EFFECT OF RETAIL INVESTOR PROFILE ON INDIVIDUAL PORTFOLIO CHOICE AT THE NAIROBI SECURITIES EXCHANGE, KENYA

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DECLARATION

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

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DEDICATION

This thesis is dedicated to my dear wife, Grace and children: Nickson, Dennis, Maureen, Karen and Valary. Their cherished inspiration and support were instrumental in the thesis completion.

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ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of Variance
APA	American Psychological Association
ASE	Athens Stock Exchange
BIST	Borsa Istanbul Stock Exchange
BLM	Binary Logit Model
CBK	Central Bank of Kenya
CDSC	Central Depository and Settlement Corporation Limited
CMA	Capital Market Authority
DPS	Dividend per Share
EA	East Africa
EMH	Efficient Market Hypothesis
EPS	Earnings per Share
ETF	Exchange Traded Funds
FA	Factor Analysis
GDP	Gross Domestic Product
HPR	Holding Period Return
KMO	Kaiser-Meyer-Olkin
KSE	Karachi Stock Exchange
MMR	Moderated Multiple Regression
MPT	Modern Portfolio Theory
NACOSTI	National Commission for Science, Technology and Innovation
NCM	Nigerian Capital Market
NSE	Nairobi Securities Exchange
OLS	Ordinary Least Squares
RSE	Rwanda Stock Exchange
SPSS	Statistical Package for Social Sciences
UAE	United Arab Emirates

DEFINITION OF OPARATIONAL TERMS

Individual portfolio Choice: Is the result of the process of investing one's funds in different investment opportunities, asset classes and markets that have low, negative or possibly no correlation between their choices, thereby reducing the risk investors are subjected to (Chue, 2025).

Investment Avenues: Are the options available for commitment of funds which have been saved from current consumption so as to yield some gain or positive return over a period (Solanki & Saini, 2025).

Investor lifestyle: Is the investor's attitude that describes their personal ability, confidence level, dependency level of an investor, either from brokers' recommendation, family member opinion and/or friend/customer opinion (Varadharajan & Vikkraman, 2014)

Investor's Attitude towards Risk: It is the individual's willingness to take risks and make financial investment decisions. It is the risk preference people hold towards risks (Bui, Quang, & Wong, 2021).

Investor's Specific needs: It is the preferences that a particular investor seeks while investing (Chaturvedi, 2022).

Retail investor profile: A multidimensional perspective of retail investor characteristics, both demographic and non-demographic, attributed to a retail investor in the market which include, demographic and lifestyle unique needs and preferences characteristics as well as liquidity needs (Dominique, Tessa & Hadji, 2016).

ABSTRACT

The retail investor profile plays a major role in determining the choice of an investment portfolio composed of one or more assets that an investor receives over a certain period of time. Although there are numerous controversial arguments about the factors that determine the level of individual portfolio choice, the multidimensional perspectives on investors' characteristics have received little attention. The general objective of this study was to establish the effect of retail investor profile on individual portfolio choice at the Nairobi Securities Exchange (NSE). The specific objectives to guide this study was to determine the effect of investor's attitude towards risk on individual portfolio choice at the NSE; to establish the effect of lifestyle characteristics on individual portfolio choice at the NSE; to examine the effect of investor's specific needs on individual portfolio choice at the NSE; to assess the effect on investor's investment avenues on individual portfolio choice at the NSE and to investigate the moderating effect of investor's age on the correlation between retail investor profile and individual portfolio choice at the NSE. The study is anchored on four theories, namely, modern portfolio theory, prospect theory, expected utility theory and risk aversion theory. The population consisted of individual investors estimated at 2.4 million as of 30th September 2025, based on Central Depository and Settlement Corporation Limited (CDSC). A target population of 873,980 active retail investors who also form the accessible population at the NSE was used to draw a sample size of 385 active individual retail investors, out of which 320 participated. Both stratified and convenience sampling were used to select the required number of respondents. A structured questionnaire was used to collect the data, whereby a drop-and-pick approach was used by the researcher and research assistants. Pilot testing of the instruments was performed to assess their reliability. The descriptive research design was used in descriptive analysis for the variables under study up to a period of five years from January, 2021 to December, 2025, using frequency, percentages, means and standard deviation Tables. Further, correlational and multiple regression analyses were used to analyze the data obtained, which was presented using Pearson correlation, model summary, ANOVA, moderated regression and hypothesis analysis tables. The study findings revealed that attitude towards risk and investors' specific needs are positively correlated and significant on individual portfolio choice, while lifestyle characteristics and investment avenues were negatively correlated. As such, a unit increase in a predictor variable lead to an increase in investment in stocks, bonds and treasury bills. Further, the results of the study indicated that investors' ages are positively correlated but do not moderate the relationship between retail investor profile and individual portfolio choice. When the independent variables interacted with the moderator, the results indicated that some were positively correlated, others were negatively correlated, some were significant, yet some were not significant. The study would benefit investors to better understand their investment goals, the regulator the Capital Markets Authority to improve regulatory policies and make the market more attractive to both the existing and potential traders, and Nairobi Securities Exchange to assist individual investors in their portfolio choices and also to the academicians to advance the conceptual arguments of the lack of moderating effect of age on the relationship between retail investor profile and individual portfolio choice.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Individual portfolio choice is the result of the process of investing one's funds in different investment opportunities, asset classes and markets that have low, negative, positive or possibly no correlation between their choices, which will earn the total return over time that one needs (Reilly & Brown, 2024). A portfolio refers to a collection of investment or financial assets owned or held by an individual, investment company, financial institution or hedge fund (Bodie, Kane & Marcus, 2023). Broadly, there are individual investors and institutional investors. An institutional investor is an entity that makes an investment on behalf of someone else. Such institutions include investment companies, financial institutions, mutual funds, pension funds, sovereign wealth funds or hedge funds. The institutional investors can trade in large volumes because they can trade more than individual (retail) investors. They are able to employ professionals to manage the investments on behalf of their customers or members. They have more knowledge and resources to allow them to conduct more research and able to make more informed investment decisions. Further, this category of investors involves several people or investment committees. It is from this background that this research excluded institutional investors and instead looked into the area of retail investors.

An investment portfolio is a collection of financial assets held by an investor that is composed of bonds, stocks, money, and commodities. The individual assets included in a portfolio are broadly categorized into asset classes. In this regard, portfolios come in various types. They could be growth portfolios, income portfolios, or value portfolios (Myers Davidson Gingers Ltd, 2015). An ideal portfolio choice is the mix of investments, from the most aggressive to the safest, that will earn the total return over time that one needs. The mixes include stocks, bonds, and money market securities. The percentage of one's portfolio that one devotes to each depends on one's time frame and one's tolerance for risk. According to Markowitz (Markowitz, 1952), one optimizes expected returns based on the level of market risk through the construction of an investment portfolio chosen. Accordingly, by combining various

asset classes into a portfolio, overall portfolio risk can be minimized and a higher return can be achieved than with a portfolio that is not properly optimized. The investment of the portfolio chosen with the largest portfolio return is usually prioritized (Hatemi & El-Khatib, 2015). The individual portfolio that this research chose was on stocks, bonds and treasury bills.

An individual investor or retail investor is an individual who invests his or her own money, usually through a broker or bank. They invest in order to attain their individual investment plans. Retail investors ideally invest smaller volumes more frequently than institutional investors. More commonly, they have less experience, less knowledge, and fewer can undertake research as compared to institutional investors (Lin, Zhang, & Zhang, 2024). It was on this background, coupled with reasons that have been adduced for not pursuing that of institutional investors, that this research was informed. There are wide-ranging factors that influence individual portfolio choice which may include retail investor profile, one's gender, marital status and investor's age are some of the factors that have influential implications.

Retail investor profile has diverse definitions based on the authors. In addition, it assumes multidimensional perspectives such as characteristics, both demographic and non-demographic characteristics attributed to a retail investor in the market, which include demographic characteristics, attitude towards risk characteristics, lifestyle characteristics, investor's specific needs and investor's investment avenues characteristics (Dominique, Tessa & Hadji, 2016). According to Rajan in (Rajan, 1997b), the retail investor profile is a style that offers an accurate, insightful look into investor motivations and perceptions and gives one some tips and tricks to help grow and succeed as an investor. It is a personality assessment that was created to help investors learn to recognize their natural, internal characteristics that both help and hinder financial success. The motivational driving force, confidence, commitment, self-esteem, reasoning and emotions are some of the inner qualities that influence one's ability to make sound investment decisions. Retail investor profile or style defines an individual's options in investment decisions, in other words, engaging in short-term, medium-term trading or long-term holding of investments. This is the initial phase in the asset management process and assists in explaining

key factors such as investment objectives, time span and attitudes toward risk and investing. The investor profile works to cement the basis for determining an appropriate asset allocation (Rajan, 1997b). Retail investors are often either active or not active in a given period. This study targets active retail investors, that is, they have been trading during the year and have been trading at least for the past five years at the Nairobi Securities Exchange, Kenya. According to Chue (2025), Individual portfolio choice is the result of the process of investing one's funds in different investment opportunities, asset classes and markets that have low, negative, positive or possibly no correlation between their choices, thereby reducing the risk investors are subjected to.

Investors' attitude towards risk is the individual's willingness to take risks and make financial investment decisions. It is the risk preference people hold towards risks (Bui, Quang & Wong 2021). Different people have different attitudes towards the risk-return tradeoff in any form of investment opportunity. As a result, investors' attitude towards risk is classified into three categories, namely: risk averse, risk seeker (risk lovers) and risk neutral.

According to (Saivasan & Lokhande, 2022), standard models in economics assume that individuals are endowed with stable risk attitudes. On the other hand, Standard financial theory assumes that investors are rational, hence when making investment decisions, they tend to have invariant risk preferences. However, people gradually find that the investors' decision-making behavior in real life does not always comply with the assumption of rationality and their behaviors are usually limited by their own cognitive biases and external environment, leading to their risk preferences, which vary with different situations (Bui, Quang & Wong 2021). As pertains to investment returns and investors' attitude towards risk, Kahneman and Tversky (Kahneman & Tversky, 1979) describe some prominent psychological traits of investors in their decision-making under uncertainty. They opine that individuals tend to be risk-averse with gain and risk-seeking with loss.

The lifestyle of investors can be determined by studying the activities, interests, and opinions of investors (Thuy, T. and Ngoc, V. 2021). Investor's lifestyle characteristics have assumed diversified approaches depending on different

researchers in past studies. There has been no universally accepted operationalisation of this variable. For instance, Varadharajan and Vikkraman in (Varadharajan & Vikkraman, 2014) in their study expressed investor lifestyle characteristics by demonstrating the approach an investor uses to be guided on how to invest by their own personal ability, as well as their confidence levels. Further, in their study, they found that an investor decides on an investment after getting opinions from family, friends and colleagues, a broker's recommendation and also other professional advice. On the other hand, the study by Rokhmawati, Oktavia and Fitri, (2024) was aimed at examining the roles of young adults' lifestyles in moderating the relationship between financial knowledge and attitude and their management behavior towards money. The results in this study showed that lifestyle significantly moderates the effect of financial knowledge and attitude on financial management behavior. Lifestyle strengthens the relationships. Furthermore, financial knowledge, attitude, and lifestyle positively and significantly affect young adults' management behavior towards money.

In the study by Jagongo and Mutswenje (Jagongo & Mutswenje, 2014), it was established that an investor also takes into consideration the market situations like financial results of the companies, bonus issue, price earnings ratio and the reputation of the company. Social relevance and image, accounting information, and past performance of the firm's stock were other factors. These were noted to be attributes of the investor's specific needs.

Despite the longstanding and widespread financial advice to hold well-diversified portfolios, several studies have found that many individual investors trade in diverse ways, hence influencing the level of their liquidity and portfolio performance (Chaturvedi, 2022). Investment Avenues management means enabling the investment portfolio to one, stay within its targeted asset allocation bands, and two be able to meet cash flow obligations as and when they fall due, without incurring unacceptable losses. If there are mismatches between the maturity of the non-profit's investments and its scheduled cash outflows, then the portfolio is exposed to a potential liquidity risk (Solanki & Saini, 2025).

The study by Rakshitha & Reshmi (2024) investigated how individuals' investment decisions satisfy them, specifically the age factor from Bangalore, India. The results showed that the investment decisions of different people differ significantly based on age, both between age groups and within age groups.

While the study Rakshitha & Reshmi (2024) investigated how individuals of different ages in Bangalore, India, made investment decision choices that satisfy them. These studies did not look at the retail investor objective of determining whether these demographic socioeconomic factors have an effect on investors' portfolio choice or otherwise. In addition, the focus was on demographic and socioeconomic perspectives, which is inadequate and inconclusive, as factors that influence individual portfolio choices are multidimensional.

The study by Kano, Muradoglu & Olukuru (2025), assessed the group versus individual behavior and disposition effect at NSE. Those that traded as groups traded jointly as investment groups. A disposition effect is characterized by the tendency to sell winning assets too soon and hold onto losing assets for too long. The results showed that group investors exhibit a significantly lower disposition effect than individual investors. Further, disposition effect increases with frequency of trade and reduces with age. The disposition effect, being an aspect of specific needs, ignored the effect of investors' specific needs related facets, namely, socially expressive characteristics, firms' reputation in industry and contribution of firms in social causes and their implication on individual portfolio choice at the NSE. The current study intended to fill the gap.

1.1.1 Global Perspective of Retail Investor Profile and Individual Portfolio Choice

Several studies in India portrayed diverse outcomes on the issues of individual investor behavior. For instance, in the study by Boobalan & Selvavinayagam (2019) it was to establish the investors' attitude towards risk and return on investments in urban, semi-urban and rural areas of Shimla. The study used demographic characteristics of the respondents, namely age, gender, marital status, education, occupation, income and domicile. The research findings revealed that there is a significant association between investors' attitude and investment decisions based on

investment experience, risk capability of investors, duration of investment and planning habits. Experienced individuals with a positive attitude towards investment prefer to invest money for a long period of time, may take risks and prepare for long-term plans. The study, however, did not include non-demographic characteristics as part of the control variables. In addition, the study was bivariate. The study would therefore give dissimilar findings. This study will interrogate the influence of attitude towards risk on individual portfolio choice, which is measured through trading by active retail investors on stocks, bonds and treasury bills at NSE Kenya. Further, this study will be multivariate and therefore consider the moderating effect of age on the relationship between the broader retail investor profile and individual portfolio choice at NSE.

In a study by Huang & Guenther (2024) in London, United Kingdom, averred that the disposition effect is one of the most prominent and widely studied behavioral biases observed among investors. The study, it describes the tendency to close out winning investments prematurely while holding on to losing ones for too long and is generally associated with reduced investment returns. The study asserts that researchers have explored various debiasing strategies and interventions to mitigate the disposition effect and its detrimental impact on returns. The results showed that the intervention had a significant impact, reducing the disposition effect in the first measurement (2 weeks) while significance was observed at the second measurement (3 months). It was found that a higher disposition effect was associated with lower returns for one measurement but opposite for the other. The study showed that intervention may be readily deployed among retail investors with a somewhat lasting impact to mitigate the disposition effect. Further, the study showed that the relationship between the disposition effect and investment returns is significant.

The study by Huang & Guenther (2024) only focused on disposition effect and investment returns. The current study will narrow the gap by finding out if there is a relationship between the disposition effect and individual portfolio choice. In addition, the studies assumed bivariate models. The current study adopted a multivariate model by evaluating the four aspects of retail investor profile, namely, attitude towards risk, lifestyle, investor's specific needs and investment avenues and

individual portfolio choice was measured through trading by active retail investors at NSE. The study incorporated the investor's age variable to test for the moderating effect.

In Australia, a study by Tsiaplias, Zeng, & Lim (2023) investigated. The relationship between beliefs about risk and returns and stock market intentions of retail equity investors regarding holding, buying and selling. The results showed that investors' intentions regarding buying or selling are primarily characterized by risk and return expectations, but sensitivity to their beliefs about risk and return is greater for the intention to sell than to buy. In contrast, demographic factors such as gender, income and age play a key role in the decision to hold rather than trade. The results have significant ramifications for stock market participation and trading intensity of Australia's retail investors, particularly for women. The study was bivariate, and the retail investors were not itemized into attitude towards risk, lifestyle characteristics, investors' specific needs and investors' investment avenues. There exists a research gap to establish the extent to which diverse retail investor profiles influence individual portfolio choice. The current study will consider the moderating effect of age on the relationship between retail investor profile and individual portfolio choice.

1.1.2 Regional Perspective of Retail Investor Profile and Individual Portfolio Choice

Under the regional context, studies on investor behavior, demographic and socio-economic factors were interrogated by several researchers. The research findings were dissimilar. For instance, in the study by Dickason & Ferreira (2018) whose objective was to establish which behavioral finance biases are associated with a certain level of risk tolerance and investor personality in South Africa. The study aimed to indicate how these behavioral finance biases can influence investment decisions. The results showed that investors with a low-risk tolerance level and a conservative investor personality are subject towards loss aversion and mental accounting biases. On the other hand, investors with high risk tolerance are mostly subjected towards the self-control biases. The significance of the study was that it would enable investment companies to more accurately profile their investors to offer more refined investment options.

In Ghana, studies on the impact of investors' sentiment on the equity market showed that a few market-specific factors had a significant impact on that market. This is because the investor's attitude towards investing is influenced by rumours, intuition, herd behavior among investors and media coverage of the stock (Bennet, Amoako, Okine, Asumadu, & Darkwah, 2012).

In Rwanda, a study on the effect of self-attribution bias on investment in the Rwanda Stock Exchange revealed that there was a significant positive linear relationship between self-attribution bias and investment in the Rwanda stock market. The study also concluded that most investors suffered from self-attribution bias in investment in stock markets (Niyoyita, Muturi, and Memba, 2018).

1.1.3 Local Perspective of Retail Investor Profile and Individual Portfolio Choice

Before looking at the attributes of investors, the study looked at the NSE, where it was noted that it was the only stock exchange in Kenya. NSE was established in 1954 under the Societies Act (1954) as a voluntary association of stock brokers. In 1991 it was registered as a private company limited by shares and charged with the responsibility of developing the securities market and regulating trading activities. It has been operating under a regulatory framework that encompasses rules for listing a company, trading of securities, members' conduct and index management, all enforced to ensure market integrity and investor protection. Key regulations that investors adhere to include minimum capital and asset requirements, strict adherence to trading rules for participants (NSE Strategy 2025-2029).

In Kenya, several local studies revealed dissimilar research outcomes. For instance, the study by Kano, Muradoglu, & Olukuru (2025) assessed the group versus individual behavior and disposition effect at NSE. Those that traded as groups traded jointly as investment groups. A disposition effect is characterized by the tendency to sell winning assets too soon and hold onto losing assets for too long. The results showed that group investors exhibit a significantly lower disposition effect than individual investors. Further, disposition effect increases with frequency of trade and reduces with age.

In another study, Koskei, Tibbs and Rutto (2025) examined the effect of behavioral biases, risk tolerance, and investment decisions among NSE investors in Kenya. By exploring the mediating role of risk tolerance, the study provided a deeper understanding of psychological drivers influencing investment behavior, offering valuable insights for investors, financial advisors, policy makers and regulators. The results showed that overconfidence bias would result in a significant increase in investment decisions of NSE investors in Kenya. Therefore, overconfidence bias has significantly affected the investment decisions of NSE investors.

Locally, it has been demonstrated that several behavioral finance studies in (Koskei, Tibbs, & RuttoR, 2025); (Kano, Muradoglu, & Olukuru, 2025) and (Jagongo and Mutswenje, 2014) had diverse study outcomes. Most of these studies were noted to have been bivariate, only focusing on the conceptual relationship of independent variables and dependent variables. The current study will use a multivariate model by focusing on the direct effect of retail investor profile on the individual portfolio choice at the NSE, Kenya and also the moderating effect of age on the relationship.

1.1.4 Target Group

The institutional investors, as well as the retail investors, come from a certain population. In this respect, population is defined as all items in any field of enquiry, also known as the “universe”. The target population, on the other hand, is the entire group of individuals or objects to which researchers are interested in generalizing the conclusions. The population comprises all individual retail investors at the NSE. There were over 2.4million investors at NSE based on the CDSC database as of 30th September 2025. Some of these investors were active, while others were not and were deemed dormant by CDSC. As of 30th September 2025, there were 1.25 million active investors. Of the active investors, about 70% were retail investors, implying that 873, 980 were active retail investors who then formed the target population. Over time, the number of active retail investors has grown at a small pace. At times, they even reduce. It was this group of active retail investors that the study focused on at the NSE (NSE handbook, 2025). Retail investors ordinarily invest smaller volumes more frequently than institutional investors. On average, they

are less experienced, less knowledgeable and are less able to engage in research than institutional investors (Abrahamson, 2016).

1.2 Statement of the Problem

Retail investors who invest in stocks, bonds and treasury bills ordinarily invest in smaller volumes and more frequently than institutional investors. On average, they are less experienced, less knowledgeable and less able to engage in research than institutional investors. Further, their numbers have been stagnating, not growing substantially at the NSE. Similarly, studies on behavioral finance have focused on investor behavior and their investment decisions, paying no attention to the extent to which individual retail investors' profiles and demographic characteristics influence individual portfolio choice, Dickason & Ferreira 2018 and Jagongo and Mutswenje 2014). The aspect of risk involving risk averse, risk neutral or risk seeker and how they make portfolio choices are preferences of attitudes towards risk which investors constantly face and make choices. However, the extent to which attitude towards risk impacts individual portfolio choice has not been upheld in past studies (Boobalan and Selvavinayagam 2019). This study was to narrow this gap. The role that personal abilities, confidence level and dependence level of an investor had on family members or brokerage firms' recommendations plays in the ultimate choice by an investor was not incorporated in past studies. In this respect, the extent to which these lifestyle characteristics impact individual portfolio choice was important as this had not been looked at in the past studies (Thuy & Ngoc, 2021). The aspects of an investor's specific needs, such as socially expressive characteristics, firm reputation in the industry that it operates in, and the level of contribution such a firm makes in its affiliated sectors, are appropriate in describing the behavior of an investor. However, the extent to which such investors' specific needs impact individual portfolio choice can be of great importance for the purposes of portfolio management, yet past studies in this area did not uphold this proposition (Kano, Muradoglu & Olukuru 2025). Future contingent needs, sources and levels of liquidity, as well as safety of investments, assist the investor in mitigating financial losses. These investment avenues are prerequisites to ensure returns are maximized while at the same time ensuring risk minimization. Therefore, this strategy cannot be ignored. Nevertheless, past studies focused on how such investment avenues

modelled the character of an investor, ignoring the influence of the risk-return link to individual portfolio choice (Bairagi and Rastogi, 2013).

