

**FACTORS INFLUENCING INVESTMENT DECISIONS IN EQUITY STOCK AMONG  
RETAIL INVESTORS IN KENYA**

**By**

**ANTONY NDAIGA NGAHU**

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**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE  
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## DECLARATION

I declare that this research project is my original work and has not been previously published or submitted elsewhere for the award of a degree. I also declare that this research project contains no material written or published by other people except where due reference is made and author duly acknowledged.

Student Name: Antony Ndaiga Ngahu

Reg. No: KCAU 05/09080

Sign.....

Date.....

I do hereby confirm that I have examined the master's dissertation of Antony Ndaiga Ngahu and have certified that all revisions that the dissertation panel and examiners recommended have been adequately addressed.

Sign.....

Date.....

Dr. Michael Njogo

Dissertation Supervisor

## ABSTRACT

Investment decisions need to be analysed on the basis of a number of factors given the prevailing situations. This study sought to examine factors that influence investment decisions in equity stock among Kenyan retail stock investors and had four specific objectives. The first objective sought to determine the effect of stocks' affordability on investment decisions in equity among Kenyan retail stock investors. The second objective assessed the effect of information on investment decisions while the third was in regard to the effect of third parties' opinion on investment decisions. The fourth objective sought to determine the effect of herding behaviour on investment decisions in equity among Kenyan retail stock investors. To achieve the objectives of the study, correlational research design was adopted where secondary data was mainly used supplemented by some primary data. The research target population was the retail investors of the sixteen Stock Brokerage firms in Kenya. Purposive random sampling was used to select 5 retail investors from each firm meaning the study had 80 respondents as its sample size. The data was collected using questionnaires and analyzed through descriptive and inferential approaches with the help of Statistical Package for Social Sciences (SPSS). Quantitative data was presented using tables, charts and graphs while qualitative data was presented in narrative form. The regression results show that stock affordability ( $B = 0.327, p < 0.007$ ) and third parties' opinion ( $B = 0.327, p = 0.042$ ) had significant positive effect on the investment decisions among the retail investors. It also emerged that information ( $B = 0.070; p < 0.395$ ) had a negative but insignificant role on retail investments' decisions while herding behaviour ( $B = 0.043, p = 0.702$ ) had a positive but insignificant role towards decisions among retail investors at the NSE. The study recommends the need for improved information on the stock markets dynamics to support the decision making abilities of the retail investors for the NSE to play its rightful role in economy.

Key Words: Retail investor, affordability, information, third party opinions, herding

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## **DEDICATION**

The project is dedicated to my wife and children for their encouragement and support throughout the study period.



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## **ACRONYMS AND ABBREVIATIONS**

ACCA	Association of Chartered Certified Accountants
ERP	Enterprise Resource Planner
ICPAK	Institute of Certified Public Accountants of Kenya
KASNEB	Kenya Accountants and Secretaries National Examinations Board
NSE	Nairobi Security Exchange
SACCOs	Savings and Credit Co-operative Societies
SPSS	Statistical Package for Social Sciences

## **DEFINITION OF TERMS**

**Investment Decisions** The Investment Decision relates to the decision made by the investors or the top level management with respect to the amount of funds to be deployed in the investment opportunities. Simply, selecting the type of assets in which the funds will be invested by the firm is termed as the investment decision (Husain, 2016).

**Retail Investors** Retail investors are individual who purchase securities for their own personal account rather than for an organization. Retail investors typically trade in much smaller amounts than institutional investors such as mutual funds and pensions (Kannadhasan, 2015).

**Securities** Refers to financial instrument that has a core value including equity, bonds and debentures. The investment choices are ally based upon the liquidity, return on investment, safety and management active involvement factors (Kishori & Kumar, 2016).

**Stock Market** Refers to institutions where stocks are subscribed and traded. A share of company believed by an individual (or) group, companies raise capital by distributing stocks and enable the stock owners to partial ownership of the corporation (Welch, 2009).

**Stock** Is a type of security that indicates ownership in an entity and represents a claim on part of corporation assets and earnings. It is also a share of a firm held by an individual or group (Gunathilaka, 2014).

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

Investment decisions are usually supported by decision making tools. The assumption is that information structures and the market factors systematically influence personal investment decisions as well as the market outcomes (Mehta & Chaudhari, 2016). As noted in the background there is evidence that retail equity investors are influenced by many factors including firm related, macro environment and investor psychology factors. However, Phansatan et al. (2012) recorded contradictory findings when the study determined that retail traders were generally found to have marked poor trading performance while institutional investors were found to possess informational advantages over other investor categories, thus enhancing their trade outcomes and performances. Nevertheless, Li, Wang and Dong (2016) suggested that the individual investors are successful at picking stocks.

There has been observed an extraordinary growth in the investment sector both in terms of volume and number of investors over the past three decades due to deregulation of financial sectors across the world. For instance in India, Bennet et al. (2011) observed a rapid emergence of diverse investment products offering numerous options to attract investors. The number of regional stock exchanges in India had increased significantly and Husain (2016) observed that equity shares as an investment opportunity has advanced from times it was preferred due to higher dividend expectations to present day where capital gains a key consideration. Price discovery through book building process had given tremendous boost to the initial public offers and further public offers. The dynamic regulatory frameworks, the development payment guarantees by the depositories, proactive government involvement, robust intermediaries and up

to date technologically advanced exchanges have instilled and nurtured confidence in the markets.

In developing countries including Kenya, Obamuyi (2013) found that expected corporate earnings, instant-riches mentality, stock marketability, firm's stock past performance, government holdings, and the establishment of the structured financial markets are the investors considerations. Jagongo and Mutswenje (2014) found that individual investors were more reliant on media and market noise in their investment decisions, whereas professional investors relied on technical and fundamental analysis than specific portfolio analysis. Kisaka (2015) demonstrated that market participants were exposed to a constant flow of information, ranging from quantitative financial data to financial news in the media. Variables that were loaded heavily included coverage in the financial, information obtained from internet, recent stock index returns, most recent economic indicators and suggestions by investment advisors.

Kannadhasan (2015) has observed that investment decisions are a function of several factors such as salient market features and the risk profiles of individuals and disclosed accounting information. Wyatt and Frick (2010) pointed out that sunk cost considerations and asymmetrical risk preferences for gain or loss are a key consideration regardless of accounting information disclosed. Further, Sultana and Pardhasaradhi (2012) suggested that benefits maximization criteria are important to investors, even though investors employ diverse stocks selection criteria. Contemporary concerns such as environmental track record, local or global operations and the firm's ethical posture appear to be accorded only slight consideration. Majority of the retail investors discount the benefits of valuation models when assessing stocks (Arrow & Lind, 2014).

Ahmed and Wang (2011) while studying the determinants of capital structure in Pakistan found out that the dividends, growth and professional investment management were determinant factors of selection of the equity investment. According to Kadiyala and Rau (2004) determined that past returns can also be an appropriate influencing factor on investors' decisions. Al-Tamimi (2006) identified factors influencing the investors' behavior in United Arab Emirates; the most important factors were earnings, motive of big-quick profits and stock's liquidity. Minimizing risk, friends' or family members' opinions are not real concerns for investors. Further, the immediate consumption needs of investor is also evidenced by past studies, for instance, Yoseph (2015) determined that investors' motivation to obtain extra-ordinary gains as quickly as possible is one of the major determining force in equity selections in Ethiopia.

Bennet et al. (2011) noted five factors that influenced retail investors' attitude towards investing in equity stock markets. The study determined that five factors which included investors' tolerance for risk, media focus on the stock market, strength of the economy, political stability and government's business policies were very influential over retail investors' attitude towards investing in certain equity stocks. Srinivas (2013) revealed that there seemed to be a certain degree of correlation between the behavioural finance theory factors and previous empirical evidence identified as having influence over the average equity investor and the individual behaviour of existing investors.

Geetha and Ramesh (2011) concluded that there was medium awareness on varied investment choices available but there was little awareness about the stock market, equity, bond and debentures. The study showed that all age groups gave more import to investing in insurance products, social security and banks. Viswanadham et al. (2014) identified the factors influencing the buying behaviour of investors in Tanzania Equity market. The study determined that all listed

companies gave more emphasis on quality management decisions, branding efforts and transparency in settlement issues.

### **1.1.1 Nairobi Security Exchange**

The stock market is one of the key basis for companies to raise money. Stock market is a structure set up where the securities can be sold and purchased at a decided price (Kidwel et al., 2016). Financial regulators, such as Nairobi Security Exchange is involved in activities of the stock markets in their selected jurisdictions and offer protection to investors against fraudulent activities. Pilbeam (2010) classified the stock markets into primary markets and secondary markets. Primary markets are defined as institutions where new stocks or bond issues are sold to investors through initial public offers while secondary markets to markets where liquidity to securities as allotted in the primary market are provided. In the secondary markets existing securities can be traded and subscribed among investors or traders through a recognized stock exchange.

In Kenya, the only organized stock market is the Nairobi Securities Exchange (NSE). NSE traces its history to the 1954 when it started operating by dealing in shares informally. Now it is quite advanced with the creation of the capital market authority (CMA) and introduction of the central depository system (Ndiege, 2012). Long perceived as a preserve of the elite rich, the Nairobi Security Exchange market has lately witnessed even the ordinary in society flocking its corridors for business. The oversubscription in initial public offerings (IPOs) in the recent past highlights the fact that the Kenyan people are now aware of equity securities as an investment asset and an alternative to real estate and other ventures. One cannot buy shares or invest anywhere else unless one has some disposable income.



