DETERMINANTS OF LOCAL RETAIL INVESTORS BEHAVIOR FOR COMPANIES QUOTED IN THE NAIROBI STOCK EXCHANGE

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DECLARATION

I, the undersigned, declare that this project is my original work and that it has not been presented in any other university or institution for academic credit.

Signature Date 7/11/2011

This project has been submitted for examination with my approval as university supervisor.

Signed

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DEDICATION

I would like to dedicate this project to my family & my lovely fiance. May God bless you all for your encouragement & constant support.

ACKNOWLEDGEMENTS

First is my gratitude to the Almighty God for the gift of life, resources, a sound mind and everything else that enabled me go through the course and I will be forever grateful.

Secondly I wish to appreciate my family; Mum, Dad My Sister Faith and my fiancée Eunice who have encouraged and me throughout my study Supervisor

My Appreciation goes out to my Supervisor Mr. MOHAMED N. MWACHITI for his guidance and availability up to conclusion of this project

I equally place on record my appreciation to all the classmates and the entire School of Business community for challenging me in many occasions and their valuable contribution that enabled me sail through the course.

ABSTRACT

The study sought to answer the following research questions, what are the behavioral finance tendencies in the Nairobi Stock Exchange and its investor's decisions? How do different education levels influence the investor's decisions? How investors of different gender, social background select their investments?

The research design that was employed in this study was a descriptive research design inform of a survey. The population of interest of this study was the local retail investors in the Nairobi stock exchange. The study sample was 100 investors in the Nairobi stock exchange simple random sampling techniques was used when sampling, thus the sample size of this study was 100 investors. Questionnaire was designed to determine the behavioural finance among investors in the Nairobi stock exchanges. This made it easier to get adequate and accurate information necessary for the research. A content analysis and descriptive analysis was employed.

From the findings the study found that the sources of information that influence investment decision in the NSE are advice from stock brokers and advice from knowledgeable friends and personal assessment of stock market movement which were influenced by stock markets index, speculation, media information and company profile. The biggest challenge in making an investment decision in the NSE on how to allocate resources were; lack of proper understanding of stock market, lack of sufficient information and fear of the past. The study further found that the kind of information required for investment decision making were on company profitability, divided pay out ration and company command in the market. From the findings on the various considered factors in their investment in NSE, the study found that factors considered were percentage subscriptions, future prediction or forecast, financial summary, indebtness, in what will funds invested be used for and financial position of the firm.

TABLE OF CONTENTS

DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENTS	iv
ABSTRACT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	viii
CHAPTER ONE	1
1.0 INTRODUCTION	1
1.1 Background of the Study	
1.2 Statement of the Problem	4
1.3 Objective of the Study	5
1.4 Importance of the Study	5
CHAPTER TWO	6
2.0 LITERATURE REVIEW	6
2.1 Introduction	6
2.2 Theoretical Review	6
Model of risk behaviour 2.3.1 Cognitive factors and risk perception	
2.4 Overconfidence, Over and Under-Reaction and the Representativeness 2.4.1 The Disjunction Effect	11
2.5 determinants of investors behavior in the Stock Market. 2.5.1 Empirical evidence about gender and risk-taking in finance domain. 2.5.2 Gender and Behavioral Finance. 2.5.3 Education level influences. 2.5.4 Information processing cost. 2.5.5 Financial capability.	
2.6 Kenyan Perspective of Behavioral Finance	20

2.7 Summary of the chapter	21
CHAPTER THREE:	23
3.0 RESEARCH METHODOLOGY	23
3.1 Introduction	23
3.2 Research Design	23
3.3 Target Population	23
3.4 Data Collection Procedure	23
3.5 Data Analysis And Presentation	24
3.6 Validity and Reliability	24
CHAPTER FOUR:	25
4.0 DATA ANALYSIS AND INTERPRETATION	25
4.1 Introductions.	25
4.2 Background information	25
4.3 Behavioral Finance	27
CHAPTER FIVE:	35
5.0 SUMMARY OF FINDINGS, POLICY, LIMITATIONS OF THE STUDY & SUGGESTIONS FOR FURTHER RESEARCH	35
5.1 Introduction	
5.2 Discussions	35
5.3 Limitation of the study	37
5.4 Conclusion	37
5.5 Recommendation	38
5.6 Suggestion for further studies	39
REFERENCES.	40
APPENDICES	46
Annandiy I: Quartiannaira	16

LIST OF TABLES

Table 1: Distribution of respondents by gender	25
Table 2: Distribution of respondents by age	25
Table 3:Respondents marital status	26
Table 4: Respondents highest level of education	26
Table 5: Length of time as investors	27
Table 6: Start investing in the NSE	27
Table 7: Source of information on investment decision	27
Table 8:Factors influencing investment decision	28
Table 9:Challenges in making investment decision	28
Table 10: Information required making investment decision	29
Table 11:Engaging financial expert in investing decision	29
Table 12: Barriers of obtaining substantial information	29
Table 13: Rating knowledge on the financial markets & investments	30
Table 14: Past histories in stock return	30
Table 15: Rating various factors in their investment in NSE	31
Table 16: Rating various aspect of behavioral finance among investors	32
Table 17: Respondents level of agreement on aspect of financial capability of investors	33
Table 18. Level of agreement on aspect of information processing cost of investors	34

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

The local retail investors are key participants in the activities at the stock market over the past few years the stock market has witnessed increased participation among the retail investors this was mainly driven by a number of Initial Public Offerings (IPO). More than the IPOS', retail investors participate in the secondary trading of stocks at the Nairobi Stock Exchange (NSE).

Individuals find investments to be interesting because they can participate in the decision Making process and see the results of their choices. Not all investments will be profitable, as investor wills not always make the correct investment decisions over the period of years; However, you should earn a positive return on a diversified portfolio. Investing is not a game but a serious subject that can have a major impact on investor's future wellbeing.

While it is traditionally assumed that investors follow the economics, bases of rationality there are a number of factors which may influence a investors to make their investments choices such as gender, marital status, age, education and income. There are also other behavioral factors and emotional elements such as, for e.g., risk attitudes, the search for thrills emotional attachment, and a desire for recognition by peers or self-affirmation

Belsky and Gilovich (1999) referred to behavioral finance as behavioral economics." Behavioral economics combines the twin disciplines of psychology and economics to explain why and how people make seemingly irrational or illogical decisions when they spend, invest, save, and borrow-money.' Much of economic and financial theories presume that individuals act rationally and consider all available information in the investment decision-making process. Bernstein (1996) states that there is evidence to show repeated patterns of irrationality, inconsistency and incompetence in the way human beings arrive at decisions and choices when faced with uncertainty.

Behavioral finance, a study of the markets that draws on psychology, is throwing more light on why people buy or sell stocks – and even why they do not buy stocks at all. There is also emerging evidence that institutional investors behave differently from individual investors, in part because they are agents acting on behalf of the ultimate investors. Markets are neither perfectly efficient nor completely inefficient and evidence was mounting (Statman, 1999) that even the Capital Asset Pricing Model (CAPM) is not a good description of reality. Behavioural finance attempts to better understand and explain how emotions and cognitive errors influence investors.

An investor decision making is very complex since it involves a number of differ variables to be considered, however since the focus of this study is on investor behavior based on their gender orientation, education background as well as the overall behavioral tendencies of investors. Several studies have examined the link between gender and behavioral finance biases; of these. Barber and Odean [2001] is perhaps the most important and comprehensive. The study concludes that men are more subject than women to the overconfidence bias reflected in trading behavior. The researchers found that, over a sixyear period, men on average traded 45% more than women did. In addition, single men on average traded 67% more than single women. The present study is still more comprehensive, gender - testing for many of the other behavioral biases documented in the behavioral finance literature.

The data suggest men and women are markedly different in their susceptibility to behavioral biases. According to Julie R. Agnew, 2003 Women are more risk averse then men in general and this translates to Investing in less risky assets in their investment plans Felton (2003) studied the effect of gender and optimism on the riskiness of investment choices of sixty-six students in a semester long investment contest with both monetary and academic incentives. From the study, he concluded that males make more risky investment choices than females, and that this difference was primarily due to the riskier choices of optimistic males. In addition, males demonstrated greater variability in final portfolio value than did females in this study. The findings in this study suggest three main points; 1) the well documented gender difference in investment strategies of men and women may be due to a specific subgroup of males 2) optimism may lead to different behavioral tendencies in

men and women depending on the domain; and 3) the benefits of optimism may be restricted to domains in which continued effort and information seeking are likely to lead to desired outcomes. Differences in education level between men and women may also explain differences in their investment decisions. There is some research on individual investors for e.g. Langer (1975) finds that self-reported risk tolerance does the best job of explaining differences in both portfolio diversification and portfolio turnover across individual investors.

