of Kurtosis		.604	.604	.604	.604	.604

a. Multiple modes exist. The smallest value is shown

From the table 4.6, public announcements have the highest median at 3.8333, which is close to 4.0000 to represent "agree" response category. The mode for public announcements is also 4.0000 to confirm that the majority of respondents agree that public announcements have the highest impact on share price fluctuations at the NSE. Independence of securities firms has the lowest median at 3.3000, which is rounded to 3.0000 for a neutral response to the assertion that the variable influences share price fluctuations at the NSE. The standard deviations for independence of securities firms,

public announcements. Investor perception, interest rate changes and company performance are all moderately close to the calculated mean at 0.64791, 0.60895, 0.58008, 0.59225 and 0.55724 respectively to show that the distributions are close to the calculated mean.

4.6 Normality Tests for Questionnaire Instrument

Normality tests were conducted and the results are shown in Table 4.17. The model passed the Jarque-Bera normality test with a p-value of 0.943, suggesting that the errors are normally distributed. The RESET test indicated that the model was correctly specified with a p-value of 0.192. It is therefore on the basis of these tests that it was reasonable to claim that the models had a good statistical fit.

Table 4.17: Results of the Diagnostic Tests for the Model

Test Statistics	LM Version
Normality	CHSQ [2] = 0.118 (0.943)

Note: p-values in parenthesis based on a test of skewness and kurtosis of residuals

DIAGNOSTIC TESTS
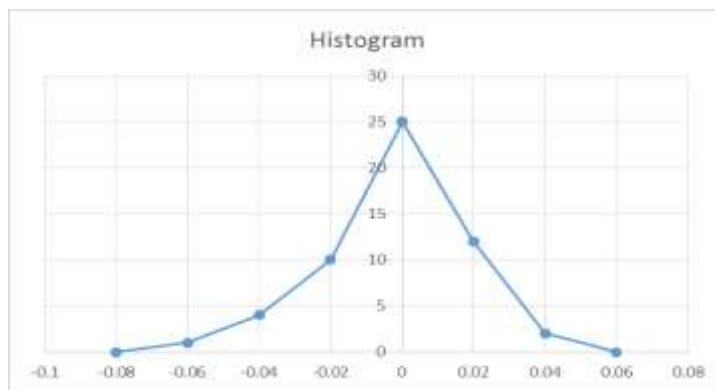
Figure 4.6: Histogram for data on normality

The histogram plot was obtained by placing the data in regularly spaced cells and plotting each cell frequency versus the centre of the cell. The Figure 4.6 shows the histogram of residuals. The histogram illustrates an approximately normal distribution of residuals produced by the models through a calibration process.

4.6.1 Diagnostic Test for the Multiple Regression Model

The study estimated the linear association between independence of securities firms, public announcements, investor perception, interest rate changes and company performance and share price fluctuations at the NSE. In addition, the study estimated the bivariate and multivariate associations. Due to the variables, the nature of data and models involved in this analysis, quantitative analysis was bound to encounter some problems. For instance, the primary data collected was such that heteroscedasticity was expected to occur. This problem was tested for using Breusch-Pagan test and the necessary variance-stabilizing transformations of the response were made to remedy the situation.

Non-normality of the distribution of variables in the equation was also considered to be a potential threat in the study. Thus, appropriate variance-stabilizing transformations were applied to the variables affected. The data collected for the study was observational and therefore prone to multicollinearity. Multicollinearity could manifest in correlations between pairs of independent variables specifically in equation 1. There could be non-significant t-tests for individual parameters when the F-test for the overall model is significant. There could also be existence of estimated parameters with signs opposite to the expected and variance inflation factors (VIF) for parameters that are equal to or greater than 10.

This problem was addressed through variance inflation factor (VIF) tests and pair-wise correlation among explanatory variables. In cases where the variables causing multicollinearity were identifiable due to pair-wise correlation, the less theoretically plausible variable would be dropped from the analysis. Where the variables were not clearly identifiable, variance inflation factor tests were used, such that those variables with VIF above the tolerable limit were dropped from the model.

Influential observations were tested by use of the Cook's distance (D) statistic, df beta and residual analysis. Using the jack-knife technique, observations found to be influential were removed and the models refitted. The fit and validity of the newly fitted models was re-tested and the jack-knife further employed until satisfactory results were obtained. All necessary diagnostic tests were performed and violations of the least squares assumptions treated to pave way for the interpretation of the results of analysis. The tests are displayed in tables 4.35 and 4.36 after the regression analysis.

4.7 Inferential Statistical Tests

The study applied the general linear regression model to determine the predictor powers of the effect of independence of securities firms, public announcements, investor perception, interest rate changes and company performance on share price fluctuations at the NSE. The inferential statistics included regression analysis of the model, analysis of variance and coefficient of determination. The results obtained in this section were used to create composite indexes for independent variables.

4.7.1 Regression Analysis for the Effect of Independence of Securities Firms on Share Price Fluctuations at the NSE

Table 4.18: Summary Results of the Regression Model One

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.391[a]	.153	-.031	1.108

a. Predictors: (Constant), Independence of securities firms

The Pearson correlation coefficient between independence of securities firms and fluctuations in share prices is 0.391, a relatively weak positive correlation. The value of R Squared is 0.153, which shows that the independence of securities firms accounts for only 15.3% of the fluctuations in share prices. The implication is that 84.7% of the share price fluctuations are due to other factors.

Table 4.19: Results of Significance of Regression Model One

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	10.218	10	1.022	.833	.600[a]
	Residual	56.449	46	1.227		
	Ttal	66.667	56			

a. **Predictors:** (Constant), Independence of securities firms
b. **Dependent Variable:** Share price fluctuations

For these data, the observed F is 0.833 at degrees of freedom (df) of 10, which falls below the critical value of 3.940 at α = 0.05 and at df = 10. The observed p > 0.05, given that p =0.600. The regression model broken down to questionnaire items does significantly predict fluctuations in share prices.

Table 4.20: Results of Coefficients of Regression Model One

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.553	1.040		2.453	.018
	Bokerage Firms performance	-.120	.175	-.113	-.684	.497
	Membership of Brokerage firms encouraged	-.112	.138	-.118	-.813	.420
	Competition from Globalization and deregulation relevance	-.031	.137	-.035	-.227	.821
	Investors One-stop shops	.063	.140	.082	.451	.654
	Info to max on economies of scale	.163	.144	.170	1.133	.263
	Negative Research loss of business	.203	.119	.238	1.708	.094
	Research Analysts earnings	.222	.160	.240	1.388	.172
	Analysts reports influenced by possible revenue	.007	.124	.009	.059	.953
	Analyst observe insider trades	-.085	.130	-.099	-.655	.516
	Long term relationships ease exchange of information	.050	.199	.038	.251	.803

a. Dependent Variable: Share price fluctuations
b. Independent Variable: Independence of Securities Firms

Ten (10) questionnaire item (X_{is}) were used in this variable to create an index for independence of securities firms shown in table 4.36 below. From the above table 4.19, $\beta 0$ is 2.553 to show that share price stabilizes at this value in the absence of the activities stated under the independence of securities firms. The other betas slopes of the regression lines are, β_1=-.120, β_2=-.112, β_3=-.031, β_4=.063, β_5=.163, β_6=.203, β_7=.222, β_8=.007, β_9=-.085 and β_{10}=.050. An increase in the predictor variable by one unit will cause the share price to change by these beta values. The implication is that if brokerage firms engaged in proprietary activities; have voting rights on the policies

of the securities exchange and offered multiple services to remain relevant in a competitive world, the share price will decline by 0.120, 0.112 and 0.031 respectively for every unit increase in these predictor variables.