### **1.1.2 Brokerage Firms in Nairobi Securities Exchange**

According to Sullivan (2003), brokerage firms are financial intermediaries which facilitate the selling and purchase of financial securities. Further, these firms serve a number of investors who deal in public stocks and other securities, mainly using the firm's agent stockbrokers. A typical brokerage firm undertakes other activities such as marketing of investment products. The stock brokers also offer financing options such as conditional margin loans for select clients to purchase investments on credit (Al-Tamimi, 2006).

Retail investment has changed over the years when it was in partnership form which focused on underwriting security issuance through initial public offerings and secondary market offerings, brokerage, and mergers and acquisitions, to present day where it offers wide range of services including market research, proprietary trading and investment consultancy. In Kenya, the brokerage firms are listed by the Nairobi Securities Exchange. There are 23 brokerage firms listed by NSE at 2017. The study was therefore undertaken in these firms.

### **1.2 Statement of the Problem**

The importance of continued understanding of what drives investment decisions among existing and prospective investor has been emphasized by scholars and practitioners. Despite the need to grow investment and saving culture among Kenyans, only a few studies are available have explored the reason for the low uptake of equity as an investment option, with the majority of available studies having been conducted in foreign context such as United States, India and China. The investment environment in these contexts is different from the Kenyan one which possesses unique and even peculiar characteristics.

Existing studies on Kenya equity investors (for example Jagongo & Mutswenje, 2014; Waweru, 2010; Muthama, Mbaluka & Kalunda, 2013) have all paid attention to the broad categories of

economic and behavioural factors influencing investor decisions. None of these available studies have focused on specific factors, as the proposed study which sought to investigate the influence of stocks' affordability, information, third parties' opinion and herding behaviour on investment decisions. Most of the available studies have also studied institutional investors and thus this study takes the approach to study investment decisions among retail investors in Kenya.

### **1.3 Objectives of the Study**

#### **1.3.1 General Objective**

The study sought to investigate the factors that influence investment decisions among Kenyan retail stock investors.

#### **1.3.2 Specific Objectives**

The study was guided by the following specific objectives.

1. To determine the effect of stocks' affordability on investment decisions among retail stock investors.
2. To assess the effect of information on investment decisions among Kenyan retail stock investors.
3. To assess the effect of third parties opinion on investment decisions in equity at the Nairobi security exchange among Kenyan retail stock investors.
4. To evaluate the effect of herding on investment decisions among Kenyan retail stock investors.

### **1.4 Research Questions**

The study was guided by the following research questions

1. How does stocks' affordability affect investment decisions among Kenyan retail stock investors?

2. What is the effect of information availability on investment decisions among Kenyan retail stock investors?
3. What is the effect of third parties opinion on investment decisions in equity at the Nairobi security exchange among Kenyan retail stock investors?
4. What is the effect of herding on investment decisions among Kenyan retail stock investors?

### **1.5 Significance of the study**

The study put earnest endeavour to contribute knowledge to already existing literature on existing factors affecting investment decisions among the retail investors in Nairobi. Expected findings may help in formulation of investment decisions among the retail investors which if adopted may be greatly enhance investment decisions. The stock brokerage firms used in this case may be able to advice and have knowledge about their clients. The study also stimulated the need for further research on the recommendations.

### **1.6 Scope of the study**

The study focused on the effect of stock affordability, effect of information, effect of third party opinion and effect of herding on investment decisions. It was carried out on sixteen stock brokerage firms in Nairobi.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter review the theoretical literature and the empirical literature of previous studies conducted on the factors that influence investment decisions in equity stock.

#### **2.2 Theoretical Literature**

In this section, the focus is on various theories under which the study is underpinned; it specifically focuses on the agency theory, the prospect theory and the reliability theory.

##### **2.2.1Prospect Theory**

The prospect theory was proposed by Tversky and Kahneman (1992).The theory holds that individuals express varied emotional levels towards gains and losses. The theory argues that people get higher degree of stress from prospective losses compared to the degree of happiness from equivalent gains (Trepel, Fox & Poldrack, 2005). The theory insists that losses seem larger than equivalent gains and the value of money changes when it goes deep into people's pockets. Prospect theory also attempts to explain reasons for investors holding onto losing stocks arguing that people often take more risks to prevent losses than to obtain gains.

Chandra& Kumar (2011) applied this theory in India and found out that investors willingly hold onto risky stock positions, hoping the prices will improve in a similar fashion with gamblers who on a losing streak, increasing their bets and frequency in an attempt to recoup their losses. Further, Jagongo and Mutswenje (2014) used this theory in their study and determined that despite people's rational aspirations to obtain returns on risks they take, they tend to value things they possess higher than the price they would normally be willing to pay for such things.

The prospect theory was important in the present in determining why retail investors choose to hold onto their losing stocks and sell their winning stocks in the belief that today's losers may soon outperform today's gainers. The theory was suitable for the study as investors often make the mistake of chasing market action by investing in options which are spotlight or generating more attention.

### **2.2.2 Reliability Theory**

Reliability theory was proposed by Gavrilov and Gavrilova (2001). This theory is used to describe the probability of a system successfully undertaking its expected function(s) in a certain time interval (Gavrilov and Gavrilova, 2001). The theory has been used as a model by companies in calculating profitable rates to be charged to the customers. The theory stipulates that investment decisions are primarily set up for assessment and control of risks. The theory further argues that weak organizational systems produce more meaningful output and thus greater cost (Kinney, 2000).

According to Gavrilov and Gavrilova (2001), the ability to determine weaknesses of any organization is largely judgmental. The theory argues that upon the formulation of the process and system reliability estimates, comparison with past financial data may provide a more reliable basis for judgment on the effect of firm's system on the income risk of the said firm. Messier and Austen (2002) used this theory in their study and demonstrated strength of the reliability theory which they pointed out as being its close relationship to the needs of an organization regarding understanding the organizational system and control risk assessment. Other scholars who obtained similar results were Kannadhasan (2006) and Kannadhasan (2015).

The reliability theory was important in the present study due to its basis on the notion that an implemented system should be able to meet its expected function. The theory focuses on the

effect of risk assessment on financial performance of firms which was likely to affect the investment decisions in Kenyan retail investors.

## **2.3 Empirical Review**

Various studies have been done to determine the factors that influence investment decisions in equity stock. The section therefore reviews literature that relate to the study, based on the objectives and research questions of the study.

### **2.3.1 Stocks' Affordability and Investment Decisions**

Merikas et al. (2011) conducted an empirical survey of economic factors and individual investor behavior in a stock exchange based on Greek's Athens Stock Exchange (ASE) context. The findings were based on the views of 150 respondents who revealed a certain degree of correlation between the factors identified in behavioral finance theory literature as well other previous empirical influenced by the overall trends prevailing at the time of the survey in the ASE. The study held the position that that expected corporate earnings, condition of financial statements, or firm status in the industry which falls under classic wealth maximization criteria were rated as having significantly high influence on individual investors' decisions. The study noted that these factors reliable criteria which can be considered in evaluating stock investments, as the respondents in this study were experienced investors who had survived the bubble burst of the Greek stock exchange that started at the end of 1999. Lakonishok *et al.*, 1994) also indicated that investing in a growth stock is an investment style which is based on a company's fundamentals such as earnings, dividends, cash flows and book value of company and it is be considered as a rational style on behalf of investors.

Qureshi and Hunjra (2012) studied the factors affecting investment decision making among equity fund managers using data collected from 327 equity fund managers of insurance

companies, commercial banks, and equity investment companies applying stratified random sampling technique. The results of the study demonstrated that a positive and significant relationship exist among heuristics, use of financial tools, risk aversion, firm-level corporate governance and investment decision making. The results further showed that corporate governance issues at the firm-level played a key role and is a significant factor when evaluating investment options. Equity fund managers of institutions used heuristics and financial tools in their investment decisions. Institutional equity fund managers were also found to be risk averse.

Obamuyi (2013) sought to determine the factors influencing investment decisions in capital market in Nigeria. The findings of the study indicated that the five significant factors on investment were past performance of the firm's stock, projected security capital bonus, projected firm earnings, the dividend policy and the get rich quick mentality. The study observed that opinions of family members' opinions, rumors, religious affiliation, brand loyalty to firm's services and possible losses in other investments as have little influence on investment decisions. The study further determined that the demographic, social and economic factors of the retail investors including gender, age, marital status and educational attainment had statistical and significant influence on the investment decisions.

Aroni, Namusonge and Sakwa (2014) studied the effect of financial information on investment in shares through a survey of retail investors in Kenya. The study used primary data which were gathered from 311 respondents randomly selected from 836 investors involved at the Nairobi Securities Exchange as at March, 2013. The data were analysed through descriptive and linear regression. The results showed that financial information as a consideration had significant and positive influence on shares investment decisions in Kenya.