1.1.1 Background of The Nairobi Stock Exchange

The Nairobi Stock Exchange, which was formed in 1954 as a voluntary organization of stockbrokers, is now one of the most active capital markets in Africa. The administration of the Nairobi Stock Exchange Limited is located on the 1st Floor, Nation Centre, Kimathi Street, Nairobi. As a capital market institution, the Stock Exchange plays an important role in the process of economic development. It helps mobilize domestic savings thereby bringing about the reallocation of financial resources from dormant to active agents. Long-term investments are made liquid, as the transfer of securities between shareholders is facilitated. The Exchange has also enabled companies to engage local participation in their equity, thereby giving Kenyans a chance to own shares (NSE, 2007). A stock market is a place where securities are traded. These securities are issued by listed companies and by the government, with the aim of raising funds for different purposes such as to fund expansion for the former, and development and finance budget deficits for the latter. Common securities traded on a stock exchange include company shares, corporate bonds, and government debt in the form of treasury bonds (NSE Hand book 2004 - 2005).

These members of the Nairobi Stock Exchange transact business mainly on the floor of Nairobi stock market that is in Nation media house, with a limited proportion of business conducted in foreign securities through overseas agents. The stockbrokers act as financial advisers to their clients and carry out their orders. The Nairobi Stock Exchange deals in both variable income securities and fixed income securities. Variable income securities are the ordinary shares, which have no fixed rate of dividend payable, as the dividend is dependent upon both the profitability of the company and what the board of directors

decides. The fixed income securities include Treasury and Corporate Bonds, preference shares, debenture stocks - these have a fixed rate of interest/dividend, which is not dependent on profitability (NSE, 2007).

According to the Capital Markets Authority (CMA) fourth quarter Statistical Bulletin of December 2010; there were 853,715 retail investors in the stock market 580,461 being males and 273,254 females. These investors held 8,849,360,808shares with the males holding 7,089,741,231 shares and the females holding 1,759,619,577 shares. This means that, as at December 2010 68% of retail investors in the Nairobi Stock Exchange are male and 32 % Female. Males also had 80% of shares held by retail investors while females had 20%.

According to a research conducted by Okumu, (2009) on factors Considered by Individual Investors in Investing in shares of companies Quoted at the Nairobi Stock Exchange, 51% of the respondents had college level education. From his findings, some of the factors that ranked high in importance were; managerial forecasts, safety of the amounts invested relevant items in investment decisions, specific considerations, monetary and fiscal policies, industrial factors and accounting policies

1.2 Statement of the Problem

People from all walks of life participate in the stock market; however, their investment preferences and action are different which could be a result of various factors. Gender differences and education levels have a great impact on how an investor's analysis of risk and participation in the stock market. According to Helga Fehar, (2004) in a research on gender, financial risk & probability, women were commonly stereotyped as more risk averse than men in financial decision-making. Bernheim (1998) emphasized that most individuals lack basic financial knowledge and numeracy. Several surveys covering the U.S. population or specific sub-groups have consistently documented very low levels of economic and financial literacy. Because of different risk perception between males & females, there is need to do further research on how these risk perceptions are analyzed by the individuals and how they affect their investment decisions. Education level, family and

social background as well as age play an important factor in how an individual navigates investment decision-making. From the revised studies, no known local studies have been conducted to investigate the gender and the level of education influence on investor behavior in the Nairobi stock exchange.

1.3 Objective of the Study

The objective of the study was

- i. To investigate the influence of gender and level of education on investor behavior in the Nairobi stock exchange
- ii. To determine how the different education levels influence the investors decisions
- iii. To analyze how investors of different gender, social background select their investments

1.4 Importance of the Study

The findings of the study are expected to be of particular importance to the following; It will assist policy makers when making policies regarding the investments and behavior aspect of investors in the NSE. The research will bring in current statistics that the fund managers can utilize in analyzing the different investment options, which they can invest on behalf of their clients.

The study will provide the management of brokerage firm and investments banks with an appreciation of behavioral aspects of investors and their effect on the stock exchange market. It is also hoped that the study will provide them with means of understand the Stock exchange market and investors response to availability of information in the markets.

The study will provide academicians with a basis upon which further studies on behavioral finance could be done. It will contribute to the general body of knowledge and form a basis for further research on ways of utilizing the financial sector to grow economically.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter review the existing literature on the subject under the study, in specific it reviews the theoretical review, model of risk behaviour, overconfidence, over and underreaction and the representativeness heuristic, factors empirical evidence about gender and risk-taking in finance domain, gender and behavioral finance, education level influences, Kenyan perspective of behavioral finance and the summary of the chapter.

Behavioral finance is the paradigm where financial markets are studied using models that are less narrow than those based on Von Neumann-Morgenstern expected utility theory and arbitrage assumptions. Specifically, behavioral finance has two building blocks: cognitive psychology and the limits to arbitrage. Cognitive refers to how people think. There is a huge psychology literature documenting that people make systematic errors in the way that they think: they are overconfident, they put too much weight on recent experience, etc. Their preferences may also create distortions. Behavioral finance uses this body of knowledge, rather than taking the arrogant approach that it should be ignored. Limits to arbitrage refer to predicting in what circumstances arbitrage forces will be effective, and when they will not be. Behavioral finance uses models in which some agents are not fully rational, either because of preferences or because of mistaken beliefs.

2.2 Theoretical Review

2.2.1 Prospect theory

Prospect theory was developed by Daniel Kahneman, professor at Princeton University's Department of Psychology, and Amos Tversky in 1979 as a psychologically realistic alternative to expected utility theory allows one to describe how people make choices in situations where they have to decide between alternatives that involve risk (e.g., in financial decisions). Prospect theory used cognitive psychological techniques to explain a number of documented divergences of economic decision making from neo-classical theory

(Kahneman, 2003). The theory describes how people frame and value a decision involving uncertainty therefore they look at choices in terms of potential gains or losses in relation to a specific reference point, which is often the purchase price. Kahneman and Tversky (1979) investors therefore value gains /losses according to an S-shaped utility function as shown below:-

Where the utility function is concave for gains (risk aversion) meaning that people feel good when they gain but twice the gain does not make them feel twice as good. The utility function is convex for losses (risk seeking) meaning that people experience pain when they lose but twice the loss does not mean twice the path. The utility function is steeper for losses than for gains. This means that people feel more strongly about the pain from a loss than the pleasure from an equal gain about two and half times as strongly, according to (Kahneman Tverky, 1979) an important implication of prospect theory is that the way economic agents subjectively frame an outcome or transaction in their mind affects the utility they expect or receive.

According to (Helga Fehar, 2004) in a research on gender, financial risk & probability, Women were commonly stereotyped as more risk averse than men in financial decision-making. Gender differences in risk taking were due to differences in subjects' valuations of outcomes or to the way, probabilities are processed. The results of his experiment indicated that men and women differ in their probability weighting schemes; however, there was no significant difference in the value functions. Women tended to be less sensitive to probability changes and tended to underestimate large probabilities of gains to a higher degree than do men, i.e. women were more pessimistic in the gain domain. The combination of both effects resulted in significant gender differences in average probability weights in lotteries framed as investment decisions. Women's relative insensitivity to probabilities combined with pessimism may indeed lead to higher risk aversion

2.2.2. Regret Theory

Regret theory (RT) is a model of choice under uncertainty. Developed by Graham Loomes and Robert Sugden, (1982) it generalizes the minimax regret approach used in decision

theory for minimizing the possible losses while maximizing the potential gain. RT is modeled as the minimizing of a function of the regret vector, defined as the difference between the outcome yielded by a given choice and the best outcome that could have been achieved in that state of nature.

Bell (1982) described regret as the emotion caused by comparing a given outcome or state of events with the state of a foregone choice. For instance, when choosing between an unfamiliar brand and a familiar brand, a consumer might consider the regret of finding that the unfamiliar brand performs more poorly than the familiar brand and thus be less likely to select the unfamiliar brand. RT states that many investors consider the possibility that they will regret their investment decisions. It is a human tendency to feel the pain of regret at having made errors, even small errors, not putting such errors into a larger perspective. One "kicks oneself" at having done something foolish. The pain of regret at having made errors is in some senses embodied in the Kahneman- Tversky notion of a kink in the value function at the reference point. Regret theory may apparently help explain the fact that investors defer selling stocks that have gone down in value and accelerate the selling of stocks that have gone up in value, Shefrin and Statman (1985).