These studies have demonstrated that demographic characteristics such as age influence investor behavior. Nevertheless, the mentioned studies did not investigate the extent to which investors' age moderates or not the relationship between retail investor profile and individual portfolio choice. The aforementioned studies were bi-variate, for they considered the relationship between the explanatory and response variables without considering the moderating effect some of those variables may have on the relationship. This study will incorporate a multiple regression model to comprehensively establish the moderating effect of investors' age on the relationship between retail investor profile and individual portfolio choice. The factors that influence individual portfolio choice were either missing or ignored in the past studies in behavioral finance, hence the gap that the study intends to fill. Further, earlier studies in this area have focused on developed and non-African developing economies with little or no attention placed on developing or less developed economies in Africa, especially economies like Kenya, due to differences in regulations, cultural environment and nature of investors. By doing the study at the NSE, the regional or local economic facet has been filled.

1.3 Objectives of the Study

The study was guided by both general and specific objectives as follows

1.3.1 General Objective

The general objective of this study was to establish the effect of retail investor profile on individual portfolio choice at the Nairobi Securities Exchange, Kenya.

1.3.2 Specific Objectives

The specific research objectives are;

i) To determine the effect of investor's attitude towards risk on individual portfolio choice at the Nairobi Securities Exchange.

ii) To assess the effect of investor lifestyle characteristics on individual portfolio choice at the Nairobi Securities Exchange.

iii) To examine the effect of investor's specific needs on individual portfolio choice at the Nairobi Securities Exchange.

iv) To assess the effect of investor's investment avenues on individual portfolio choice at the Nairobi Securities Exchange.

v) To establish the moderating effect of investor's age on the relationship between retail investor profile and individual portfolio choice at the Nairobi Securities Exchange.

1.4 Research Hypotheses

The study is guided by the following hypotheses:

H_{01}: There is no significant effect of investor's attitude towards risk on individual portfolio choice at the Nairobi Securities Exchange.

H_{02}: There is no significant effect of lifestyle characteristics on individual portfolio choice at the Nairobi Securities Exchange.

H_{03}: There is no significant effect of investor's specific needs on individual portfolio choice at the Nairobi Securities Exchange.

H_{04}: There is no significant effect of investor's investment avenues on individual portfolio choice at the Nairobi Securities Exchange.

H_{05}: There is no significant moderating effect of investor's age on the relationship between retail investor profile and individual portfolio choice at the Nairobi Securities Exchange.

1.5 Significance of the Study

The findings of the current study would benefit many stakeholders.

1.5.1 Retail Investors

Retail investors would acquire a deeper understanding of how their portfolio choices may be influenced or moderated by investors' age, adapted to enhance decision-making towards achieving their set goals of making investment choices of investing. Further, they will gain and better understand the medium- and long-term investment goals and better mitigate their investment risks.

1.5.2 Capital Markets Authority & Nairobi Securities Exchange

The outcome would encourage the Capital Markets Authority as well as the Nairobi Securities Exchange to improve their regulatory frameworks and focus on the installation of the right portfolio policies.

1.5.3 Investment Firms and Brokerage Firms

This will make the market attractive to both existing and potential investors and brokerage firms. The development of those policies will give an assurance of security trading continuity, and the creation of job opportunities will increase in the country.

1.5.4 Academicians

The current study findings will help the academicians add to the stock of knowledge through the eradication of the knowledge gap that has been in existence regarding the outcome of investor behavior in the market, for it will demonstrate the relationship those factors have with individual portfolio choices. In addition, researchers can explore other areas of investor profile that have not been covered using this outcome as a point of reference.

1.6 Scope of the Study

The study involved active retail investors who had invested in shares, bonds and treasury bills through firms listed at the NSE for the period of not less than five years starting January 2021 to December 2025. This covered all active retail investors operating in Kenya. The study sought the opinion of the investors for the period of five years by collecting data cross-sectionally as of 31st December 2024. The retail investors should have invested in the market through stock brokerage according to the Central Depository and Settlement Corporation Limited (CDSC) investor database as of December 31st 2024, which had a target population of 893,980 active retail investors. A sample size of 384 respondents was taken, of which 320 respondents participated in the study. Secondary data was captured of investments on stocks, bonds and treasury bills at NSE Kenya for a period of 30 years from 1st January, 1995 to 31st December, 2024.

1.7 Limitations of the Study

A limitation is an aspect of research that may influence the research negatively. There are constraints on generalizing the findings chosen in the study. The common limitation encountered was, first, obtaining information from the selected respondents as most were not willing to disclose some or part of the information, which they considered touched their finances, as they considered them confidential or personal. The study overcame this limitation by assuring them that the study was for academic purposes only and giving the introductory letters from the university, assuring each respondent that the information would be kept confidential and that it would be used for academic purposes only. This approach subsequently worked. Another limitation was that the secondary data was obtained for a period of thirty (30) years from January 1995 to December 2024; however, data for January 1995 to December 2004 at the NSE had not been automated and had been kept in manual records and may not have been very accurate. Thirdly, we used a convenience sampling frame because of the secrecy of obtaining information from retail investors who may have been reluctant to provide the data, necessitating the study to use a convenience sampling method. However, it is not a probability sampling technique. This sampling method may cause sampling bias. This occurs when the sample collected is not representative of the population being studied, leading to skewed results and inaccurate conclusions because certain subgroups may be over- or underrepresented. This limits the generalizability of findings. In order to overcome this, the study used stratified sampling to allocate the target population into strata of the nineteen (19) stock brokerage firms at the NSE Kenya. In addition, the study used a proportional allocation method to obtain 385 respondents to reduce the bias further. The study used researcher's triangulation by allocating different brokerage firms to different researchers.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section considers the theoretical and empirical literature review underpinning the influence of retail investor profile on individual portfolio choice. As part of the literature review, this chapter focused on four theories in this study. The conceptual framework showed the hypothesized relationship between the independent variables, the moderating variable and the dependent variable. A critique of the existing literature, a summary of the reviewed literature, and research gaps is highlighted.

2.2 Theoretical Review

A theory is a systematic explanation of the relationship among phenomena. In this regard, theories provide a generalized explanation of an occurrence. A theory, therefore, is a reasoned statement or group of statements which are supported by evidence and meant to explain a phenomenon. Four key theories anchored in the current study are summarized namely risk aversion theory, modern portfolio theory, prospect theory and expected utility theory.

2.2.1 Risk Aversion Theory

Coricelli, Critchley, Joffily, O'Doherty, Sirigu and Dolan (Coricelli, et al., 2005) introduced the risk aversion theory, where they triggered feelings of regret in healthy participants by having them complete a gambling task in which they were informed that the best choice was not the chosen option. Risk aversion theory originated from widely accepted risk-aversion theories, including expected utility theory and prospect theory. Risk-aversion involves only indirectly, as a side effect of how outcomes are valued or how probabilities are judged (Simonsohn, 2009). Risk-aversion is a preference for a sure outcome over a gamble with higher or equal expected value. Conversely, the rejection of a sure thing in favour of a gamble of lower or equal expected value is known as risk-seeking behavior. Most theoretical analyses of risky

choices depict each option as a gamble that can yield various outcomes with different probabilities (Rottenstreich & Hsee, 2001). Risk aversion is an investor's general desire to avoid participation in risky behavior or, in this case, risky investments (Fischer, Jensen, Meekling, & Scholes, 1972). Risk aversion is the behavior of humans (especially consumers and investors) when exposed to uncertainty, to attempt to reduce that uncertainty. It is the reluctance of a person to accept a bargain with an uncertain payoff rather than another bargain with a more certain, but possibly lower, expected payoff. For example, a risk-averse investor might choose to put his or her money into a bank account with a low but guaranteed interest rate, rather than into a stock that may have high expected returns, but also involves a chance of losing value. Investors typically wish to maximize their return with the least amount of risk possible.

When faced with two investment opportunities with similar returns, a good investor will always choose the investment with the least risk, as there is no benefit of choosing a higher level of risk unless there is also an increased level of return. Insurance is a great example of investors' risk aversion. Given the potential for a car accident, an investor would rather pay for insurance and minimize the risk of a huge outlay in the event of an accident. This theory is in support of the current study, for it addresses the approach the investor faces when facing the condition of uncertainty. That is, one has to select carefully that asset which does not threaten the profitability of the individual investor. Therefore, it guides the investor to focus on those portfolios of assets that are characterized by enhancing individual portfolio returns and minimal risks through undertaking measures that mitigate the losses through some portfolio choice. Consequently, this was the main theory that this study relies on. In this regard, this study is largely driven by decision-making under risk.

2.2.2 Modern Portfolio Theory

The theory of modern portfolio theory (MPT) was established by Harry Markowitz in 1952, for which he was later awarded a Nobel Prize in economics. The basic portfolio model suggests that the variance of the rate of return is a significant measure of portfolio risk under a certain set of assumptions related to investor

behavior. Markowitz suggested that for one to choose profitable investments, it is not enough to look at the relationship between risk and return. Investors should not only focus on the significance of diversification to reduce the total portfolio risk, but also learn how they can effectively diversify. The basic assumption of the modern portfolio theory is that investors are rational, meaning that investors are willing to maximize their return on investment for a given level of risk. Investors are fundamentally risk-averse, which means that if they have to choose between two assets with equal rates of return, they are more likely to choose the asset with the lower level of risk (Markowitz, 1952). Markowitz further demonstrated that since investors are risk-averse, they need to combine assets into efficiently diversified portfolios. MPT assumes that portfolio risk can be reduced if investors focus on the variability of expected returns, and to achieve that, investors should pick assets that tend to have dissimilar price movements.

Modern portfolio theory suggests that the traditional approach to portfolio analysis, selection and management may well yield less than optimum results. In this regard, a more scientific approach is needed based on estimates of risk and return of the portfolio and the attitude of the investor toward a risk-return trade-off stemming from the analysis of the individual security (Fischer & Jordan, 1995). Investors make two types of decisions in constructing their portfolio: the asset allocation decisions are the choice among the broad asset classes, while security selection is the choice of which particular securities to hold within each asset class (Bodie, Kane & Marcus, 2023). Modern portfolio theory advocates that an investor should focus on reducing portfolio risks by choosing assets that are well diversified. Diversification in investing involves spreading investments across various investment assets to reduce correlation and mitigate risk. Risk tolerance is an individual's emotional threshold for accepting risk. Without proper diversification, a portfolio may be exposed to higher risk levels than what aligns with an individual's risk tolerance. Conversely, a well-diversified portfolio must also consider risk tolerance to ensure it is not overly conservative or overly aggressive in the eyes of the investor.

This theory may not be the most appropriate approach to measure risk-return aspects. Despite its theoretical importance, the question of whether it is an ideal investment tool is still unanswered because its model of financial markets does not match the real world in many ways. Firstly, the risk, return, and correlation measures used by MPT are based on expected values, which means that they are mathematical statements about the future (the expected value of returns is explicit in the equations used and implicit in the definitions of variance and covariance). In practice, investors must substitute predictions based on historical measurements of asset return and volatility for these values in the equations. More often than not, such expected values fail to take account of new circumstances that did not exist when the historical data were generated (Low & Faff, 2016). Secondly, investors are stuck with estimating key parameters from past market data because MPT attempts to model risk in terms of the likelihood of losses, but says nothing about why those losses might occur, and third, risk measurements used are probabilistic in nature, not structural. This is a major difference as compared to many engineering approaches to risk management, such as the Monte-Carlo simulation model.

Nevertheless, this theory is relevant to the current study for the specific objectives are to determine whether the identified independent variables positively influence individual portfolio choice through characteristics involving personal ability, confidence levels and third-party advice, such as seeking expert guidance from brokers and family members' opinions, as espoused using lifestyle characteristics.

2.2.3 Prospect Theory

Prospect theory is far-fetched, for expected value was one of the first theories of decision making under risk, hence forming the historical foundations from which prospect theory emerged. The expected value model failed in predicting outcomes in many instances because it was obvious that the value that a particular payoff held for someone was not always directly related to its precise monetary worth. Daniel Bernoulli was the first to see this contradiction and propose a framework for the way people make decisions when dealing with uncertainty, hence, a modification to the expected value notion in 1738 was made. Out of his analysis, Bernoulli proposed a

utility function to explain people's choice behavior. Bernoulli assumed that people tried to maximize their utility, and not their expected value.

Two centuries later, Von Neumann and Morgenstern revolutionized Bernoulli's expected utility theory by advancing the notion of revealed preferences. In developing an axiomatic theory of utility, von Neumann and Morgenstern turned Bernoulli's suppositions upside down and used preferences to derive utility. In Bernoulli's model, utility was used to define preference because people were assumed to prefer the option that presented the highest utility. In the von Neumann and Morgenstern model, utility describes preferences; knowing the utility of an option informs an observer of a player's preferences. Nevertheless, Von Neumann and Morgenstern's axioms do not determine an individual's preference ordering, but they impose certain constraints on the possible relationships between the individual's preferences.

As a result of this shortcoming of Von Neumann and Morgenstern's axioms models, the prospect theory was developed by Kahneman and Tversky (Kahneman & Tversky, 1979). The prospect theory value function is similar in character to that of the utility function. However, one of the major differences is that it evaluates changes in wealth relative to a reference point; note that they evaluate wealth states in absolute levels. Prospect theory further distinguishes two phases in the decision-making process: framing and editing, and then evaluation. Outcomes are framed in terms of gains or losses, which in turn affect the decisions being made and the evaluations of the outcomes. In the evaluation phase, framed prospects are then evaluated, such that the most valued prospect is chosen. People are asymmetric in their attitudes toward gains and losses. An important element in this respect is loss aversion: People feel losses more intensely than gains and overweight losses (by an estimated factor of 2.25, according to Kahneman & Tversky (1979) compared with gains of the same magnitude. The value function is therefore steeper in the loss domain. To avoid a loss or make losses less painful, people apply techniques such as hedonic editing (Thaler, 2015).

This theory underpins the current study for it suggests that the retail investor's motivation to invest in a particular asset is to gain utility or satisfaction. In this regard, investors take into consideration the satisfaction of the market situations like firms' reputation in the industry or contributions in social causes as espoused in investor's specific needs. The objective of focusing on the effect of investor's specific needs on individual portfolio choice instead of investor behavior will determine whether there is any satisfaction to the investor or not. The theory also appreciates that investors have diverse ways of approaching wealth maximization and therefore, this investment behavior may vary across the market, which is the case amongst NSE firm players.

2.2.4 Expected Utility Theory

The writers who introduced the concept of utility were Jeremy Bentham (1748-1832), Thomas Bayes (1702-1761), and Daniel Bernoulli (1700-1782). Jeremy Bentham, in his 1789 book Principles of Morals and Legislation, introduced the concept of utility. Jeremy Bentham believed that utility in terms of pleasure and pain could be measured numerically on a scale unique up to an affine transformation. One could use it and arithmetic to make interpersonal comparisons and to aggregate individual utilities into a social utility. The theory was further applied in mathematics and probability theory by Thomas Bayes. The concept of utility is central to the Bayesian School, which applies in statistics. Daniel Bernoulli also further invented the notion of utility as a concept in probability theory and gambling, distinct from money. Bernoulli had argued in this direction to prove that utility and money were not the same.

In 1947, Von Neumann and Morgenstern introduced expected utility theory in financial decision making. The theory was based on earlier work by Bernoulli (1738), and provides a normative model of rational choice under risk. Thus, people maximize their well-being (or utility), given their preferences and constraints, by aggregating the probability-weighted (wealth) outcomes, measured in terms of utility. Utilities are subjective and usually nonlinearly related to money amounts, as displayed in a utility function. People behave rationally if they make choices that

maximize their expected utility, so in this framework, economic agents are optimizers (i.e., maximizers, given their constraints). Generally speaking, the expected utility framework presupposes risk aversion. Those who prefer a certain outcome more than a gamble that provides at least the same expected payoff are risk-averse. To accept the gamble, these decision makers have to be compensated. Their risk attitude, induced by the curvature of the utility function, determines the degree of compensation they require. A concave function indicates risk aversion, and the more concave the function is, the more risk-averse the person is.

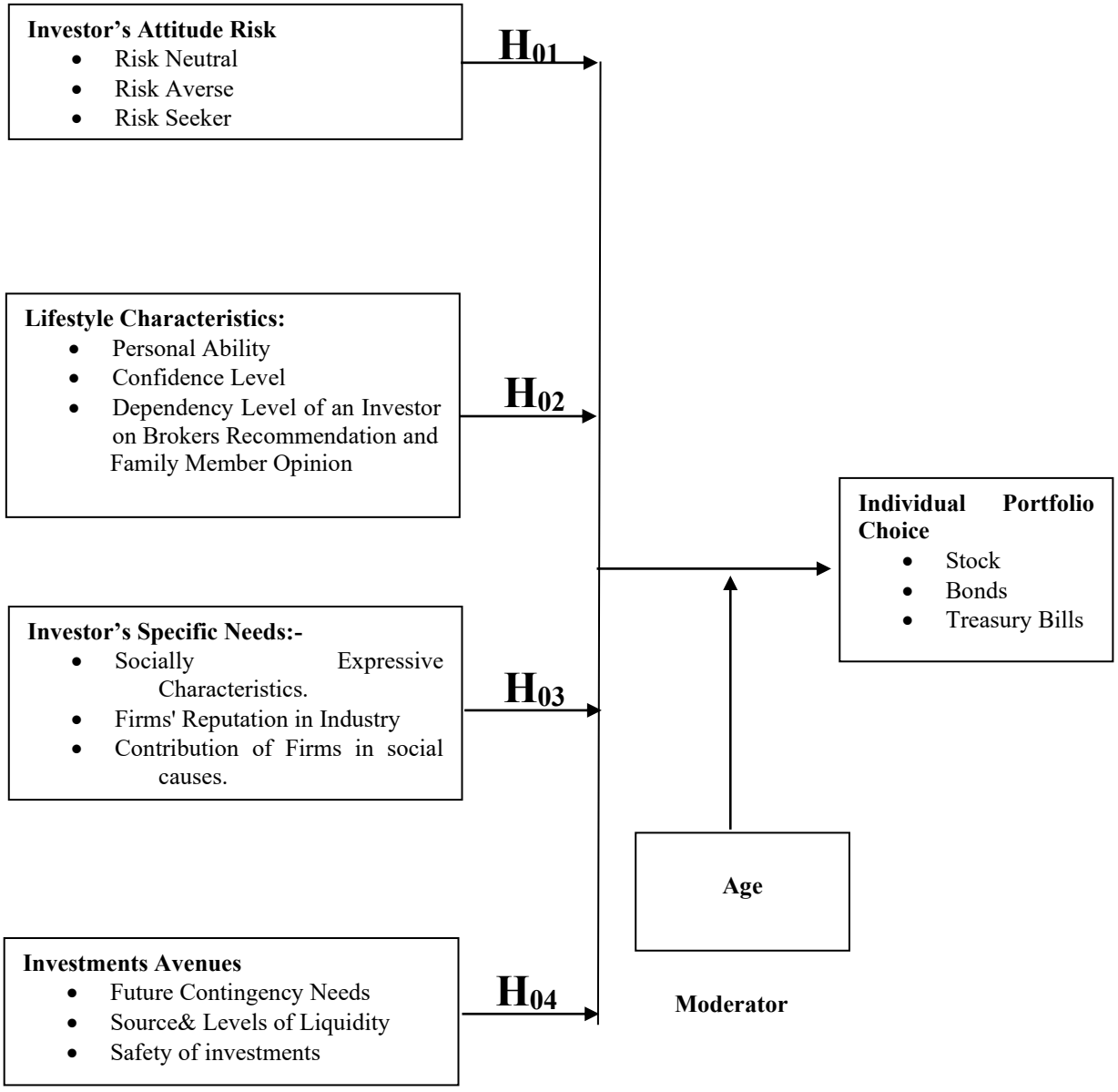
Empirical evidence indicates that a majority of people prefer to avoid risk and are prepared to take it only if they receive compensation. Expected utility rests on a set of assumptions (or axioms), such as comparability (or completeness), which means that agents have well-defined preferences and thus can rank all prospects; transitivity, such that preferences are consistent and invariant, which means that preferences are independent of the context (Copeland, Weston & Shastri, 2014). Critically, expected utility theory is a theory about how to make optimal decisions under risk. It has a normative interpretation which economists particularly used to think applies in all situations to rational agents, but this is not always the case. Also, in empirical applications, a number of violations have been shown to be systematic, and these falsifications have deepened understanding of how people actually decide. For example, Bernoulli's theory on the utility of wealth assumed that if two people have the same wealth, all other things being equal, the people should be equally happy, which is not practical (Kahneman & Tversky,1979). Bernoulli's theory thus lacked a reference point. Nevertheless, it remained a dominant theory for over 250 years.

Expected utility theory explains how an investor will allocate assets in order of gains expected, sources and levels of liquidity as well as safety of investments. This underpins the current study's argument that an investor considers investment avenues when making individual portfolio choices. Therefore, this theory is pertinent to the current study, which has an objective of assessing the effect of investor’s investment avenues on individual portfolio choice at the NSE.