### **2.3.2 Information and Investment Decisions in Equity**

Murphy (2010) studied ethical behaviour and investment decisions in the United States and found that investors' ability of to make informed ethical choices is hampered by the quality of information received. The study noted that in the case of tobacco companies they do not admit that they have intentionally made their products unnecessarily addictive and governmental regulations have not fully rectified this issue. The accuracy of emissions and other environmental reports as issued by key conglomerates such as Exxon are also usually suspicious, and the information publications companies such as Enron and WorldCom which have been found guilty of serious fraudulent and false accounting practices.

Jagongo and Mutswenje (2014) indicated that the most important factors that influence investment decisions were: reputation of the firm, firm's status in industry, expected corporate earnings, profit and condition of statement, past performance firms stock, price per share, feeling on the economy and expected dividend by investors

Maginn et al. (2007) while studying management of investment portfolios established that an understanding on the past performance of the relevant assets is important to enable investors in making their investment decisions. The study also noted that there is need to consider investor's tolerance for risk based on his responsibilities and his personality before investing in assets that bear considerable risk. The study found that personal investment decisions on how much money an individual investor wants to commit each month or the amount of a lump sum should be guided by the amount expected once the investments mature. The study further posited that an investor who wants to diversify his/her investments to include foreign holdings must consider factors, such as the national economic growth rates and the stock market liquidity. The investor must consider a country's capital gains tax policies and the integrity of its dispute resolution



system. The investor must confirm that the country protects the rights of foreign investors and that its central bank holds adequate currency reserves.

Lam (2014) established that past market trends, risk appetite, understanding past performance of changes in varied asset classes before planning investment finances and ability to tolerate risk differs from individual to individual. Lam also noted that ability to bear risks depends on factors such as financial obligations, personality characteristics which make understanding the capacity to bear risks an important consideration in investment decision making. The study also observed that the expected rate of returns was crucial factor as it guides the choice of investment. Based on the expectations, an investor can decide whether to invest heavily into equities or debt or balance the portfolio.

Ndiege (2012) studied the factors influencing investment decision in equity stocks at the Nairobi securities exchange among teachers in Kisumu municipality. The study established that investors were subject to optimism and pessimism that caused prices to deviate systematically from their fundamental values and later exhibited mean reversion. This was consistent with behavioral decision theory where investors are systematically over confident in their ability to forecast either future stock prices or future corporate earnings. Further, the study isolated subjective factors including perceived firm ethics, feelings towards firm products and services, community participation and employee as well as unbiased information through media coverage and political statements played a role in the relative neglect of the consideration of significant traditional variables in Kisumu municipality. A negative significant relationship was found to exist between the subjective factors and investment decisions.

### **2.3.3 Third Parties' Opinion and Investment Decisions**

Sarwar and Hussan (2016) studied the factors affecting the individual decision making in Islamabad Stock Exchange. The study used questionnaire to collect data from 253 individual investors trading at the Islamabad Stock Exchange. The findings reveal positive significant relationship between advocate advice, unbiased information, self-image/firm image convergence and individual investor investment decision making. However, the study found no evidence with regard to the relationship between accounting information, classical wealth maximization and personal financial needs. The study noted the need for further studies focusing on advocacy factors due to possibilities that the stock markets could easily be manipulated when investors rely on other advice in their investment decision making process.

Wendo C. (2015) on her study on the factors influencing individual investors' participation in the Nairobi securities market. A case of advocates in Nairobi County, Kenya found out that that investment decisions are influenced by popular opinion in the market, recent trends in returns and profitability and by the opinions of friends and colleagues.

Gunathilaka (2014) examined the equity investment decision process of retail investors in Sri Lanka using an analysis of data from 168 respondents who revealed that the perceived firm value had the largest influence on equity choice decisions. The study found accounting information, recommendations from advocates' and self-image/firm-image to be significant homogeneous groups of the factors with an influence on stock selection. The risk and historical prices were noted to be the second order factors in the process by the study. The study also held that decisions were influenced by political stability expectations, economic condition/outlook and good governance. The study identified firm's goodwill, liquidity, dividend payout and public news as marginal factors influencing investment decisions. Religious beliefs, family background

advocates' opinion and content of the annual financial statements were found not to have an influence while the on the decision making.

Ali and Tariq (2013) studied the factors affecting individual equity investor's decision making in Pakistan. The study found significant influence by convergence of self-image and firm-image, unbiased information in addition to advocate proposals on individual equity investor decision making. On the other hand, the study found that there were no influences of factors like individual's financial needs, classic wealth maximization and accounting information on individual equity investor's decision making in the Pakistan's context.

Sultana and Pardhasaradhi (2012) conducted empirical analysis on influence of varied factors on individual equity investors' decision making and behavior in India. The study applied factor analysis where 40 attributes were condensed into ten factors. These factors were categorized as individual eccentric, social obligations, wealth maximization, risk reduction, brand perception, financial prospects, accounting disclosures, government together with the media, economic outlook and advocate advice. The factors were to have varying degree of influence on investment decisions made by individual market participants.

Chong and Lai (2011) studied how accounting disclosures, unbiased information, social relevance and advocates' advice related to investment decision among Malaysian investors. The study collected data from 199 respondents with the results showing that unbiased information appeared to the most significant factor for the Malaysian investors. The second most significant factor was found to be accounting disclosures. Social relevance and advocates' advice followed in that order in influencing equity selection process. Unbiased information was positively correlated while accounting disclosures were negatively correlated with return expectations. Social relevance factor was found to be significant for female investors unlike their male

counterparts. With regard to the stock market experience viewpoint, investors with five to ten years and those with 15 to 20 years' experience were found placing emphasis on accounting disclosures to make their investment decisions while investors who had more than 20 years of experience did not like using the accounting information. The study concluded that investment of investors' decisions making was affected by diverse interlinked advocacy factors.

#### **2.3.4 Herding and Investment Decisions**

Farooq and Sajid (2015) studied the factors which affect investment decisions using evidence derived from equity fund managers and individual investors in Pakistan. The study was designed to evaluate the effects of behavioral factors such as risk aversion, heuristics, financial tools usage and internal corporate governance on investment decision making. The study collected data using one hundred research questionnaires administered to individual investors and equity fund managers. The study established that financial tools usage, heuristics and internal corporate governance had positive and significant effect on investment decision making. On the other hand the study found that risk aversion had significant impact though negative on investment decision making. Moreover, all behavioral factors, internal corporate governance and investor's decision making had strong positive relationship with each other.

Li, Rhee and Wang (2009) studied the differences in herding behaviour between institutional and individual investors in the Chinese market. Their findings indicate that institutional investors who are the better informed exhibited intense herding compared to the less informed individual investors although individual investors were more likely to influence market sentiments and demand as they tended to rely heavily on public information.

Chandra and Kumar (2011) studied the determinants of individual investor behaviour and noted that some psychological issues among them conservatism, low esteem, caution and informational

asymmetry influenced investments decision making. The study further demonstrated that psychological factors have domineering influence on investor's decision making process and that the micro economic variables as well as social factor do influence investment securities selection. Kumar and Lee (2006) carried out a study on retail investor sentiments and find that the trading retail investors buy or sell one group of stocks and they tend to buy or sell other groups exhibiting herding behaviour.

Phuoc and Doan (2011) explored how behavioral factors influence individual investors' decisions at the Ho Chi Minh Stock Exchange using semi-structured interviews distributed to managers at the Ho Chi Minh Stock Exchange. The result showed that there were five behavioral factors affecting the investment decisions. These were market outlook, overconfident gamblers' fallacy herding and the bias associated with anchoring ability. The heuristic behaviors were found to have the highest positive impact on the investment performance while the herding behaviors were reported to influence positively the investment performance at the lower level. The study found that market outlook had high influence. On the contrary, prospect behaviors were found to have a negative effect on the investment decision outcomes.

In Kenya, Mwangi (2011) studied behavioural factors which influence investment decisions in the property market where it emerged that heuristic factors including the ability to anchor, representativeness & availability bias had pronounced influence on property investment decisions.

## **2.4 Knowledge Gap**

The study has reviewed some of the available literature which had relevant information factors that influence investment decisions. The literature offered some valuable lessons for the study including the empirical evidence for indicators of the variables as well as offering the theoretical perspectives which have been used to study investment decisions. However the emerges several

knowledge gaps which the study sought to attempt to address. First it emerges that the existing studies have also taken a broad approach where they have studied the factors under the economic and behavioural categories without focusing on specific identifiable factor(s).