The t-test calculated as the β value divided by its standard error (SE) tests the hypothesis. The t-statistic tests the null hypothesis that the value of β is zero if it is significant. In general, the larger the t value the less likely the β value would have occurred by chance. From the data, the probability of 0.018 for these t-values occurring by chance is less than 0.05 uncertainty of making an error, to reflect genuine effects.

4.7.2 Regression Analysis for the Effect of Public Announcements on Share Price Fluctuations at the NSE

Table 4.21: Summary Results of Regression Model Two

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.430[a]	.185	.090	.990

a. Predictors: (Constant), public announcements

The Pearson correlation coefficient between public announcements and fluctuations in share prices at the NSE is 0.430, a relatively strong positive correlation. The value of R Squared is 0.185, which indicates that public announcements account for 18.5% of the fluctuations in share prices at the NSE. The implication is that 81.5% of the fluctuations in share prices at the NSE cannot be explained, by public announcements.

Table 4.22: Results of Significance of Regression Model Two

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	11.533	6	1.922	1.961	.088[a]
	Residual	50.976	52	.980		
	Total	62.508	58			

a. **Predictors:** (Constant), Public announcements
b. **Dependent Variable:** Share price fluctuations

The value of Fin the table below is 1.922 at df = 6, which falls in the rejection region given that the expected F-value at df = 6 is 1.635 and at 95% level of confidence. The Likert scale values were allocated only to questionnaire items, which are averaged to obtain a composite index for analysis.

Table 4.23: Results of Coefficients of Regression Model Two

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.999	.917		3.272	.002
	Govts as surrogate en2repreneurs	.217	.126	.220	1.722	.091
	National Politics impact performance of exchange	.399	.160	.356	2.488	.016
	Corruption and insecurity	-.166	.166	-.133	-1.001	.322
	Criminal money creates instability and unpredictability	-.025	.119	-.029	-.213	.832
	Criminal groups corrupt financial system	-.043	.131	-.049	-.328	.744
	Poor legal framework allows dysfunctional behaviour	-.239	.141	-.256	-1.689	.097

    a.   Dependent Variable: Shares price fluctuations
    b.   Independent Variable: Public announcements

Six (6) questionnaire items (x_{is}) were used in this variable to create an index for public announcement in table 4.36 below. From the table below, β_0 is 2.999 to imply that a firm's share price is stable at 2.999, when there are no public announcements. The values of the betas correspond to the fluctuations in share price for every, one-unit increase in the predictor variable. The share value increases by 0.217 and 0.399 due to bureaucratic inefficiencies present in government as a surrogate entrepreneur and when national politics are intertwined with economic governance, for a one-unit increase in the variables respectively as indicated by $\beta_1=0.217$ and $\beta_2=0.399$. Share price will decrease by 0.166, 0.025, 0.043 and 0.239 if each of the following predictor variables are increased by one unit; corruption and insecurity, increased quantities of criminally derived money that create instability and unpredictability of financial markets, criminal groups that may gain control of banks and a poorly enforced legal framework that allows dysfunctional behaviour at the securities exchange, respectively. The changes

are represented by β_3=-.166, β_4=-0.025, β_5=-0.043 and β_6=-0.239 respectively. The observed p = 0.002 < 0.05 to show that public announcements significantly influence share price fluctuations at the NSE.

4.7.3 Regression Analysis for the Effect of Investor Perception on Share Price Fluctuations at the NSE

Table 4.24: Summary Results of Regression Model Three

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.403[a]	.163	.048	1.177

a. Predictors: (Constant), Investor perception

The Pearson correlation coefficient between investor perception and fluctuations in share prices is 0.403, a relatively strong positive correlation. The value of R Squared is 0.16 to imply that investor perception can only account for 16.3% of the fluctuations in share prices at the NSE. Investor perception cannot explain 83.7% of the variations in share prices.

Table 4.25: Results of Significance of Regression Model Three

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13.711	7	1.959	1.415	.220[a]
	Residual	70.594	51	1.384		
	Total	84.305	58			

a. Predictors: (Constant): Investor perception
b. Dependent Variable: Share price fluctuations

The observed F is 1.415, falls below the expected value of 2.167 at df = 7 and at 95% level of confidence. The Likert scale values were not allocated to the variable and hence the questionnaire outcomes are used to create a composite index for the model. The p-value of questionnaire items is 0.220 > 0.05.

Table 4.26: Results of Coefficients of Regression Model Three

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.472	1.095		2.258	.028
	Emotions and Intuition improve investment decisions	-.096	.130	-.101	-.744	.460
	Investors sell better performing shares, hold poor performers	-.032	.161	-.028	-.198	.844
	Fin advisors uncomfortable asking personal questions	-.055	.149	-.052	-.371	.712
	Investor sentiment cause short term stand adoption	.530	.204	.396	2.598	.012
	No statistical methods employed	-.051	.175	-.045	-.292	.771
	Observation of actions deemed knowledgeable	.313	.233	.213	1.339	.186
	Overconfident investors trade frequently	-.297	.210	-.237	-1.416	.163

a. Dependent Variable: Share price fluctuations
b. Independent Variable: Investor perception

Seven (7) questionnaire items (X_{is}) were used in this variable to create an index for investor perception in table 4.36 below. From the table above, β_0 is 2.472 and this is interpreted to mean that when investor perception is absent, a firm's share prices will stabilize at 2.472. If the predictor variable is increased by one unit, for instance, if there is an increase by one-unit in a combination of emotions and intuition in investment decisions, the model predicts that fluctuations in share prices will decrease by 0.096 units. The beta coefficients for the other variables are β_2=-0.032, β_3=-0.055, β_4=0.530, β_5=-0.051, β_6=0.0313 and β_7=-0.297 to show that the share price will increase by 0.530 and 0.313 respectively if predictor variables that include investors' sentiment that causes them to adopt a short-term stand in judging the performance of a share based on a single piece of information and investors imitating the actions of those they believe to be knowledgeable in making investment decisions are each increased by one.

Similarly, an increase by one unit in investors selling better performing shares and holding onto those performing poorly, financial advisors feeling uncomfortable asking investors personal questions and investors who are over-confident, trading frequently will cause share prices to decrease by 0.032, 0.055, 0.051 and 0.297 respectively.

Overall, an increase in the predictor variable, generally resulted in a decrease in share price. The results show that investor perception is significant at p = 0.028 that is, p < 0.05. These values were used to create an index for investor perception shown in table 4.26 below.

4.7.4 Regression Analysis for the effect of Interest Rate Changes on Share Price Fluctuations at the NSE

Table 4.27: Summary Results of Regression Model Four

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.520[a]	.271	.112	1.108

a. Predictors: (Constant): Interest rate changes

The Pearson correlation coefficient between interest rate changes and fluctuations in share prices at the NSE is a strong positive correlation of 0.52 as shown in the table above. The value of R Squared is 0.271, which implies that interest rate changes account for 27.1% of the fluctuations in share prices at the NSE. Other variables outside the model can explain 72.9% variations in share prices at the NSE.