2.3 Model of risk behaviour

Sitkin and Pablo (1992) criticize the available research on risk taking in several important respects such as the inclusion of a single determinant of risk behaviour, which can yield contradictory empirical findings and produce inaccurate conclusions about determinants of risk behaviour. Sitkin and Pablo (1992) combine, in an integrated model, two alternative models of risk behaviour. In their model, risk behaviour is conceptualized as "individuals' decision-making behaviour in risky contexts" (Sitkin and Pablo, 1992, p. 12). Risk behaviour is characterized by the degree of risk involved in making decisions. A decision will be riskier where: there is uncertainty about potential outcomes; there is a high degree of variability in possible outcomes; and there is the potential for extreme outcomes.

Risk propensity is a key construct used in Sitkin and Pablo's model (1992) to characterize the current tendency of a decision-maker to take or avoid risks. In contrast to previous definitions of this construct, risk propensity is conceptualized as an individual trait that can be changed over time, rather than as a stable and constant dispositional characteristic (Sitkin and Pablo, 1992). Drawing on past research, Sitkin and Pablo (1992, p. 16) outline three determinants of risk propensity: Risk preferences (stable differences between individuals concerning whether they prefer or disdain risk). Inertia (an individual's tendency to handle risk-related situations in habitual or routine ways). Outcome history (historical patterns of success and failure in risk taking).

The decision makers' risk behaviour will be consistent with their risk propensities. The other key construct related to risk behaviour that is included in the model is risk perception. Risk perception is defined as "a decision maker's assessment of the risk inherent in a situation" (Sitkin and Pablo, 1992, p. 12). The model posits, that risk perception, is influenced by risk propensity; problem framing (whether a situation is stressing potential gains or losses); top-management team homogeneity; social influences; problem domain familiarity; and organizational control systems. Individuals with risk-seeking propensity will perceive risks to be lower than individuals with risk-averse propensity. Risk perception is an important explanatory factor, which can account for variations in individual risk behaviour within the boundaries defined by risk propensity. Sitkin and Pablo's (1992) model (or parts of it) has been confirmed empirically in several studies (Parhankangas and Hellström, 2007).

2.3.1 Cognitive factors and risk perception

Contrary to the neo-classical theory of the firm, organizational scholars have recognized that decision-making in organizations is influenced significantly by behavioral factors and is rarely fully rational and profit maximizing (Cyert and March, 1963). Schwenk (1988) emphasizes that the study of cognition is critical for understanding strategic decision-making. Decision-making under uncertainty involves various activities such as goal formulation, problem identification, alternatives generation, and evaluation/selection and some cognitive simplification processes may affect the way decision-makers perform these tasks (Schwenk, 1984). Cognitive simplification processes help to simplify decision-makers' perceptions of complex problems by reducing the amount of information they must

consider in decision-making (Schwenk, 1984, 1986). However, cognitive simplification processes and heuristics lead to cognitive biases (Schwenk, 1986). The use of cognitive biases and heuristics might result in acceptable solutions to problems for decision-makers in an effective and efficient manner (Busenitz and Barney, 1997).

The decision-making literature suggests that individuals can perceive different levels of risk when confronted with identical decision-making scenarios (Nutt, 1993). This may be because cognitive biases and heuristics affect risk perception by influencing the way decision-makers gather and interpret information (Barnes, 1984). Simon *et al.* (2000) stress that a large number of cognitive biases may affect risk perception. Previous literature comments on the link between risk perception and availability, overconfidence, the belief in the law of small numbers, the illusion of control, and the planning fallacy (Keh *et al.*, 2002). Some cognitive biases (e.g. overconfidence, the belief in the law of small numbers, and the illusion of control), which lead to the perception of lower risk, are more likely to arise in the evaluation stage of decision making and to occur in novel situations (Simon *et al.*, 2000).

2.4 Overconfidence, Over and Under-Reaction and the Representativeness Heuristic

The fact that both overreaction and under reaction are observed in financial markets has been interpreted by Fama (1997) as evidence that the anomalies from the standpoint of efficient markets theory are just "chance results.

Shiller sent out questionnaires to 2,000 wealthy individual investors and 1,000 institutional investors; there were 605 completed responses from individuals and 284 responses from institutions. One of the questions asked was: "Did you think at any point on October 19, 1987 that you had a pretty good idea when a rebound was to occur?" Of individual investors, 29.2% said yes, of institutional investors, 28.0% said yes. These numbers seem to be surprisingly high: one wonders why people thought they knew what was going to happen in such an unusual situation. Among those who bought on that day, the numbers were even higher, 47.1% and 47.9% respectively. The next question on the questionnaire was "If yes, what made you think you knew when a rebound was to occur?" Here, there was a conspicuous absence of sensible answers; often the answers referred to "intuition" or "gut

feeling." It would appear that the high volume of trade on the day of the stock market crash, as well as the occurrence, duration, and reversal of the crash was in part determined by overconfidence in such intuitive feelings.

2.4.1 The Disjunction Effect

Tversky and Shafir 1992 asked their subjects whether they would take one of the bets in tossing in which one has equal chances to win \$200 or lose \$100. Those who took the one bet were then asked whether they then wanted to take another such bet. If they were asked after the outcome of the first bet was known, then it was found that a majority of respondents took the second bet whether or not they had won the first. However, a majority would not take the bet if they had to make the decision before the outcome of the bet was known. This is a puzzling result: if one's decision is the same regardless of the outcome of the first bet, then it would seem that one would make the same decision before knowing the outcome. Tversky and Shafir gave their sense of the possible thought patterns that accompany such behavior: if the outcome of the first bet is known and is good, then subjects think that they have nothing to lose in taking the second, and if the outcome is bad they want to try to recoup their losses. But if the outcome is not known, then they have no clear reason to accept the second bet.

The disjunction effect might help explain changes in the volatility of speculative asset prices or changes in the volume of trade of speculative asset prices at times when information is revealed. Thus, for example, the disjunction effect can in principle explain why there is sometimes low volatility and low volume of trade just before an important announcement is made, and higher volatility or volume of trade after the announcement is made.

2.4.2 Cognitive Dissonance and Loss Aversion

Johnson, Lindblom and Platan (2002) conducted a research to establish what factors influenced the speculative bubble (a situation in which temporarily high prices are sustained largely by investors enthusiasm rather than by consistent estimations of real value) during



the period from 1998 to March 2000 and to further investigate whether investment objectives and factors influencing investment decision making had changed from that period. A survey of 150 active private investors who were members of Aktiespararna Associations in Southern Sweden in December 2001 and 47 institutional investors comprising of banks, mutual funds and investment banks was conducted through questionnaires. The study concluded that herd instincts, cognitive dissonance, anchoring and loss aversion contributed significantly to the speculative bubble.

2.5 determinants of investors behavior in the Stock Market

According to Gallimore (2008) the factors, which the investors would be, consider when investing in the stock market are:

In What will funds invested be used for: Is it going to be used for development/expansion project that will yield more returns? Or is it going to be used for debt servicing? Indebtedness: This is very important because, if the company is highly in debt or if the financial condition of the company is not reflected in the balance sheet. It can really turn out to be a serious problem to investors since such invested fund could end up being sunk into debt payments. Percentage subscriptions: This is important as it speaks about the investing public's interest in the stocks of the firm, their confidence in its future performance and its performance after the IPO. Financial position of the firm: What is the share capital and reserve of the company? What is their authorized share capital? Do they have reserve? In addition, how large is their reserve? Because this likely determines bonus issues and dividend declaration financial summary: This helps you to study the company's financial history and growth rate for a number of years. The financial summary includes Gross earnings, profit before tax, profit after tax, share capital, net assets, dividends, earnings per stock, and dividends per stock. Future prediction or forecast: This helps you to predict the company's performance. Future predictions must be computed with financial history in order to prevent exaggeration. In addition to the financial summary, forecast earnings yield (this is what the offered stock price will yield when invested) is used to calculate future forecast.