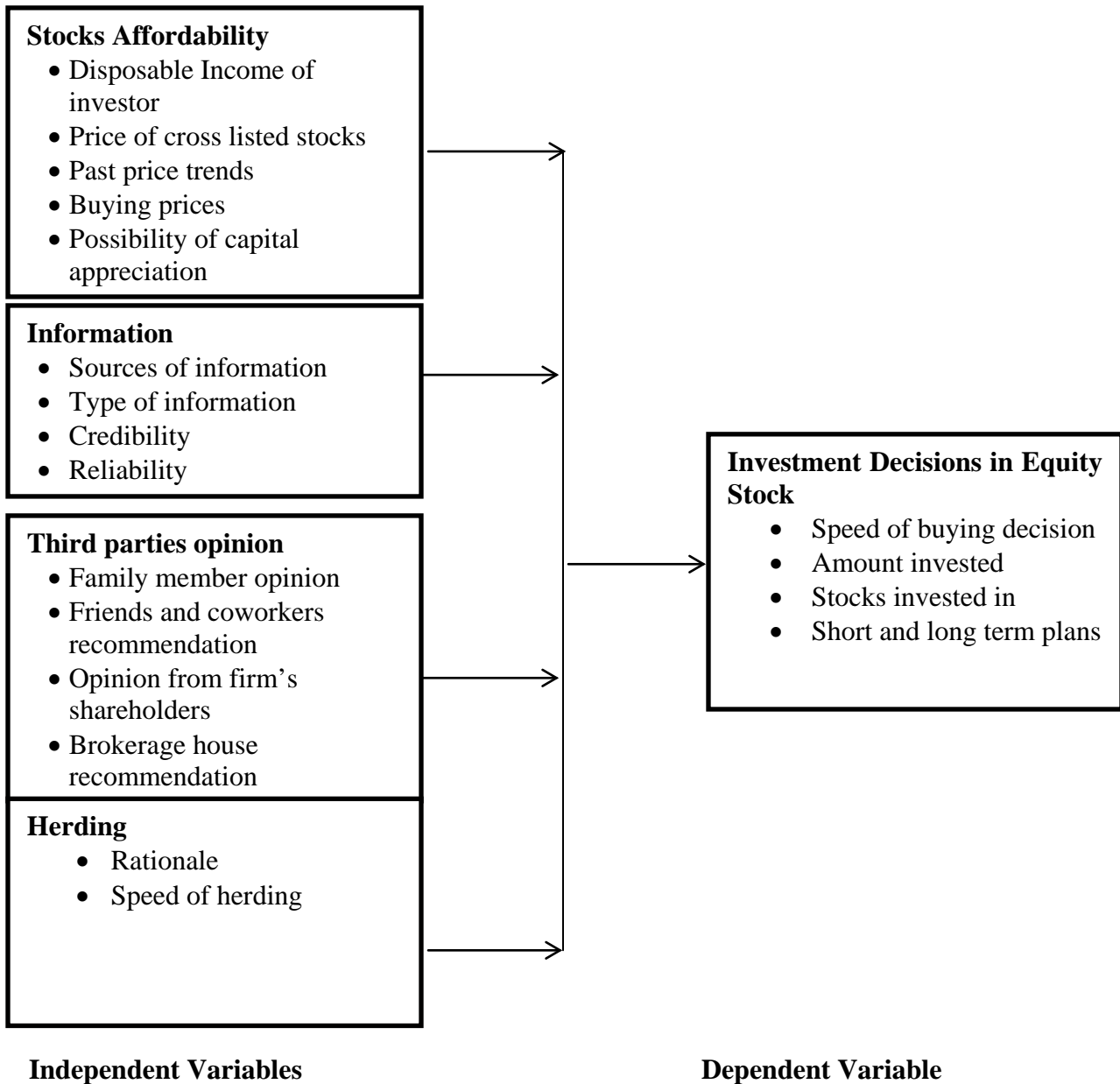
From the literature reviewed, it is clear that the majority of the studies have been conducted in contexts which are different from the Kenyan retail investment market. However, there is limited literature on the factors influencing decision making in equity stocks in Kenya. The available local studies have not also employed inferential statistics to understand link between investment decisions and factors identified. It is against this background that the proposed study aims to investigate how affordability information, third parties' opinion and herding behavior influence investment decisions in equity stock at the Nairobi security exchange among Kenyan retail stock investors.

## **2.5 Conceptual Framework**

Figure 1 depicts the relationship between independent variables and the dependent variable. The independent variables in this study are stocks' affordability, information, third parties' opinion and herding behaviour while the dependent variable is investment decisions in equity stock among retail investors at the NSE.

**FIGURE 2.1**

**Conceptual Framework**



## 2.6 Operational Definition of Variable

**TABLE 2.1**

**Operational Definition of Variable**

<b>Variable</b>	<b>Type of Variable</b>	<b>Indicators</b>	<b>Measure</b>	<b>Scale of Measurement</b>	<b>Tools of Analysis</b>
Stocks affordability	Independent	<ul style="list-style-type: none"> <li>• Income of investors</li> <li>• Past shares price change trends</li> <li>• Current price</li> <li>• Price changes</li> <li>• Expected dividends</li> </ul>	<ul style="list-style-type: none"> <li>-Occupation and salary</li> <li>-Prices trends</li> <li>- Dividend changes</li> </ul>	Ordinal	Descriptive and Inferential
Information	Independent	<ul style="list-style-type: none"> <li>• Information sources</li> <li>• Types of information</li> <li>• Credibility of the information</li> <li>• Reliability of the information</li> </ul>	<ul style="list-style-type: none"> <li>-Type of information</li> <li>-Sources of information</li> <li>- Likert statements</li> </ul>	Ordinal	Descriptive and Inferential
Third parties opinion	Independent	<ul style="list-style-type: none"> <li>• Family member opinion</li> <li>• Friends and coworkers recommendation</li> <li>• Opinion from firm's shareholders</li> <li>• Broker's recommendation</li> </ul>	<ul style="list-style-type: none"> <li>- Family influence</li> <li>- Friends opinion</li> <li>- Stakeholders' opinion</li> <li>- Brokerage house opinion</li> </ul>	Ordinal	Descriptive and Inferential
Herding	Independent	<ul style="list-style-type: none"> <li>• Rationale of herding</li> <li>• Speed of herding</li> </ul>	<ul style="list-style-type: none"> <li>- Opinions on finances</li> <li>- Leaders opinions</li> <li>- Herd opinions</li> </ul>	Ordinal	Descriptive and Inferential



Investment Decisions in Equity Stock	Dependent	<ul style="list-style-type: none"> <li>• Decision to buy or not buy</li> <li>• Amount of stocks bought</li> <li>• Industry/Firms where invested in</li> <li>• Short and long term plan</li> </ul>	<ul style="list-style-type: none"> <li>• Decision to buy or not buy</li> <li>• Amount of stocks bought</li> <li>• Industry/Firms where invested in</li> <li>• Short and long term plan</li> </ul>	Ordinal	Descriptive and Inferential
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## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter contains the methodology which was used to meet the objectives of the study. The chapter outlines the research design, target population, sample size selection, data collection methods and data analysis methods adopted by the researcher.

#### **3.2 Research Design**

A research design is the general framework which a researcher uses to answer a research question. It is not just a work plan (Saunders & Lewis, 2014). The research design forms the basis of the outline of research activities with corresponding budget and timelines up to successful completion of the project undertaking. An appropriate research design seeks to ensure that the findings obtained satisfactorily answer the research questions with clarity (Cooper & Schindler, 2014). According to De Vaus and de Vaus (2001), research design refers to the structure of an enquiry and is a logical matter rather than a logistical one. It is not related to any particular method of collecting data or any particular type of data. A research design can, in principle, either be distinctively quantitative or qualitative data. Tentatively there is emerging use of mixed methods where a combination of quantitative and qualitative data tools and approaches are employed.

The study adopted a correlational research design. According to Curtis, Comiskey and Dempsey (2016) correlational studies are concerned with ascertaining the nature of relationship between two or among more than two variables. According to Karadaag (2010), correlational studies are ideal when answering research questions or testing hypothesis seeking relationship between independent variables and the dependent variable, using multiple regression. The study design

was appropriate as the researcher was able to determine influence of stocks' affordability, third parties' opinion, information and herding factors on investment decisions among retail investors at the Nairobi Stock Exchange.

### **3.3 Target Population**

A population is the universe of individuals, events or elements with a common observable characteristic that matches to certain specification in the target or accessible population (Mugenda & Mugenda, 2003; Kitchenham & Pfleeger, 2002). Barnes, Grove and Burns (2003) state that population comprises all elements that meet clearly spelt criteria for consideration in research. Target population consists of all members of a real or hypothetical set of people, events or objects from which a researcher wishes to generalize the research results while accessible population consists of all the individuals who practically could be included in the sample (Kitchenham & Pfleeger, 2002). Saunders, Lewis and Thornhil (2007) describe a population as the set of sampling units or elements that a researcher has interest in. Kothari (2004) defines a population as entire components in any field of inquiry and is also referred to as the 'universe'.

The target population for the study included the retail investors from the brokerage firms trading in NSE. There are currently sixteen brokerage firms in Nairobi Securities Exchange and this formed form the unit of analysis for the study. These brokerage firms were the unit of analysis while the investors were the units of observation.

### **3.4 Sampling and Sample Size**

Orodho and Kombo (2002) noted that a sample is a representative number of elements or individuals in a certain population to be studied. Additionally, Kothari (2004) defines a sample as a collection of units selected from the universe to represent it and it should not be too large or too small. While larger sample are deemed to be more representative of the scores on the

variables in relation to the population scores, researchers, as a rule of thumb, recommend a minimum sample size of 15 in experimental or exploratory research undertakings, 30 in correlational research and 100 in survey research (Lenth, 2001).

The study used purposive random sampling where five retail investors were selected from each of the sixteen brokerage firm so as to give different perspective and mitigate on personal bias of less than five respondents. Purposive random sampling enabled the study to select the most appropriate respondents who are well versed with the issues under consideration and who would provide adequate relevant information on how the identified factors influence the investment decisions among retail investors at the NSE. The study thus had a sample size of eighty (80) respondents and satisfies Lenth (2001) rule on correlation studies.