Table 4.28: Results of Significance of Regression Model Four

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	20.938	10	2.094	1.707	.108[a]
	Residual	56.430	46	1.227		
	Total	77.368	56			

a. Predictors: (Constant): Interest rate changes
b. Dependent Variable: Share price fluctuations

The F-value as shown in the table above is 1.707, falls in the non-rejection region as the expected F-value at df = 10 and at 95% level of confidence is 3.94. The Likert scale was not allocated to the model but the questionnaire items. The observed p-value is 0.108, which is greater than the critical value of 0.05.

Table 4.29: Results of Coefficients of Regression Model Four

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.285	0.707		1.817	0.013
	Rise in interest rates cause shift from stock to bond market	0.228	0.102	0.301	2.234	0.03
	Decline in interest rates, more investors trading	0.136	0.145	0.129	0.94	0.352
	High interest rates counter-productive	0	0.109	0.001	0.004	0.997
	High interest rates discourage lending	0.002	0.114	0.003	0.021	0.983
	Different interest rates cause capital flow	0.297	0.101	0.372	2.95	0.005

a. Dependent Variable: Shares price performance

b. Independent Variable: Interest rate changes

Five (5) questionnaire items (X_{is}) were used in this variable to create an index presented in table 4.36 below. From the table above, β_0 is 1.285 to indicate that when there no interest rate changes a firm's share price will be stable at 1.285. The model predicts that an increase in the predictor variable by one unit causes the share price to increase by the given beta values. The observed p-value of questionnaire items is 0.013, which is less than 0.05. The other beta coefficients are $\beta_1=0.228$, $\beta_2=0.136$, $\beta_3=0$ $\beta_4=0.002$ and $\beta_5=0.297$.

The implication is that an increase by one unit in high interest rates that shift investments from the stock market to bond market cause the share price to increase by 0.228. An increase by one unit which is, 'more investors trade at the stock market when interest rates decline causes share price to increase by 0.13.' Similarly, an increase by one unit in higher interest rates in an economy that encourages savings to funds to move

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from the stock exchange has no effect on share prices since $\beta_3 = 0$. An increase by one unit in interest rates in different economies leads to capital flows and causes the share price to increase by 0.297. The above values were used to create a composite index for interest rate changes in the table 4.36 below.

4.7.5 Regression Analysis for the effect of Company Performance on Share Price Fluctuations at the NSE

Table 4.30: Summary Results of Regression Model Five

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.384[a]	.148	.051	1.058

a. Predictors: (Constant), Company Performance

Source of data: Survey (2016)

The Pearson correlation coefficient between company performance and fluctuations in share prices at the NSE is 0.384, a fairly moderate positive correlation. The value of R Squared is 0.148, which implies that company performance accounts for only 14.8% of the variations in share prices at the NSE. Other variables outside the model explain 85.2% variations in the share prices at the NSE.

Table 4.31: Results of Significance of Regression Model Five

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	10.286	6	1.714	1.531	.186[a]
	Residual	59.364	53	1.120		
	Total	69.650	59			

a. Predictors: (Constant), Company Performance
b. Dependent Variable: Share Price Fluctuations

The F-value indicated in the table above is 1.531, which is less than the expected value of 1.635 at df = 6 and at 95% level of confidence. The Likert scale was not allocated to the model but to questionnaire items used to create a composite index for the model. The p-value of 0.186 is > 0.05.

Table 4.32: Results of Coefficients of Regression Model Five

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	2.159	.807		2.674	.010
	Increase earnings raise share price	.096	.128	.103	.747	.458
	Earnings easily manipulated	.191	.127	.213	1.510	.137
	Accounting Policies	.311	.156	-.324	-1.992	.052
	Analyst Problems in interpreting financial data	.163	.135	.178	1.202	.235
	Past earnings good predictor	.127	.112	.159	1.134	.262
	Performance by Profitability	.232	.140	.231	1.663	.102

a. Dependent Variable: Share price fluctuations
b. Independent Variable: Company performance

Six (6) questionnaire items (X_{is}) were used in this variable to create a composite index for the model. From the table above, β_0 is 2.159 to indicate that in absence of company performance, the share value is stable at 2.159. An increase in the predictor variable by one unit will cause the share price to increase by the given beta values of β_1=.096 β_2=.191 β_3=.163 β_4=.127 and β_5=.232. The implication is that an increase by one unit in company earnings, manipulation of earnings and the choice of accounting conventions that present challenges in interpretation of information will cause the share price to increase by 0.096, 0.191 and 0.163 respectively. Similarly, an increase by one unit in past earnings as a predictor of future earnings and profitability as a measure of company performance, which misleads users of information will raise the share price by 0.127 and 0.232 respectively. The observed p-values of the regression model is 0.01 is < 0.05.

4.7.6 Multiple Regression Analysis for the Effect of the five variables on Share Price Fluctuations at the NSE

Table 4.33: Summary Results of Regression Model Six

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.724[a]	.524	.143	.970

a. Predictors: (Constant): Independence of securities firms, Public announcements, Interest rate changes, Investor perception and Company performance

The Pearson correlation coefficient between independence of securities firms, public announcements, investor perception, interest rate changes, company performance and fluctuations in share prices is 0.724, a very strong positive correlation. The value of R Squared is 0.524 to imply that the five variables combine to account for 52.4% of the fluctuations in share prices at the NSE. Other variables outside the model, explain 47.6% of fluctuations in share prices at the NSE.

Table 4.34: Results of Significance of Regression Model Six

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	31.095	24	1.296	1.376	.000[a]
	Residual	28.251	30	.942		
	Total	**59.345**	**54**			

a. Predictors: (Constant): Independence of securities firms, public announcements, Investor perception, Interest rate changes, and Company performance
b. Dependent variable: Share price fluctuations

The F value is 1.376, which falls in the non-rejection region since the expected F-value at df = 24 and at 95% level of confidence is 36.415. The predictor variables broken down into questionnaire items generated a p-value of 0.000 to suggest that the

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regression model of the five variables is significant in predicting share price fluctuations at the NSE.

Table 4.35: Composite Index for the Regression Model

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.253[a]	.064	-.021	.361

a. Predictors: (Constant), Investor perception, Interest rate changes, Political and Economic public Announcement, Independence of Securities Firms, Company performance

The Pearson correlation coefficient between the independent variables, which include independence of securities firms, public announcements, investors perception, interest rate changes and company performance is 0.253, which is a relatively weak positive correlation. The value of R squared is 0.064, which shows that the five variables combine to explain only 6.4% of the share price fluctuations at the NSE. The implication is that 93.6% of share price fluctuations are due to other factors.

4.8 Regression Analysis for Effect of all the Independent Variables on Share Price Fluctuations at the NSE

The results of the composite indexes for each of the five independent variables were generated from averages of questionnaire items.

Table 4.36: Results of the Significance of the Multiple Regression Model

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.490	5	.098	.751	.589[a]
	Residual	7.182	55	.131		
	Total	7.672	60			

a. Predictors: (Constant), Investor perception, Interest rate changes, Political and Economic public Announcement, Independence of Securities Firms, Company performance

b. Dependent Variable: Type of Financial Asset Committed (Shares, Fixed income securities)

The value of F-test in table 4.35 at df = 5 is 0.751. The critical value at 0.05 is 2.37, which makes the observed value to fall in the non-rejection region to imply that the regression model is insignificant in predicting share price fluctuations at the NSE. On the basis of F-test, the research fails to reject the null hypothesis and to conclude that the five variables are not significant in predicting share price fluctuations at the NSE.