2.3 Conceptual Framework

According to Mugenda and Mugenda (2019), a conceptual framework is a diagrammatical representation of the hypothesized relationship between the independent and dependent variables in a study. In the current study, the conceptual framework is based on the following independent variables: attitude towards risk, lifestyle characteristics, investor's specific needs and investor's investment avenues, which are assumed to have an influence on individual portfolio choice, the dependent variable. The researcher will use a moderating variable, namely, age, as the relationships are assumed to be non-linear. The assumed relationship between the variables is shown in Figure 2.1

Figure 2.1: Conceptual Framework



2.4 Empirical Review of the Variables

This section highlights the concept of retail investor profile, investor's age characteristics and individual portfolio choice. The study looked at past literature on retail investor profiles, the moderating effect of investor's age on individual portfolio

choice at NSE Kenya. The individual portfolio choice that this research chose was measured through trading by active retail investors on stocks, bonds and treasury bills at NSE. The section entails a critique of past empirical literature and a summary of the same, and finally highlights knowledge gaps thereof.

2.4.1 Retail Investor Profile and Individual Portfolio Choice

The dimensions of retail investor profile have been unpersuasive, as several studies have addressed it in dissimilar approaches (Huang & Guenther, 2024; Patil & Bagodi, 2021; Rakshitha & Reshmi, 2024), and (Saugat and Ritika, 2014). In addition, such studies have been bivariate.

The study (Huang & Guenther, 2024) averred that the disposition effect is one of the most prominent and widely studied behavioral biases observed among investors. The study, it describes the tendency to close out winning investments prematurely while holding on to losing ones for too long and is generally associated with reduced investment returns. The study asserts that researchers have explored various debiasing strategies and interventions to mitigate the disposition effect and its detrimental impact on returns. A sample of 132 participants in London, United Kingdom was used to test for information feedback on the examination of intervention impact. The results showed that the intervention had a significant impact, reducing the disposition effect in the first measurement (2 weeks), while significance was observed at the second measurement (3 months). It was found that a higher disposition effect was associated with lower returns for one measurement but opposite for the other. The study showed that intervention may be readily deployed among retail investors with a somewhat lasting impact to mitigate the disposition effect. Further, the study showed that the relationship between the disposition effect and investment returns is significant.

The study by Huang & Guenther (2024) only focused on disposition effect and investment returns. The current study will narrow the gap by finding out if there is a relationship between the disposition effect and individual portfolio choice. In addition, the studies assumed bivariate models. The current study adopted a multivariate model by evaluating the four aspects of retail investor profile, namely, attitude towards risk, lifestyle, investor's specific needs and investment avenues and

individual portfolio choice was measured through trading by active retail investors at NSE. The study incorporated the investor's age variable to test for the moderating effect.

Patil & Bagodi (2021) investigated the factors that influence the investors' investment decisions at the Indian stock market. The study noted that the understanding of the investors' behavior towards the Indian stock market by the policy makers, institutions, market infrastructure institutions, and companies was found to be challenging, necessitating the study. The participants comprised a scattered range of ages, income, profession, and education, and the majority were full-time traders with more than 10 years' experience. The research instrument consisted of 14 attributes that were sent to 2100 respondents through the snowball sampling method. 545 respondents duly filled and returned the questionnaire. After editing, the 467 questionnaires were analyzed. Information obtained was classified into "must be", "linear" and "delight" attributes. It was found out that "must be" attributes include conditions of financial statements, current economic indicators, and the result of technical analysis and "insider information" is a "delight" attribute. The study revealed that the factors are affecting the decision-making of investors. The consideration of factors for investment decision making is sector-specific and helps various parties in understanding the investment decision behavior of investors.

The study by Patil & Bagodi, (2021) was done for investors who are also policy makers, institutions, market infrastructure institutions, and companies. Further, the demographic characteristics of the participants were of diverse ages, incomes, professions and education background. The study ignored the retail investor profile factors and how they influence the individual portfolio choice. The current study did also looked at the moderating effect of age on the relationship between retail investor profile and the individual portfolio choice. This, therefore, narrows the gap.

The study by Saugat and Ritika (2014) sought to determine the relationship between the four demographic variables, namely, age, gender, education and occupation, with the four most important objectives of investment preferences on risk, return, retirement and tax, which influences the buying behavior of the investors in Guwahati region of India. The study used a descriptive research design. Secondary

data for investment avenues and the Indian economy were obtained from websites, books, journals and research papers. A sample size of 150 respondents was interviewed. Data was analyzed using SPSS and statistical tests using Mann-Whitney U test (to test the significance between factors of investment and gender) and Kruskal-Wall test (to test the significance between factors of investment with age, educational qualification and occupation) were considered. The study revealed that the various demographic variables have an association with the objectives of investment. Age and educational qualification were the most influential variables on the object of investment.

The study by Saugat and Ritika (2014) used demographic variables to gauge the investment preferences of investors in India. Further, the study was bivariate and done in developed and non- African developing economies with differences in regulations, cultural environment and nature of investors. This will then give dissimilar results. The current study was multivariate and seeks to establish the effect of retail investor profile on individual portfolio choice at NSE Kenya, with age moderating the variables..

2.4.2 Investor's Attitude towards risk and individual portfolio choice at the NSE

Investors' attitude towards risk is the individual's willingness to take risks and make financial investment decisions. It is the risk preference people hold towards risks (Bui, Quang & Wong 2021). Different people have different attitudes towards the risk-return tradeoff in any form of investment opportunity. As a result, investor's attitude towards risk is classified into three categories, namely: risk averse, risk seeker (risk lovers) and risk neutral. However, people gradually find that the investors' decision-making behavior in real life does not always comply with the assumption of rationality and their behaviors are usually limited by their own cognitive biases and external environment, leading to their risk preferences, which vary with different situations (Bui, Quang & Wong 2021).

According to Saivasan & Lokhande (2022), standard models in economics assume that individuals are endowed with stable risk attitudes. On the other hand, Standard financial theory assumes that investors are rational, hence when making investment decisions, they tend to have invariant risk preferences. As pertains to investment

returns and investor's attitude towards risk, (Kahneman & Tversky, 1979) describe some prominent psychological traits of investors in their decision-making under uncertainty. They opine that individuals tend to be risk-averse with gain and risk-seeking with loss.

In the study by Boobalan & Selvavinayagam (2019) it was to establish the investors' attitude towards risk and return on investments in urban, semi-urban and rural areas of Shimla in India. The study used demographic characteristics of the respondents, namely age, gender, marital status, education, occupation, income and domicile. It used a descriptive research design to collect the data. The sampling technique adopted was random sampling, and a sample size of 150 respondents was selected for the study. Primary data was collected through an online survey, and secondary data was collected from websites, printed material and books. During the period from September 2018 to January 2019, the tools used were simple percentage, correlation and t-test. The research findings revealed that there is a significant association between Investor's attitude and investment decisions based on investment experience, risk capability of investors, duration of investment and planning habits. Experienced individual with a positive attitude towards investment prefers to invest money for a long period of time, may take risks and prepare for long-term plans.

The study (Boobalan & Selvavinayagam, 2019) assessed the investor's attitude towards risk on return of investments using demographic characteristics of the investors. The study did not include non-demographic characteristics as part of the control variables. In addition, the study was bivariate. The study would therefore give dissimilar findings. This study will interrogate the influence of attitude towards risk on individual portfolio choice, which is measured through trading by active retail investors on stocks, bonds and treasury bills at NSE Kenya. Further, this study will be multivariate and therefore consider the moderating effect of age on the relationship between the broader retail investor profile and individual portfolio choice at NSE.

In the study by Dickason & Ferreira (2018) whose objective was to establish which behavioral finance biases are associated with a certain level of risk tolerance and investor personality in South Africa. The study aimed to indicate how these

behavioral finance biases can influence investment decisions. A structured questionnaire was used to collect the data. A random sampling method was used, where 1171 respondents participated in the study. Descriptive statistics and correlational analysis were used to analyze the data. The results showed that investors with a low-risk tolerance level and a conservative investor personality are subject towards loss aversion and mental accounting biases. On the other hand, investors with high risk tolerance are mostly subjected towards the self-control biases. The significance of the study was that it would enable investment companies to more accurately profile their investors to offer more refined investment options.

The study by Dickason & Ferreira (2018) established the type of behavioral finance biases that were associated with certain levels of risk tolerance and investor personality in South Africa, which was noted to be a different jurisdiction with a different cultural environment and nature of investors. Further, the study was bivariate. However, this study was to assess the effect of attitude towards risk, in particular, risk averse, risk neutral and risk seekers on individual portfolio choice at NSE, Kenya. The findings would be dissimilar, but the gap would be narrowed.

An individual's attitude towards risk is often measured by their behavioral tendency in risky situations. In the studies by Shou and Olney (2020) (Shou & Olney, 2020) on the extent to which participants perceive behavioral tendency items as entailing uncertainty or risk (as loss) and how behavioral tendency can be influenced by prior knowledge. Results indicate that endorsement of behavioral tendency was significantly greater when "risk" information was implicit when compared with items that had explicit information to contextualize the uncertainty or risk. Furthermore, prior knowledge had a significantly stronger influence on the explicit uncertainty/ risk items. Finally, Uncertainty and risk in the items appeared to influence behavioral tendency significantly via emotional responses to the items.

(Rekha & Yashaswini, 2019) also carried out a study on investor's attitude towards investment decisions in the equity market in Karnataka, India. The study concentrates on investors' attitude towards investment decisions in the equity market and their risk-bearing attitude based on their gender, age, income, education and occupation. Therefore, the specific objectives were: to identify investor's attitude

towards equity investment and to analyze various factors influencing equity investment. The study considered a data collection approach of using secondary sources like journals, books and paper presentations, research articles on equity investors and other related topics and various websites. The research findings portrayed that the stock market has a different attitude towards risk and returns, where some investors are risk bearers, and some are risk avoiders. This risk-bearing attitude will be based on personal, economic, environment and situational factors such as income, family size, expenditure pattern and age. Investors tend to follow different investment attitudes as they move through different stages of the life cycle. It was therefore concluded that, based on their investing style, investors are classified as conservative, moderate and Aggressive. Conservative investors avoid risk, moderate investors have a medium risk tolerance, and aggressive investors take high risk in their investments. The aspect of individual portfolio choice that this research chose to measure through trading by active retail investors on stocks or bonds at NSE was lacking in the study. Therefore, given those various debates by the diverse authors as aforementioned, there is need to demarcate the three classes of investors based by the three risk profiles and investigate whether these diversities in risk attitude may predict individual portfolio choice.

The past studies reviewed pertaining investors' attitude towards risk were mostly bivariate, whereby the aspect of attitude towards risk was considered from the general perspective. For instance, in the study of Boobalan and Selvavinayagam (2019), the focus was on knowing the investor's attitude towards investment and decision making, the study established that there is a significant association between investor's attitude and investment decisions based on experience and duration of investment. The studies did not put much emphasis on the diverse risk profile perspectives of the investor towards risks such as risk-averse, neutral and risk-seeking aspects. Also, in the study of (Saivasan & Lokhande, 2022), (Boobalan and Selvavinayagam, 2019), (Dickason & Ferreira, 2018) and (Rekha and Yashwini, 2019). The focus on investors' attitude towards risk was in general terms, and it is not possible to incorporate investigative questions into the three categories of investors, namely risk-averse, risk-neutral and risk-seekers.

2.4.3 Lifestyle Characteristics and Individual Portfolio Choice at the Nairobi Securities Exchange

The intermediaries and capital market operators need to know the lifestyle of investors to design better instruments so as to be successful. The lifestyle of investors can be determined by studying the activities, interests, and opinions of investors. Investor's lifestyle characteristics have assumed diversified approaches depending on different researchers in past studies. There has been no universally accepted operationalization of this variable.

For instance, the research by Thuy & Ngoc (2021) explored the behavioral characteristics influencing risk preferences and investment decisions of Vietnamese individual investors. The study utilized a sample of 321 investors and potential investors on the big five personality scales and the cognitive reflection test constructs. The data was collected and analyzed using SPSS and tested for Cronbach's Alpha, explanatory Factor analysis, regression analysis and one-way ANOVA with post hoc test in Bonferroni correction. The results obtained were that neuroticism, extraversion, and conscientiousness were found to have a significant direct influence on risk aversion, while agreeableness and openness to experience have an inverse relationship with risk aversion. Performance in the Cognitive Reflection Test does provide evidence on risk preference, the relationship of which is non-linear. Risk aversion negatively affects investment decisions. In this regard, the awareness of the influence of specific traits influential to decision making would help financial planners tailor products more effectively to cater for the understanding and lifestyle of investors.

The study by (Thuy & Ngoc, 2021) focused on the behavioral characteristics influencing risk preferences and investment decisions, but did not demonstrate the level of performance of such securities per individual investor. Again, the study was silent on the type of securities the investors invested in. This study aims at determining the influence of lifestyle characteristics of the investor with specific focus on personal ability, confidence level and after getting opinion from family, friends and broker's recommendation. By use of a composite score for lifestyle

characteristics, the `study will establish the influence of this explainer on individual portfolio choice at the NSE.

The study by Dang, P. (2024) explored the impact of social influence on investment decisions, drawing on social contagion theory, behavioral finance theory, and information cascade theory. The research examined how social media, peer pressure, and expert opinions shape investment behavior among individual investors in Vietnum. A sample size of 368 individual investors was analyzed using Partial Least Squares Structural Equation Model (PLS-SEM) and fuzzy-set Qualitative Comparative Analysis (fsQCA), revealing a significant direct effect of social influences moderated by investment self-efficacy and risk perception. Notably, novice investors were more susceptible to peer pressure and social media, while experienced investors relied heavily on expert advice. The practical findings of the study highlighted the need for investment platforms to provide tailored decision-support tools, financial advisors to enhance investors' self-efficacy and regulators to address misinformation risks in digital platforms.

Whereas the study by Dang, P. (2024) looked at the influence of social media vis-à-vis investor efficacy in decision making, the focus on the influence of lifestyle characteristics of investors on portfolio choice was lacking in the study. The current study will incorporate the cause-and-effect perspective between lifestyle characteristics and individual portfolio choice. With more emphasis on the personal ability to decide on which securities to invest in, the confidence level and the level of dependency on experts or family members and whether such predictors significantly influence individual portfolio choice.

The study by Rokhmawati, Ftri, & Oktavia (2024) was aimed at examining the roles of young adults' lifestyles in moderating the relationship between financial knowledge and attitude and their management behavior towards money. The study drew a sample of 400 young adults in Pekanbura, Indonesia, selected using purposive sampling. Moderating regression analysis with the Structural Equation Model was employed to analyze the data. The results showed that lifestyle significantly moderates the effect of financial knowledge and attitude on financial management behavior. Lifestyle strengthens the relationships. Furthermore, financial knowledge,

attitude, and lifestyle positively and significantly affect young adults' management behavior towards money. The study concluded that young adults must make prudent and smart financial decisions based on their financial knowledge, attitude, and lifestyle to attain financial well-being. The findings imply that financial knowledge should become compulsory literacy for students to deal with the trending consumerism lifestyle to build their management behavior.

There is a knowledge gap to find out whether such investor lifestyle characteristics is a variable rather than a moderator and are valuable to the investor by incorporating the individual portfolio choice perspective. This study will delineate investor lifestyle characteristics and investor behavior and instead determine how the lifestyle characteristics influence individual portfolio choice. This objective will be achieved by classifying investor lifestyle as personal ability, confidence level, and dependency level of an investor, either from brokers' recommendation, family member opinion and/or friend/customer opinion.

In Rwanda, a study was undertaken to establish the effect of self-attribution bias on investment at the Rwanda Stock Exchange. The study used a cross-sectional descriptive survey research design to ascertain and establish the effect of behavioral biases on investment in the Rwanda stock exchange. The target population comprised of 13,543 individual, group investors at the Rwanda Stock Exchange. Random sampling was used where the targeted population was individual investors to finally obtain a sample of 374 respondents. A structured questionnaire was used to collect the primary data. A pilot test was undertaken by carrying out a small-scale trial run of the research instrument. Data analysis involved the use of descriptive and inferential statistics. A Linear regression model was used to predict the probability of different possible outcomes of dependent variables, helping to predict the probability of an investor investing in RSE. The results confirmed that there was a significant positive linear relationship between self-attribution bias and Investment in the Rwanda stock market. The study also concluded that most investors suffered from self-attribution bias in investment in stock markets. The study recommended that investors be keen to identify such bias to increase their rationality in stock trading. Further, the study was on self-attribution biases on investment in RSE. This was a

disposition effect where investors tend to sell winning stocks too early and hold onto losing stocks for far too long. Such irrational behavior influences and can negatively impact overall portfolio performance. The study was bivariate. This study builds on (Niyoyita, Muturi, & Memba, 2018) and focuses on the medium- and long-term portfolio choices by assessing the effect of investor lifestyle characteristics on individual portfolio choice at NSE. It would also mitigate the disposition effect of impulsive decisions driven by fear or greed.

2.4.4 Investor's Specific Needs and Individual Portfolio Choice at the Nairobi Securities Exchange

Studies by (Fan & Neupane, 2024), (Koskei, Tibbs, & RuttoR, 2025) and (Kano, Muradoglu, & Olukuru, 2025), examined the factors that determine investor behavior using dissimilar criteria such as demographic, socioeconomic, lifestyle and market factors. Although those studies considered similar factors, their research findings were not congruent.

The study by Fan & Neupane (2024) examined the disposition effect among different categories of foreign institutional investors in the context of emerging markets in India. The disposition effect is characterized by the tendency to sell winning assets too soon and hold onto losing assets or far too long. It was noted that foreign institutional investors (FIIs) play a crucial role by providing essential capital, especially where there is liquidity constraints and limited international funding exists. The study was conducted on all the individual trades' data from January 2003 to December 2016, thus constituting the sample size. The respondents were the foreign institutional investors. The researchers used granular trade–level data to collect the data. Data was analyzed using survival analysis and, in particular utilized the Cox proportional hazard model with daily trade and daily return data on each FIIs on a yearly basis. The results showed that short-term investors are more prone to the disposition effect. Secondly, long-term investors were more prone to the disposition effect. Finally, experience indicated by cumulative years in the market and the volume of stocks traded, mitigates the disposition effect but only among the foreign institutional investors. The findings of the study suggest that accounting for

heterogeneity in institutional investors rather than treating them as a whole is important for a better understanding of financial markets.

The study by Fan & Neupane (2024) examined the disposition effect among foreign institutional investors and ignored the local individual investors; the current study will interrogate the disposition effect in the context of the reputation of firms in the industry, as well as the contribution of firms in social causes at NSE Kenya. Further, it will consider the mitigating effect to counteract the psychological biases.

Koskei, Tibbs & Rutto (2025) examined the effect of behavioral biases, risk tolerance, and investment decisions among NSE investors in Kenya. By exploring the mediating role of risk tolerance, the study provided a deeper understanding of psychological drivers influencing investment behavior, offering valuable insights for investors, financial advisors, policy makers and regulators. The research utilized casual research design and used the population of all the companies trading at the NSE as of 31st December 2022. The data obtained was for the period 2012 to 2022. The data was analyzed using a panel data regression model. The results concluded that overconfidence bias would result in a significant increase in investment decisions of NSE investors in Kenya. Therefore, overconfidence bias has significantly affected the investment decisions of NSE investors. The study by (Koskei, Tibbs & Rutto, 2025) examined the effect of behavioral biases, risk tolerance and investment decisions, an aspect of investor-specific needs. The study used companies trading at NSE as a unit of analysis, while this study used active retail investors at NSE. Therefore, there exists a research gap to find out the extent to which active retail investors influence the individual portfolio choices for future investment decisions. There was a need to investigate the investor's specific needs, that an investor has such as socially expressive characteristics, firms' reputation in the industry and contribution of firms in social causes and their implication on individual portfolio choice at the NSE. This study focused on the same using a composite score for investor's specific needs.

The study by Kano, Muradoglu & Olukuru (2025), assessed the group versus individual behavior and disposition effect at NSE. Those that traded as groups traded jointly as investment groups. A disposition effect is characterized by the tendency to

sell winning assets too soon and hold onto losing assets for too long. The study used a proprietary database from the Central Depository Settlement Corporation. The data was from all the retail equity transactions from 2016. The results showed that group investors exhibit a significantly lower disposition effect than individual investors. Further, disposition effect increases with frequency of trade and reduces with age. The disposition effect, being an aspect of specific needs, ignored the effect of investor's specific needs related facets, namely, socially expressive characteristics, firms' reputation in industry and contribution of firms in social causes and their implication on individual portfolio choice at the NSE. The current study intended to fill the gap.

(Jagongo and Mutswenje, 2014) in their study sought to establish the factors influencing investment decisions at the Nairobi Securities Exchange. The study was conducted on the 42 respondents who constituted the sample size. The researchers used a structured questionnaire to collect data that was personally administered to the respondents. The respondents were the individual investors. Data was analyzed using frequencies, mean scores, standard deviations, percentages, Friedman's test and FA techniques. The researcher confirmed that there seems to be a certain degree of correlation between the factors that behavioral finance theory and previous empirical evidence identify as the drivers of the average equity investor.

The researcher in the aforementioned study by Jagongo & Mutswenje (2014) found out that the most important factors that influence individual investor decisions at the NSE 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. Their study focused much on economic factors that modelled the investor character during asset selection. This was a one-dimensional perspective, and the investor being surrounded by both social, economic and cultural/religious environment, this should have been captured in determining the investor behavior. In addition, the result of diverse investor behavior needs to be seen to carry some weight as far as the gain/loss outcome is concerned. Therefore, there exists a research gap to find out the extent to which those factors influence the individual portfolio choices for future investment

decisions. More so, the study should have focused on the social-religious and economic factors. To achieve this objective, there is a need to investigate investor's specific needs, that an investor has such as socially expressive characteristics, firms' reputation in the industry and contribution of firms in social causes and their implication on individual portfolio choice at the NSE. This study will focus on the same using a composite score for investor's specific needs.