### **3.5 Instrumentation**

The study adopted the use of questionnaires for data collection process. Questionnaires were designed based on the research objectives and the research questions. The questionnaires are preferable since they are easily and conveniently administered thus saves time for the research undertaking (Mugenda & Mugenda, 2003). Orodho (2008) notes that items grouped as per the variable in the questionnaire is designed to address a particular research question or hypothesis. The research questionnaire contained close ended questions using a mixture of yes/no, multiple choice, matrix and scaled questions. There were a few open-ended questions meant to draw qualitative data on subjective thoughts and different responses related to the identified investment decision factors.

The questionnaire was structured to have six parts with each part of the questionnaire addressing research objectives of the study. Finally, the questionnaire adopted four point scales showing varied levels and extent to which the respondents rated the specific items. Secondary data was

collected from libraries, books, journals, periodicals and internet sources. The researcher administered the questionnaires to the respondents with the help of research assistants.

### **3.6 Data Collection**

For the data collection activity, individual permission for access to interview respondents were sought from the human resource department in each brokerage firm. The researcher trained research assistants as soon as the University gave approval to proceed to the data collection stage. The research assistants were instructed to be flexible on how to distribute and collect the questionnaires. The ideal scenario was where the brokerage helped the research assistants in locating the investors to be sampled in the study. This allowed the researcher and the research assistants to distribute the questionnaires to the respondents and picked them immediately or within two weeks. A reminder would be sent to the respondents who could not fill and returned the questionnaires after a week.

### **3.7 Reliability and Validity**

Reliability is the degree at which results obtained from a research undertaking are consistent after interpretations for a number of times. Reliability ensures that similar research approach should yield similar and consistent results (Emory & Cooper, 1991). Reliability in research is influenced by the degree of error (Creswell et al., 2003). As random error increases, reliability decreases (Mugenda & Mugenda, 2003). In order for results to be usable in further research steps they must be reliable and valid. Instrument reliability shows the internal consistency of items representing a latent construct (Zohrabi, 2013). As noted by Orodho (2008) reliability aims at ensuring that research instrument gives the same results each time it is used in the same setting with the same type of subjects and thus it essentially means consistent or dependable results.

To test the internal consistency of the instruments in this study, reliability analysis was done using the Cronbach's Alpha test. Cresswell et al. (2003) asserts that a reliability coefficient of  $\alpha \geq 0.7$  is adequate. Additionally, for the researcher to avoid committing a Type II error and improve confidence level while using the Chi-Square statistical test, instruments were issued to 80 respondents. To further enhance the reliability of the study, data was collected by trained research assistants.

Validity is the ability of the research instrument which can measure the result intends to measure accurately (Hair et al., 1998). Validity is important in determining whether the statements in the questionnaire instrument and interview manuals are relevant to the study. Content and construct validity was obtained by the help of the supervisor.

### **3.8 Data Analysis**

The study employed both the quantitative and qualitative data analysis techniques. The quantitative data was analyzed using of descriptive statistics where frequencies, percentages, mean scores and standard deviation was generated through the Statistical Product for Social Sciences. The study also used multiple regression analysis to ascertain nature of the relationship among the variables. The study calculated the composite score for each indicator in form of an average of the scores on the items representing each variable.

The following multiple regression model was adopted in the study.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where:

Y = Investment Decisions in Equity Stock

{ $\beta_1$ ;  $\beta_2$ ;  $\beta_3$  and  $\beta_4$ } = The coefficients for the various independent variables.

$X_1$  = Stocks' Affordability

$X_2$  = Information

$X_3$  = Third parties opinion

$X_4$  = Herding behavior

$\varepsilon$  =error term

In the model  $\beta_0$  is the constant term while the coefficient  $\beta_1$  to  $\beta_4$  are sensitivity of the dependent variable (Y) to unit change in the independent variables ( $X_1$ ,  $X_2$ ,  $X_3$  and  $X_4$ ).  $\varepsilon$  is the error term which captures the unexplained variations in the model. Some qualitative data were also gathered through open ended question seeking explanations on the nature of the relationship between the independent and dependent variable.

## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### 4.1 Introduction

This chapter presents the data analysis and interpretation of the research findings in line with the objectives of the study. The objective of the data was to to investigate the factors that influence investment decisions among Kenyan retail stock investors. The analysed data was presented in tables, pies and bar charts.

#### 4.2 Reliability Results

To confirm the reliability of the research instruments alpha Cronbach test were run on the questionnaire items per each indicator. There were five items for stocks' affordability indicators which found to be reliable ( $\alpha = .703$ ). There were four items for information indicators which found to be highly reliable ( $\alpha = .798$ ). There were five items for third parties opinion indicators which found to be reliable ( $\alpha = .70$ ). There were five items for third herding indicators which found to be reliable ( $\alpha = .705$ ). There were five items for investment decisions indicators which found to be reliable ( $\alpha = .721$ ). The items for the indicators were thus deemed reliable tp provide credible results.

#### 4.3 Response Rate

In this section, the study shows percentage of the respondents who responded to the survey. A survey must have a good response rate in order to produce accurate, useful results. This was therefore important so as to establish whether the response rate was good enough and representative of the population. The results are presented in Table 4.1.



**TABLE 4.1**

**Response Rate**

<b>Response Rate</b>	<b>Frequency</b>	<b>Percentage</b>
Responses	62	77.5
Non-Response	18	22.5
<b>Total Sample size</b>	<b>80</b>	<b>100.0</b>

*Source: Field Data (2017)*

The sample size of the study was 80 respondents who were retail investors from the sixteen brokerage firms trading in NSE. A total of 62 questionnaires were successfully filled in time for data analysis, which represented 77.5% of total sample size. According to Mugenda and Mugenda (2003), a 50% response rate is adequate, 60% good and above 70% rated very well. The sample size of 77.5% was therefore considered adequate for the study.

### **4.3 Demographic Information**

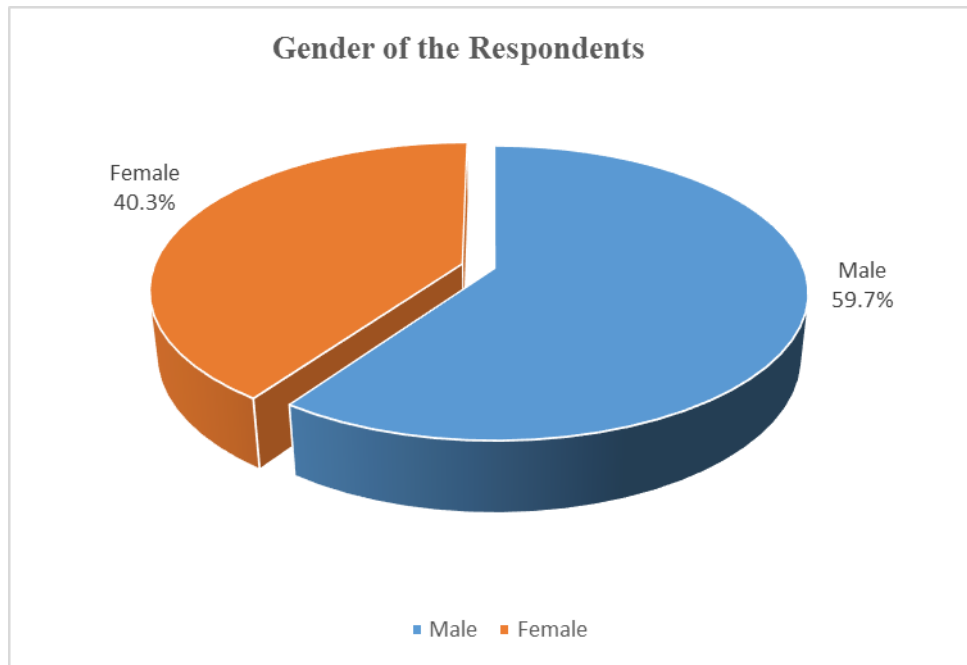
The section presents the demographic information of the respondents. The respondents' demographic information reflects the relevant attributes of the population which forms the basis under which the study can rightfully access the relevant information. The respondents' information captured includes: gender, age and level of education of the respondents.

#### **4.3.1 Gender of the Respondents**

This section of the study sought to establish the gender of the respondents who took part in the study. The results are presented in Figure 4.1.