Table 4.37: Results of the Coefficients of the Multiple Regression Model

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.764	.429		4.116	.000
	Interest rate changes	-.023	.076	-.041	-.296	.768
	Company performance	.048	.102	.081	.468	.642
	Independence of Securities Firms	.039	.097	.064	.405	.687
	Public Announcements	-.086	.092	-.142	-.938	.353
	Investor perception	-.145	.098	-.226	-1.480	.145

a. Dependent Variable: Type of Financial Asset Committed (Shares, Fixed income securities)

From the table 4.36 above, β_o is 1.764 to imply that a firm's share value is stable at 1.764 in the absence of the postulated five predictor variables. The values of the betas correspond to the magnitude of share price fluctuations for every one-unit increase in the predictor variable. These beta values, which are the slope coefficients of the lead variables that include independence of securities firms, public announcements, investor

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perception, interest rate changes and company performance are 0.039, -0.086, -0.145, -0.023 and 0.048 respectively.

The slopes are for β_1= 0.039, β_2 = -0.086, β_3 = -0.145, β_4 = -0.023, and β_5 = 0.048 to represent changes in share prices when each of the five mentioned predictor variable increases by one-unit. An increase by one-unit in independence of securities firms causes share prices to increase by 0.039. One-unit rise in public announcements causes share prices at the NSE to decline by 0.086 units. An increase by one-unit in investor perception causes the share price also to decline by 0.145 units. When interest rate changes by one unit, the share price falls by 0.023 units. The value of a share price rises by 0.048 when company performance increases by one-unit. The above data is captured in the following regression model.

$$Y = 1.764 + 0.039X_1 - 0.086X_2 - 0.145X_3 - .023X_4 + 0.048X_5 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{Equation 3}$$

Table 4.38: Diagnostic Test for the Multiple Regression

Breusch-Pagan	0.08	-
	(0.78) [+]	
Ramsey RESET	1.16	-
	(0.33) [+]	-
Variance Inflation Facto	1.17	

[+]The values indicated above are p-values of the test results

Table 4.39: Diagnostic Test for the Simple Regression

Breusch-Pagan	0.03	-
	(0.85) [+]	
Ramsey RESET	0.58	-
	(0.63) [+]	-
Variance Inflation Facto	1.31	

[+]The values indicated above are p-values of the test results

4.9 Correlation Analysis

Correlation analysis was carried out to establish the nature and the degree of the interaction between the independent variables in the research. The analysis tested for the possibility of multicollinearity among the lead variables. Multicollinearity of 70% and above is considered unacceptable and would have been cause for concern (Drury 2008).

Table 4.40: Correlation Matrix for the Independent Variables

	Correlations				
		Interest rate changes	Company performance	Independence of Securities Firms	Public Announcements	Investor perception
Interest rate changes	Pearson Correlation	1	.207	.305*	.035	.074
	Sig. (2-tailed)		.109	.017	.791	.573
	N	61	61	61	61	61
Company performance	Pearson Correlation	.207	1	.495**	.488**	.485**
	Sig. (2-tailed)	.109		.000	.000	.000
	N	61	61	61	61	61
Independence of Securities Firms	Pearson Correlation	.305*	.495**	1	.317*	.368**
	Sig. (2-tailed)	.017	.000		.013	.003
	N	61	61	61	61	61
Political and Economic public Announcement	Pearson Correlation	.035	.488**	.317*	1	.338**
	Sig. (2-tailed)	.791	.000	.013		.008
	N	61	61	61	61	61
Investor perception	Pearson Correlation	.074	.485**	.368**	.338**	1
	Sig. (2-tailed)	.573	.000	.003	.008	
	N	61	61	61	61	61

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

From the results of the matrix presented in table 4.37 above, there is a positive correlation between interest rate changes and the other four independent variables. The correlations between independence of securities firms, public announcements, investor perception and company performance are 0.207, 0.305, 0.035 and 0.074 respectively.

The highest correlation is between company performance and independence of securities firms at 0.495. The reason for this high correlation may be due to the fact that the two variables are influenced by the integrity of the management of organizations. Unethical practices inherent in personnel impacts the quality of information provided by organizations for decision-making. There is insignificant correlation between interest rate changes and public announcements, given that the value is 0.791.

All the correlations displayed in the table are below the threshold of 0.700 and this ruled out any extreme multicollinearity. Very high significance of correlations exists between company performance and the following three variables that include independence of securities firms, public announcements and investor perception at 0.000. The correlation is also high between investor perception and independence of securities firms at 0.003. Public announcements and company performance impact economic variables and investors who are knowledgeable respond to this information to incorporate such in their investment decisions.

4.10 Reliability Tests

According to Sekaran (2003) the external or internal reliability depends on consistency. Sekaran (2003), states that the reliability of a measure is an indication of the stability and consistency with which the instrument measures the concept and helps to assess the goodness of a measure. Validity, on the other hand is concerned with the extent to which an instrument measures what it purports to measure. Reliability can be investigated directly from the test data. Validity is much more subjective and judgment is required in the assessment of a measuring instrument. Measures that have validity have reliability (Sekaran, 2003). There are four methods, which can be used for assessing reliability and the most common one, internal consistency (Nunnally, 1978) is the one used in this study in assessing survey instruments and scales.

Internal consistency is an indicator of how well the different items measure the same concept (Nunnally, 1978). The Cronbach's alpha (α) is a reliability coefficient that indicates how well the items in a set are positively correlated to one another (Sekaran, 2003). The coefficient of alpha measures internal consistency reliability among group of items combined to form a single scale. It is a statistic that reflects the homogeneity of the scale of measurement. Generally, reliability coefficients of 0.70 or more (α

≥0.70) are considered good (Nunnally, 1978) and was the benchmark used for this study.

4.10.1 Statistical Tests Results

The independence of securities firms has a Cronbach's alpha of 0.764, which is higher than the threshold of 0.700 and is considered to be good. None of the items could be deleted as this will lead to the lowering of the coefficient of reliability as shown in table 4.31 below.

Table 4.41: Independence of securities firms Related Determinants Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.759	.764	5

Table 4.42: Statistics for Independence of securities firms Related Determinants

	Cronbach's Alpha if Item Deleted
Brokerage Firms performance	.785
Membership of Brokerage firms encouraged	.726
Provision of multiple services	.509
Long-term relationships among stakeholders	.751
Info to max on economies of scale	.506

The public announcements related determinants have a Cronbach's alpha of 0.758, which was considered good. None of the items could be deleted since this could have led to the lowering of the coefficient and reliability as shown in table 4.33 below.

Table 4.43: Public announcements Related Determinants Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.733	.758	4

Table 4.44: Statistics for Public Announcements Related Determinants

	Cronbach's Alpha if Item Deleted
Government as surrogate entrepreneur	.730
National Politics impact performance of exchange	.665
Corruption and insecurity	.569
Criminal money creates instability and unpredictability	.750

The investor perception related determinants had a Cronbach's alpha of 0.797 and this was considered good and none of the items could be deleted since this could have led to the lowering of the coefficient and reliability as indicated in table 4.35.