. In conclusion, this study will further interrogate the influence of those factors on the individual portfolio choice that is measured through trading by active retail investors on stocks or bonds at the NSE. In conclusion, past studies in this sub-section focused on various factors that influence the retail investor's behavior which are common to all investing populations in various countries. If those factors influence investor decisions in the same way across countries, a further interrogation on those factors is necessary to establish if they have a correlation with individual portfolio choice.

2.4.5 Investment Avenues and Individual Portfolio Choice at the Nairobi Securities Exchange

Despite the longstanding and widespread financial advice to hold well-diversified portfolios, several studies have found that many individual investors trade in diverse ways, hence influencing the level of their liquidity and portfolio performance (Chaturvedi, 2022). Investment Avenues management means enabling the investment portfolio to one, stay within its targeted asset allocation bands and two, be able to meet cash flow obligations as and when they fall due, without incurring unacceptable losses. If there are mismatches between the maturity of the non-profit's investments and its scheduled cash outflows, then the portfolio is exposed to a potential liquidity risk (Solanki & Saini, 2025).

(Solanki & Saini, 2025) examined investor awareness and perception of contemporary investment avenues, including systematic investment plans, exchange-traded funds, and real estate lending. investment trusts, digital gold, cryptocurrencies, peer-to-peer, and robo-advisory platforms. Primary data was collected from 150 respondents in Jaipur, India, using structured questionnaires based on a 5-point Likert scale. Data was analyzed with SPSS using descriptive statistics, correlation, t-test, ANOVA, and multiple regression. The results showed that awareness levels are

moderate, with systematic investment plans, digital gold, and cryptocurrencies being the most familiar, while real estate, investment trusts, peer-to-peer lending, and robo-advisory platforms remain less known. Respondents expressed high expectations of returns and strong acceptance of digital convenience, but also reported concerns about risk and regulatory trust. Correlation analysis indicated that adoption, trust, and digital convenience were negatively related to risk concerns. ANOVA confirmed significant age differences in awareness, with mid-aged investors (26-45 years) scoring higher than younger groups. Regression analysis explained 55% of the variance in adoption intention, highlighting awareness, expected returns, trust, and digital convenience as positive predictors, while risk and age reduced adoption likelihood. In summary, investors are gradually becoming aware of contemporary investment avenues, but awareness was uneven across different products. Further, younger and middle-aged investors showed greater openness towards these avenues compared to older groups, who remained more conservative.

The research by Solanki & Saini (2025) was to test the influence of selected demographic and behavioral factors towards contemporary investment avenues in India. It is considered not only an investment avenue but also a dependent variable. Further, the study included the five demographic variables, namely age, education, gender, income and occupation, in the awareness and perception of investment avenues. In addition, the study was done in other jurisdictions where financial products did not include SACCOs, merry–go–rounds, or co-operative societies. The study failed to demonstrate whether such additional factors influence the study or even the individual portfolio choice. The current study, however, had investment avenues as an independent variable alongside attitude towards risk, lifestyle characteristics and investor's specific needs on individual portfolio choice at NSE Kenya. The current study, therefore, narrows the gap in the area of study with respect to investment avenues as well as the moderating effect of age on the relationship between retail investor profile and individual portfolio choice.

The study by Ong'era and Nasution (2021) analyzed the behavioral factors influencing the investment performance of individual investors at NSE Kenya. Specifically, it was to assess whether herding, prospect (loss aversion, heuristic

(availability bias & overconfidence) and investment decision are significantly correlated with each other at NSE. Also, to establish whether herding, prospect, prospect (loss aversion, heuristic (availability bias & overconfidence), prospect (loss aversion, heuristic (availability bias & overconfidence) combined significantly influence investment performance at NSE Kenya. Ordinarily, investment decisions are influenced by various behavioural factors. The assumption is that herding, prospecting, and heuristics influence personal investment decisions among investors in the stock market. The study used a survey research design. The target population was 1,196,996 individual investors at NSE, and Slovin's formula was used to arrive at an estimated size of 400 despondences. A structured questionnaire was used to collect the primary data. The results showed that loss aversion and overconfidence behavior were displayed by the individual investors at a high level.

The use of money market funds, automated savings and setting of goals are associated with future contingency needs. It was expected that the use of money market funds combats loss aversion or overconfidence, while the use of automated savings reduces herding effects and prospect biases. In the study by Ong'era and Nasution (2021), explored the behavioral factors influencing individual investors' decisions namely loss aversion and overconfidence behavior that was displayed by the individual investors at a high level. The study, however, did not investigate the effect of investment avenues on individual portfolio choice at NSE Kenya. Therefore, there exists a conceptual gap in how to gauge individual portfolio choice. The current study will incorporate Holding Period Return (HPR) for the assets invested in by the individual investor, which is expressed as the ratio of the ending value to the beginning value of the investment. This approach helps in expressing the change in value of an investment after the end of a particular period (Reilly & Brown, 2024).

(Rehman, Finance, Ali and Ahmad, 2025), investigated the role of investor psychology, heuristics, and cognitive biases in contributing to stock market anomalies and irrational Investment choices. The study adopted a mixed-methods approach as it combined responses from 400 investor surveys with qualitative interviews of 15 financial experts. The results showed that overconfidence and herd

behavior have a particularly strong negative impact on investment decisions, while anchoring and loss aversion also significantly influence market outcomes. Statistical analysis and regression modelling showed how these biases contributed to inefficiencies such as momentum effects and mispricing of securities. Qualitative insights further emphasized that emotional decision-making and media-driven panic are recurring barriers to rational investing. The study suggested that implementing investor education initiatives, utilizing robo-advisors and applying behavioral commitment strategies as potential solutions to mitigate bias-influenced decisions. By integrating behavioral insights with quantitative analysis, the study underscored the critical role of psychology in financial markets and other practical tools for promoting rational decision making and enhancing market stability.

The Study by Rehman, Finance, Ali, & Ahmad (2025), focused on the influence of psychology, heuristics and biases on stock market anomalies and investment decisions. However, the study ignored the influence of future contingent needs, sources and levels of liquidity and safety of investments on the individual portfolio choice. This study aims to narrow the gap by establishing whether investment avenues of an investor are associated to individual portfolio choice at the Nairobi Securities Exchange. In behavioral finance, it is assumed that information structure and the features of market place contributors systematically to individual investors' decisions in addition to market outcomes.

The study by Chaturvedi (2022) attempted to find the role behavioral finance in investment decision-making. A descriptive research design was used to collect the data using questionnaires. A sample of 100 respondents, 50 for the service class and 50 for the business class utilizing convenience sampling method. Independent t-test as well as Levine's test were used in the analyses of the data on herding behavior, prospect factors, anchoring bias, overconfidence bias, over and under reactions and market factors. The independent t-test was performed to test the hypothesis. The results depicted that there was a significant difference in the means of overconfidence bias of service class and business class investors of Rajasthan, India. Otherwise, no difference was observed in the herd behavior, prospect factors, anchoring bias, and overreaction and under reactions and market factors of service

and business class. The study revealed that investors invest in different investment avenues to fulfil financial, social, and psychological needs. While selecting any financial avenue, they also expect other types of benefits like safety and security, getting periodical returns or dividends, high capital gain, secured future, liquidity, easy purchase, tax benefit and meeting future contingency.

The study by Chaturvedi (2022) was anchored on investment decision-making. The current study will focus on investment avenues of the investor and regress its composite values against the individual portfolio choice scores. To achieve this objective, the current study will establish the extent to which investor's investment avenues related facets, namely, future contingent needs, sources and level of liquidity and safety of investments influence the individual portfolio choice at NSE.

(Bairagi & Rastogi, 2013) gauged the awareness and preferences of investors of Pune for different investment avenues available and analyzed the factors that influence their perception and preferences. Another objective of the study was to analyze the relation between awareness and socio-economic factors relating to the investors. A sample of 526 respondents, most of them belonging to the households of Pune city, was utilized. The authors focused on identifying the level of awareness of investors about various investment avenues and were asked to rank the investment avenues in terms of the level of their awareness. Convenient sampling and simple random procedures were used to select the respondents. Weighted average scores were used to analyze the data. Bank deposits were rated as the highest preference, followed by small savings schemes, and insurance was the third preferred investment. Safety of investment was found to be the major objective of investment.

The ranking in the study of Bairagi and Rastogi (2013) implies the order of liquidity levels in each investment opportunity. There is a need for further investigation to find out if liquidity factors are factored in by the retail investors. The current study will focus on investment avenues of the investor and regress its composite values against the individual portfolio choice scores. To achieve this objective, the current study will establish the extent to which investor's investment avenues related facets, namely, future contingent needs, sources and level of liquidity and safety of investments influence the individual portfolio.

2.4.6 Investor's Age and Individual Portfolio Choice at the Nairobi Securities Exchange

Behavioral finance literature has endeavored to examine whether investor's age influences investor behavior with less focus on whether it influences individual portfolio choice. However, researchers have used diverse conceptual approaches with the purpose of achieving their objectives. The current study will focus on the moderating effect of investor's age on the relationship between retail investor profile and individual portfolio choice, whereby age will be a composite score of values obtained from the age bracket over which retail investors have control.

The study by Rakshitha & Reshmi (2024) investigated how individuals' investment decisions satisfy them, specifically the age factor from Bangalore, India. Secondary data was collected from various research papers, articles, relevant books and industry reports. The sample consisted of 100 respondents, and responses were collected using a convenience sampling technique via an online questionnaire. The study used a Likert scale and a structured questionnaire with 40 questions for data collection and analyzed using correlation, regression analyses and ANOVA for hypothesis testing. The correlation showed that as investor perception improves satisfaction. The results showed that the investment decisions of different people differ significantly based on age, both between age groups and among age groups.

While the study (Rakshitha & Reshmi, 2024) investigated how individuals of different ages in Bangalore, India, made investment decision choices that satisfy them. A further investigation was necessary to establish how age moderates the relationship between retail investor profile and individual portfolio choice at NSE, Kenya. The study narrows the knowledge gap. The current study will further consider other investor profile aspects such as attitude towards risk, lifestyle characteristics, investor's specific needs and investor's investment avenues to establish the extent to which they influence individual portfolio choice.

(Biswas & Hazra, 2023) analyzed the effect of demographic factors on individual investor behavior of the population of five divisions Comprising twenty-three districts in West Bengal and India. Primary data was collected through a questionnaire, while secondary data was collected from journals, publications,

articles published, other research papers, and economic and financial publications through an online survey of investors. The sample size was 2938 respondents. In the analysis, the mode of decision making was own initiative, expert opinion, other while investment option was Government investment, both Government and private. Further, the analysis was based on age, gender, marital status and the number of children. The results showed that expert opinion, specifically considering a private investment, is most lucrative among all ages. Males were more likely to invest in the private sector compared to females.

The study by Biswas & Hazra (2023) was bivariate and considered age as an independent variable, while the current study was multivariate and considered age as a moderator. This study will investigate the effect of other investor profile aspects such as attitude towards risk, lifestyle characteristics, investor's specific needs and investor's investment avenues to establish the extent to which they influence individual portfolio choice.

The study by Siratan, Tannia, Sosilo, & Dewi (2024) was undertaken on the influence of behavior finance and demographic factors on investment decision-making through risk tolerance as mediation. The factors that influence investment decision-making were noted to include demographic factors, behavior finance, and risk tolerance. The type of research was quantitative, with a population being all capital market investors who invested in shares at the Indonesia Stock Exchange (IDX). The sampling technique used was purposive sampling. Further, the data was measured using AMOS Version 24, involving validity tests, reliability tests and hypothesis tests. The results showed that demographic factors have an influence that causes specific behavior and tolerance thresholds related to risk, which in turn affect performance and optimization in investment decision-making. Further, the role of risk tolerance also shapes behavior patterns and planning processes related to finance, which are described in risk acceptance. Hence, the emergence of identified investor behavior will later make opportunities for momentum and investment strategies that improve the performance and success of their investments as well as the quality of decision making.

The study by Siratan, Tannia, Sosilo & Dewi, (2024) examined the influence of behavioral finance and demographic factors on investment decisions through risk tolerance as a mediator. The demographic factors were general, while this study assessed the effect of age, a specific demographic factor, on the relationship between retail investor's profiles and individual portfolio choice at NSE and therefore demonstrates its influence on the individual portfolio choice.

Tsiaplias, Zeng, & Lim (2023) studied the relationship between beliefs about risk and returns and stock market intentions of retail equity investors regarding holding, buying and selling. The sample size was 23000 respondents from Australia. The results showed that investors' intentions regarding buying or selling are primarily characterized by risk and return expectations, but sensitivity to their beliefs about risk and return is greater for the intention to sell than to buy. In contrast, demographic factors such as gender, income and age play a key role in the decision to hold rather than trade. The results have significant ramifications for stock market participation and trading intensity of Australia's retail investors, particularly for women.

The study by Tsiaplias, Zeng, & Lim (Tsiaplias, Zeng, & Lim, 2023) looked at the relationship between beliefs about risk and returns and stock market intentions of retail equity investors regarding holding, buying and selling. The study was bivariate, and the retail investors were not itemized into attitude towards risk, lifestyle characteristics, investor's specific needs and investor's investment avenues. There exists a research gap to establish the extent to which diverse retail investor profiles influence individual portfolio choice. The current study will consider the moderating effect of age on the relationship between retail investor profile and individual portfolio choice.

Further research is necessary to establish whether demographic characteristics influence individual portfolio choice. The current study will consider the moderating effect of age on the relationship between retail investor profile and individual portfolio choice. Whereby the focus will be on demographic characteristics, namely, age brackets and marital status, a composite score will be used.

2.4.7 Individual Portfolio Choice.

Individual portfolio choice is the result of the process of investing one's funds in different investment opportunities, asset classes and markets that have low, negative, positive or possibly no correlation between their choices, which will earn the total return over time that one needs (Reilly & Brown, 2024). It involves selecting a mix of assets to maximize expected returns based on risk, tolerance, goals and time horizons. Decisions could be influenced by age, financial knowledge and behavioural biases.

In the study by Chue, (2025), Chue investigated the effect of external habit persistence on individual portfolio choice in the US. The results of the study showed that a common form of external habit persistence, despite having much success in asset pricing, implies an extreme degree of conformity in investor portfolio choice. In this respect, the paper asserted that if an investor with such a utility function uses the US aggregate consumption as her external habit benchmark, she has to hold all non-redundant securities contained in the US aggregate wealth portfolio. Further, if the markets are incomplete, even if an individual investor holds a financial portfolio that conforms perfectly with that associated with the external habit benchmark, it is still impossible for the investor to ensure that consumption exceeds habit in all states of the world. Therefore, external habit is unlikely to describe the preferences of individual investors.

The study by Chue, (2025), which investigated the effect of external habit persistence on individual portfolio choice in the US, held that external habit, being a form of behavioural bias, is unlikely to describe the preferences of individual investors. The study did not incorporate a retail investor profile in its study, which the current study seeks to establish. Further, the study was done in the United States of America, a developed country. This study was to fill the gap and bring in the local facet.

In the study by Grant, Kwon & Satchell, (Grant, Kwon, & Satchell, 2025), the portfolio construction issues for a "mental accountant", who exhibits an S- shaped utility function with loss aversion and narrowly frames their asset allocation

decisions. The data on prices, volumes and shares covered the period January 2007 to December 2019. The paper then argued that the presence of narrow framing does not circumvent the existence of a budget constraint, and explicitly incorporated this into the investor's portfolio selection problem. The findings indicate that the mental accountant operates similarly to a high conviction investor, leading to a time-series momentum approach to investment. In this respect, an accountant tends to ignore asset covariances, except through her budget constraints. The study (Grant, Kwon & Satchell, 2025), considered narrow framing and loss aversion on portfolio choice. The paper not only ignored the broader attitude towards risk but also individual portfolio choice perspectives. The current study narrows the gap in the dependent variable.

In the study by Konig & longmuir (Konig & Longmuir, 2021), it was well-understood that background risk, overwhelmingly due to wage risk, is one of the central determinants of individual portfolio composition: higher background risk reduces risk investments. However, if background risk is negatively correlated with financial market risk, higher background risk implies more risky investments. The paper quantified the influence of wage risk on German investors' financial portfolio shares and found out that an increase of the residual variance of wage by one standard deviation implies a reduction of the financial portfolio share by 3 percentage points, but the correlation of wage risk with financial market risk has no significant impact on portfolio choice and provides evidence that this may be due to a lack of salience.

The study (Konig & Longmuir, 2021) investigated wage risk on portfolio choice in Germany. The paper was limited to waged investors and generalised the risk. The current study widened the scope to include other variables in the retail investor profile, as well as gave the local perspective that was missing.

2.5 Critique of Existing Literature

Past studies focused mainly on the investor behaviour in determining asset selection, but ignored the individual portfolio choice. This approach resulted in unreliable outcomes, for it was not possible to link the investor profile and the individual portfolio choice. For instance, (Solanki & Saini, 2025), (Chaturvedi, 2022), and

(Siratan, Tannia, Sosilo & Dewi, 2024) focused on demographic and socioeconomic factors and how they influenced investor behaviour. The studies assumed individual portfolio choice to be constant, and yet one main aim of investors engaging their financial resources is to increase their wealth.

Most of the past literature was bivariate, only considering the predictor and the response variables, which is not sufficient to generalize future outcomes. For instance, Shou & Olney (2020) investigated behavioural tendency in risky situations based on prior knowledge. The study did not factor in the moderating effect of other factors, which may not necessarily play the role of explanatory in the relationship.

Other studies focused on lifestyle characteristics of retail investors and how such factors influence the investment process or risk tolerance. The researchers used dissimilar proxies to gauge lifestyle. For example, Thuy & Ngoc (2021) explored the behavioural characteristics influencing risk preferences and investment decisions of Vietnamese individual investors. (Rokhmawati, Ftri, & Oktavia, 2024) was aimed at examining the roles of young adults' lifestyles in moderating the relationship between financial knowledge and attitude and their management behaviour towards money. Other similar studies focus broadly on investor lifestyle, hence classifying it into two, namely, active and passive lifestyles. In this case, the outcome has to be dissimilar and misleading.

The correlational relationship between retail investor profile and individual portfolio choice was missing in most studies, such as Huang & Guenther (2024), Patil & Bagodi (2021) and Saugat and Ritika (2014). Studies by Patil & Bagodi (2021) tried to reveal the demographic and socio-economic factors influencing investment behaviour in the United Kingdom. In addition, Jagongo and Mutswenje (2014) in their study sought to establish the factors influencing investment decisions at the Nairobi Securities Exchange. These studies are inadequate in bringing out the essence of investor motivation for investing in assets. They did not incorporate individual portfolio choice.

Investor behaviour during investment has been given a lot of emphasis in the past literature without factoring in the moderating effect of age on the relationship between retail investor profile and individual portfolio choice. The study by Siratan Tannia, Sosilo & Dewi (2024) was undertaken on the influence of behavioural finance and demographic factors on investment decision-making through risk tolerance as mediation. No effort was made to establish the investor's age, behaviours, or approach and whether this act will influence individual portfolio choice.

Past literature also failed to demonstrate how investment avenues may influence individual portfolio choice. Instead, the focus of most of the studies, such as by Ong'era and Nasution (2021), Solanki & Saini (2025) and Chaturvedi (2022), carried out an empirical survey of the factors which mostly influence individual investor behaviour in various jurisdictions. (Rehman, Finance, Ali, & Ahmad, 2025), investigated the role of investor psychology, heuristics, and cognitive biases in contributing to stock market anomalies and irrational Investment choices. On the other hand, (Bairagi and Rastogi, 2013) gauged the awareness and preferences of investors of Pune for different investment avenues available and analyzed the factors that influence their perception and preferences. All these studies did not look at the individual portfolio choice that was used in this research, which was measured through trading by active retail investors on stocks or bonds at the NSE.

2.6 Summary of Reviewed Literature

The literature reviewed in this study discussed various individual portfolio theories that are linked to retail investor profile and individual portfolio choice, namely, modern portfolio theory, prospect theory, expected utility theory and risk aversion theory. The main focus of this chapter was to gain a proper understanding of the retail investor profile from different contexts and to relate this to individual portfolio choice of firms listed at the NSE. Focusing on this makes it possible to collect the primary and secondary data for analysis (Von Neuman & Morgenstern, 1947) & (Kahneman & Tversky, 1979).

The empirical literature reviewed demonstrated dissimilar conceptual relationships. For instance, the associations between investor behavior and demographic factors such as age and gender, with less focus on whether it influences individual portfolio choice. In addition, those studies ignored investor's age characteristics, or they assumed the independent variable instead of the intervening facet. However, researchers have used diverse conceptual approaches guided by the objectives that they aimed to achieve. Other studies focused on non-demographic factors and their influence on dependent variables such as risk tolerance and investment performance. Several studies have found that many individual investors trade in diverse ways, hence revealing the socio-economic factors which in turn influence the investment decisions of investors. Test and literature on the moderating effect of investor's age are missing. Lifestyle characteristics are also assumed to influence investor behavior and diversified approaches have been used to gauge the variable. This has resulted in a controversial outcome in the past.

2.7 Research Gaps

Studies on the relationship between retail investor profile and individual portfolio choice have been cross-examined with a lot of controversial results. This has resulted in some knowledge gaps that this study aims to fill. Several conceptual, theoretical, contextual and methodological research gaps arise from the analysis of the issues examined in chapter two. The conceptual gaps in this study arose due to the fact that past studies ignored multidimensional perspectives of retail investor profile and individual portfolio choice. Introduction of the four spheres, namely attitude towards risk, lifestyle characteristics, investor's specific needs and investment avenues, gave a better insight into the relationship between retail investor profile and individual portfolio choice. The current study introduced investor's age variable as a moderator to test whether there exists a moderating effect on the relationship between retail investor profile and individual portfolio choice. A key shortcoming of past empirical studies is that they were bivariate (utilized the relationship between some of the retail investor profile components, such as attitude towards risk factors and individual portfolio choice), and this called for consideration of a moderating variable. This study therefore tests whether there was any significant relationship amongst retail investor profile components and individual portfolio choice at the NSE, and closes

the gap not filled in the (Ong'era & Nasution, 2021), and Rakshitha & Reshmi, 2024) studies.