**FIGURE 4.1**

**Gender of the Respondents**



*Source: Field Data (2017)*

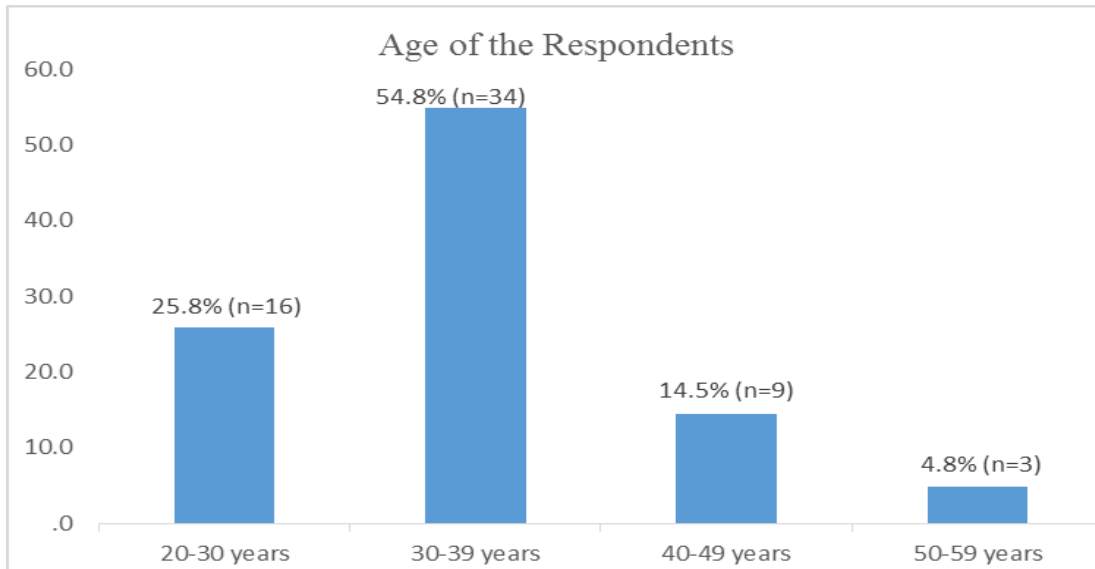
The results in the Figure 4.1 show that most of the respondents (59.7%) were male while 40.3% were female. This shows that most of retail investors from the brokerage firms trading in NSE were male.

**4.3.2 Age of the Respondents**

This section of the study sought to establish the age of the respondents who took part in the study. The results are presented in Figure 4.2.

**FIGURE 4.2**

**Age of the Respondents**



**Source: Field Data (2017)**

Results in figure 4.2 show that 54.8% of the respondents were aged between 30-39 years while 25.8% of the respondents were aged between 20-29 years. On the other hand, 14.5% of the respondents indicated that they were aged between 40-49 years while 4.8% were aged between 50-59 years. The results show that majority of retail investors from the brokerage firms trading in NSE were aged between 30-39 years. This implies that majority of the retail investors from the sixteen brokerage firms at the NSE were middle aged. The results also show that there are a few elderly retail investors who were approaching retirement age. This is a good impression for the brokerage firms at the NSE as there would be a few positions to fill once these employees reach retirement age.

### 4.3.3 Respondents' Highest Level of Education

The respondents were asked to indicate the highest level of academic qualification they had attained. The findings are presented in Table 4.2.

**TABLE 4.2**

#### **Level of Education**

<b>Education level</b>	<b>Frequency</b>	<b>Percent</b>
Diploma/College	8	12.9
Bachelors' degree	45	72.6
Postgraduate degree	9	14.5
<b>Total</b>	<b>62</b>	<b>100.0</b>

*Source: Field Data (2017)*

The results show that 72.6% of the respondents had attained a bachelors' degree as their highest level of education while 14.5% of the respondents had a postgraduate degree. On the other hand, 12.9% the respondents had attained a diploma as their highest level of education. From the results, it shows that majority of the respondents had reached university level as their highest level of education. This implies that majority of the retail investors were knowledgeable on the subject of the study thus the reliability of the information given and subsequently the results presented in this report.

### 4.3.4 Duration of Retail Investing at the NSE

The respondents were asked to indicate the duration they had been investing at the NSE. The results in Table 4 show that 35.5% of the respondents have been retail investors for a period between 11 and 15 years while 33.9% of the respondents indicated to have been investing for between 5 and 10 years. On the other hand, 25.8% of the respondents indicated to have been

retail investors for a period less than 5 years while 4.8% of the respondents indicated to have been investing for over 16 years.

**TABLE 4.3**

**Duration Worked in the Brokerage Industry**

<b>Duration in Years</b>	<b>Frequency</b>	<b>Percent</b>
Less than 5 years	16	25.8
5-10 years	21	33.9
11-15 years	22	35.5
Over 16 years	3	4.8
<b>Total</b>	<b>62</b>	<b>100.0</b>

*Source: Author (2017)*

**4.3.5 Duration Investing with the Current Brokerage Firm**

The respondents were asked to indicate the duration they had been working in the brokerage industry. The results are presented in Table 4.4.

**TABLE 4.4**

**Duration Investing with Current Brokerage Firm**

<b>Duration in Years</b>	<b>Frequency</b>	<b>Percent</b>
Less than 5 years	22	35.5
5-10 years	26	41.9
11-15 years	14	22.6
<b>Total</b>	<b>62</b>	<b>100.0</b>

*Source: Author (2017)*

Most of the respondents (41.9%) indicated to have been retail investors at their current brokerage firms for a period between 5-10 years while 35.5% of the respondents indicated to have been investing with the current firm for a period less than 5 years. On the other hand, 22.6% of the respondents indicated to have been investing with current brokerage firms for a period between 11-15 years.

#### 4.4 Stocks' Affordability and Investment Decisions

The first objective of the study sought to evaluate the effect of stock's affordability on investment decisions among Kenyan retail stock investors. To achieve this objective the study requested the respondents to rate statements related to affordability of the stocks using a four point scale ranging from 1 representing No Extent up to 4 representing Very Great Extent. The results were first interpreted using percentages where the percentages for No Extent and Small Extent were combined while on one hand those of Great Extent and Very Great Extent on the other end were combined for ease of understanding. The results are presented in Table 4.5.

**TABLE 4.5**

#### **Effects of Stocks' Affordability on Investment Decisions**

<b>Stocks' affordability indicators</b>	<b>No extent</b>	<b>Small extent</b>	<b>Great extent</b>	<b>Very great extent</b>	<b>Mean</b>	<b>Std. Deviation</b>
Prevailing market price per share	3.2%	8.1%	66.1%	22.6%	3.08	0.660
General trend in stock price	0%	8.1%	69.4%	22.6%	3.15	0.539
Availability of disposable income	0%	1.6%	58.1%	40.3%	3.39	0.523
Prices of cross listed stocks	0%	16.1%	64.5%	19.4%	3.03	0.600
General dividend pay out	0%	14.5%	66.1%	19.4%	3.05	0.585

*Source: Field Data (2017)*

The results in Table 4.5 show that the prevailing market price per share affected investment decisions as 88.7% of the respondents indicated either to a great or very great extent to this statement. It is also evident that the general trend in stock prices and availability of disposable income affected the investment decision as indicated by 92% and 98.4% of the respondents respectively, who indicated either great or very great extent. The prices of cross listed stocks were also deemed largely on their effects to investment decisions as 83.9% indicated either to a great extent or very great extent. It is also emerged that the general dividend pay out affect the investment decision as 85.5% of the respondents indicated either to a great extent or very great extent.

This implies that stock affordability indicators such as the prevailing market price per share, general trend in stock price, availability of disposable income, prices of cross listed stocks and dividend payout greatly affect the investment decisions. This finding are in line with those by Obamuyi (2013 who indicated that factors such as past performance of the firm's stock, projected security capital bonus, projected firm earnings, the dividend policy and the get rich quick mentality were very significant in making investment decisions. The study findings also concurs with those by Lakonishok *et al.*, 1994) also indicated that investing in a growth stock is an investment style which is based on a company's fundamentals such as earnings, dividends, cash flows and book value of company and it is be considered as a rational style on behalf of investors.

#### 4.5 Information and Investment Decisions

The second objective of the study sought the effect of information on investment decisions among Kenyan retail stock investors. A four point scale and interpretation similar to the one in Table 5 was used and the results are presented in Table 4.6.

**TABLE 4.6**

**Effects of Information on Investment Decisions**

<b>Type of Information</b>	<b>No extent</b>	<b>Small extent</b>	<b>Great extent</b>	<b>Very great extent</b>	<b>Mean</b>	<b>Std. Deviation</b>
Information on share prices	1.6%	11.3%	56.5%	30.6%	3.16	0.682
Information on firms performance	0%	9.7%	61.3%	29%	3.19	0.596
Information on industrial performance	1.6%	17.7%	54.8%	25.8%	3.05	0.711
Information on dividend per share	0%	17.7%	48.4%	33.9%	3.16	0.706

*Source: A Field Data (2017)*

From the study findings in Table 4.6, the information on share prices affect investment decisions as 87.1% of the respondents indicated to a great extent or very great extent. It is also emerged that the information on firms' performance affect investment decisions as indicated 90.3% of the respondents who indicated to a great extent or very great extent. The information on industrial performance was also highly ranked on its impact on investments decisions as indicated by 80.6% of the respondents. It is also evident that the information on dividend per share affect investment decision as 82.3% of the respondents indicated either to a great extent or very great extent to this statement. This implies that information on shares, firms' performance, industrial performance and divided per share greatly influence investment decisions.



This findings are in line with those by Maginn et al. (2007) who established that an understanding on the past performance of the relevant assets is important to enable investors in making their investment decisions and that personal investment decisions on how much money an individual investor wants to commit each month or the amount of a lump sum should be guided by the amount expected once the investments mature. The study findings further concurs with those by Jagongo and Mutswenje (2014) who found out that the most important factors that influence investment decisions were: reputation of the firm, firm's status in industry, expected corporate earnings, profit and condition of statement, past performance firms stock, price per share, feeling on the economy and expected divided by investors.

#### **4.6 Third Parties' Opinion and Investment Decisions**

The third objective of the study sought to assess the effect of third parties' opinion on investment decisions in equity at the Nairobi security exchange among Kenyan retail stock investors. The respondents were asked to indicate the extent to which the various third parties' opinion influenced the investment decision. Interpretation was done on the basis of the Table 5 premises. The results are presented in Table 4.7.