Subsidiaries and associated companies: For the purpose of business stabilization this enables you to know whether your investment is on a thin rope or not. Diversification is a major ingredient to the growth and security, because earnings will be generated from subsidiaries and associated companies to boost the profit margin of the parent company. Historical background: The history and business of the company right from inception should be well studied. It is important to know the changes and developmental phases of the company, track records of its board of directors, how the company was started, they company's relationship with clients, clients and the society in general. This information can be obtained in business sites online. Board members: What are the track records of the board members? The better the track records and experience of the board members the better and more secure is your investment. Legal matters: You must cross check that the company does not have legal or court case that may lead to its closure, liquidation or even bankruptcy. There are known cases where litigation concerning board members, investors or even rival companies has led to the closure, liquidation or even bankruptcy of the company. There are many other Public offer factors that you have to consider also making use of the stock market information to ascertain the viability of a public offer.

2.5.1 Empirical evidence about gender and risk-taking in finance domain

Empirical research in the domain of business, and finance reveals that women and men differ in their risk preferences and risk perceptions. Women have lower risk preferences than men in the general population as well as in specialist populations including managers, entrepreneurs, and business students (Croson and Gneezy, 2009). In addition to risk preferences, empirical evidence suggests that women and men differ in their risk perceptions both in quantitative and qualitative terms (Gustafson, 1998). Quantitative research, which is the prevailing approach to studying gender differences in risk perception, reveals that women and men perceive different levels of the same risks (Gustafson, 1998). Particularly in the domain of business and finance, several studies confirm that women perceive more risk than men (Garbarino and Strahilevitz, 2004). Further, qualitative research indicates that men and women perceive different risks (Gustafson, 1998). Women's concerns were less oriented toward their working life, e.g. risks of economic

problems and unemployment, and more oriented toward risks related to their home and family (Gustafson, 1998). Finally, women and men differ in relation to the interpretation of the meaning they attribute to risk (Schubert, 2006). The extent of gender differences in risk perceptions varies with regard to occupational affiliation (Xie *et al.*, 2003). Approaches for explaining gender differences in risk perceptions and attitudes focus on: biological factors, socialization and social experience (Schubert, 2006); knowledge (Schubert, 2006); and sociopolitical factors (Slovic, 1999). However, most studies on gender and risk perceptions and attitudes have not been designed to test explicitly these alternative explanations (Gustafson, 1998).

Economic and business research provides mixed evidence of gender differences in risk propensity and behaviour. Data across field studies and experiments demonstrate that women and men, both in the general population and in specialized groups (managers, entrepreneurs, and business owners), differ in their risk-taking propensity and behaviour (Meier-Pesti and Penz, 2008). Gender differences in risk taking are found to persist among different cultures as well (Thomas and Mueller, 2000). Other studies in the domain of business and finance, mostly including samples of managers, entrepreneurs, and professionals, show that men and women are similar in terms of risk-taking propensity and risk behaviour (Dwyer et al., 2002). Watson and Robinson (2003) report that femalecontrolled businesses are characterized by significantly lower profits and less variation in profits (risk) than male-controlled businesses. Differences in performance of female- and male-controlled businesses however, disappear after controlling for risk. Atkinson et al. (2003), argue that differences in investment behaviour misleadingly attributed to gender may be related to investment knowledge and wealth constraints. Gender differences, in risktaking, are attenuated when controlling for investor knowledge of financial markets (Dwyer et al., 2002) and may even disappear in differently framed situations (Holt and Laury, 2002). Fehr-Duda et al. (2006), demonstrate that gender differences in risk-taking behaviour are domain specific and context dependent. Gysler et al. (2002) find that overall risk behaviour does not depend on gender but controlling for overconfidence and financial market knowledge however reveals that gender has a significant effect on risk behaviour.

2.5.2 Gender and Behavioral Finance

Several studies have examined the link between gender and behavioral finance biases; of these, Barber and Odean (2001) is perhaps the most important and comprehensive. The study concludes that men are more subject than women to the overconfidence bias reflected in trading behavior. The researchers found that, over a six-year period, men on average traded 45% more than women did. In addition, single men on average traded 67% more than single women.

Psychographic models classify individuals by certain characteristics, tendencies, or behaviors. We believe that by segmenting individuals by personality type and gender and correlating these variables with specific investor biases, we can actualize the work that has identified these biases

(Kahneman and Tversky, 1979). If certain groups of investors prove susceptible to investor biases, practitioners can recognize behavioral tendencies before investment decisions are made and, likely, produce better investment outcomes.

Research suggests that women are more risk averse and less financially literate than men, as evidenced by their choice of less risky asset investments. We contribute to the literature by focusing on the role of gender in an increasingly important financial decision facing individuals at retirement, the choice between purchasing an annuity (in this case, a fixed immediate lifetime annuity) or investing their savings on their own. By using a controlled experiment, we eliminate the role of adverse selection and unfair annuity pricing and are able to focus specifically on gender. We also explore the role of defaults and framing, and whether women react differently to these features. We find that women are more likely to choose the annuity, and this is only partly explained by differences in risk aversion and financial literacy. While there is not a known psychological reason why gender should matter, it may be that gender is proxying for other factors that influence financial decisions like risk aversion and financial literacy. There is evidence that women are more risk averse than men in general (Eckel and Philip Grossman forthcoming), and this translates to investing in less risky assets in their retirement plans (Agnew, Pierluigi Balduzzi, and Sunden 2003).

Mitchell et al. (1999) show that as risk aversion increases, individuals are willing to forgo more wealth for actuarially fair annuities. Given the evidence that women are more risk averse than men, we hypothesize that they are more likely to choose annuities. However, if risk aversion is driving the decision to choose annuities, after controlling for it, gender differences in the annuity decision may not be significant. Differences in financial literacy between men and women may also explain differences in their annuity decision. In most studies measuring financial literacy, women score lower than men, and it is possible that literacy is driving the decision to annuitize. In fact, Dwyer, Gilkeson, and John List (2002) find that the gender differences observed in mutual fund investment decisions can be largely explained by differences in knowledge.

2.5.3 Education level influences

One reason individuals do not engage in planning or are not knowledgeable about pensions or the terms of their financial contracts is that they lack financial literacy. Bernheim (1998) was one of the first to emphasize that most individuals lack basic financial knowledge and numeracy. Several surveys covering the U.S. population or specific sub-groups have consistently documented very low levels of economic and financial literacy. The National Council of Economic Education (NCEE) periodically surveys high school students and working age adults to measure financial and economic knowledge. The survey consists of a 24-item questionnaire on topics including "Economics and the Consumer," "Money, Interest Rates and Inflation," and "Personal Finance." When results were tallied using standard grading criteria in 2005, adults had an average score of C, while the high school population fared even worse, with most earning. These findings are confirmed by the Jumpstart Coalition for Personal Financial Literacy survey, which also documents very low levels of basic literacy among U.S. high school students (Mandell, 2004). Hilgert, Hogarth and Beverly (2003) examine data from the 2001 Survey of Consumers, where some 1,000 respondents (ages 18-98) were given a 28- question true/false financial literacy quiz, covering knowledge about credit, saving patterns, mortgages, and general financial management. Again, most respondents earned a failing score on these questions, documenting widespread illiteracy among the whole population. Similar findings are

reported in smaller samples or among specific groups of the population (Agnew and Szykman, 2005, and Moore, 2003).

Lusardi and Mitchell (2006) devised a special module on financial literacy for the 2004. Adding these types of questions to a large U.S. survey is important not only because it allows researchers to evaluate levels of financial knowledge but also and, most importantly, because it makes it possible to link financial literacy to a very rich set of information about household saving behavior. The module measures basic financial knowledge related to the workings of interest rates, the effects of inflation, and the concept of risk diversification. Findings from this module reveal an alarmingly low level of financial literacy among older individuals in the United States (50 and older). Only 50% of respondents in the sample were able to correctly answer two simple questions about interest rates and inflation, and only one-third of respondents were able to answer correctly these two questions and a question about risk diversification. Financial illiteracy is particularly acute among the elderly, African-American and Hispanics, women, and those with low education (a common finding in the surveys of financial literacy). Lusardi and Mitchell (2007a) have also examined numeracy and financial literacy among the Early Baby Boomers, who should be close to the peak of their wealth accumulation and who should have already dealt with many financial decisions (mortgages, car loans, credit cards, pension contributions).

One may argue that financial literacy and retirement planning are both decision variables and that planning may also affect financial knowledge. For example, those who want to plan for retirement may invest in acquiring financial knowledge. Lusardi and Mitchell (2007) address this question using the module on financial literacy and planning they have designed for the Rand American Life Panel, which contains a more extensive set of data on financial literacy than the HRS. Specifically, they use information on financial literacy in the past before individuals entered the job market and show that those who were financially literate when young are more likely to plan for retirement later in life.