Theoretical gaps from past literature on the relationship between retail investor profile and individual portfolio choice were inconsistencies in hypothetical arguments. The controversial theories addressing retail investor profile as either relevant or irrelevant to individual portfolio choice make the study on individual portfolio choice translate to controversial outcomes amongst researchers. The current study sought to interrogate the relevance of individual portfolio choice related theories, namely, modern portfolio theory, prospect theory, expected utility theory and risk aversion theory in this study to affirm or disapprove past theoretical knowledge (Mallick, 2015). The contextual gap arises from the fact that most researchers have focused on developed and non-African developing economies with little or no attention placed on developing or less developed economies in Africa, especially economies like Kenya, due to differences in regulations, cultural environment and nature of investors in such studies as (Bui, Quang & Wong, 2021).; (Rekha and Yashwini, 2019); (Thuy & Ngoc, 2021); and (Shou and Olney, 2020). By doing the study at the NSE, the regional or local economic facet has been filled.

The conceptual gaps include a lack of a scholarly logical relationship between retail investor profile and individual portfolio choice. This is because some past empirical studies advocate investor behavior to be a function of diversified demographic factors, while others support the hypothesis that investor behavior influences other factors such as risk tolerance and investment performance. This study incorporated individual portfolio choice, which was measured through trading by active retail investors on stocks or bonds at the NSE, to determine the correlation it has with retail investor profile, which conclusively explains the rationale of individual investors using their financial resources to acquire an asset portfolio. This study used hierarchical multiple regression models to determine the correlation between retail investor profile and individual portfolio choice.

Diverse methodological approaches were used in the past studies on the relationship between independent variables and dependent variable and have been bivariate. This study adopted pragmatism philosophical view as the ideology appreciates that there

are diverse ways of interpreting information. Further, the philosophy accommodates positivism and interprets scholars. As a result, this study utilized a questionnaire that collected quantitative data that was collected. The data was designed to provide in-depth information about the characteristics of subjects within a particular field of study, so as to help identify relationships between variables.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides a description of the research methodology employed in this study. The chapter presents the research philosophy, research design, target population, sampling design, data collection procedures and data analysis techniques. The chapter also describes the ethical issues in research and operationalization of the variables.

3.2 Research Philosophy and Design

Amongst the various viewpoints commonly used in research, some of them are interpretivism, positivism, realism and pragmatism (Johnson and Christensen, 2020). Interpretive standpoints believe that the human social aspects are complex, and it is not easy to establish the related theories and principles, as it happens with natural science. Interpretivism supposes that a mere truth of an action may carry several meanings, and one should not dominate or lean on one way of interpretation, ignoring the other meanings. On the other hand, positivist thinking is based on already existing theories and advocates the establishment of research hypotheses which carry validity. Positivism is an approach that encourages the use of the methods of the natural sciences to the study of social reality and beyond (Bryman, 2022). Positivist philosophy allows the researcher to categorically form statements based on set objectives and carry out deductive reasoning as far as the cause-and-effect association between or amongst variables under investigation is concerned. Realism paradigm, on the other hand, focuses on human values and beliefs, which are thought to guide how an action can be interpreted.

Pragmatism, a philosophical view, on the other hand, appreciates that there are diverse ways of interpreting information and hence no one universally accepted approach of thinking that can provide a satisfactory conclusion on certain realities (Saunders, Lewis and Thornhill, 2023). In other words, pragmatism philosophy accommodates both positivism and interpretivism scholars. Consequently, this study adopted pragmatism philosophical view. As a result, this study utilized a questionnaire that had quantitative data that was collected from statements based on

objectives of the study and further carried out deductive reasoning on cause–effect association between the variables under investigation.

This study seeks to establish the effect of retail investor profile on individual portfolio choice at the Nairobi Securities Exchange. Since the researcher was dealing with events that had already happened and had no control over them, the study used a descriptive research design for collecting data for the variables under study and used correlation and regression research designs for data analyses. The active retail investors were requested to use the data in their possession for the five years from January, 2020 to December, 2024 for the study. This type of research design is widely used across disciplines to collect large amounts of survey data from a representative sample of individuals sampled from the target population as affirmed in (Schindler & Cooper, 2019) and (Houser, 2020) notes that it is designed to provide in-depth information about the characteristics of subjects within a particular field of study, thus, it can help identify relationships between variables.

3.3 Target Population

(Shukla, 2020) defines population as all items in any field of enquiry, also known as the 'universe'. On the other hand, the target population is the entire group of people or 'thing' that the researcher wishes to investigate, as alluded to in (Sekaran & Bougie, 2022). Similarly, Willie (2024) defines the target population as the entire group of individuals or objects which researchers are interested in generalizing the conclusions. The population comprises all individual retail stock investors at the Nairobi Securities Exchange, Kenya. There were over 2.5 million retail investors based on the Central Depository and Settlement Corporation Limited (CDSC) investor database as of September 30Th 2025. Those investors who have been out of trade for a year have been deemed dormant by CDSC, while the rest are assumed to be active investors; hence, they formed the targeted population. It is this group of active retail investors that the study focused on by looking at the implications of retail investor profiles on individual portfolio choice at the Nairobi Securities Exchange. The study chose the retail investors since institutional investors are governed by specific investment processes that make them unlikely to individualize their attributes during the investment process. (Capital Market Authority:

Preliminary Report 2025). The population frame in Table 3.1 provides the total number of stock brokerage/investment firms from which active individual investors with one or more categories of securities were obtained, as provided by CDSC and as guided by individual brokerage firms that have been consulted by the researcher.

Table 3.1: Target Population

	Name of the Brokerage/Investment Bank	Number of active retail investors
1.	ABC Capital	22,730
2.	African Alliance Kenya Investment Bank	28,009
3.	Afrika Investment Bank	32,368
4.	Apex Africa Capital	31,298
5.	CBA Capital	30,297
6.	Dyer & Blair Investment Bank	74,976
7.	Equity Investment Bank	65,024
8.	Faida Investment Bank	37,180
9.	Francis Drummond & Company	42,610
10.	Genghis Capital	22,321
11.	Kestrel Capital	25,378
12	Kingdom Securities	45,941
13.	NIC Securities	23166,
14.	Old Mutual Securities	47,219
15.	Renaissance Capital (Kenya)	27,182
16.	SBG Securities	28,969
17.	Standard Investment Bank	22,483
18.	Sterling Capital	25,843
19.	Suntra Investment Bank	65,330
	TOTAL	**873,980**

3.4 Sampling Frame

Since the target population of individual investors in this study is more than 10,000, the sample size was arrived at using the Charan J et al (2021) equation. This is affirmed by the fact that the formula was also used to compute the sample size in a similar study by Ahmed (2024).

The Charan J et al (2021) equation is as shown in Equation 3.1

$$n = z^2 * \frac{p * q}{d^2}$$

Equation (3.1)

Where: n = the sample size

z = 1.96 the tabulated Z value at 95% level of confidence

p = expected proportion of respondents

q = 1- p = the proportion of respondents who do not respond.

d = relative desired precision (0.05)

(Mugenda and Mugenda, 2019) assert that if there is no estimate available of the proportion in the target population that is assumed to have the characteristics of interest, 50% should be used. We used 50% in this study. Since the researcher desires an accuracy of at least 95%, the sample size has been calculated using the aforementioned formula.

In the study, the values will therefore be;

z = 1.96

p = 0.5

q=1-p = 0.5

d = 0.05

When substituted, the sample size will be 384.16, arrived at as follows;

$$n = \frac{1.96^2 * (0.5)(0.5)}{0.05^2} = 384.16$$

Hence, the sample size of the study was then entered as 385 respondents.

Table 3.2 is a sample frame and provides a guideline on how the sample size of 385 is to be picked from an available population size of 873,980 active retail investors.

Table 3.2: Sample Frame of Retail Investors

	Name of the Brokerage/Investment Bank	Target Population (No of Ind. Investors)	Proportion	Sample size of Individual Investors
1.	ABC Capital	22,730	0.03	13
2.	African Alliance Kenya Investment Bank	28,009	0.04	15
3.	Afrika Investment Bank	32,368	0.05	19
4.	ApexAfrica Capital	31,298	0.04	15
5.	CBA Capital	30,297	0.04	15
6.	Dyer & Blair Investment Bank	74,976	0.11	42
7.	Equity Investment Bank	65,024	0.09	36
8.	Faida Investment Bank	37,180	0.05	19
9.	Francis Drummond & Company	42,610	0.06	23
10.	Genghis Capital	22,321	0.03	13
11.	Kestrel Capital	25,378	0.04	15
12	Kingdom Securities	45,941	0.07	27
13.	NIC Securities	23166,	0.03	12
14.	Old Mutual Securities	47,219	0.07	27
15.	Renaissance Capital (Kenya)	27,182	0.04	15
16.	SBG Securities	28,969	0.04	15
17.	Standard Investment Bank	22,483	0.03	13
18.	Sterling Capital	25,843	0.04	15
19.	Suntra Investment Bank	65,330	0.09	36
	TOTAL	**873,980**	**1.00**	**385**

3.5 Sample Size and Sampling Technique.

A sample is a collection of units chosen from the target population to represent it (Hossan & Hasnawi, 2023). The study used both stratified and convenience sampling. The NSE had 62 companies that were registered to trade at the exchange at the time. Those who actually traded by buying or selling investments are institutional

investors and or individual retail investors in these companies through the NSE. This study used active retail investors, such that any investor wanting to buy or sell any investment he holds or wants to hold in any of the 62 companies does not do so directly at the NSE but does so through a stock brokerage/ investment firm. There were 19 stock brokerage/investment firms existing at the Nairobi Securities Exchange at the time, and therefore formed the strata of firms that were used to pick the target population and eventually the sample of this study. In this regard, the study first adopted the strata made up of the 19 stock brokerage firms and used the proportion of the active retail investors in each stratum to arrive at the sample size of individual investors for each brokerage firm. The sample size for each stratum representing the brokerage firm was arrived at by dividing the number of active retail investors of every stratum by the total active retail investors at NSE, and the proportion obtained is multiplied by the sample size of 385 retail investors from the target population of 873,980, as shown in Table 3.2. Thereafter, convenience sampling was employed to choose samples from every stratum which have the required investor attributes, namely, active, that is, they have been trading at the NSE during the year, and at least in the last five years and have had an asset portfolio of one or more portfolios of assets. Further, the investor should have an investment base of between KES 500,000 and KES 1,500,000 during the period.

Individually, using simple random sampling, the researcher, through the brokerage firm, identifies a retail investor and ascertains that the investor has the right attributes. If the respondent does not have the right attributes, it was rejected and the next retail investor was identified and process was repeated again. When the retail investor that has the right attributes was obtained, the researcher or the research assistants contacted the respondents from the contact information obtained from the brokerage firm. He would deliver the questionnaire together with an introductory letter and request that it be filled in fully. Alternatively, the management of the brokerage firm contacted the respondents and delivered the questionnaires together with an introductory letter and requested that they fill them in fully. Using this procedure, the researcher approached all the targeted active retail investors through the brokerage firms' management. The researcher controlled the number of questionnaires given to each brokerage firm to the numbers shown in Table 3.2.

Foe robustness checks the study considered the use of hierarchical modeling approach. In this respect, it was noted that this approach is used for the analysis of nested data. However, this would have required that the data be segregated into the 19-stock brokerage / investment bank firms. This was not done because the study had not grouped the data into the said firms due to confidentiality concerns and that the data had been taken as one homogeneous group. Further, the average sample per firm was low.

3.6 Research Instruments

Data collection is defined as a means by which information is obtained from selected subjects of investigation (Creswell and Creswell, 2023). The study used a structured questionnaire. The study collected both primary and secondary data utilizing quantitative data. In this study, the primary quantitative data were obtained from general information, attitude towards risk, lifestyle characteristics, Investor's specific needs, Investor's Investment Avenues and Investor's age. The structured questionnaire for the primary data is shown in Appendix II

The secondary quantitative data on individual portfolio choice was obtained from active retail investors' securities trading activity on stocks, bonds and treasury bills at NSE for a period of 30 years from January 1995 to December 2024. These databases of Nairobi Securities Exchange and corroborated from those of Capital Markets Authority (CMA), Central Bank of Kenya (CBK) or Central Depository and Settlement Corporation (CDSC). The structured questionnaire for the secondary data is shown in Table 3.3

Table 3.3: Nairobi Security Exchange Trading Activity

No	Year	Stocks in Billions of KES	Bonds in Billions of KES	Treasury bills in Billions of KES	Totals.
1	2024	105.95	1540.00	140.23	1786.18
2	2023	88.20	643.00	33.28	764.48
3	2022	231.60	741.00	0	972.60
4	2021	137.00	956.00	25.00	1118.00
5	2020	148.00	691.00	31.00	870.00
6	2019	153.00	651.35	59.36	863.71
7	2018	351.31	651.68	60.66	1063.65
8	2017	171.61	432.81	48.97	653.39
9	2016	147.18	431.59	24.75	603.52
10	2015	209.38	302.02	133.67	645.07
11	2014	215.75	504.3	135.59	855.62
12	2013	155.75	451.60	17.4	624.75
13	2012	86.80	563.80	22.80	673.40
14	2011	78.81	437.10	7.60	523.51
15	2010	110.00	466.90	17.30	594.20
16	2009	38.00	110.60	27.80	176.40
17	2008	97.80	95.40	10.18	203.38
18	2007	88.60	84.90		173.50
19	2006	95.00	48.60	0.91	144.51
20	2005	36.52	13.10	5.61	55.23
21	2004	22.32	48.40	1.20	71.92
22	2003	15.38	38.90	4.60	58.88
23	2002	1.26	7.00		8.26
24	2001	1.76	7		8.76
25	2000	29.76			29.76
26	1999	0.42	8.00	2.60	11.02
27	1998	2.50	5.00	8.80	16.30
28	1997	6.10	19.00	19.00	44.10
29	1996	1.19	0.80		1.99
30	1995	3.07		27.89	30.96
	Total	**2803.00**	**9950.85**	**866.20**	**13,647.05**

The researcher applied to the National Commission for Science, Technology and Innovation (NACOSTI) for permission to research the topic. In the application, the questionnaire was attached to the letter. NACOSTI's role was to evaluate the ethical considerations and implications of the research study that was to involve human participants to ensure that it was conducted responsibly and ethically. An approval was subsequently granted to do the research, confirming that the research was done responsibly and ethically.

The questionnaire was designed to address specific objectives, research questions and test hypotheses. This study used a 5-point Likert scale to measure the attitude towards risk, lifestyle characteristics, Investor's specific needs, investor's investment avenues and individual portfolio choice. The Likert scale, which is essentially an interval scale, is designed to examine how strongly subjects agree or disagree with a statement Sekaram, Bougie, (2022). Kothari and Garg (2023) explain that 5-point Likert scales are used because they are more reliable and can provide more information. (Lusega & Wabala, 2022) used the Likert scale on his study about the effect of competitive strategies on the relationship between strategic human resources management and firms' performance in Kenya.

The Questionnaires were administered to the selected team of individual investors dealing with securities of firms listed at the NSE. The choice of the questionnaire gave respondents freedom to express their views or opinions more objectively. The primary and secondary data were collected from respective stock brokerage firms dealing with their clients or the clients themselves, whichever was convenient to all the parties involved in the data collection exercise.

3.7 Data Collection Procedure

The researcher engaged six research assistants who first underwent training for one week on how to collect data. The researcher used a drop-and-pick approach to have the questionnaire filled. It involved producing an introductory letter to be served to the respondent through the stock brokerage firm management. The sample size for each stratum representing the brokerage firm was arrived at by dividing the number of active retail investors of every stratum by the total active retail investors at the NSE, and the proportion obtained is multiplied by the sample size of the target population of 385 retail investors, as shown in Table 3.2. Obtaining data that were available or easy to find through convenient sampling was because of the time required to complete the exercise. This informed the decision. Consequently, convenience sampling was used to select samples from every stratum which have the required investor attributes, namely, active, that is, they have been trading during the year and have been trading continuously for at least five years.

Individually, using simple random sampling, the researcher, through the brokerage firm, identified a retail investor and ascertained that the investor has the right attributes. If the respondent does not have the right attributes, it was rejected, and the next retail investor was identified and the process was restarted again. The respondent was further asked if he participated in the pilot study; if he was, it was rejected, and the next retail investor was identified, and the process was repeated. When the retail investor who has the right attributes was obtained from the respondents through the brokerage firm was requested to fill it in fully. Using this procedure, the researcher approached all the targeted active retail investors through the brokerage firms' management. The researcher controlled the number of questionnaires given to each brokerage firm to the numbers shown in Table 3.2. In this regard, the study partially used data triangulation to obtain the data. Data triangulation involves using multiple data sources through different brokerage firms in different parts of the country to corroborate findings, leading to more valid and reliable conclusions. This helps to identify patterns, reduce bias and strengthen the overall validity of research. Further, different researchers were assigned different brokerage firms to enhance validity. After the collection of the data, all were combined to make homogeneous data for analysis. In addition, permission from NACOSTI was acquired to ensure adherence to ethical issues in research.

3.8 Pilot Testing of Instruments

Creswell and Creswell in the (Creswell and Creswell, 2023) describe a pilot test as a replica and rehearsal of the main study. It is the essential first step in many domains, as it entails a controlled trial run of approaches to identify any problems, improve procedures, and boost the main study's overall success. It explores the goals, methods, advantages, difficulties, and best practices. Before committing to a full-scale deployment, it enables the detection and resolution of problems within methodology or approaches. A pilot test was done before doing the actual data collection exercise. The objective of the pre-test was to act as a guide to evaluate specific aspects of research to find out if the selected procedures will work as planned. In particular, a pre-test is usually undertaken to test for clarity as well as understanding of questions, so as to test whether the questions yield as projected. A

pilot test is also critical in testing whether the instruments used are reliable and whether they have validity features (Remuse 2024).

(Mugenda and Mugenda (2019) states that the number of cases (or sample size) for a pilot study may range between 1% and 10% of the sample size. The current study adopted an upper limit of 10%. In view of this, 10% of 385 are 38.4 respondents. This was rounded to 38 respondents. This size was sufficient according to the recommendations of Mugenda and Mugenda (2019). This was done to avoid the possible threats of selection bias, which is a peril to the generalization of results. The pilot study respondents were selected purposively outside the main study sample; however, the sample was obtained from the brokerage firms given in the study and had homogeneous characteristics. The pilot study questionnaires were furnished to the respondents when they came to the brokerage firms or were asked to do so. The data from the pilot study were analyzed and used to improve the questionnaire. The following elements were considered in improving the questionnaire: comprehension, relevance, interpretability and usefulness in view of the study objectives.

3.8.1 Validity of the instruments

Validity can be defined as the development of sound evidence to show that the test interpretation to which a test measures what it is supposed to measure (Creswell and Creswell, 2023). This study tested for content and construct validity. Content validity is about whether or not the instrument is representative of the full content of the item being measured, whereas construct validity is used to test the clarity of the questions and instructions and find out the level of vagueness of such questions. Opinion of three experts, two of whom were academicians and one was a practitioner were sought to review data collection instruments. This helped to improve the questionnaires before proceeding to the field for final data collection. Based on their suggestions, the wording of some items was rephrased.

3.8.2 Reliability of the Instruments

Reliability was tested using the Cronbach's alpha coefficient. This is a measure of internal consistency. That is, how closely related a set of items is as a group. It is considered to be a measure of scale reliability. It can range from 0.0 to 1.0, so that if the Cronbach alpha for a set of scores turns out to be 1.0, it means that it is

absolutely reliable, but if it is 0, then it is absolutely unreliable. A reliability coefficient of at least 0.7 was accepted. To determine the reliability of the instrument, the split-half technique will be employed to determine the consistency of the questionnaires to be administered. (Zhao, Zhao, Chen, Zhao, & Zhu, 2025) notes that the split-half approach is a method to test reliability, which assumes that several items are available to measure behavior where:

$$reliability = \frac{n \times r}{1 + (n-1)r} \qquad \textbf{Equation (3.2)}$$

Where: r: is the mean inter-item correlation

n: is the number of items in the scale

The SPSS for Windows reliability program was used to determine the reliability of the research instruments (Remuse 2024), who notes that a correlation coefficient (r) of about 0.7 should be considered high enough to judge the reliability of the instrument. Therefore, if the Alpha coefficient obtained is 0.7 or above, the researcher will consider the instrument to be reliable.

A total of 38 questionnaires were used in the test for the reliability of the pilot study instruments. After the first draft, the results of all the 38 questionnaires gave a Cronbach's Alpha coefficient of between 0.702 and 0.833. The threshold of 0.70 was met, and thus the pilot study instruments were considered reliable. This ensured that conclusions were not based on flawed data, which is essential for a strong foundation for decision-making.

3.9 Measurements of Variables

Various indicators were used in measuring the study variables. Measurement of variables was done for independent, dependent and moderating variables.

3.9.1 Measurement of Independent Variables

The study used four independent variables, namely attitude towards risk, lifestyle characteristics, investor’s specific needs and investor’s investment avenues, using a Likert scale questionnaire of survey-based measurements. Attitude towards risk was measured by evaluating respondents' willingness to take risks using risk averse, risk neutral and risk seeker. The lifestyle characteristics were measured by evaluating the

investor's personal ability, confidence level and dependency level on brokers' recommendations or family members' opinions. The investor's specific needs were measured by considering the investor's socially expressive characteristics, the firm's reputation in the industry and the firm's contribution to social causes. The investor's investment avenues were measured by evaluating the investor's future contingent needs, sources and levels of liquidity and safety of their investments. The details are shown in the table below.

Table 3.4: Measurement of independent variables.