**TABLE 4.7****Effects of Third Parties' Opinion on Investment Decisions**

<b>Third Party Opinion</b>	<b>No extent</b>	<b>Small extent</b>	<b>Great extent</b>	<b>Very great extent</b>	<b>Mean</b>	<b>Std. Deviation</b>
Opinion from stock brokers	6.5%	1.6%	71%	21%	3.06	0.698
Opinions from other stakeholders	0%	24.2%	50%	25%	3.02	0.713
Opinion from relatives	17.7%	71%	11.3%	0%	1.94	0.539
Opinion from investment groups	0%	9.7%	54.8%	35.5%	3.26	0.626
Opinion from business news	0%	6.5%	79%	14.5%	3.08	0.454

*Source: Field Data (2017)*

The results in Table 4.7 show that the opinions from stock brokers affect investment decisions as 92% of respondents indicated either to a great extent or very great extent. It is also evident that the investments decisions are greatly affected by the opinions of other stakeholder as 75% of the respondents indicated either to a great extent or very great extent to this statement. The opinion from investment groups was also highly ranked on its effect on investment decision as indicated 90.3% of respondents reported either to a great extent or very great extent. It also emerged that the opinion from business news affect investment decisions as 93.5% of the respondents indicated either to a great extent to a very great extent. However, opinion from the relatives does not influence investment decisions as 88.7% of the respondents indicated either to a no extent or small extent. This implies that the opinion from stock brokers, other stake holders, investment groups and business news greatly influenced investment decisions while the opinion from relatives would not.

The study findings are in line with those by Chong and Lai (2011) who indicated that unbiased information appeared to be the most significant factor for the Malaysian investors. The second most significant factor was found to be accounting disclosures. Social relevance and advocates' advice followed in that order in influencing equity selection process. The findings also concurs with those by Wendo (2015) who found out that investment decisions are influenced by popular opinion in the market, recent trends in returns and profitability and by the opinions of friends and colleagues.

#### 4.7 Herding and Investment Decisions

The fourth objective of the study sought to evaluate the effect of herding on investment decisions among Kenyan retail stock investors. The respondents were asked to indicate the extent to which the various herding behaviours influenced the investment decision in stock. The results are presented in Table 4.8.

**TABLE 4.8**

**Effects of Herding on Investment Decisions**

<b>Herding Behaviour</b>	<b>No extent</b>	<b>Small extent</b>	<b>Great extent</b>	<b>Very great extent</b>	<b>Mean</b>	<b>Std. Deviation</b>
Other investors' decisions on buying and selling stocks have impact on investment decisions.	0%	9.7%	62.9%	27.4%	3.18	0.587
Herding behaviour encourages investment decision	0%	9.7%	58.1%	32.3%	3.23	0.612
Herding behaviour discourages investment decision	4.8%	9.7%	64.5%	21%	3.02	0.713
Rational behaviour end up in good investment decision	0%	9.7%	66.1%	24.2%	3.15	0.568
Irrational behaviour end up in good investment decision	12.9%	74.2%	11.3%	1.6%	2.02	0.558

*Source: Field Data (2017)*

The results in Table 9 show that other investors' decisions on buying and selling stocks have impact on investment decisions as 90.3% of the respondents indicated either to a great extent or very great extent. It is also evident that herding behaviour encourages investment decision as 90.4% of the respondents indicated either to a great extent or very great extent. Herding behaviour discourages investment decision also affect investment decision as 85.5% of the respondents indicated either to a great extent or very great extent. Rational behaviour end up in good investment decision as indicated by 90.3% of the respondents as either to a great or very great extent. However, it also emerged that irrational behaviour have impact on investment decision though negative, as 87.5% of the respondents indicated either no extent or small extent.

This implies that other investors' decisions on buying and selling stocks have impact on investment decisions and that herding behavior can either encourage or discourage investment decisions. It also imply that rational behavior end up in good investment decisions while irrational behavior may not end up in good investment decisions among investors.

These findings concurs with those by Kumar and Lee (2006) who carried out a study on retail investor sentiments and find that the trading retail investors buy or sell one group of stocks and they tend to buy or sell other groups exhibiting herding behaviour. It also concurs with those by Li, Rhee and Wang (2009) who in their findings indicated that institutional investors who are better informed exhibited intense herding compared to the less informed individual investors although individual investors were more likely to influence market sentiments and demand as they tended to rely heavily on public information.

#### 4.7 Investment Decisions

To get information on the dependent variable about the nature of investment decision the study requested the respondents to rate given statement using a four point scale ranging from 1 representing Very Unimportant up to 4 representing Important. The results were first interpreted using percentages where the percentages for Very Unimportant and Unimportant were combined while on one hand those of Important and Very Important on the other end were combined for ease of understanding. The results are presented in Table 4.9.

**TABLE 4.9**

#### **Investment Decisions Considerations**

<b>Investment Decisions</b>	<b>Very Unimportant</b>	<b>Unimportant</b>	<b>Important</b>	<b>Very Important</b>	<b>Mean</b>	<b>Std. Dev</b>
Invest in a single stock	0%	62.9%	35.5%	1.6%	2.39	0.523
Invest in a variety of stock	0%	3.2%	50%	48.6%	3.44	0.562
Invest in specific sector	0%	21%	48.4%	30.6%	3.10	0.718
Invest in profitable companies	0%	3.2%	69.4%	27.4%	3.24	0.502
Invest in momentum stocks	0%	16.1%	56.5%	27.4%	3.11	0.655

*Source: Field Data (2017)*

From the results in Table 10 show that investing in a single stock was not important as 98.4% of the respondents indicated either very unimportant or unimportant. It is also evident that investing in a variety of stock was important to an investor as 98.6% of the respondents indicated either important or very important. Investing in a specific sector was as also deemed important as 79% of the respondents indicated either important or very important. It also emerged that invest in profitable companies are important as 96.8% of the respondents indicated either important or very important.

This implies that investment decisions such as investing in a variety of stock, in specific sectors that is performing well, profitable companies and considering momentum stocks are important to an investors. This study finding concurs with those by Joseph and Ibrahim (2015) who indicated that investment decision making should be strategic that investors can be able to diversify their investment by developing a portfolio of investments e.g. investing in a variety of stock to minimize risks and maximize returns.

#### 4.8 Regression Results

The study conducted further statistical tests using multiple regression where composite values of the means for each variable were computed and used as the scores for the independent variables. Before the regression could be run diagnostic test were performed. The Durbin-Watson test was used to check the correlation between errors (Field, 2005). The test statistic varies between zero and four, and a value of two indicates that errors are not correlated. In the present study, the DW statistic was 2.095 which is close to two. The conclusion was that the errors were independent and thus the regression could be run. The results in Table 4.10 to 4.12 were obtained and are explained.

**TABLE 4.10**

**Regression Coefficients**

Model	Coefficients <sup>a</sup>				
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	1.593	.334		4.771	.000
Stocks_Affordability Information	.327	.118	.488	2.773	.007
Third_Party_Opinion	-.070	.081	-.140	-.858	.395
Herding_Behaviour	.185	.089	.260	2.078	.042
	.043	.111	.048	.385	.702

a. Dependent Variable: Retail\_InvDecision

The regression results led to the adoption of the model hereunder.

$$Y = 1.593 + 0.327X_1 - 0.07X_2 + 0.185X_3 + 0.043X_4$$

The model recorded a constant or the Y-intercept equivalent to 1.593. This implies that when the four independent variables are set to zero retail investments decision would stand at 1.593 units. The model recorded a  $\beta_1 = 0.327$  which indicate that a unit change in stock affordability can be explained by 0.327 unit change in retail investment decision when other factors are held constant. The model also recorded a  $\beta_2 = -0.07$  showing that a unit change in information could be explained by -0.07 unit change in retail investment decision when other factors are held constant. Additionally, the model recorded a  $\beta_3 = 0.185$  also show that a unit in third parties opinion could be explained by 0.185 unit change in retail investment decision when other factors are held constant. Finally, the model recorded a  $\beta_4 = 0.043$ , implying that a unit change in herding behaviour could be explained by 0.043 unit change in retail investment decision when the other factors are held constant.

The model indicates that stocks' affordability (B = 0.327, p = 0.007) and third parties' opinions (B = 0.185, p = 0.0420.007) had a positive and significant effect on retail investment decisions at 0.05 significance levels. On the other hand, the model results show that information had a negative but insignificant role on retail investments' decisions (B = -.070; p = 0.395) at 0.05 significance levels. Lastly, the results show that herding behaviour (B = 0.043, p = 0.702) had a positive but insignificant role towards decisions among retail investors at the NSE at 0.05 significance levels.

The results in Table 4.11 and 4.12 show the significance of the resultant model.