Other studies have confirmed the positive association between financial knowledge and household financial decision making. Hilgerth, Hogarth, and Beverly (2003) document a positive link between financial knowledge and financial behavior. Stango and Zinman (2007) show that those who are not able to correctly calculate interest rates out of a stream of payments end up borrowing more and accumulating lower amounts of wealth. Van Rooij, Lusardi and Alessie (2007) and Kimball and Shumway (2006) find that financially sophisticated households are more likely to participate in the stock market. Agarwal, Driscoll, Gabaix and Laibson (2007) show that financial mistakes are most prevalent among the young and elderly, who are also those displaying the lowest amount of financial knowledge and cognitive ability.

2.5.4 Information processing cost

Active financial markets are important to the whole of society. From the 1980s, the structural and technical changes in the financial market, as well as internationalisation have modified and even created financial products. The supply of these products has extended and diversified. The interest of households in investing has increased, particularly in the last decade. Financial institutions today develop and offer a wide assortment of financial services, especially investment services including new and unpredictable risks for consumers and themselves. This means that more consumers have become acquainted with various financial products and services and have entered financial markets as investors. In today's wealthy and market-oriented environment individuals are increasingly required to take responsibility for their financial affairs (Atkinson *et al.*, 2007). People need to be able to manage their finances in order to maintain their well-being, and in many countries for example people's pensions are highly dependent on their financial know-how.

The financial authorities and companies on the field of financial services have recently expressed concerns over the level of financial awareness of consumers (OECD, 2005). The changes in the financial markets and the challenges facing private investors, underline the necessity of measuring how well individual investors are informed about the concepts and terms concerning their investment or credit market in general.

2.5.5 Financial capability

In a contemporary world, consumers' capability to manage their finances may to a large extent affect their well-being. Consumers are expected to be active and well-informed in their financial activities and they are responsible for the consequences of their choices.

Education and counseling authorities, in particular, have been interested in defining financial capability. According to the UK Financial Services Authority (FSA, 2005), financial capability consists of an individual's personal characteristics that are influenced by several factors in their micro and macro environment. The influence of environmental factors on a person's capability is essential because every person lives in a certain society and belongs to various communities. The societal environment gives the framework for consumer activities and the forum for the interaction between the actors in the society. This view focuses on both the depth and breadth of financial capability. The depth of financial capability is related to an individual's personal characteristics: financial knowledge and understanding; skills and competence; and responsibility (FSA, 2005).

The breadth of financial capability refers to the investors' knowledge, skills and responsibility about the variety of financial commodities in the market, e.g. financial services and institutions, legislation, taxation. Below, we will examine these concepts more closely.

Financial knowledge and understanding means that a person knows and understands the forms, functions and use of money and financial services. Financial knowledge and understanding are needed when a person decides upon the best way to conduct payments and take care of banking issues. Financial knowledge and understanding involve the awareness of the income available: that is, how much money there is for consumption and saving. In financial behaviour it is also relevant to understand taxation questions. Hilgert and Hogarth (2003) have suggested that financial knowledge is associated with financial practices like cash-flow management, credit management, saving and investment.

Financial skills and competence are know-how that are shown in the practices and habits formed in everyday and long-term financial management. Financial skills and competence are based on financial knowledge and understanding and are influenced by attitudes towards the use of money, i.e. spending and saving (Cramer *et al.*, 2004).

Consumers who behave financially responsibly take into account the other members in their environments, like family members, relatives and friends, when making financial decisions (Roy Morgan Research, 2003). A financially responsible person understands that the decisions made always have an influence on other people or actors in the community. Responsible behaviour is also needed to provide for potential economic, social or personal risks in the future.

2.6 Kenyan Perspective of Behavioral Finance

Werah (2006) conducted a study to survey the influences of behavioral factors on the investor activities at the Nairobi Stock Exchange (NSE). Primary data was collected from a sample of 100 individual and 40 institutional investors through a questionnaire. Secondary data from existing theories and researches done on behavioral finance from books, journals, periodicals and the internet was also relied on. A 5-point likert scale was used to measure the psychological attitudes, preferences and subjective reactions of investors to decision variables. Sample means and standard deviation were calculated to analyze the effects of behavioral biases on investor decision making. The study concluded that herd behavior, regret aversion, over confidence, mental accounting and anchoring were some of the behavioral biases resulting into irrationality in investor decision making. These biases were however found to be more prevalent in individual investors compared to institutional investors.

Waweru, Munyoki, and Uliana, (2008) 'The effects of behavioral factors in investment decision-making: a survey of institutional investors operating at the NSE', This study investigated the role of behavioral finance and investor psychology in investment decision-making at the NSE with special reference to institutional investors. The fund managers of the target companies were initially contacted by telephone to explain the purpose of the

study and to request their participation. This was followed by a covering letter and a questionnaire. Using a sample of 23 institutional investors, the study established that behavioral factors such as representativeness, overconfidence, anchoring, gambler's fallacy, availability bias, loss aversion, regret aversion and mental accounting affected the decisions of the institutional investors operating at the NSE. Moreover, these investors made reference to the trading activity of the other institutional investors and often exhibited an institutional-herding behavior in their investment decision-making.

This study supports the view that the behavior of the institutional investors operating at the NSE is affected by various factors. The impact of these factors on the institutional investor decision-making behavior is in varying degrees from very high impact to little or no impact. Market information and the fundamentals of the underlying stocks had the highest impact on investment decision-making. Institutional investors at the NSE make reference to the trading activity of other institutional investors and hence exhibit institutional-herding behaviour in their investment decisions, especially the buying, selling and trading volume decisions. However, they do not have homogeneous trading activity in several aspects, including choice of stocks and the length of time to hold stocks. Most of the findings are consistent with those of studies carried out in the major economies. Factors such as cultural differences, the issues around emerging economies, varying levels of governance, and size of the markets may have been expected to influence the findings. Further research may be specifically directed at some of these issues in undertaking a more nuanced study or to explore why behavioral theories that relate to developed markets are applicable in emerging markets. Research may also be directed towards the investigation of the behavior of individual investors at the NSE, since individual investors behave differently (Lehenkari and Perttunem, 2004).

2.7 Summary of the chapter

Behavioral finance is a field of finance that proposes psychology-based theories to explain stock market anomalies. Within behavioral finance, it is assumed that the information structure and the characteristics of market participants systematically influence individuals' investment decisions as well as market outcomes (Investopedia). Behavioral finance is the

study of the influence of psychology on the behavior of financial practitioners and the subsequent effect on markets. Sewell (2005)"Behavioral finance is the study of how psychology affects financial decision making and financial markets."Shefrin (2001)

Belsky and Gilovich (1999) referred to behavioral finance as behavioral economics." Behavioral economics combines the twin disciplines of psychology and economics to explain why and how people make seemingly irrational or illogical decisions when they spend, invest, save, and borrow-money.' Much of economic and financial theories presume that individuals act rationally and consider all available information in the investment decision-making process. Bernstein (1996) states that there is evidence to show repeated patterns of irrationality, inconsistency and incompetence in the way human beings arrive at decisions and choices when faced with uncertainty.

Behavioral finance, a study of the markets that draws on psychology, is throwing more light on why people buy or sell stocks – and even why they do not buy stocks at all. There is also emerging evidence that institutional investors behave differently from individual investors, in part because they are agents acting on behalf of the ultimate investors. Markets are neither perfectly efficient nor completely inefficient and evidence was mounting (Statman, 1999) that even the Capital Asset Pricing Model (CAPM) is not a good description of reality. Behavioural finance attempts to better understand and explain how emotions and cognitive errors influence investors.

CHAPTER THREE:

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides the methodology of the study. It gives the specific procedures that were followed in undertaking the study. The research design, population, sampling design, data collection methods and data analysis are described in this chapter

3.2 Research Design

The research design to be employed in this study was a descriptive research design inform of a survey. The major purpose of descriptive research design was to describe the state of affairs as it is at present. According to Mugenda and Mugenda (1999), a descriptive research is a process of collecting data in order to answer questions concerning the status of the subjects in the study. The primary use of descriptive statistics is to describe information or data using numbers (create number of pictures of the information). The characteristics of groups of numbers representing information or data are called descriptive statistics (Kay, 1997). According to Mugenda and Mugenda (1999) this type of research attempts to describe such things as possible behavior, attitudes, values and characteristics.