Table 4.45: Investor perception Related Determinants Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.793	.797	5

Table 4.46: Statistics for Investor Perception Related Determinants

	Cronbach's Alpha if Item Deleted
Emotions and intuition improve investment decisions	.782
Sell better performer shares, hold onto poor ones	.785
Fin advisors uncomfortable asking personal questions	.726
Investors imitate anchor investors in investment decision-making	.751
Over-confident investors over-trade	.706

Lastly, the interest rate changes related determinants and company performance related determinants had Cronbach's alphas of 0.718 and 0.743 respectively and these were considered good and none of the items could be deleted since this could have led to the lowering of the coefficients and reliability as shown in tables 4.37 and 4.39.

Table 4.47: Interest rate changes Related Determinants Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.709	.718	5

Table 4.48: Statistics for Interest rate changes Related Determinants

	Cronbach's Alpha if Item Deleted
Decline in interest rates more investors trading	.784
High interest rates counter productive	.775
High interest rates discourage lending	.731
Shares perf better in low interest periods	.761
Diff levels of interest rates cause capital flow	.709

Table 4.49: Company performance Related Determinants Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.709	.743	5

Table 4.50: Statistics for Company Performance Related Determinants

	Cronbach's Alpha if Item Deleted
Increase earnings raise share price	.772
Accounting Policies	.783
Analysts Problems in interpreting financial data	.734
Past Earnings good predictor	.757
Performance by profitability	.736

4.11 Discussion

The results of the research on the descriptive analysis presented in table 4.16 above show that the independence of securities firms has the lowest median to indicate that this variable has the least influence on share price fluctuations. The median was used as a measure of central tendency since the mean of ordinal data is meaningless. The median and the mode showed that most respondents were neutral to this statement. The data had a low skewed distribution to left to indicate that the responses were skewed towards the negation of the hypothesis. The kurtosis was also low and negative to show a flat distribution. It is a challenge to make a conclusion to reject or fail to reject a hypothesis based on a neutral response. Based on the median, mode and skewness, the researcher failed to reject the null hypothesis and concluded that independence of securities firms is statistically insignificant in predicting share price fluctuations at the NSE.

This finding contradicts research by Nyagara and Musikavanhu (2014) who examined the nature and significance of the relationship between stock ownership structure and performance of the stock exchange. Their research delved into agency issues that create ethical dilemmas. The research specifically investigated the impact of demutualization on stock performance of 50 stock exchanges as a lesson for Zimbabwe Securities Exchange. The findings show that stock exchange ownership structure, in this case demutualization has a positive impact on the performance of shares. In addition to demutualization, technological advancement, especially the adoption of automated trading systems, and other selected variables impact the performance of the exchange. Automation had a negative impact on the performance of the securities exchanges in

terms of trading volumes. The two selected variables relate to information asymmetry between the stock brokers as agents and other market participants. Automation creates a trading platform that is not level since brokers have direct access to information on real-time basis.

The researcher used participants from securities firms that include brokerage firms and investment banks. The questions asked in the research were touching on their own personal integrity and ethical conduct. Most of these participants might have chosen to give a neutral response, which is equivalent to "saying nothing". It is a common belief that the investment industry is plagued with continuous conflict of interest and brokers in brokerage firms earn commissions on their dealing in stock trading. The brokers may be under pressure to earn their commissions, which forces them to misrepresent information. Brokers have an inherent behaviour to take advantage of information asymmetry to mislead buyers and sellers. It is not clear, whether research participants misrepresented information in this study.

Based on regression analysis, the overall model, which incorporates all the five variables is significant in predicting share price fluctuations at the NSE. The researcher rejected the null hypotheses to conclude that independence of securities firms, public announcement, investor perception, interest rate changes and company performance combine to significantly influence share price fluctuations at the NSE. The regression analysis showed a very low positive influence on share price fluctuations at the NSE. The model on its own was also statistically insignificant in predicting share price fluctuations at the NSE and therefore the researcher failed to reject the null hypothesis.

The finding is in contrast to research by Orleans and Edilson (2014) that investigated the relationship between information asymmetry and corporate governance in the stock trading of listed companies on the Brazilian Stock Exchange (BSE). The research relied on the theoretical framework for information asymmetry in the stock market to measure the magnitude of asymmetry based on the intra-day stock trading data. The researchers employed the Probability of Informed Trading (PIN) on all the 194 companies listed on the BSE as at the end of 2010. The findings indicated that information asymmetry in the stock trading was negatively correlated to abnormal returns of shares.

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The descriptive research results on independence of securities firms showed that long-term relationships established among several stakeholders at the stock exchange aid in sharing of private information that is used to create a false appearance of market activity. The traders who have an undue advantage over others can place and execute orders shortly before the close of trading on any day to artificially affect the trading price of a share. Many financial analysts work in a world with built-in conflicts of interest and competitive pressures that lower their independence in decision-making. Such an environment can aid market manipulation that leads to erratic share price fluctuations. Employees of securities firms have real-time access to information on client orders and prices of shares compared to other market participants thus creating an unfair trading ground.

Broker-dealers who fail to identify and prevent conflict of interest are likely to prejudice the execution of clients' orders in favour of proprietary interest. As a trader, a brokerage firm has a competitive advantage that will enable it earn excess returns and to act in the interest of a client would be a secondary objective. The right of securities firms to vote on exchange policy is subject to abuse to give the firms an edge over other traders. The securities firms will vote to fulfil self-interest. The researcher fails to reject the null hypothesis based on independence of securities firms to conclude that the model on its own is insignificant in predicting share price fluctuations at the NSE.

Public announcements had the highest median and mode to show that most respondents agree to the statement that public announcements influence share price fluctuations at the NSE. Based on the results of the descriptive statistics, the researcher rejected the null hypothesis and concluded that public announcements are statistically significant in predicting share price fluctuations at the NSE. Research by Obradovic and Tomic (2017) supports this finding. Their study investigated the effect of presidential elections in the USA on stock return flows by use of an event study. There was statistical significance of abnormal returns on the New York Stock Exchange (NYSE) after the presidential election in the USA in November 2012 for shares of financial institutions listed on NYSE that donate funds for these elections.

The findings showed that post event window returns are negative to imply that the market responds negatively after the presidential elections. The t-test statistics for the rest of the period showed that there are no significant abnormal returns. Privately

financed political campaigns facilitates a market for political favours. Occurrence of any surprising event that affects an industry or a group of firms will lead to an immediate response in the stock prices of such firms. Such an event could be the outcome of the presidential elections.

The result of the regression analysis shows a negative low correlation between public announcements and fluctuations of share price fluctuations at the NSE. There is statistically insignificant influence of public announcements on share price fluctuations at the NSE based on inferential statistics. The researcher fails to reject the null hypothesis based on this simple regression. The findings contradict research by Research by Khalil and Akhtar (2017) investigated the impact of terrorist attacks on stock market performance. The study concentrated on the reaction of the KSE 100 index on Karachi Stock Exchange (KSE) to different events and different types of targets byuse of a series of dummy variables. The results showed that attacks on the military and journalists give the highest negative impact on stock returns and being held as a hostage significantly contributes to negative returns of KSE 100 index. Different types of targets have divergent magnitudes of riskiness for the stock market. Investors have accordingly diverse perceptions about the severity of different attacks. They regard some attacks as more dangerous for the market than others.