Variable	Sub variable	Measurements
Attitude towards risk	Risk neutral	Measured by how they rarely assess the level of risk
	Risk averse	Measures the level of avoidance of risk-taking
	Risk seeker	Measures one's willingness to take risks
Lifestyle Characteristics	Personal ability	It is measured by how focused one is on investment.
	Confidence level	Measured by how confident one is in investment decisions
	Dependence level on brokers	How one is dependent on brokers
Specific Needs	Socially expressive characteristics	How family structure affects their investments
	The firm's reputation in the industry	The extent to which investors screen before investing.
	Contribution of the firm to social causes	Level of contribution to social causes before investing.
Investment avenues	Future contingent needs	Meeting cash-flow obligations in the near future
	Sources & levels of liquidity	Consider the order of investors' sources and liquidity levels
	Safety of investments	Finding out the degree of safety of investments.

3.9.2 Moderating Variable – Age

The study used the ratio scale method of measurement. The respondents were asked to indicate their age bracket, that were subsequently used to evaluate the level of investments by the various age groups and gender. The details are shown in the table below.

Table 3.5: Gender and Age Bracket

Age Brackets	Male	Female	Total
Below 25 years			
25 and below 35			
35 and below 45			
45 and below 55			
55 years & above			
Total			

3.9.3 Measurement of Dependent Variable

The measurements of the dependent variable of the study were the trading activity of stocks, bonds and treasury bills at the NSE. These indicators used asset allocation in billions of Kenya shillings for a period of thirty years.

3.9.4 Table for test for hypothesis

Hypothesis testing involves comparing a calculated test statistic against a critical value from a statistical table to accept or reject the null hypothesis. The decision relies on comparing the significance level (e.g., 0.05) and the degrees of freedom to determine if the findings are statistically significant.

In statistics, a t- test can be expressed as a statistical hypothesis test where the test statistic maintains a Student's t-distribution if the null hypothesis is set. In the study, the null hypothesis has been set; hence, we used the t- test.

3.10 Data Processing and Analysis

The data that were collected through questionnaires were quantitative. The responses were first edited, handling missing responses, coding, and keying. Data analysis

techniques were applied to arrive at useful information. They include: gross tabulation of selected variables of demographic characteristics, descriptive analysis, F-test, normality test, homoscedasticity test and autocorrelation test.

The gross tabulation of selected variables of investor's age was carried out to establish the relationships between the age groups and marital status. Descriptive analysis was carried out to measure the percentages, means, variances, standard deviation and coefficient of variation, which were used to reveal the interrelationships of the variables under study (Mugenda & Mugenda, 2019). The mentioned tools were used to determine the respondent's degree of agreement or disagreement with the various statements made under each variable (Mugenda & Mugenda, 2019). The descriptive data analysis of each variable was done using SPSS, and the same was presented in the form of percentages and tables. Inferential analysis of variables was done by subjecting the variables to multiple regression analysis, where applicable, using the data. F-test were carried out to assess the significance of the overall regression equation. The coefficient of multiple determination, $R^{2,\ was}$ computed to show how successful the best fit is in explaining the model. In addition to the aforementioned F-test, the respective individual regression coefficients were also tested for their statistical significance using the t-test.

Another test that was undertaken is multicollinearity, which refers to a situation where explanatory variables are correlated with each other (Shrestha, 2020). Also, the normality test of data is usually critical in many statistical methods, such that if this assumption is violated, interpretation and inference may not be reliable or valid. This study carried out a normality test. The study also tested for homoscedasticity (literally, same variance), which describes a situation in which the error term (that is, the noise or random disturbance in the relationship between the predictor variables and the response variable) is the same across all values of the predictor variables (Hair, William, Barry, & Anderson, 2019). Heteroscedasticity (the violation of homoscedasticity) is supposed to be present when the size of the error term differs across values of an explanatory variable. The impact of violating the assumption of homoscedasticity is a matter of degree, increasing as heteroscedasticity increases. A

test of homoscedasticity of error terms determines whether a regression model's ability to predict a dependent variable is consistent across all values of that dependent variable.

Multiple linear regression models were used to analyze the data using Statistical Package for Social Sciences (SPSS) version 21. The responses on the questionnaire were coded and input in the SPSS software. A linear multiple regression model was used to measure the association between the predictor variables and the response variable, which are explained in the model below. The regression model helps to explain the magnitude and direction of the relationship between the variables of the study through the use of coefficients like the coefficient of correlation (R), coefficient of multiple determination(R^2) and the level of significance. The regression model tested is as explained in the subsection below;

3.11 Regression Model

The empirical model was analyzed as a hierarchical moderated multiple regression model. The hierarchical moderated multiple regression analysis was used to identify the model that best estimates the dependent variable.

OLS Equation $Y= \beta_0+ \beta_1X_1+ \beta_2X_2+ \beta_3X_3 + \beta_4X_4+ \varepsilon$ ..... **Equation (3.3)**

For the moderating effect, the model was

MMR Equation $Y=\beta_0+ \beta_1X_1+ \beta_2X_2+ \beta_3X_3 + \beta_4X_4+\beta_5Z + \beta_6ZX_1 + \beta_7ZX_2+ \beta_8ZX_3 + \beta_9ZX_4+ \varepsilon$ …… **Equation (3.4)**

Where;

Y represent Individual Portfolio Choice in terms of stocks or bonds

X_1 represents the investor's attitude towards risk of the i^{th} individual investor.

X_2 represents the Lifestyle Characteristic of the i^{th} individual investor.

X_3 represents the Investor's Specific Needs of the i^{th} individual investor.

X_4 represent the Investor's Investment Avenues of the i^{th} individual investor.

Z represents the Investor's Age composite value of the i^{th} individual investor

ε is a random error term that accounts for the unexplained variations.

β_0 represents the constant or the Y intercept

β_1 to β_8 are corresponding coefficients of the four independent variables, as well as the moderating variable, respectively.

3.12 Diagnostic Tests of the Regression Model

The regression models developed in any study should demonstrate reliability for the information arrived at for it to be useful to the end users. To achieve this objective, several tests were undertaken. They are generally classified into: logical relationship, goodness of fit and specification axioms.

The F-test is used to assess the significance of the overall regression equation. It is used to find out whether there is any variance within the samples. If the calculated F statistic in a test is larger than the tabulated F values at 5% confidence level, then the null hypothesis will be rejected, that is, accept the hypothesis that not all the coefficients of the independent variables are zero. The coefficient of multiple determinations, R^2 showed how successful the best fit is in explaining the variations of the data in the model. Given that R^2 lies between 0 and 1, the higher the value of R^2 the better the explanation of variations of the dependent variable by independent variables taken together. If R^2 is less than 0.5, then the model is weak, but if it is more than 0.5, it is a good model. Coefficient of correlations, R. $R = \sqrt{R^{2,}}$ where R lies between -1 and 1. It measures the degree of linear relationship between the explanatory variable and the response variable. If R =0, there is no linear relationship between the explanatory variable and the response variable. If R =1, there is a perfect positive direct linear association between the predictor variable and outcome variable. If R =-1, there is a perfect negative linear but inverse relationship between the predictor variable and outcome variable.

The assumption of homoscedasticity (literally, same variance) describes a situation in which the error term (that is, the noise or random disturbance in the relationship between the predictor variables and the response variable) is the same across all values of the response variable. A test of homoscedasticity of error terms determines whether a regression model's ability to predict a response variable is consistent across all values of that dependent variable. Heteroscedasticity is supposed to be present when the size of the error term differs across values of the predictor variable.

The impact of violating the assumption of homoscedasticity is a matter of degree, increasing as heteroscedasticity increases.

Multiple regression analysis is based on the assumption that the explanatory variables are not correlated with one another. When the explanatory variables are highly correlated with each other, it is very difficult to isolate the effect of each one of these on the dependent variables. This occurs when there is a simultaneous movement of two or more independent variables in the same direction and almost at the same time. This condition is called multi-collinearity.

This study utilized the correlation matrix to determine whether two input variables are highly correlated. If a correlation value of more than 0.8 exists between two independent variables, then the problem of multicollinearity is bound to occur. Alternatively, if the correlation coefficient between the two variables is greater than the multiple correlation coefficient, then a multicollinearity problem will occur. To remove the problem of multicollinearity, one of the correlated variables can be dropped. Multi-collinearity occurs when two or more predictors in a model are highly correlated and provide redundant information about the response. The Assumptions of multi-collinearity are that the error term is assumed to be normally distributed with a mean of zero and is assumed to have a constant variance.

Autocorrelation is the correlation of a time series with its own past and future values. The autocorrelation test will assess the degree of independence of the residuals in multiple regression models, which refers to the correlation between members of a series of numbers arranged in time. It requires that successive values of the error term be sequentially independent. In addition, it is unbent, and it constitutes a scheme or an activity in which the error term is directly related to the immediate previous period but indirectly related to the successive previous periods.

CHAPTER FOUR
RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

In this chapter, we discuss and present the results and findings on the various factors that affect retail investor profile on individual portfolio choice at the NSE, Kenya. It entails the response rate, background information of the respondents, results of the descriptive analysis, and results of the inferential analysis, consisting of correlation analysis, regression analysis and hypothesis testing. The measurement of individual portfolio choice that was used in this research was done through trading by active retail investors on stocks or bonds at the NSE.

4.2 Pilot Testing Results

A pilot test was done before doing the actual data collection exercise. The result showed that all 38 questionnaires gave Cronbach's alpha coefficients of 0.7 and above. The threshold value of 0.7 was met, and thus the pilot study instruments were considered to be reliable. Test reliability was also done on the final study, which affirmed the reliability results from the trials, as shown in Table 4.2.

Table 4.1: Reliability Results

Items	Items	Cronbach's Alpha
Attitude towards risk	6	0.747
Lifestyle characteristics	6	0.702
Investor's Specific needs	6	0.833
Investment Avenues needs	6	0.728
Age	5	0.738
Individual portfolio choice	6	0.716

The recommended value of 0.7 was used as a cut-off of reliability (Sekaran, 2009). The above indicates an alpha coefficient of 0.744 for the composite index of the 6 study variables, as shown in Table 4.1 above, which is good, having met the Cronbach's alpha reliability coefficient of the individual variables lying between

0.702 and 0.833, all being greater than 0.70, thus showing an indication that all variables meet the criterion of internal consistency.

4.3 Construct Validity results

Validity can be defined as the development of sound evidence to show that the test interpretation to which a test measures what it is supposed to measure (Creswell and Creswell, 2023). This study tested for content and construct validity. Content validity is about whether or not the instrument is representative of the full content of the item being measured, whereas construct validity is used to test the clarity of the questions and instructions and find out the level of vagueness of such questions. Opinions of three experts, two of whom were academicians and one a practitioner, were sought to review the data collection instruments. The results of their responses were analyzed to establish the percentage of representation and are shown in Table 4.2 below, implying that on average, 83.3% of respondents opine that the instruments were clear and therefore valid.

Table 4.2: Construct Validity results

Rater	No of Items	Valid Items	Fraction
1	38	31	0.8158
2	38	30	0.7895
3	38	34	0.8947
Average			**0.8333**

4.3 Response Rate

A response rate is the number of people who answered the questionnaires as required divided by the total number of people in the entire sample (Taherdoost & Madanchian, 2024). Questionnaires were administered to a total of 385 investors. To ensure completeness of data, the respondents were first asked whether they were willing to provide data on their investment activities in the stock market before being

given the questionnaire. Out of these 385 questionnaires, 320 were duly completed and returned. This represents a response rate of 83.1%. On the other hand, 35 questionnaires were not returned. This represented 9.1%. Finally, 30 questionnaires that had been filled and returned had gaps, omissions and/or errors. This represented a response rate of 7.8%. This set of questionnaires was disqualified and therefore excluded from the respondents. The response rate of those that were duly filled and returned of 83.1% was considered good and representative and conforms to Mugenda and Mugenda, (2019) stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good, and a response rate of 70% and over is excellent. The 83.1% is therefore considered a high response rate. The respondents were also assured of the confidentiality of the information provided. The response rate for this study is shown in Table 4.3 below.

Table 4.3: Response Rate for the Questionnaires

Response	**Frequency**	**Percentage**
Dully filled and returned	320	83.1%
Not returned	35	9.1%
Disqualified questionnaires	30	7.8%
Total	**385**	**100%**

4.4 General Information

Based on data collected, some general information was obtained relating to the respondent's duration of trading at the NSE, investment in different categories of securities and also from cross-tabulation of selected variables involving age, gender, and marital status.

4.4.1 The Duration of Continuous Trading at NSE.

The study sought to determine how long the respondents have been trading continuously in securities of firms listed at the NSE. The length of time was categorized into three sub-groups: those who have been trading between 5 and 10 years, between 10 and 15 years and those above 15years. The results in Table 4.3 reveal that majority of the respondents 188(58.8%) have been continuously trading at NSE for a period between 5-10 years, 99(30.9%) of the respondents have been

trading at NSE for a period between 10-15 years while 33(10.3%) of the respondents have been trading at NSE for over 15 years. This implies that the majority of investors have been continuously trading for between 5 and 10 years, meaning that they trade mainly for medium-term periods. The findings are presented in Table 4.4 below.

Table 4.4: Duration of Continuous Trading at the NSE

Duration	Frequency	Percentage
Between 5 to 10 Years	188	58.8
Above 10 to 15 Years	99	30.9
Above 15 Years	33	10.3
Total	**320**	**100.0**

4.5 Demographic Statistics of Selected Variables

This section outlines the general characteristics and relationships between selected variables of the respondents in terms of their age, gender and marital status. Cross tabulation is often applicable when the data is nominally or ordinally scaled.

4.5.1 Gender and Age Bracket

The respondents were required to indicate their gender and age in years within a given range. Table 4.5 captures the response rate of the relationship between the gender of the respondents and their age brackets. It exhibits the age category of the respondents and is categorized into five sub-groups, namely those below 25 years, between 25- 35 years, between the ages of 35 and 45 years old, between 45 and 55 years old and above 55years. Using ratio scale method of measurement, the analysis was carried out and the results show that 96 (30%) of the respondents were between the ages of 35 and 45 years, 70 (21.9%) of the respondents were 55 years old and above and, 62 (19.4%) of the respondents were between the age of 25 to 35 years old, 47 (14.7%) of the respondents were above the age of 45 to 55 years and 45 (14.1%) were below 25 years. Further, it showed that 53% were male and 47% were female. Both genders were in the age bracket of between 35 and 45 years, where males were 28% of their gender, while females were 32% of their gender. This group

of people between the ages of 35 and 45 is usually energetic, very active, experienced, responsible and has skills.

Table 4.5: Gender and Age Bracket

Age Brackets	Male	Female	Total
Below 25 years	23	22	45
25 and below 35	25	37	62
35 and below 45	48	48	96
45 and below 55	28	19	47
55 years & above	47	23	70
Total	**171**	**149**	**320**

This is followed closely by male with 55years and above of age, this is because at this age, most men are done with educating their children and therefore, they have high disposable income for investment. These findings are similar to those of (Bashir, Azan, Butt, Javed, & Tanvir, 2013). From the above, it implies that age has an influence on the investor's behavior, as affirmed by Charles & Kasilingam, (2013a), who found that age has a significant influence on determining their investment behavior.

4.5.2 Marital Status and Age Bracket

The marital status category was included in the data analysis so as to provide more robust information on the demographic data. In this regard, the respondents were requested to indicate their marital status and age brackets. Marital status was further categorized into four sub-groups: single, married, widow/er and divorced, while age brackets were categorised into five sub-groups: below 25 years, between 25- 35, between 35 and 45 years old, between 45 and 55 years old and above 55years. Using the nominal scale method of measurement and subsequently the ratio scale method, the analysis was carried out, and the results show that the majority of the respondents, 176(55%) were married. Further, 98(30.6%) of the respondents were single, 20(9.4%) of the respondents were widow/er, and the remaining 16(5%) of the respondents were divorced. The results are shown in Table 4.6.

Table 4.6: Marital Status and Age Bracket

	Below 25 Years	**Above 25 & 35**	**above 35 to 45**	**Above 45 to 55**	**Above 55 years**	**Total**
Single	32	38	28	0	0	98
Married	13	14	56	35	58	176
Divorced	0	6	6	4	0	16
Widow/er	0	4	4	8	12	30
Total	**45**	**62**	**96**	**47**	**70**	**320**

This would mean that most of the transactions were carried out by married investors. This category carried out most of its investments above the age of 35. These groups of investors are considered responsible and have skills as affirmed by Teeples & David (2010). This was followed by those who are single, who carried out most of the investments below the age of 35. The findings of Mutswenje, V.S. (2017) were that 72% of respondents were married, followed by those who were single at 18%. Comparatively, these results would imply that individual investors who are married were of a lower percentage than those found in (Jagongo & Mutswenje, 2014). Further, the individual investors who were single were of a higher percentage (30.6%).

4.6 Descriptive Statistics of the Variables

This section illustrates descriptive findings and discussions based on the objectives of the study. The study focused on features of individual portfolio choice, attitude towards risk, lifestyle characteristics, investor's specific needs, investor's investment avenues and the moderating variable investor's age. The findings are presented in the form of percentages, means, and Standard Deviations. For the moderating variable the investor's age was done using nominal scale method of measurements, while for the attitude towards risk, Lifestyle Characteristics, Investor's specific needs and investment avenues were done using ordinal measurement, the 5 Point Likert-Scale ranging from: Strongly Disagree (SD)= 1, Disagree(D)=2 Neutral(N)= 3, Agree(A)= 4, and Strongly Agree (SA)= 5.

4.6.1 Attitude Towards Risk

The study sought to determine the opinion of respondents on their attitude towards risk when investing. The descriptive findings for Attitude towards risk characteristics were obtained using the 5 Point Likert-Scale ranging from: Strongly Disagree (SD)= 1, Disagree(D)=2, Neutral(N)= 3, Agree(A)= 4, and Strongly Agree (SA)= 5. The results are shown in Table 4.6. which showed how respondents rated various items of the attitude towards risk characteristics. When respondents were asked: As a risk-averse investor, when faced with the same return I generally take the one with lower risks, most respondents strongly agreed (SA) with 37.2% and had a mean = 3.71 and SD=1.441. When respondents were asked: As a risk-averse investor, don't take chances once they see unnecessary fluctuation of security prices. This requires one to dispose of those particular securities, most respondents agreed (A) with 45.3% (Mean=3.94, SD=1.166). Other items include: always watch the other market individual investors and even seek financial advice from friends before investing in any type of investments, agreeing (A) with 38.8% (Mean=3.78, SD=1.376), I rarely assess the level of risks before assessing new investments. Agreeing (A) with 41.9% (Mean=3.62, SD=1.440). one would say would take more risks compared to the average person, was rated Agree (A) with 33.1% (Mean=3.19, SD=1.592) On the other hand on, the statement whether the respondents believe that the only way of getting a good return is to invest in risky investments most Agree (A) that had 44.7%. (Mean=3.90, SD=1.157).

On average, most respondents Agree (A) that had 36.8% (Mean =3.42, SD=1.325)as shown in Table 4.7. This means that most investors agree, followed by those who strongly agree with the opinions expressed about their attitude towards risk regarding risk averse, risk neutral and risk seeker when choosing to invest at NSE. The past studies on attitude towards risk (Boobalan and Selvavinayagam, 2019), (Phung & Nguyen, 2017), (Marwan, 2015), (Parameswari & Jayasree, 2015) and (Rekha and Yashswini, 2019) were in a general perspective. The aspect of individual portfolio choice was lacking, which means that the findings were dissimilar.

Table 4.7: Attitude Towards Risk

	SD	D	N	A	SA	Mean	STD
1. As a risk-averse investor, when faced with the same return generally take the one with lower risks	16.9	5.3	5.0	35.6	37.2	3.71	1.441
2. As a risk-averse investor, we don't take chances once we see unnecessary fluctuation of security prices. This requires us to dispose of those particular securities	7.8	6.3	5.3	45.3	35.3	3.94	1.166
3. Would always watch the other market individual investors and even seek financial advice from friends before investing in any type of investment	14.1	6.6	3.4	38.8	37.2	3.78	1.376
4. Would rarely assess the level of risks before assessing new investments	18.1	5.9	2.8	41.9	31.3	3.62	1.440
5. Would take more risks compared to the average person,	28.8	6.9	5.9	33.1	25.3	3.19	1.592
6. Believe that the only way of getting a good return is to invest in risky investments	7.2	7.2	7.5	44.7	33.4	3.90	1.157
Valid List wise =320							

4.6.2 Lifestyle Characteristics

The study sought to determine the opinion of respondents on lifestyle characteristics when investing. Using the 5-point Likert-scale range, the results are presented in Table 4.8. which showed how respondents rated various items of the lifestyle characteristics. When respondents were asked if they always have a clear focus on the amount of money to invest in a particular security (s), most respondents agreed (A) with 43.4% and had a mean = 3.77 and SD=0.990. When respondents were asked whether they continuously assess possibilities of winning or losing in a particular portfolio and confidently adopt the appropriate asset allocation strategy, most respondents agreed (A) with 50.0% (Mean=3.90, SD=0.834). Other items include: Most of the times guide my broker on how to spread my assets to minimize risk of financial losses, agreeing (A) with 36.2% (Mean=3.52, SD=1.169), I fully believe

and accept the broker's recommendations on which securities to invest in, Agreeing (A) with 42.2% (Mean=3.57, SD=0.1.024). I always get a second opinion from family members on the time and the type of securities to invest in, which was rated agree (A) with 33.8% (Mean=2.97, SD=1.148). However, the statement whether the respondents discuss with well-informed friends or relatives before they invest in any security to minimize losses, most Disagree(D), that had 24.9%. (Mean=2.88, SD=1.268)

On average, most respondents Agree (A) that had 38.4% (Mean =3.44, SD=1.072) as shown in Table 4.8. This implies that most investors agree with the opinions expressed about their lifestyle characteristics when investing at NSE. The mean (3.44), however, showed that most investors lie between Neutral and Agree in their opinions about their lifestyle characteristics when choosing to invest at NSE. The study showed that individual investors continuously focus on and assess investments, guide brokers and accept their recommendations, as well as consider family members, friends, brokers or relatives' views when choosing to invest at NSE. This implies that lifestyle characteristics influence individual portfolio choice. The findings expressed by (Iqbal & Usmani, 2009) were dissimilar as they found out that recommendations of family members, friends, coworkers go largely unheeded, recommendations of stock brokers are considered when making stock purchases.