3.3 Target Population

The population of interest of this study was the local retail investors in the Nairobi stock exchange. According to the Capital Markets Authority (CMA) fourth quarter Statistical Bulletin of December 2010; there are 853,715 retail investors in the stock market. The study sample was 100 investors in the Nairobi stock exchange simple random sampling techniques was used when sampling, thus the sample size of this study was 100 investors.

3.4 Data Collection Procedure

self-administered questionnaires were distributed among sampled investors. Questionnaire was designed to determine the behavioural finance among investors in the Nairobi stock exchange.

The researcher used structured questionnaires as the main data collection instrument. The questionnaires had both open and close-ended questions. The close-ended questions provided more structured responses to facilitate tangible recommendations. The openended questions provided additional information that may not have been captured in the close-ended questions.

3.5 Data Analysis And Presentation

Before processing the responses, the completed questionnaires were edited for completeness and consistency. A content analysis and descriptive analysis was employed. The content analysis was used to analyze the respondents' views about to determine behavioural finance among investors in the Nairobi stock exchanges. The data was then be coded to enable the responses to be grouped into various categories. Descriptive statistics such as means, median mode and standard deviation was also used to help in data analysis. Tables and other graphical presentations as appropriate were used to present the data collected for ease of understanding and analysis.

3.6 Validity and Reliability

Validation of the research instrument was done by use of a pilot study. Prior to the actual study, pilot test of the measures was conducted against prospective sample population. The subject to be approached during piloting was marked so that they cannot be applied in the final study. The wording of items was carefully modified based on the pilot test outcomes and reviewed. Pre-testing the questionnaire was of great significance in this survey. The questions was re-examined to ensure that they are not ambiguous, confusing, or potentially offensive to the respondents leading to biased responses. This enhanced in increasing validity of the research instruments.

CHAPTER FOUR:

4.0 DATA ANALYSIS AND INTERPRETATION

4.1 Introductions

This chapter presents analysis and findings of the research. From the study population target of 100 respondents, 93 respondents filled and returned their questionnaires, constituting 93 % response rate. Data analysis was done through Statistical Package for Social Scientists (SPSS). Frequencies and percentages were used to display the results which were presented in tables, charts and graphs.

4.2 Background information

Table 1: Distribution of respondents by gender

Gender	Frequency	Percent
Male	57	61.3
Female	36	38.7
Total	93	100.0

From the findings on the respondents gender, the study found that majority of the respondents as shown by 61.3% were males whereas 38.7% of the respondents indicated that they were females an indication that all gender were represented in this study.

Table 2: Distribution of respondents by age

Age bracket	Frequency	Percent
20-30 years	14	15.1
30- 40 years	37	39.8
40- 50 years	21	22.6
Over 50 years	21	22.6
Total	93	100.0

The study sought to determine the respondents age, from the findings shown in table above, the study found that most of the respondents as shown by 39.8% indicated that they were aged between 30 to 40 years, those aged over 50 years and 40 to 50 years were shown by

22.6% in each case whereas 15.1% of the respondents indicated that they were aged between 20 to 30 years, this shows that majority of the investors were relatively young.

Table 3:Respondents marital status

Marital status	Frequency	Percent
Single	31	33.3
Married	39	41.9
Others	23	24.7
Total	93	100.0

The researcher sough to know the respondents marital status, from the result shown, the study found that 41.9% of the respondents indicated that they were married, 33.3% of the respondents indicated that they were single whereas 24.7% indicated that they were divorced and widowed.

Table 4: Respondents highest level of education

Highest level of education	Frequency	Percent
O-Level	11	11.8
Tertiary Level	27	29.0
University Level	38	40.9
Others	17	18.3
Total	93	100.0

From respondents highest level of education the study found that 40.9% of the respondents had attained university education, 29% of the respondents indicated that they had attained tertiary level of education, 18.3% of the respondents indicated that they had others which were professional course, secondary level, primary level whereas 11.8% of the respondents indicated that they had attained O-level of education.

Table 5: Length of time as investors

Time	Frequency	Percent
Under 1 year	11	11.8
1- 5 years	25	26.9
5-10 years	39	41.9
Over 10 years	18	19.4
Total	93	100.0

On the length time the respondents had been an investor in the stock market, the study found that 41.9% indicated 5 to 10 years, 26.9% of the respondents indicated 1 to 5 years, 19.4% indicated over 10 years whereas 11.8% of the respondents indicated under 1 year, this shows that majority of the respondents had been in the stock market long enough.

Table 6: Start investing in the NSE

Ways of investing	Percent
Introduced by friends	66.7
Personal initiative	76.3
Advertisement	87.1

On how the respondents started investing in the NSE, the study found that most of the respondents started investing in the NSE through, advertisement as shown by 87.1%, personal initiative as shown by 76.3% and 66.7% of the respondents indicted through introduction by friends .

4.3 Behavioral Finance

Table 7: Source of information on investment decision

Source of information	Percent
Advice from stock brokers	87.1
Advice from knowledgeable friends	83.9
Personal assessment of stock market movement	74.2

On where the respondents got the information to make an investment decision in the NSE, the study revealed that respondents in obtained information to make an investment decision in the NSE from , advice from stock brokers as shown by 87.1%, advice from knowledgeable friends as shown by 83.9% and personal assessment of stock market movement as shown by 74.2%.

 Table 8: Factors influencing investment decision

Factors	Percent
Company Profiles	58.1
Speculation	78.5
Stock Markets Index	88.2
Media Information	69.9

On the various factors that influences respondents investment decision, from the findings shown in table, the study found that other factors that influenced respondents investment decision were Stock Markets Index as shown by 88.2%, speculation as shown by 78.5%, media information as shown by 69.9% and company profile as shown by 58.1%.

Table 9: Challenges in making investment decision

Challenges in making investment decision	Percent
Lack of sufficient information	87.1
Fear of the past	78.5
Lack of proper understanding of stock market	88.2

On the biggest challenge in making an investment decision in the NSE on how to allocate your resources, the study found that majority of the respondents indicated the main challenges were; lack of proper understanding of stock market as shown by 88.2%, lack of sufficient information as shown by 87.1% and fear of the past as shown by 78.5%.

Table 10: Information required making investment decision

Information required	Percent
Company profitability	100.0
Dividend payout	100.0
Company Command in the market	87.1

On the kind of information required for investment decision making, the study found that majority of the respondents indicated that they required information on company profitability and divided pay out ration as shown by 100% where 87.1% indicated company command in the market.

Table 11:Engaging financial expert in investing decision

Opinion	Frequency	Percent
Yes	23	24.7
No	53	57.0
Sometimes	17	18.3
Total	93	100.0

On whether respondents engage a financial expert in their investment decision making, the study found that majority of the respondents as shown by 57% indicated that they didn't involve financial expert in their investments decisions, 24.7% of the respondents indicated that they involved financial expert in their decision making whereas 18.3% of the respondents indicated that they involved financial experts at sometimes, this shows that investors at NSE didn't involve financial expert in their investment decision making

Table 12: Barriers of obtaining substantial information

Barriers	Percent
High consultancy Costs	88.2
Inaccessibility of advisors	100.0
Lack of adequate time to seek information	87.1

On the barriers on obtaining substantial Information on the stock markets, the study found that majority of the respondents indicated that the main barriers obtaining substantial Information on the stock markets were; inaccessibility of advisors as shown by 100%, High consultancy Cost as shown by 88.2% and lack of adequate time to seek information as shown by 87.1%.

Table 13: Rating knowledge on the financial markets & investments

Rating	Frequency	Percent
Very knowledgeable	17	18.3
Knowledgeable	29	31.2
Somewhat Knowledgeable	26	28.0
Very little knowledge	21	22.6
Total	93	100.0

On the respondents rating their knowledge on the financial markets and investment, the study found that 31.2% indicated that they were knowledgeable, 28.0% indicated that they were somewhat knowledgeable, 22.6% indicated that they had very little knowledge whereas 18.3% indicated that they were very knowledgeable.

Table 14: Past histories in stock return

History	Frequency	Percent
Very Pleasant	11	11.8
Pleasant	24	25.8
Average	21	22.6
Unpleasant	37	39.8
Total	93	100.0

On the respondents opinion on the stock market returns, the study found that 39.8% of respondents indicated that it was unpleasant, 25.8% of the respondents indicated pleasant, 22.6% of the respondents indicated average whereas 11.8% of the respondents indicated very pleasant. The study further revealed that history influence respondents present investment decision as shown by 100% of the respondents who indicated yes.