Public announcements encompass both political and economic events and the interaction between the two events may be of concern since it can result in political corruption. Political announcements create political risk associated with the economic situation of a country, which explains the behavior of stock prices. An unstable political system in a country creates uncertainty to cause investors to be under the fear of losing their investment. An unstable political environment weakens the regulatory bodies such as the CMA and this effect is transmitted to the equity market. Stock market performance is the best indicator of ecomic growth. The expected performance will be associated with the profitability of firms that is captured in share prices and also firms' accessibility to capital on the stock market.

An additional threat to the performance of shares at the securities exchange comes from the activities of money laundering and terrorism. Terrorism creates a sense of insecurity among the public and different types of terrorist attacks disturb the normal cause of trading activities and other businesses. Foreign investors are not willing to invest in a

country where law and order situation is unacceptable. Investors want to protect their funds and their security. Criminal groups involved in terrorism or money laundering have the intent to hide the proceeds of their activities. Such groups might gain control of banks to corrupt the financial system, which is the core of the stock market. The presence of criminal money in the financial system causes the share price to fluctuate since such money does not necessarily respond to normal economic stimuli.

Results of the research showed that govern bureaucracies contribute to the poor performance of the stock prices. The government has shifting targets as it changes economic variables and such changes influence share prices. Government policies that are not in line with productive investment lead to an unstable stock market. In addition, laws adopted for the functioning of securities exchanges in Africa are, transplanted from elsewhere and that there may be no interpretive source. Development outcomes in emerging economies depend on political incentives that drive the actions of political leaders. Initiatives undertaken by a political leader will influence the economic environment and this affects the performance of the stock exchange.

Investor perception has a median and a mode that represented a neutral response. The standard deviation was closely distributed around the mean. The skewness was low and to the left to show that responses were more distributed to the negation of the hypothesis. The kurtosis was low and positive to show a tall distribution and very few cases in the tails of the distribution. A neutral response does not give a conclusive evidence to reject or "fail to reject" a hypothesis. Since the skewness is negative and towards a negation response, the researcher failed to reject the null hypothesis and concluded that investor perception is statistically insignificant in predicting share price fluctuations at the NSE.

Research by Ishurhadi and Jie (2017) does not support this finding on risk perception and psychological behaviour of investors on emerging markets towards stock trading. Their study provided empirical evidence about investor psychology based on a high perception index of risk. The study carried out on the Indonesian Stock Exchange (ISE) showed that investors with high level of literacy are able to understand risk and are able to control the level of confidence. Knowledge and understanding, coupled with better information controls emotions in decision making.

The result of regression analysis show investor perception has a relatively high negative influence on share price fluctuations at the NSE. The effect of investor perception on share prices is statistically insignificant. The results are in line with the outcome of the descriptive statistics. The researcher failed to reject the null hypothesis and concluded that investor perception on its own is insignificant in predicting share price fluctuations at the NSE. The findings are in contrast to research by Viswanadham, Dorika and Mwakapala (2014) on factors influencing the stock purchasing behaviour of investors on the Dar-es-Salam Stock Exchange (DSE). Their research showed that demographic factors such as the education, gender, age and the financial resources available to the investor influence the investment behaviour of individual investors and the performance of the stock market.

Research findings showed that investors believe that short-term trading is more profitable than long-term investing and so frequent trading leads to erratic share price fluctuations. Investors face a dilemma in making the right decision about holding onto or selling shares. The dilemma occurs usually when there has been a change in price. A share price may fall but this should not be the reason to sell that share. The trader must investigate the reason for the decline in price because declining share prices may on the contrary be the reason to increase shareholding in that stock. Regardless of the news that accompanies a share, investors should not immediately react to it. Inefficiencies in making economic decisions by investors due to emotional and cognitive biases can be corrected by better information.

Individuals' decisions to invest at the stock exchange are influenced by very many factors, some of which result from their life experiences, intuition or their habits. Investor perception is a variable that is not easily observable and yet the decisions investors make in a stock market play an important role in defining the market trends. Price fluctuations may be an outcome of investors' intentional actions. The market is made up of average and professional investors and corporate insiders who receive and perceive information from different sources differently. The various market participants who have both rational and irrational tendencies and their actions will cause the market price of a share to fluctuate in an erratic pattern.

Investment advisors should consider emotions and intuition when giving advice to clients and ask them, questions about their private lives and not just about their money.

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The advisors should communicate in the subjective realm to maintain human contact because human behavior and intellect are connected and when making decisions such as investing on the stock exchange, emotionally unstable investors can take investment actions that cause the market to be irrational due to faulty reasoning. Investors fail to employ statistical methods in making investment decisions but instead use simple judgments to make these decisions which cause the share prices to decline. People employ cognitive biases and heuristic principles to reduce the complex tasks of assessing probabilities.

The research participants agree that interest rate changes influence share price fluctuations at the NSE. Based on this outcome, the researcher rejected the null hypothesis and concluded that interest rate changes significantly influence share price fluctuations at the NSE. Research by Amarasinghe (2015) supports this result to show that there is a one-way dynamic causal relationship between interest rates and stock prices. The stock prices don't influence interest rates but interest rates influence stock prices and there is a high negative correlation between the two variables. The regression analysis showed a low negative influence of interest rate changes on share price fluctuations at the NSE. The linear model is insignificant in influencing share price fluctuations at the NSE. Based on regression analysis, the researcher failed to reject the null hypothesis and concluded that interest rate changes have statistically insignificant influence on share price fluctuations at the NSE.

The finding contradicts research by Martinez and Lapena (2015) examination of the relationship between a 10-year government bond yield and share prices using an econometric wavelet analysis that encompassed returns of stocks of different industries and at different time scales or horizons. Their research showed that shares of industries that have high financial leverage are more sensitive to interest rate changes. Shares of companies categorized in longer investment scales perform better to suggest that investors with longer time horizons follow macroeconomic factors and get better returns. The research findings also revealed that the link between interest rate changes and share prices is a multi-scale phenomenon and the highest level of correlation is obtained at longer time horizons.

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The regression result contradicts the descriptive statistical outcome on the same variable. Interest rate is a significant factor for stock price changes. Certain events including government bond issues and the central bank monetary policies shift interest rates in the short-run. When investors are able to forecast interest rates and changes there-in, they are able to decide whether to invest in long-term or short-term bonds or shift their investment to shares. The movement of funds to and from the stock market to the bond market affects the prices of these securities. All other things held constant, an increase in interest rates reduces share prices. This is because the present discounted value of future dividends falls in indirect conjunction with rising interest rates.

Research findings showed that when interest rates decline, more investors shift their funds to the the stock market. The shifting of funds to the stock market is due to the fact that low interest rates diminish returns to bondholders. Investors view lower interest rates as catalysts for stock market deepening. Higher interest rates on the other hand can be a positive measure to discourage unproductive consumer credit to allow savings of funds for plant and equipment to increase production to spur future economic growth. Different interest rates in different economies lead to capital flows from one economy to another. Volatility in share prices is due to changes in risk, which changes the risk premium and hence the discount rate. Changes in monetary regimes influence the mean and variance of stock returns.