Table 4.8: Lifestyle characteristics

	SD	D	N	A	SA	Mean	STD
1. Would always have a clear focus on the amount of money to invest in a particular security (s)	1.3	12.2	19.1	43.4	24.1	3.77	.990
2. Would continuously assess possibilities of winning or losing in a particular portfolio and confidently adopt the appropriate asset allocation strategy.	1.3	3.4	2.2	50.	23.1	3.90	.834
3. Most of the time, would guide the broker on how to spread assets to minimize risk of financial losses.	6.3	15.	20.	36.	21.6	3.52	1.169
4. Fully believe and accept the Broker's recommendations on which securities to invest in.	3.1	13.	24.1	42.2	17.2	3.57	1.024
5. Always get a second opinion from family members on the time and the type of securities to invest in.	10.9	27.8	20.9	33.8	6.6	2.97	1.148
6. Before investing in any security, would discuss with well-informed friends or relatives to minimize losses	16.1	26.3	23.4	24.9	12.2	2.88	1.268
Valid List wise =320							

4.6.3 Investor's Specific Needs

The study sought to determine the investor's specific needs when investing. Using the 5-point Likert-scale range the findings in Table 4.9 indicates that most of the respondents agreed(A) with the statement that, I carry out social screening of the firms my brokers or I wish to invest in due to what my instinct guides me as good social practices, with 31.6% (Mean=3.32,SD=1.171), they were also in agreement with the statement that, My family structure and social environment affect their investment decisions, with 28.4% (Mean=3.95, SD=1.385), the image or reputation a firm has is a major concern on whether to invest in their securities or no, with 32.5% (Mean=3.31, SD=1.204) and I always prefer to invest in securities of firms which

follow the social priorities to a void social hazards, with 28.4% (Mean=2.96,SD=1.222), Further most of the respondents had a neutral opinion when it came to, I consider investing my resources on securities of firms which advocate corporate social responsibilities to impact on the immediate society with 33.4% (Mean=3.09, SD=1.115) and I keep an eye on the priorities of firms to ensure that my resources in terms of my contribution is not used for community destructions with 27.8% (Mean=3.011, SD=1.257).

On average, most respondents Agree (A) that had 29.2% (Mean =3.12, SD=1.726) as shown in Table 4.9. This implies that most investors agree with the opinions expressed about their specific needs when investing at NSE. The study showed that most investors consider the affordability of share prices, the firm's market share in the industry, and the contribution of the firm to social causes while making investment choices. This was dissimilar to the study by (Jagongo & Mutswenje, 2014) found out that the most important factors that influence individual investor decisions at the NSE 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. Similarly, in the study by Kano, Muradoglu & Olukuru (2025), who assessed the group versus individual behavior and disposition effect at NSE. Those that traded as groups traded jointly as investment groups. A disposition effect is characterized by the tendency to sell winning assets too soon and hold onto losing assets for too long. The results showed that group investors exhibit a significantly lower disposition effect than individual investors. Further, disposition effect increases with frequency of trade and reduces with age. The disposition effect, being an aspect of specific needs, ignores the effect of investor's specific needs related facets.

Table 4.9: Investor's Specific Needs

	SD	D	N	A	SA	Mean	Sd
1. The family structure and social environment affect their investment choices	20.3	15.6	19.1	28.4	16.6	3.05	1.385
2. Would carry out social screening of the firms or wish to invest in due to what instincts guide as good social practices	6.3	21.6	23.4	31.6	17.2	3.32	1.171
3. The image or reputation a firm has is a major concern in determining whether to invest in its securities or not	7.8	20.6	21.6	32.5	17.5	3.31	1.204
4. Consider investing in resources on securities of firms which advocate corporate social responsibility to impact on the immediate society	10.6	17.2	33.4	30.0	8.8	3.09	1.115
5. Always prefer to invest in securities of firms which follow the social priorities to avoid social hazards	15.0	21.9	25.0	28.4	9.7	2.96	1.222
6. Would keep an eye on the priorities of firms to ensure that resources invested in terms of contribution are not used for community destructions	15.3	19.4	27.5	24.4	13.1	3.01	1.257
Valid N (listwise) =320							

4.6.4 Investment Avenues

The study sought to determine the respondents' investment avenues when investing. Using the 5-point Likert-scale range, the results are presented in Table 4.10.

The findings in Table 4.10 revealed that majority of the respondents in all the areas agreed(A) with the statements, that The safety of the investment is a key determinant to guide on the type of investment securities will invest in, with 48.8% (Mean=3.97,SD=.968), that consider the order of liquidity levels and sources that would be available when investing consider the order of liquidity levels and sources that would be available when investing with 44.4% (Mean=3.63, SD=1.009), it was similar to closely manage my liquidity and prefer to stay within the target asset allocation with 51.3% (Mean=3.86, SD=.781) agreed. The respondents were also in agreement with the statement that while investing, one's needs should meet one's cash flow obligations, giving 37.8% (mean=3.85, SD=1.072). This was in agreement with the statement that one always considers investment avenues in areas of safety, liquidity or better future contingent needs, which gave 44.4% (Mean=3.83, SD=.862) and agreed with the statement that always concerned about getting high capital gains of securities one has invested in different firms with 45.0% (Mean=3.93, SD=.906)

On average, most respondents Agree (A) that had 45.3% (Mean =3.18, SD=0.933) as shown in Table 4.10. This implies that most investors agree with the opinions expressed about their investment avenues when investing at NSE. However, the study by Rehman, Finance, Ali and Ahmad (2025), investigated the role of investor psychology, heuristics, and cognitive biases in contributing to stock market anomalies and irrational Investment choices. The study suggested that implementing investor education initiatives, utilizing robo-advisors and applying behavioral commitment strategies as potential solutions to mitigate bias-influenced decisions. By integrating behavioral insights with quantitative analysis, the study underscored the critical role of psychology in financial markets and other practical tools for promoting rational decision making and enhancing market stability. In this regard, the association between Investment Avenue and individual portfolio choice was not explored. This study was to fill this gap.

Further, in the findings of Bairagi and Rastogi (2013), who gauged the awareness and preferences of investors of Pune for different investment avenues available and analyzed the factors that influence their perception and preferences. It was found out that bank deposits were rated as the highest preference, followed by small savings

schemes, and insurance was the third preferred investment. Safety of investment was found to be the major objective of investment. The ranking in the study implies the order of liquidity levels in each investment opportunity. This finding was dissimilar to that of this study

Table 4.10: Investment Avenues

	SD	D	N	A	SA	Mean	Sd
1. The safety of the investment is a key determinant to guide us on the type of investment securities we will invest in	1.9	9.1	10	48.8	30.3	3.97	.968
2. Would consider the order of liquidity levels and sources that would be available when investing	3.1	11.6	22.8	44.4	18.1	3.63	1.009
3. Closely manage liquidity levels and prefer to stay within the target asset allocation	0.0	4.7	24.4	51.3	19.7	3.86	0.781
4. While investing, our needs should meet cash flow obligations	3.4	9.1	18.1	37.8	31.8	3.85	1.072
5. Would always consider investment avenues in areas of safety, liquidity or better future contingent needs	0.3	6.3	26.3	44.4	22.8	3.83	.862
6. Always concerned about getting high capital gains, I have invested in different firms	0.0	9.1	17.5	45	28.4	3.93	0.906
Valid N (list-wise) = 320							

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4.6.5 Composite Descriptive Characteristics

The study sought to determine the respondents' opinion on Attitude towards risk, lifestyle characteristics, investor's specific needs and Investment Avenues. The results are presented in Table 4.11. The findings in Table 4.10 revealed that the majority of the respondents in all the areas agreed (A) with the statements, that Attitude towards risk agreed with 36.8% (Mean=3.42, SD=1.325 while lifestyle characteristics majority of 38.4% agreeing (Mean=3.44, SD=1.072). On the other hand, investor-specific needs were largely spread, with the majority of 29.2% agreeing (Mean=3.12, SD=1.726). Finally, the investor's investment avenues also agree with a majority of 45.3% (Mean=3.18, SD=0,933).

Attitude towards risk has risk-averse, risk-neutral and risk-seeking investors. It implies that most investors may consider investing after factoring risk in their decisions. Further, on average, attitude towards risk influences individual portfolio choice at NSE. Regarding lifestyle characteristics, the study showed that individual investors continuously focus on and assess investments, guide brokers and accept their recommendations, as well as consider family members' opinions or views. The findings expressed by Iqbal and Usmani (2009) were dissimilar as they found out that recommendations of family members, friends, coworkers go largely unheeded, recommendations of stock brokers are considered. This implies that lifestyle characteristics influence individual portfolio choice as NSE.

In respect to Investor's specific needs, the study showed that respondents agreed that they consider the reputation of firms in the industry, as well as their contributions in social causes, in making individual portfolio choices. Finally, on investor's investment avenues, respondents agreed that the safety of investments and levels and sources of their liquidity are important while making individual portfolio choices. This implies that investor's investment avenues influence individual portfolio choice at NSE.

Table 4.11: Attitude towards risk, lifestyle characteristics. Investor's Specific needs and Investment Avenues.

	SD	D	N	A	SA	Mean	STD
1. Attitude towards risk	16.9	9.1	5.8	36.8	31.3	3.42	1.325
2. Lifestyle Characteristics	6.5	16.3	21.7	38.4	17.5	3.44	1.072
3. Investor's Specific Needs	12.5	9.4	25.4	29.2	13.8	3.12	1.726
4. Investment Avenues	1.9	8.3	19.5	45.3	24.7	3.18	0.933

4.6.6 Ages

The study sought to determine the opinion of respondents of various ages when investing. The results are presented in Table 4.12 below. Using the ratio scale method of measurement, the respondents were required to indicate their age in years

within a given range. Table 4.12 showed the age category of the respondents categorized into five sub-groups: those below 25 years, between 25- 35 years, between 35 and 45 years, between 45 and 55 years, and above 55years. The results, as shown in Table 4.12 below, showed that most respondents were aged between 35 and 45, representing 30.0%, 21.9% being over 55 years, 19.4% being between 25 and 35 years, 14.7% were between 45 and 55 years, and 14.1% being under 25 years, with a mean of 3.11 and a standard deviation of 1.331.

The group between the ages of 35 and 45 is usually energetic, very active, is experienced, responsible and has skills. This is followed closely by those aged 55 years and above. This group is mostly those who are done with educating their children, and therefore, they have high disposable income for investment. These findings are similar to those of (Bashir, Azan, Butt, Javed, & Tanvir, 2013). The above implies that age has an influence on the investors' behavior as affirmed by Charles & Kasilingam (2013a), who found that age has a significant influence of determining their investment behavior.

Table 4.12: Age Bracket

Age	**Under 25**	**Between 25 and 35**	**Between 35 and 45**	**Between 45 and 55**	**Over 55**	**Mean**	**SD**
Percentage	14.1%	19.4%	30.0%	14.7%	21.9%	3.11	1.331

Marital Status

Using the nominal scale method of measurement, the respondents were requested to indicate their marital status. This was further categorized into four sub-groups; single, married, widow/er and divorced. The results presented in Table 4.13 below showed that majority of the respondents (55%) were married. This would mean that most of the transactions were carried out by married investors. Further, (30.6%) of the respondents were single, (9.4%) of the respondents were widow/er and the rest (5%) of the respondents were divorced. These findings are similar to those of

(Jagongo & Mutswenje, 2017) who found out that 72% of respondents were married and followed by those who are single 18%. The results are as shown in Table 4.13

Table 4.13: Marital Status

Marital Status	Single	Married	Divorced	Widow/er
Percentage	30.6%	55.0%	5.0%	9.4%

4.6.7 Individual Portfolio Choice

The study sought to determine the respondent's individual portfolio choice that was measured through trading by active retail investors at the NSE between 1995 and 2024 and are in billions of Kenyan Shillings. In this regard the study chose the trading of stocks, bonds and treasury bills at NSE during the 30-year period. The summary results are presented in Table 4.14 The descriptive statistics presented in Table 4.14 summarize the trading turnover for Stocks, Bonds, Treasury Bills, and the overall Totals, measured in billions of Kenya Shillings (KES). The number of observations (N) indicates that 30 data points measured in years were available for Stocks and the Total series, 28 for Bonds, and 25 for Treasury Bills. The slight variation in the number of observations suggests the presence of missing data for Bonds and Treasury Bills in certain periods, while Stocks and the aggregate totals were consistently recorded across the study period.

The mean values show clear differences in the average level of trading activity across the three market segments. Bonds recorded the highest average turnover at KES 355.39 billion, followed by Stocks at KES 94.33 billion, while Treasury Bills had the lowest average turnover at KES 34.65 billion. The overall mean total trading turnover was KES 454.90 billion. These results indicate that the bond market constitutes the largest share of securities market trading activity over the period under review, contributing substantially more to total turnover than Equities and Treasury Bills.

The standard deviation values reveal the degree of variability in trading activity across the asset classes. Bonds exhibited the highest standard deviation (KES 371.36 billion), indicating substantial fluctuations in bond market turnover over time. The total market turnover also displayed high variability, with a standard deviation of KES 452.83 billion, reflecting the combined volatility of the individual market segments. Stocks recorded a standard deviation of KES 86.24 billion, suggesting moderate fluctuations relative to their mean. Treasury Bills had a standard deviation of KES 41.91 billion, indicating comparatively lower variability than Bonds but still notable relative to their average turnover. Overall, the large dispersion values, particularly for Bonds and Totals, suggest a highly dynamic securities market characterized by periods of significant expansion and contraction in trading activity.

The minimum and maximum values further illustrate the extent of variation in market turnover. The minimum turnover values were KES 0.42 billion for Stocks, KES 0.80 billion for Bonds, and KES 0.00 billion for Treasury Bills, while the total minimum was KES 1.99 billion. These low minimum values imply that in certain periods trading activity was extremely subdued, particularly for Treasury Bills. Conversely, the maximum turnover values were KES 351.31 billion for Stocks, KES 1,540.00 billion for Bonds, and KES 140.23 billion for Treasury Bills, with the total peaking at KES 1,786.18 billion. The exceptionally high maximum value recorded in the bond market indicates the occurrence of substantial spikes in bond trading during specific periods.

Table 4.14: Individual Portfolio Choice

	No	Mean	S/Dev	Min	Max
Stocks	30	94.33	86.24	0.42	351.31
Bonds	25	355.39	371.36	0.80	1540.00
T/Bills	25	34.65	41.91	0.00	140.23
Totals	30	454.90	452.83	1.92	1786.18

4.7 Testing of Model Assumptions

This entails the normality test, heteroscedasticity test, multicollinearity and autocollinearity test.

4.7.1 Tests of Normality

Preliminary analysis to assess if the data fit a normal distribution was performed. This was necessary because the concept of normality is central to statistics, especially when parametric tests such as correlation and regression analysis are going to be used. Further, it is to determine the appropriate test to be conducted and make sure that assumptions of normal distribution are not violated (Math-Statistics-Tutor, 2010). Normality was carried out using two different tests: the Kolmogorov-Smirnov test and the Skewness and Kurtosis tests. The two-sample Kolmogorov-Smirnov test is a nonparametric test that compares the cumulative distributions of two data sets. This test reports the maximum difference between the two cumulative distributions and calculates the P-Value from that and the sample sizes.

To test for the normality of independent variables, the Kolmogorov-Smirnov test was used to test the departure from normality (Math-Statistics-Tutor, 2010). If the calculated F statistic in a test is larger than or equal to the tabulated F value at 5% confidence level, then the null hypothesis will be rejected (Shapiro-Wilk, 1965). The composite Kolmogorov-Smirnov statistic value was 0.256. This associated P-value (p=.170) was greater than the significance level (.05) not significant if P>.05. This implies that the data variables were normally distributed. The results of this test are shown in Table 4.15 below.

Table 4.15: Test of normality for Independent Variables.

	Kolmogorov-Smirnov[a]	**Sig.**
Attitude towards risk	0.255	0.149
Lifestyle	0.302	0.101
Investor's Specific needs	0.207	0.173
Investment Avenues	0.260	0.258

An additional test for the normality of independent variables, attitude towards risk, lifestyle characteristics, Investor's Specific needs and Investment Avenues normality was also assessed by obtaining the skewness and kurtosis values of the measures. Skewness provides information about the symmetry of the distribution, while kurtosis provides information about the peakedness of the distribution (Demir, 2022). Many statistical functions require that a distribution be normal or near normal. If skewness is less than -1 or more than 1, the distribution is highly skewed and is not normal.

As shown in Table 4.16 Skewness statistic for investor attitude was -0.347, lifestyle characteristics was -0.339, Investor's Specific needs were -0.314, Investment Avenues was -0.246, and age was -0.473. The skewness ranged between -0.246 and -0.473. Further, a composite value was obtained that showed that skewness was -0.344, thus confirming that the distribution is more than the minimum of -1 and less than 1, thus the skewness is normal.

Similarly, a normal distribution will have a Kurtosis of zero or near zero. This can be one through a normality plot. In this study, the Kurtosis statistic for investor attitude was 0.482, lifestyle characteristics was 0.599, Investor's Specific needs were 0.190, and investment avenues were 0.455. Further composite values were obtained that showed that the Kurtosis was 0.304. In this regard, if the Kurtosis is less than -2 and more than +2, the data would indicate that it is not normally distributed.

A value of zero for Kurtosis indicates a perfectly normal distribution. In this study, the scores are reasonably distributed around a normal curve, further confirming the suitability of the data for further analysis using parametric tests. The measures did not indicate extreme departure from normality assumption as shown in Table4.16 and this confirms the suitability of the data for inferential statistics.

Table 4.16 Test of Normality

Scale	N	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
Attitude towards risk	320	-0.347	0.136	0.482	0.272
Lifestyle characteristics	320	-0.339	0.136	0.599	0.272
Investor's Specific Needs	320	-0.314	0.136	0.190	0.272
Investment Avenues	320	-0.246	0.136	0.455	0.272
Composite Value of four variables	320	-0.344	0.136	0.304	0.272

This implies that the data variables obtained through the Kolmogorov-Smirnov statistic and skewness and kurtosis values of the measures were normally distributed and therefore confirms the suitability of the data for inferential statistics for retail Investor profile and Individual portfolio choice.

4.7.2 Heteroscedasticity Test

Heteroscedasticity tests meant that previous error terms will influence other error terms, and hence violate the statistical assumption that the error terms have a constant variance. However, homoscedasticity suggests that the dependent variable has an equal level of variability for each of the values of the independent variables. (Garson, 2012). A test for homoscedasticity was done to test for variance in residuals in the regression model used. If there existed equal variance of the error terms, then the data would be normally distributed. Violation of this assumption leads to bias in test statistics and confidence intervals. Examining a scatter plot of the residuals against the predicted values of the dependent variable in Figure 4.1 would show that it is scattered showing a classic shape that the data is normally distributed.

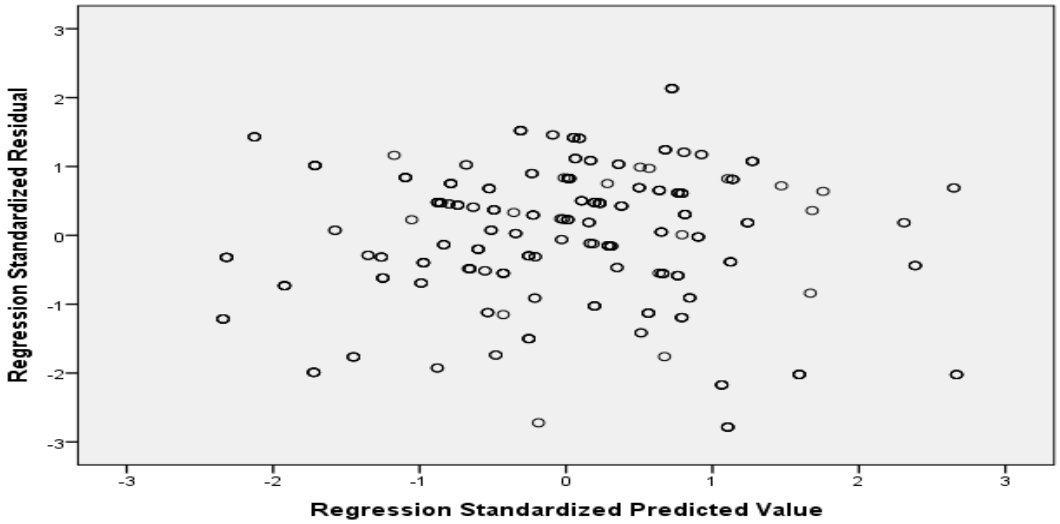

Figure 4.1: Scatter Plots

4.7.3 Test of Homoscedasticity of Variances.

Additionally, Levene's test (Levene, 1960) is an inferential statistic used to assess the equality of variances for a variable calculated for two or more groups. A non-significant P-value of Levene's test showed that the variances are indeed equal and that the data are normally distributed. As shown in Table 20 below, the P-value is 0.098 and is greater than p<.05 and therefore not significant and therefore the data is normally distributed.

4.7.3 Test of Homoscedasticity of Variances.

A Levene's test (Levene, 1960) is an inferential statistic used to assess the equality of variances for a variable calculated for two or more groups. A non-significant P-value of Levene's test showed that the variances are indeed equal and that the data is normally distributed. Levene's test was conducted to assess the assumption of homoscedasticity, which refers to the equality of variances across study variables. According to Howard Levene (1960), Levene's test is commonly used to determine whether different samples have equal variances. This assumption is important when applying parametric statistical techniques such as regression and correlation analysis.