Table 15: Rating various factors in their investment in NSE

	Mean	Std deviation
In what will funds invested be used for	3.9500	.79030
Indebtedness	4.1333	.76947
Percentage subscriptions	4.4167	.61868
Financial position of the firm	3.8167	.61868
financial summary	4.2333	.74485
Future prediction or forecast	4.3667	.51967
Subsidiaries and associated companies	3.4167	.61868
Historical background	3.2667	.77824
Board members	3.0667	.68561
Legal matters	3.1833	.62414

On the extent to which the respondents consider various factors in their investment in NSE, the study found that majority of the respondents rated the following to great extent; percentage subscriptions as shown by mean 4.4167, future prediction or forecast as shown by mean of 4.3667, financial summary as shown by mean of 4.2333, indebtness as shown by mean of 4.1333, in what will funds invested be used for as shown mean 3.95 and financial position of the firm as shown by mean of 3.8167. Those rated to moderate extent were; subsidiaries and associated companies as shown by mean of 3.4167, historical background as shown by mean 3.2667, legal matter as shown by mean of 3.1833 and board members as shown by mean of 3.0667.

Table 16: Rating various aspect of behavioral finance among investors

	Mean	Std deviation
Investors behaviour is still consistent with their risk propensities	4.6000	.75490
Risk perception is an important explanatory factor, which can account for variations in individual risk behaviour within the boundaries defined by risk propensity	4.3000	.61891
Decision-making under uncertainty involves various activities such as goal formulation, problem identification, alternatives generation, and evaluation/selection and some cognitive simplification processes may affect the way decision-makers perform these tasks	4.1833	.59636
Investors perceive different levels of risk when confronted with identical decision-making scenarios	4.1500	.79883
Women and men differ in their risk preferences and risk perceptions. Women have lower risk preferences than men in the general population as well as in specialist populations including managers, entrepreneurs	4.1333	.74712
women and men differ in relation to the interpretation of the meaning they attribute to risk	3.9833	.85354

From the findings on the level of agreement on various aspects of behavioral finance among investors on the NSE, the study found that majority of the respondents strongly agreed that investor's behaviour is still consistent with their risk propensities as shown by mean of 4.6. Respondents agreed that risk perception is an important explanatory factor, which can account for variations in individual risk behaviour within the boundaries defined by risk propensity as shown by mean of 4.3, decision-making under uncertainty involves various activities such as goal formulation, problem identification, alternatives generation, and evaluation/selection and some cognitive simplification processes may affect the way decision-makers perform these tasks as shown by mean of 4.1833, investors perceive different levels of risk when confronted with identical decision-making scenarios as shown by mean of 4.15, women and men differ in their risk preferences and risk perceptions and women have lower risk preferences than men in the general population as well as in

specialist populations including managers, entrepreneurs as shown by mean of 4.1333 and women and men differ in relation to the interpretation of the meaning they attribute to risk as shown by mean 3.9833.

Table 17: Respondents level of agreement on aspect of financial capability of investors

	Mean	Std deviation
Investors capability to manage their finances to a large extent affect their	4.2000	.77678
well-being well-being		
Investors are active and well-informed in their financial activities and	2.0167	.85354
they are responsible for the consequences of their choices		
influence of environmental factors on a person's capability is essential because every person lives in a certain society and belongs to various communities	4.0833	.94406
Investors financial capability refers to the investors' knowledge, skills and responsibility about the variety of financial commodities in the market	4.1000	.72952
Investors who behave financially responsibly take into account the other members in their environments, like family members, relatives and friends, when making financial decisions	2.2333	.76727

On the respondents level of agreement on various aspects of financial capability of investors in the NSE, the study found that majority of the respondents agreed that investors capability to manage their finances to a large extent affect their well-being as shown by mean of 4.2, investors financial capability refers to the investors' knowledge, skills and responsibility about the variety of financial commodities in the market as shown by mean of 4.1 and investors financial capability refers to the investors' knowledge, skills and responsibility about the variety of financial commodities in the market as shown by mean of 4.0833. respondents disagreed that investors who behave financially responsibly take into

account the other members in their environments, like family members, relatives and friends, when making financial decisions as shown by mean of 2.2333 and investors are active and well-informed in their financial activities and they are responsible for the consequences of their choices as shown by mean of 2.0167.

Table 18: Level of agreement on aspect of information processing cost of investors

	Mean	Std deviation
Investors in the NSE are acquainted with various financial products and services as they enter into financial markets as investors	2.3407	.67032
Investors in the NSE do not have problem in accessing information before making investments	2.2857	.60159
Investors are aware of the income available: that is, how much money there is for consumption and saving	1.5824	.66776
Investors in the NSE understand taxation questions	1.5167	.62414

On the respondents extent of agreement on various aspect of information processing cost of investors in the NSE, the study found that respondents disagreed that investors in the NSE are acquainted with various financial products and services as they enter into financial markets as investors as shown by mean 2.3407, investors in the NSE do not have problem in accessing information before making investments as shown by mean 2.2857, investors are aware of the income available: that is, how much money there is for consumption and saving as shown by mean of 1.5824 and investors in the NSE understand taxation questions as shown by mean of 1.5167.

CHAPTER FIVE:

5.0 SUMMARY OF FINDINGS, POLICY, LIMITATIONS OF THE STUDY & SUGGESTIONS FOR FURTHER RESEARCH

5.1 Introduction

From the analysis and data collected, the following discussions, conclusions and recommendations were made. The responses were based on the objectives of the study. The researcher had intended to determine the impact of heuristic biases on block transactions, new issues, stock split and mutual fund performance and on stock prices, to analyze the effect of micro structure and behavioral finance and the effects they have on stock prices and to investigate the heuristics biases underlying behavioral finance and its effects on share prices.

5.2 Discussions

From the source of information on investment decision the study revealed that these were; investors got the information to make an investment decision in the NSE, advice from stock brokers and advice from knowledgeable friends and personal assessment of stock market movement. On the various factors that influence respondents investment decision, from the findings shown in table, the study found that other factors that influenced respondents investment decision were stock markets index, speculation, media information and company profile. On the biggest challenge in making an investment decision in the NSE on how to allocate your resources, the study found that majority of the respondents indicated the main challenges were; lack of proper understanding of stock market, lack of sufficient information and fear of the past.

From the findings on the kind of information required for investment decision making, the study found that majority of the respondents indicated that they required information on company profitability and divided pay out ration whereas 87.1% indicated company command in the market. On the findings on whether investors engage a financial expert in their investment decision making, the study found that majority of the respondents as shown by 57% indicated that they didn't involve financial expert in their investments decisions, 24.7% of the respondents indicated that they involved financial expert in their



decision making whereas 18.3% of the respondents indicated that they involved financial experts at sometimes, this shows that investors at NSE didn't involve financial expert in their investment decision making. On the barriers on obtaining substantial Information on the stock markets, the study found that majority of the respondents indicated that the main barriers obtaining substantial Information on the stock markets were; inaccessibility of advisor as shown by 100%, high consultancy Cost as shown by 88.2% and lack of adequate time to seek information as shown by 87.1%. From the findings on whether rating their knowledge on the financial markets and investment, the study found that 31.2% indicated that they were knowledgeable, 28.0% indicated that they were somewhat knowledgeable, 22.6% indicated that they had very little knowledge whereas 18.3% indicated that they were very knowledgeable.

On the respondents opinion on the stock market returns, the study found that 39.8% of respondents indicated that it was unpleasant, 25.8% of the respondents indicated pleasant, 22.6% of the respondents indicated average whereas 11.8% of the respondents indicated very pleasant. The study further revealed that history influence respondents present investment decision. From the findings on the various factors in their investment in NSE, the study found that factors considered to great extent were percentage subscriptions, future prediction or forecast, financial summary, indebtness, in what will funds invested be used for and financial position of the firm. Those rated to moderate extent were; subsidiaries and associated companies, historical background, legal matter and board members.

From the findings on various aspects of behavioral finance among investors on the NSE, the study found that investor's behaviour is still consistent with their risk propensities, risk perception is an important explanatory factor, which can account for variations in individual risk behaviour within the boundaries defined by risk propensity, decision-making under uncertainty involves various activities such as goal formulation, problem identification, alternatives generation, and evaluation/selection and some cognitive simplification processes may affect the way decision-makers perform these tasks, investors perceive different levels of risk when confronted with identical decision-making scenarios, women and men differ in their risk preferences and risk perceptions and women have lower

risk preferences than men in the general population as well as in specialist populations including managers, entrepreneurs and women and men differ in relation to the interpretation of the meaning they attribute to risk.