Higher debt expenses or less revenue reduces the future expected cashflows, which lowers the price of a company's share. There is an incentive to borrow money in a low interest currency and invest that money in a high interest currency with the aim of earning the interest differential. This activity not only influences exchange rates but also share prices. To understand the relationship between interest rates and stock market performance helps investors make better financial decisions. The government may lower interest rate to stimulate financial activity or increase the rate to reduce inflation. Rising and falling interest rates affect investor psychology and if their expectations differ, the generalized conventional reactions may not apply. An anticipated change in interest rate may be incorporated in a share price such that a change may not attract any future reaction to the announcement.

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There is a neutral response to the hypothesis that company performance has an influence on share price fluctuations at the NSE. The skewness of the distribution indicates that there are many cases in the left tail of the distribution. Based on this outcome, the researcher failed to reject the null hypothesis and concluded that company performance is statistically insignificant in predicting share price fluctuations at the NSE. Study by Lulia-Oana (2016) examination and quantification of the effect of financial indicators of performance on the share return of companies listed on the Bucharest Stock Exchange (BSE) supports this finding. The study, which used a multiple regression model showed that the influence of financial indicators is already incorporated in the share price and hence company performance cannot be used to predict share movements.

The results of the regression analysis showed that there is a very small correlation between company performance and share price fluctuations at the NSE. The effect of company performance on share price fluctuations at the NSE is insignificant. On the basis of inferential statistics, the researcher failed to reject the null hypothesis. The descriptive and inferential statiscs generated the same outcome on the effect of company performance on share price fluctuations at the NSE.

Research by Kwame and Awunyo (2017) examined the effect of adoption of IFRSs on some firm specific accounting information determinants of stock prices on Ghana Stock Exchange (GSE) as an emerging exchange. The findings indicate that there is a positive and significant relationship between EPS, ROE, BMVS and market capitalization, suggesting that these variables are major determinants of the market price of shares on the GSE. There was however a significant negative relationship between the market price of shares and dividend yield to suggest that dividend decisions are not critically important in influencing the market price of shares.

Research results showed that when a company's earnings increase, demand for the company's shares increase. The stock price does not rise due to the current earnings but due to buyers' expectation that the stock will continue to earn high returns long enough for them to make a profit before they exit the market. Managers stretch their accounting judgments when reporting their profits through creative accounting. The profit figures reported help company directors and other personnel who hold high positions in the organization to keep their status quo. Accountants use novel ways of characterizing

income, assets or liabilities with the intent to influence readers towards the interpretations desired by the authors. There is lack of standardization of financial reporting.

Accounting estimates and judgments made by management influence the preparation and presentation of financial statements, considering that accounting is an art and not a science. Company performance is often measured by profitability and profitability means different things to different people. The use of off-balance sheet financing has the capacity to manipulate profits. Accountants and economists view the profit of a company from different perspectives.

The objective of financial statements is to communicate information to users for decision-making. Financial statements do not fit in a single mold and the less experienced investor will encounter problems interpreting a presentation of accounts that falls outside the mainstream. Substantive reinstatements of company accounts have become common place, with financial reporting fraud and accounting errors. The increase in misleading corporate disclosures crop out of performance related pay, especially stock or option-based compensation packages for top executives. Such financial statements cannot be relied upon in making economic decisions. When a share captures such information in its price, the price is not sustainable for long leading to share price fluctuations.

The tests provided conflicting results between t-tests and F-tests to show that a single independent variable was not predictive enough on its own to be statistically significant. The F-test combined all the independent variables to sum up predictive power of all these variables. The reason for poor predictive power of each variable on its own could have been due to putting more than necessary number of regressors in each model to create a high collinearity among the regressors, which are the questionnaire items.

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CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the research findings, conclusion and recommendations of policies to be adopted by regulatory and management institutions. The chapter also has recommendations made for further research.

5.2 Summary

The study, which employed a descriptive design investigated the determinants of erratic share price fluctuations at the NSE for the period 2002-2012. The dependent variable was erratic share price fluctuations at the NSE. The researcher postulated the independent variables to be independence of securities firms, public announcements, investor perception, interest rate changes and company performance. The researcher obtained primary data through a questionnaire in a survey from research participants who included technical employees of securities firms listed on the NSE. The SPSS was employed to carry out data processing.

The research model was estimated using multiple regression, which indicated a positive relationship between independence of securities firms and share price fluctuations at the NSE. Company performance had also a positive influence on share price fluctuations at the NSE. Public announcements, investor perception and interest rate changes negatively influenced share prices at the NSE. The research findings show that independence of securities firms, public announcements, investor perception, interest rate changes and company performance combine to be statistically significant in influencing share price fluctuations at the NSE. The researcher provided recommendation for institutional policy adoption and for further research.

5.3 Conclusion

The research investigated the determinants of erratic share price fluctuations at the NSE from 2002 to 2012. The study reviewed the relevant theoretical, conceptual and empirical literature. Descriptive and inferential statistical analyses were used in analysing data and the results of analysis showed that independence of securities firms, public announcements, investor perception, interest rate changes and company

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performance interact to influence share price fluctuations at the NSE. The researcher recommends policy strategies for the relevant institutions to adopt to ensure relatively stable prices at the NSE are achieved to attract deepening of the market in which more investors participate

5.4 Recommendations for Policy

Since there exist potentially abusive behavior by employees of securities firms at the NSE, it is important to flag out this behavior for investigation to increase market trust. The CMA should put in place technologies that can monitor all market activities in real-time. The technologies will enable generation of audit trail data across the market to identify all activities that take place at the market, such as direct market access and high frequency trading. The process enables the detection of market manipulation and other abusive strategies. Audit trail can prevent market manipulators from hiding their identities. The presence of a level and fair playing ground for all market participants at the stock market is important to uphold liquidity and more activity at the NSE. If all investors receive, better spreads or returns rather than brokers and their accomplices receiving abnormal returns through illegal practices such as 'dump and pump' and 'trash and cash' price manipulations, frontier and emerging markets like the NSE can build volume.

Standardization of information at the stock market will make it difficult for market manipulators, to survive and thrive. Pricing efficiency is achievable in financial markets that are transparent, stable and less susceptible to disruptions. Detection, investigation and prosecution of market manipulators who create artificial appearance of the market will discourage the misleading transactions.

Financial advisors at the many brokerage firms at the NSE should ensure their clients adopt a long-term investment strategy. Short-term investment strategies involve too many trades that entail continuous opening and closing of accounts. These kinds of trades can be too expensive such that traders fail to reach a break-even point. Long-term traders incur less trading fees since they hold their positions for long periods. Investors should, see stock price fluctuations as an opportunity to make more wealth and not as a sign to sell out of fear to exit the market. Investors should pursue long-term investing strategy because such a strategy offers market stability.

It is prudent for investors to base their investment decisions on the outcome of analyses of financial reports of companies that have a proven record of stability and growth. The average investor does not have the capacity to invest in research to form a solid plan to trade short-term and make wealth. Short-term investing based on every fluctuation on the market may be misleading and the average investor who trades on every ebb and flow in the market may not be able to preserve capital.