**TABLE 4.11**

**Regression Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.573 <sup>a</sup>	.328	.281	.22392

a. Predictors: (Constant), Herding\_Behaviour, Third\_Party\_Opinion, Information, Stocks\_Affordability

**TABLE 4.12**

**ANOVA**

Model	ANOVA <sup>a</sup>					
	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	1.396	4	.349	6.959	.000 <sup>b</sup>
	Residual	2.858	57	.050		
	Total	4.254	61			

a. Dependent Variable: Retail\_InvDecision

b. Predictors: (Constant), Herding\_Behaviour, Third\_Party\_Opinion, Information, Stocks\_Affordability

The results in Table 4.11 show the model adopted can explain 32.8% variability in investment decisions among the retail investors surveyed. This implies that the combination of stocks' affordability, information third parties' opinion and herding behaviour can explain 32.8 percent of the variance in retail investment decisions as measured by the  $R^2$ . The ANOVA results in Table 4.12 show that the independent variables can statistically significantly predict the dependent variable,  $F(4, 57) = 6.959$ ,  $p < .0005$  (i.e., the regression model is a good fit of the data).



## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1. Introduction**

This chapter provides a summary of findings, conclusions and recommendations of the study based on the objective of the study. This entails a synthesis of key issues of the objectives of the study as deduced from the entire research.

#### **5.2 Summary of Findings**

The study had sought to achieve four specific objectives related to the factors which affect retail investment decisions among retail investors at the Nairobi Stock Exchange. The following are some key findings of the study.

##### **5.2.1 Effects of Stocks' affordability indicators on Investment Decision**

The first objective of the study was to determine the effect of stocks' affordability on investment decisions among retail stock investors. The study found out that the availability of disposable income, the prevailing market price per share and the general trend in stock price affected the investment decision to a great extent. The study also found out that the prices of cross listed stocks and the general dividend pay out affect the investment decision to a great extent. The regression results confirmed that stocks' affordability had a positive and significant effect on investment decision ( $B = 0.327$ ,  $p = 0.007$ ). This implies that prices are a key consideration by retail investors when making stock purchases at the Nairobi Stock Exchange.

##### **5.2.2 Effects of Information on Investment Decisions**

The second objective of the study assessed the effect of information on investment decisions among Kenyan retail stock investors. The study found out that the information on firms' performance, share prices, dividend per share and on industrial performance influenced the

investment decisions to a great extent. However, the regression results show that information ( $B = -.070$ ;  $p < 0.395$ ) had a negative but insignificant role on retail investors' decisions. The results could mean that the investors could be using available information wrongly when making their investment decisions. The results could also mean that most of available information on stocks discourages retail investors from investing at the NSE.

### **5.2.3 Effects of Third Parties' Opinion on Investment Decisions**

The objective of the study was to assess the effect of third parties opinion on investment decisions in equity at the Nairobi security exchange among Kenyan retail stock investors. The study found out that the opinions from investment groups, business news, stock brokers and other stakeholders influence the investment decisions to a great extent. However, the study also revealed that the opinion from the relatives influenced the investment decision to a small extent. The regression results confirmed that third parties' opinions had a positive and significant effect on service delivery ( $B = 0.185$ ,  $p = 0.042$ ). The results imply that friends, family members and brokerage employees do encourage the stock's purchase decisions by retail investors at the NSE.

### **5.2.4 Effects of Herding on Investment Decisions**

The objective of the study was to evaluate the effect of herding on investment decisions among Kenyan retail stock investors. The study found out that herding behavior encouraged investment decision to a great extent. The study also found out that other investors' decisions on buying and selling stocks had impact on investment decisions and that rational behaviour end up in good investment decision. However, the respondent agreed to a moderate extent that herding behavior discourages investment decision and to the statement that irrational behaviour end up in good investment decision to a moderate extent. The regression results show that herding behaviour ( $B = 0.043$ ,  $p = 0.702$ ) had a positive but insignificant role towards decisions among retail investors

at the NSE. The results imply that while herding behaviour was existent, this did not encourage or discourage retail investors' decision on stocks purchases or sale.

### **5.3 Conclusion**

With regard to first objective, the study concludes that that the availability of disposable income, the prevailing market price per share and the general trend in stock price greatly affect the investment decision. The study also concludes that the investment decisions are also greatly affected by the prices of cross listed stocks and the general dividend pay out. The study also concludes that the opinions from investment groups, business news, stock brokers and other stakeholders greatly influence the investment decisions. These factors are important during the decision making on which stock and in which sector to invest in among the retail investors.

Pertaining the second objective, it was deduced that the information on firms' performance, share prices, dividend per share and on industrial performance do not influence the investment decisions among the retail information. This study thus concludes that the investment decisions do not depend on the available information. The study holds that the investors may be using the information wrongly or that they do not deem the information as being important for their decision on which stocks to invest in.

Further in relation to the third objective the study concludes that third parties' opinions are a key consideration on the investment patterns among retail investors at the Nairobi Stock Exchange. With regard to the fourth objective, the study also concludes that that herding behavior does not influence investment decision showing that, other investors' decisions on buying and selling stocks did not have an impact on retail investment decisions.

## **5.4 Recommendations**

The study also recommends that the brokerage firms in Kenya should also ensure that the investors have easy access to information such as information on firms' performance, share prices, dividend per share and on industrial performance to enable them make investment decisions from the point of knowledge. The study recommends that there is need for the Nairobi Stock Exchange to continue to integrate technology through which retail investors are able to obtain and analyze information on share prices and dividend payments by the listed firms.

The study further recommends that policy making bodies such as Capital Markets Authority should always consider issues such as information disclosures and equity investments awareness campaigns to ensure that more retail investors invest in the equity markets. The CMA should also put in place strategies to ensure the retail investors are able to reap benefits from the equity investment.

## **5.5 Limitations of the Study**

The researcher encountered one outstanding limitation that would have hindered access to adequate information sought for the study. The study had a challenge accessing the retail investors who were respondents in the study. The researcher by using the brokerage firms as an intermediary was able to have a satisfactory response rate. The researcher also handled the problem by having an introduction letter from the institute and assuring them that the information they gave was treated confidentially and was used purely for academic purposes. The study was also limited by lack of sufficient funds and time resources.

## **5.6 Areas for Further Research.**

The study notes that while it contributes additional knowledge on how affordability, third parties' opinion, information and herding behaviour influencing investment decisions in equity stock among retail investors in Kenya, there are still opportunities for further research in the following areas. The study suggests the need for in-depth research on how the individual factors identified influence investment decisions. Further studies can also be conducted to investigate strategies that can be adopted to improve third parties' opinion and information to ensure better investment decisions for the growth of the NSE. Further research can also be conducted to ascertain better measurement tools for investment decisions concepts to enhance reliability of future research undertakings.

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## APPENDICES

### **Appendix I: Introduction Letter**

My name is **Antony Ndaiga Ngahu**, a student at KCA University undertaking Masters of Science in Commerce. As part of my academic requirement, I am conducting a study on the Factors Influencing Investment Decisions in Equity Stock among Retail Investors in Kenya. Kindly provide the required response as directed in the questionnaires; any response given shall be treated as confidential and no one shall be victimized or intimidated based on any kind of response provided. The response obtained shall be used purposely for research services and the results of the study shall then be availed to any interested party upon request.

Yours faithfully,

Antony



**PART C: INFORMATION AND INVESTMENT DECISIONS**

7 (a). State the extent to which the following types of information influence your investment decisions on stocks where 1 - No extent, 2 - small extent, 3 – Great extent, 4 - very great extent

<b>Type of Information</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
Information on share prices				
Information on firms performance				
Information on industrial performance				
Information on dividend per share				

7 (b). What other information influence your investment decisions?

.....

.....

.....

**PART D: THIRD PARTIES’ OPINION AND INVESTMENT DECISIONS**

8. State the extent to which the following third party opinion influences your investment decision in stock. Rate the statements using a scale where 1 - No extent, 2 - small extent, 3 - Great extent, and 4 – very great extent

<b>Third party opinion</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
Opinion from stock brokers				
Opinion from other stakeholders				
Opinion from relatives				
Opinion from investment groups				
Opinion from business news				

8 (b). What other third party opinion affect investment decisions in equity?

.....

.....

.....

**PART E: HERDING AND INVESTMENT DECISIONS**

9. State the extent to which herding influence your investment decision in stock. Rate the statements using a scale where 1 - No extent, 2 - small extent, 3 – Great extent and 4 – very great extent

<b>Herding Behaviour</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Other investors’ decisions on buying and selling stocks have impact on investment decisions.					
Herding behaviour encourages investment decision					
Herding behaviour discourages investment decision					
Rational behaviour end up in good investment decision					
Irrational behaviour end up in good investment decision					

**PART E: INVESTMENT DECISIONS**

10 (a). Indicate your rating of the following investment decisions in your stock portfolio. Where 1- very Unimportant, 2- Unimportant, 3- important and 4 - very important

<b>Investment Decisions</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Invest in a single stock					
Invest in a variety of stock					
Invest in specific sector					
Invest in profitable companies					
Invest in momentum stocks					

10 (b). What recommendations would you propose to ensure there are good investment decisions made in equity stock?

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**Thanks for time and input**

### **Appendix III: List of Stock Brokerage Firms in Kenya**

1. AIB Capital Limited
2. African Alliance Kenya Investment Bank
3. Security Africa Kenya Limited
4. ApexAfrica Capital
5. CBA Capital
6. Barclays Financial Services Limited
7. Dyer & Blair Investment Bank
8. Equity Investment Bank
9. Francis Drummond & Company
10. Kingdom Securities
11. NIC Securities
12. Old Mutual Securities
13. Renaissance Capital (Kenya)
14. Standard Investment Bank
15. Sterling Capital
16. Suntra Investment Bank