From the findings on various aspects of financial capability of investors in the NSE, the study found that investors capability to manage their finances to a large extent affect their well-being, investors financial capability refers to the investors' knowledge, skills and responsibility about the variety of financial commodities in the market and investors financial capability refers to the investors' knowledge, skills and responsibility about the variety of financial commodities in the market. Respondents disagreed that investors who behave financially responsibly take into account the other members in their environments, like family members, relatives and friends, when making financial decisions and investors are active and well-informed in their financial activities and they are responsible for the consequences of their choices.

From the findings on various aspect of information processing cost of investors in the NSE, the study found that respondents disagreed that investors in the NSE are acquainted with various financial products and services as they enter into financial markets as investors as, investors in the NSE do not have problem in accessing information before making investments, investors are aware of the income available: that is, how much money there is for consumption and saving and investors in the NSE understand taxation questions.

5.3 Limitation of the study

The researcher encountered the following difficulties in the process of the study:-

- (a) Filure of some respondents to return the questionnaires issued.
- (b)Lacks of enough time since the research was conducted while still working

5.4 Conclusion

From the findings the study concludes that the sources of information that influence investment decision in the NSE are advice from stock brokers and advice from knowledgeable friends and personal assessment of stock market movement which were influenced by stock markets index, speculation, media information and company profile.

The biggest challenge in making an investment decision in the NSE on how to allocate resources were; lack of proper understanding of stock market, lack of sufficient information and fear of the past.

The study further found that the kind of information required for investment decision making were on company profitability, divided pay out ration and company command in the market. The study also concludes that investors at NSE didn't involve financial expert in their investment decision making. The barriers on obtaining substantial Information on the stock markets were; inaccessibility of advisor, high consultancy cost and lack of adequate time to seek information.

From the findings on the various considered factors in their investment in NSE, the study found that factors considered were percentage subscriptions, future prediction or forecast, financial summary, indebtness, in what will funds invested be used for and financial position of the firm. Those rated to moderate extent were; subsidiaries and associated companies, historical background, legal matter and board members.

The study further concludes that the various aspect of information processing cost of investors in the NSE, the study found that investors in the NSE are not acquainted with various financial products and services as they enter into financial markets as investors as, investors in the NSE have problem in accessing information before making investments, investors are aware of the income available: that is, how much money there is for consumption and saving and investors in the NSE understand taxation questions.

5.5 Recommendation

From the above findings and conclusion the study recommends that there is need to acquit investors in the NSE with various financial products and services as they enter into financial markets as investors, there is also need to enhance accessibility of information by investors in the NSE as it was found that investors in the NSE have problem in accessing information before making investments and that investors are not aware of the income available: that is, how much money there is for consumption and saving and investors in the NSE understand taxation questions

5.6 Suggestion for further studies

Further research should be done in the following areas:

- a) Relationship of the various factors affecting investors behaviors and their overall impact on investors
- b) How investors who get information fair in the investment at the NSE in terms of overall returns

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APPENDICES

Appendix I: Questionnaire

Dear respondents,

I am an MBA student at The University of Nairobi I am currently undertaking a research on Behavioral finance among investors in the Nairobi stock exchange. I kindly request you to take the time to complete this questionnaire and return it back, I will be very grateful. I assure you that all the information you give on will be kept confidential.

(a)Background information of respondents

1) Gender							
	Male ()	Female ()					
2) Hov	2) How old are you						
	Below 20 years	()					
	20-30 years	()					
	30- 40 years	()					
	40- 50 years	()					
	Over 50 years	()					
3) Marital Status							
	Single	()					
	Married	()					
	Other	()					
	Please specify						
4) What is your level of Education?							
	O-Level	()					

	Tertiary Level	()	
	University Level	()	
	Other	()	
	Please specify		
5) Hov	v long have you been an inves	stor in the stock market	?
	Under 1 year	()	
	1-5 years	()	
	5-10 years	()	
	Over 10 years	()	
6) Ho	ow did you start investing in th	ne NSE?	
	Introduced by Friends	()	
	Personal Initiative	()	
	Advertisements	()	
	Other	()	
	Please specify		
PART	B: BEHAVIORAL FINAN	CE	
7) Wh	nere do you get the information	n to make an investme	nt decision in the NSE?
	Advice from stock brokers		()
	Advice from knowledgeable	e friends	()
	Personal assessment of stock	market movement	()
8) Apa	art from the information you g	et what else influences	your investment decision
	Company Profiles	()	
	Speculation	()	

	Stock Markets Index	()			
	Media Information	()			
	Other	()			
	Please specify				
9) Wha	at is your biggest challenge in	n making a	n investmen	nt de	cision in the NSE on how to
allocate	e your resources?				
	Lack of sufficient informatio	n		()	
	Fear of the past			()	
	Lack of proper understanding	g of stock	market	()	
10) Wł	nat kind of information do you	u require fo	or your inves	stme	ent decision making?
	Company profitability		()		
	Dividend payout		()		
	Company Command in the n	narket	()		
11) Do	you engage a financial exper	t in your i	nvestment de	ecisi	on making?
	Yes ()				
	No ()				
	Some times ()				
12) W	That do you think are the bar	riers on o	btaining sub	stan	tial Information on the stock
market	ts?				
	High consultancy Costs			()	
	Inaccessibility of advisors			()
	Lack of adequate time to see	ek informa	ation	()

13) How would you rate your knowledge	on the financial markets & investments
Very knowledgeable	()
Knowledgeable	()
Somewhat Knowledgeable	()
Very little knowledge	()
14) Past history in the stock market return	ns
Very Pleasant	()
Pleasant	()
Average	()
Unpleasant	()
15) Does the history influence your prese	ent investment decision?
Yes	()
Somehow	()
No	()

		_		_		_								
16)	To '	what	extent	do voi	a consider	the	foll	owing	factors	in	their	investm	ent ir	NSE?

	Not at all	Less extent	Moderate	Great extent	Very great extent
In what will funds invested be used for					
Indebtedness					
Percentage subscriptions					
Financial position of the firm					
financial summary					
Future prediction or forecast	!				
Subsidiaries and associated companies					
Historical background					
Board members		,			
Legal matters					

17) To what extent do you agree on the following aspect of behavioral finance among investors on the NSE?

	Strongly disagree	Disagree	Neutral	Agreed	Strongly Agree
Investors behaviour is still consistent with their risk propensities					
Risk perception is an important explanatory factor, which can account for variations in individual risk behaviour within the boundaries defined by risk propensity					

Decision-making under uncertainty involves various activities	
such as goal formulation, problem identification, alternatives	
generation, and evaluation/selection and some cognitive	
simplification processes may affect the way decision-makers	
perform these tasks	
Investors perceive different levels of risk when confronted with	
identical decision-making scenarios	
Women and men differ in their risk preferences and risk	
perceptions. Women have lower risk preferences than men in	
the general population as well as in specialist populations	
including managers, entrepreneurs	
women and men differ in relation to the interpretation of the	
meaning they attribute to risk	

18) To what extent do you agree on the following aspect of financial capability of investors in the NSE?

	Strongly disagree	Disagree	Neutral	Agreed	Strongly Agree
Investors capability to manage their finances to a large extent					
affect their well-being					
Investors are active and well-informed in their financial					
activities and they are responsible for the consequences of their					
choices					
influence of environmental factors on a person's capability is					
essential because every person lives in a certain society and					
belongs to various communities					
Investors financial capability refers to the investors'					
knowledge, skills and responsibility about the variety of					
financial commodities in the market					
Investors who behave financially responsibly take into account					
the other members in their environments, like family members,					
relatives and friends, when making financial decisions					

19) To what extent do you agree on the following aspect of information processing cost of investors in the NSE?

	Strongly disagree	Disagree	Neutral	Agreed	Strongly Agree
Investors in the NSE are acquainted with various financial					
products and services as they enter into financial markets as					
investors					
Investors IN the NSE do not have problem in accessing					
information before making investments					
Investors are aware of the income available: that is, how much					
money there is for consumption and saving					
Investors in the NSE understand taxation questions					
771 1 0 11					

Thank you for taking your time to answer my research question