Financial advisors who work for securities firms at the NSE can also manage their clients' wealth to ensure their clients reach their investment goals. The advisors require understanding the clients and how they react to share price volatility, uncertainties or to the latest news about the stock market. Investment advisors should appreciate that people are emotional and prone to delusional bouts that make them over-confident, fearful, confused, impulsive or extremely reserved to the extent of being reluctant to provide the requisite information. The behavioral finance discipline has defined several investor biases and possible solutions to solve these to mitigate against the possibility of making costly mistakes in investment decisions.

Practically, it is difficult to remove emotional biases from clients but the use of active management techniques can enable investment advisors create portfolios that help their clients stay invested. Investors will be able to live through share price volatility and resist reactive behavior to reach their investment goals. Long-term relationships between investment advisors will enable the advisorsa understand the clients' emotional biases. The advisor is able to educate clients to understand their biases to moderate these and make decisions through a thoughtful planning process.

5.5 Recommendation for Further Research

In making investment decisions, psychology plays an important role as it influences human emotions and cognitive error that leads to irrational markets and erratic share price fluctuations. Being aware of the pertinent psychological biases is critical in finding success in investment at the stock market. A lot of research has been carried out on how economic and political factors affect the performance of the NSE. There should be further research on the intertwining of psychology and finance to explain individual investment decision-making. Specifically, there should be an empirical investigation into the effect of too frequent trading on share prices at the NSE.

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APPENDICES

Appendix I: Extract of NSE Share Index Averages from 2002-2012

Year	Average
2002	1362.85
2003	2737.59
2004	2945.58
2005	3973.04
2006	5645.65
2007	5444.83
2008	3521.18
2009	4432.60
2010	3247.44
2011	3205.00
2012	4133.00

Source: www.nse

Appendix II: Questionnaire on Determinants of Share Price Fluctuations at the Nairobi Securities Exchange

How to fill the questionnaire

Part A-This section has general information about the respondent

Please tick the boxes as appropriate

Part B-F: These sections require you to rate statements on a scale of 1-5. Where you strongly agree with the statement, a 5 will be applicable and where you strongly disagree, 1 will apply.

PART A-Kindly complete by either ticking in the boxes or writing in the spaces provided.

1. Your Gender
   - ☐ Male
   - ☐ Female

2. Level of Education
   - ☐ University
   - ☐ Tertiary institute
   - ☐ Others: (specify)..

3. Your position
   - ☐ Fund manager
   - ☐ Analyst
   - ☐ Investment banker
   - ☐ Investment advisor
   - ☐ Other: (specify)...

4. What financial asset do most investors commit their funds to at the N SE?
   - ☐ Shares
   - ☐ Fixed income Securities

5. What service generates the most revenue for securities firms?
   - ☐ Broking
   - ☐ Portfolio Management
   - ☐ Investment Banking
   - ☐ Research
   - ☐ Other: (specify)..

PART B- F. Please circle the number that correctly reflects your view. The numbers represent the following:

Strongly disagree (1), Disagree (2), Neutral (3), Agree (4), Strongly agree (5)

PART B–The Effect of Independence of Securities Firms on Share Price Fluctuations at the NSE

1. To improve on performance brokerage firms
   Should engage in proprietary activities   1   2   3   4   5

2. Membership of brokerage firms on
   stock exchanges is necessary for these firms
   to vote on exchange policies   1   2   3   4   5

3. Brokerage firms should provide all possible
   services to remain relevant   1   2   3   4   5

4. All institutions in the financial market
   should unite to create financial supermarkets
   that offer one–stop shopping for all financial
   services need   1   2   3   4   5

5. Securities firms use same information for sellers and
   buyers of shares to maximize on economies
   of scale and scope   1   2   3   4
   5

6. Negative research report to a client on share
   performance has the effect of causing loss of business
   for a brokerage firm   1   2   3   4   5

   Brokerage firms should provide business to
   investment banks to attract more business
   in reciprocity   1   2   3   4   5

7. Analysts' recommendations are not influenced
   revenues that can be obtained from additional
   services to clients   1   2   3   4   5

8. Investment analysts observe inside trades to
   predict returns   1   2   3   4   5

9. Long term relationships established among
   investors, company executives and analysts
   make them dialogue and exchange background
   information   1   2   3   4   5

PART C – The Effect of Political and Economic public Announcement on share price Fluctuations at the NSE

10. Governments as surrogate entrepreneurs
    and their bureaucratic inefficiencies negatively impact
    the stock market and the economy   1   2   3   4   5

11. In the African context, political and economic
    governance are inseparable and hence national politics
    impact stock exchange performance   1   2   3   4   5

12. In Kenya, corruption, internal security
    and the threat of terrorist attacks
    paints the image of the country negatively
    to potential investors   1   2   3   4   5

13. The increasing quantities of criminally derived
    and controlled money flows create instability
    and unpredictability of the financial markets   1   2   3   4   5

14. Criminal groups intent on hiding the proceeds
    of their activities might gain control of

banks to corrupt the financial system, which

is the core of the stock market   1 2 3 4 5

15. A poorly enforced legal framework allows

dysfunctional behaviour at the stock market,

influences share prices   1 2 3 4 5

PATR D–The Effect of Investor Perception on Share Price Fluctuations at the NSE

16. Combining emotions and intuition can greatly

improve investment decisions at the stock exchange

and cause stability in share prices   1 2 3 4 5

17. Most investor sell their better

performing shares to avoid the possibility

of declining prices and hold onto poor

performing shares with the hope that prices

will rise.   1 2 3 4 5

18. Financial advisors may not feel comfortable

asking their clients personal questions to

improve on their investment decisions   1 2 3   4 5

19. Investor sentiment causes them to adopt

a short-term stand in judging the performance

of a share, based on a single piece of news   1 2 3 4 5

20. Investors substitute simple judgments for

statistical methods in decision-making   1 2 3 4 5

21. In making investment decisions, people observe

the actions of those they believe are more

knowledgeable to imitate.   1 2 3 4 5

22. Overconfident investors trade frequently   1   2   3   4   5

PART E–The Effect of Interest Rate changes on Share Price Fluctuations at the NSE

23. Rising interest rates make investors
    shift their funds from the stock market to
    the bond market   1   2   3   4   5

24. When interest rates decline, there are more
    investors trading at the stock exchange   1   2   3   4   5

25. Maintaining high interest rates as
    a macroeconomic policy encourages more saving   1   2   3   4   5
    move funds away from the stock market

26. Higher interest rates discourage economically
    unproductive lending for consumer credit   1   2   3   4   5

27. The performance of shares is always better during periods
    of low interest rate levels.   1   2   3   4   5

28. Different levels of interest rates in different
    economies will cause capital to flow from
    one economy to another   1   2   3   4   5

PART F –The Effect of Company Performance on Share Price Fluctuations at the NSE

29. An increase in a company's earnings always causes
    the share price of a company to rise   1   2   3   4   5

30. A company's earnings can easily be
    manipulated to create the possibility of
    the share price capturing inaccurate information   1   2   3   4   5

31. Company managers choose accounting
    policies that present their financial statements
    in the best possible light.   1   2   3   4   5

32. Financial analysts encounter problems interpreting
    data due to the choices of accounting conventions
    adapted by organizations.   1   2   3   4   5

33. The past earnings of a company are
    a good predictor of future earnings of that
    company.   1   2   3   4   5

34. Company performance is often measured using
    profitability.   1   2   3   4   5