The decision rule for Levene's test states that if the p-value is greater than 0.05 ($p > 0.05$), the null hypothesis of equal variances is not rejected. This implies that the data satisfy the homoscedasticity assumption, meaning the variances across groups are statistically equal.

The results presented in Table 4.17 indicate that Investors Attitude (p = 0.101), Lifestyle (p = 0.510), Specific Needs (p = 0.105), and Investment Avenues (p = 0.102) all have significance values greater than 0.05. Therefore, the null hypothesis of equal variances was not rejected for all variables. This implies that the data satisfied the homoscedasticity assumption, indicating that the variances across the variables were equal. Consequently, the dataset was considered suitable for further parametric statistical analysis, such as correlation and regression.

Table 4.17: Test results of Homoscedasticity of Variances.

	F	df1	df2	Sig.
Investors Attitude	77.052	20	9	.101
Lifestyle	.903	6	23	.510
Specific needs	4.845	4	25	.105
Investment Avenues	3.021	7	22	.102

The results of Levene's test show that all variables had p-values greater than 0.05, indicating that the assumption of homoscedasticity was satisfied. This confirms that the data had equal variances across groups, making it appropriate for further parametric statistical analysis.

4.7.4 Multicollinearity Test Assumptions

Multicollinearity refers to when the predictor variables are highly correlated with each other. This is an issue, as the regression model will not be able to accurately associate variance in the outcome variable with the correct predictor variable, leading to mixed-up results and incorrect inferences. The assumption is relevant if one intends to use multiple linear regression, which has multiple predictor variables.

Sosa-Escudero (Sosa-Escudero, Bera, & Rojas, 2009) avers that if the Variance Inflation Factor (VIF)=1, there is no correlation; if VIF is greater than 1 but less than 5, there is low correlation, if VIF is between 5 and 10, there is moderate correlation, but if VIF is greater than 10, then there is high correlation. However, the common rule of thumb is that VIF should be less than 3 (Shrestha, 2020) and who asserts that multicollinearity is a problem that occurs when the explanatory variables are very

highly correlated with each other. If there were no multicollinearity, then adding or removing a variable from a regression equation would not cause the values of the coefficients on the other variables to change. To test for multicollinearity in this study, the Variance Inflation Factor (VIF) and Tolerance values were computed for all independent variables. Tolerance values closer to zero indicate potential multicollinearity, while values greater than 0.1 suggest that multicollinearity is not a serious concern.

The results presented in Table 4.18 show that the VIF values ranged from 1.275 to 2.179, which are all below the recommended threshold of 3. The corresponding tolerance values ranged from 0.459 to 0.784, all above the minimum acceptable level of 0.1. This indicates that there was no significant multicollinearity among the predictor variables.

Therefore, none of the independent variables was removed from the regression model. The results confirm that the data met the multicollinearity assumption and were suitable for multiple linear regression analysis.

Table 4.18: Multicollinearity results

	Tolerance	**VIF**
Investors Attitude	.784	1.275
Lifestyle	.655	1.526
Specific needs	.459	2.179
Investment Avenues	.557	1.794
Age	.753	1.327

Level of significance = 0.01 (2- tailed)

Table 4.18 showed that there was no multicollinearity within variables and that all had VIF less than 3, hence no variable was eliminated from the multiple linear regression data.

4.7.5 Autocorrelation Test

The independence of residuals was tested using the Durbin–Watson statistic. Durbin–Watson statistic is a test statistic used to detect the presence of autocorrelation in the

residuals or prediction errors from a regression analysis (Gujarat & Porter, 2020). According to (Gujarat & Porter, 2020), the Durbin–Watson statistic examines whether adjacent residuals in a regression model are correlated. Autocorrelation can bias regression results and affect the reliability of statistical inferences. Absence of autocorrelation allows the study to utilize all the independent variables. The value of the Durbin–Watson statistic ranges between 0 and 4. A value close to 2 indicates no autocorrelation, values approaching 0 indicate positive autocorrelation, and values approaching 4 indicate negative autocorrelation. In most regression analyses, a Durbin–Watson value between 1.5 and 2.5 is considered an acceptable range with a p-value of less than 0.05, indicating that the residuals are independent (Gujarat & Porter, 2020).

The null hypothesis states that the residuals are not serially correlated. If the Durbin–Watson statistic falls within the acceptable range, the null hypothesis is not rejected.

Table 4.19: Autocorrelation Results

R	R Square	Adjusted R-Square	Std. Error of the Estimate	Durbin-Watson
.847[a]	.717	.658	.46927	1.852

Table 4.19 above showed that the Durbin -Watson d=1.852 is between the critical values of $1.5 < d < 2.5$, which clearly indicates that predictors are sufficiently independent and therefore there was no autocorrelation in the residuals or prediction error from the multiple linear regression analysis models and the hypothesis test.

4.8 Inferential Statistics of the Study Variables

Inferential statistical analysis was conducted to determine the relationships between the study variables and to test the study hypotheses. The analysis involved Pearson correlation analysis, analysis of variance (ANOVA) and multiple regression analysis. First, Pearson correlation analysis was used to examine the strength and direction of the relationship between the independent variables (Investors' Attitude, Lifestyle, Specific Needs, and Investment Avenues) and the dependent variable. This helped establish whether significant associations existed among the study variables.

Secondly, multiple regression analysis was performed to determine the combined effect of the independent variables on the dependent variable. The regression analysis helped establish the extent to which the predictor variables explained variations in the dependent variable.

Additionally, an ANOVA test was conducted to evaluate the overall significance of the regression model. The ANOVA results helped determine whether the independent variables collectively had a statistically significant effect on the dependent variable.

Finally, the regression model summary was analyzed to assess the explanatory power of the model using statistics such as R, R-squared, and Adjusted R-squared.

These inferential statistical analyses were used to test the study hypotheses and determine the statistical significance of the relationships between the study variables

4.8.1 Correlation analysis, multiple regression analysis models and the hypothesis test

This entailed the individual correlation analysis, the combined correlation analysis, the multiple regression analysis models and the hypothesis test of individual portfolio choice on stocks, bonds and Treasury bills with age.

4.8.2 Correlation Analysis of Individual Portfolio Choice and Independent Variables.

The study sought to assess whether there were significant relationships between the predictor variables and the response variable that was used in this research was measured through trading by active retail investors. In this regard, the study chose the trading of stocks, bonds and treasury bills at NSE. Pearson correlation analysis was used to explore relationships between the study variables. The results of the study are explained below.

4.8.3. Correlation between Individual Portfolio Choice and Attitude towards risk.

The correlation was examined, and the Pearson correlation results from this study are shown in Table 4.20. The Correlation Coefficient of the attitude towards risk is the

composite score of the correlation coefficient value obtained from the means of opinions on attitude towards risk evaluations regarding risk-averse investors, risk-neutral investors and risk-seeking investors. In this study variable there is a moderate positive correlation between individual portfolio choice and attitude towards risk, and is statistically significant with a p-value of 0.006 and a Pearson correlation of r=.488. This means that investors' risk preference towards risk in making investment choices in particular risk seekers, risk neutral and risk averse investors, positively influence individual portfolio choice at NSE

Table 4.20: Correlation between Individual Portfolio Choice and Attitude towards Risk

Variables	**Coefficient type**	**Individual Portfolio Choice -**	**Investor's attitude**
Individual Portfolio Choice	Pearson Correlation	1	.488**
	Sig. (2-tailed)		.006
	N	30	
Investor's attitude	Pearson Correlation	.488**	1
	Sig. (2-tailed)	.006	
	N	**30**	**30**

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

4.8.4 Correlation between Individual Portfolio Choice and Lifestyle characteristics.

The correlation was assessed, and the Pearson correlation results from this study are shown in Table 4.21. The Correlation Coefficient of the lifestyle characteristics is the composite score of the correlation coefficient value obtained from the means of opinions on personal ability, confidence level, brokers' recommendation and family members' opinion of the respondents. This approach was used by Sultana and Pardahsaradhi (2012) using factor analysis, cluster analysis, Chi-square analysis, and analysis of variance, where it showed that occupation influences perfect planning, age and occupation influences leadership, and occupation influences risk-taking behaviour.

Results depict that there is a positive correlation between Individual Portfolio Choice and lifestyle characteristics risk, and it is statistically strongly associated with a p-value of 0.029 (r = -0.398). This implies that lifestyle characteristics negatively influence Individual Portfolio Choice at the NSE. This insinuates that investors' personal ability, confidence level, brokers' recommendations, and family members negatively influence Individual Portfolio Choice at the NSE.

Table 4.21: Pearson Correlation Coefficient between Individual Portfolio Choice in respect to stocks and Lifestyle characteristics

Variables	**Coefficient type**	**Individual Portfolio Choice-**	**Investor lifestyle**
Individual Portfolio Choice- Stocks	Pearson	1	-.398**
	Sig. (2-tailed)		.029
	N	30	
investor lifestyle	Pearson	-.398**	1
	Sig. (2-tailed)	.029	
	N	**30**	**30**

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

4.8.5 Correlation between Individual Portfolio Choice and Investor's Specific Needs

Investor's specific needs is the composite score of the correlation coefficient value obtained from opinions on socially expressive characteristics, the firm's reputation in the industry and the contribution of the firm in social causes. Their correlation was examined and the Pearson correlation results from this study are shown in Table 4.22. From the findings, using Pearson Correlation, there is a positive correlation between Individual Portfolio Choice on stocks and Investor's Specific Needs, and it is statistically closely linked with a p value of 0.048 (r = .307). This implies that an investor's socially expressive characteristics, a firm's reputation in the industry of firms in social causes, were moderately and positively influenced the Individual Portfolio Choice at NSE

Table 4.22: Pearson Correlation Coefficient between Individual Portfolio Choice and Investor's Specific Needs

Variables	Coefficient type	Individual Portfolio Choice	Investor's Specific Needs
Individual Portfolio Choice-Stocks	Pearson Correlation	1	.307**
	Sig. (2-tailed)		.048
	N	30	
Investor's Specific Needs	Pearson Correlation	.307**	1
	Sig. (2-tailed)	.048	
	N	**30**	**30**

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

4.8.6 Correlation between Individual Portfolio Choice and Investors' Investment Avenues

Their correlation was examined, and the Pearson correlation results from this study are as shown in Table 4.23. The investment avenues are the composite score of the value of the correlation coefficient obtained from opinions on future contingent needs, sources and levels of liquidity and safety of investments of the i^{th} investor. From the findings, using Pearson Correlation, there is a negative correlation between Individual Portfolio Choice and Investor's Specific Needs, and it is statistically not significant with a p-value of 0.465 (r = -0.139). This indicates that investors' opinions on the safety of investments, sources and levels of liquidity, as well as their future contingent needs, are moderately and negatively correlated but do not influence Individual Portfolio Choice at NSE.

Table 4.23 Correlation between Individual Portfolio Choice and Investor's Investment Avenues

Variables	Coefficient type	Individual Portfolio Choice	Investment Avenues
Individual Portfolio Choice – Stocks	Pearson Correlation	1	-.139
	Sig. (2-tailed)		.465
	N	30	
Investment Avenues	Pearson Correlation	-.139	1
	Sig. (2-tailed)	.465	
	N	30	30

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

4.8.7 Correlation between Individual Portfolio Choice and Age

Investor's age in the study was obtained from the composite score from the segmentation of their ages into 5 age groups, from those under 25 years up to those over 55years of the i^{th} investor. The correlation between individual portfolio choice with respect to stocks and age at NSE was examined, and the Pearson correlation results from this study are shown in Table 4.24. It is also evident from the results that there is a positive and significant correlation (P-value of 0.191, which is more than 0.05) between Individual Portfolio choice and Age at NSE (r=.245). This implies that age positively correlated, but does not influence Individual Portfolio Choice at NSE. This showed that individual investors in all five age groups, from those below 25 years to those over 55 years, are positively correlated but do not influence Individual Portfolio Choice at NSE

Table 4.24: Pearson Correlation Coefficient between Individual Portfolio Choice and Age.

Variables	Coefficient type	Individual Portfolio Choice	Age
Individual Portfolio Choice – Stocks	Pearson Correlation	1	.245**
	Sig. (2-tailed)		.191
	N	30	
Age	Pearson Correlation	.245**	1
	Sig. (2-tailed)	.191	
	N	**30**	**30**

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

4.8.8 Combined Correlations between Attitude towards Risk, Lifestyle Characteristics, Investor's Specific Needs, Investment Avenues and Individual Portfolio Choice

The individual correlations between the predictor variables and the individual portfolio choice, the response variable, have been analyzed as shown in Table 4.20 through 4.24. The combined Pearson correlation results from this study is reproduced in Appendix III.

4.8.9 Multiple regression analysis models and the hypothesis test of individual portfolio choice.

This entailed the analysis of the integrated regression model on all independent variables with the moderator age, as well as the regression model summaries. This method was used first to know the unique contribution power of a set of variables after accounting for other variables already in the model. Secondly, it was used to evaluate if age explains a statistically significant amount of the variance in the outcome that was not explained by retail investor profile variables and thirdly, to evaluate which model provides a better fit.

4.8.10. Multiple regression analysis models and the hypothesis test of Trading activities and Age

This entailed the analysis of the Integrated Regression Model on all independent variables with the moderator age, as well as the regression model summaries.

Model Summary of Individual Portfolio Choice and Age

Moderated multiple regression analysis was conducted to determine the interaction effect that is contributed by the independent variables alone and that after the interaction of the moderating variable. The hierarchical linear regression analysis was used to test the moderating influence (Baron & Kenny, 1986). The results are shown in Table 4.25.

Table 4.25: Model summary of Individual Portfolio Choice and Age

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.802[a]	.644	.587	.51571	.644	11.291	4	25	.000
2	.847[b]	.717	.658	.46927	.073	6.192	1	24	.020
3	.884[c]	.782	.725	.42073	.065	6.857	1	23	.015
4	.913[d]	.833	.780	.37648	.051	6.724	1	22	.017
5	.930[e]	.866	.815	.34543	.033	5.133	1	21	.034
6	.945[f]	.892	.844	.31725	.026	4.896	1	20	.039

a. Predictors: (Constant), Attitude towards risk, Lifestyle characteristics, Specific needs, Investment avenues.
b. Predictors: (Constant), Attitude towards risk, Lifestyle characteristics, Specific needs, Investment avenues Age.
c. Predictors: (Constant), Attitude towards risk, Lifestyle characteristics, Specific needs, Investment avenues, age, attitude towards risk.
d. Predictors: (Constant), Attitude towards risk, Lifestyle characteristics, Specific needs, Investment avenues, age, attitude towards risk, lifestyle characteristics.

e. Predictors: (Constant), Attitude towards risk, Lifestyle characteristics, Specific needs, Investment avenues, age, attitude towards risk lifestyle characteristics, specific needs.
f. Predictors: (Constant), Attitude towards risk, Lifestyle characteristics, Specific needs, Investment avenues, age, attitude towards risk, lifestyle characteristics, Specific needs, Investment avenues.

Ordinarily, when the value of R^2 is less than 0.50, then the model is weak, but if it is more, then it is a good model. From Table 4.25, the coefficient of determination (R^2) for model 1 was 0.644, which implies that 64.4% of the variation in the Individual Portfolio Choice can be explained by the independent variables (Investors' Attitude, Lifestyle, Investors Specific Needs, Investor's Investment Avenues). R^2 value was statistically significant at p=.000 (p<.05). It therefore showed that the variation in individual portfolio choice being explained by the retail investors' profile (independent variable) alone is a good model. The F test was 11.291and is greater than the critical value, implying that the overall regression equation is significant and that the null hypothesis is rejected, that not all the coefficients of the independent variables are zero.

Model 2 showed the results after the interaction of the moderating variable Age, the coefficient of determination R^2 changed from 0.644 to 0.71, Individual Portfolio Choice 7 or 0.073 (7.3%) and statistically significant at p=.020 (p<.05) and implies that 7.3% of variation in individual portfolio choice can be explained by the independent variables with the interaction of moderator Age. The inclusion of the interaction term resulted in an R^2 change of 7.3%, implying that variation in individual portfolio choice above and beyond the interaction in model 1. The F test was 6.192 and is greater than the critical value, implying that the overall regression equation is significantly related and that the null hypothesis is rejected, that not all the coefficients of the independent variables are zero.

The R^2 change from model 2 to model 3, which changed from .717 to .782 or .065 (6.5%) and is statistically significant at p=.015. This indicates that the variables interacting with moderator age and Investors' Attitude (X1) had a significant effect

on the variation in individual portfolio choice and therefore moderate individual portfolio choice. The F test was 6.857 and is greater than the critical value, implying that the overall regression equation is significant and that the null hypothesis is rejected, that not all the coefficients of the independent variables are zero.

The R^2 change from model 3 to model 4, which changed from .782 to .833 or .051 (5.1%) and is statistically significant at p=.017 (p<.05). This indicates that age interacts with Investors' Attitude and Lifestyle. The inclusion of the interaction term resulted in an R^2 change of 0.051, implying that 5.1% variation in Individual Portfolio Choice above and beyond the interaction in model 3. The F test was 6.724 and is greater than the critical value, implying that the overall regression equation is significant and that the null hypothesis is rejected, that not all the coefficients of the independent variables are zero.

The R^2 change from model 4 to model 5, which changed from .833 to .866 or .033 (3.3%) was statistically strongly associated at p=.034 (p<.05). This indicates that age, when it interacts with investors' attitude, lifestyle and specific needs moderates and explains 3.3% variation in individual portfolio choice above and beyond the interaction in model 4. The F test was 5.133 and is greater than the critical value, implying that the overall regression equation is highly associated and that the null hypothesis is rejected, that not all the coefficients of the independent variables are zero.

The R^2 change from model 5 to model 6 which changed from .866 to .892 or .026 (2.6%) and statistically significant at p=.039 (p<.05) this indicates that age when it interacts with Investors' Attitude, Lifestyle, Unique Needs and Liquidity did have a moderating effect in the variation in Securities Market Trading Activity above and beyond the interaction in model 5. The F test was 4.896 and is greater than the critical value, implying that the overall regression equation is certainly associated and that the null hypothesis is rejected, that not all the coefficients of the independent variables are zero.

4.8.11 ANOVA for Integrated Regression Model on Individual Portfolio Choice. ANOVA test for the Integrated Regression Model on all independent variables with the moderator age on the dependent variable, Individual Portfolio Choice.

Table 4.26: ANOVA Table of Individual Portfolio Choice

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	12.011	4	3.003	11.291	.000[b]
	Residual	6.649	25	.266		
	Total	18.660	29			
2	Regression	13.375	5	2.675	12.147	.000[c]
	Residual	5.285	24	.220		
	Total	18.660	29			
3	Regression	14.589	6	2.431	13.736	.000[d]
	Residual	4.071	23	.177		
	Total	18.660	29			
4	Regression	15.542	7	2.220	15.664	.000[e]
	Residual	3.118	22	.142		
	Total	18.660	29			
5	Regression	16.154	8	2.019	16.923	.000[f]
	Residual	2.506	21	.119		
	Total	18.660	29			
6	Regression	16.647	9	1.850	18.377	.000[g]
	Residual	2.013	20	.101		
	Total	18.660	29			

a. Predictors: (Constant), Attitude towards risk, Lifestyle characteristics, Specific needs, Investment avenues.

b. Predictors: (Constant), Attitude towards risk, Lifestyle characteristics, Specific needs, Investment avenues Age.

c. Predictors: (Constant), Attitude towards risk, Lifestyle characteristics, Specific needs, Investment avenues, age, attitude towards risk.

d. Predictors: (Constant), Attitude towards risk, Lifestyle characteristics, 5pecific needs, Investment avenues, age, attitude towards risk, lifestyle characteristics.

e. Predictors: (Constant), Attitude towards risk, Lifestyle characteristics, Specific needs, Investment avenues, age, attitude towards risk lifestyle characteristics, specific needs.
f. Predictors: (Constant), Attitude towards risk, Lifestyle characteristics, Specific needs, Investment avenues, age, attitude towards risk, lifestyle characteristics, Specific needs, Investment avenues.

From the ANOVA statistics, the study established that the regression model had a significance level of 0.000 in all the variables, which is an indication that the data was ideal for concluding the population parameters, as the value of significance of 0.05 (p-value) for model 1 through model 6 was less than the precision value of 5% (0.000<0.05). The F statistics was greater than the critical value (in model 1, F=11.291, in Model 2, F=12.147, in model 3, F=13.736, in model 4, F=15.664, in model 5, F=16.923 and in model 6, F=18.377) which is an indication that Investors' Attitude, Lifestyle, Unique Needs, Liquidity and Age which is an indication that the data was ideal for concluding the population parameters as the value of significance on Individual Portfolio Choice.

4.8.12 Regression model based on Moderated Multiple Regression Analysis

After the successful running of the preliminary diagnostic tests and confirming that the data complied with the prerequisite assumptions, regression analyses were performed on the data so as to further test the hypotheses. It was conducted so as to determine the relationship between Individual Portfolio Choice and the independent variables.

4.8.13 Hierarchical Moderated Multiple Regression Analysis Results

Moderated multiple regression analysis was conducted to determine whether investor's age moderates the combined effect of attitude towards risk, lifestyle characteristics, investor's specific needs and investment avenues on Individual Portfolio Choice at the Nairobi Securities Exchange.

4.8.14 Overall Significance Test Results of Individual Portfolio Choice

Table 4.27 showed the overall test results for the hypothesized research for models 1 through 6

Table 4.27: Moderated Regression model in relation to Individual Portfolio Choice

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.901	.366		5.201	.000
	Investors Attitude	.276	.111	.336	2.495	.020
	Lifestyle	-.453	.103	-.606	-4.394	.000
	Specific needs	.451	.123	.630	3.674	.001
	Investment Avenues	-.235	.107	-.325	-2.186	.038
2	(Constant)	1.273	.417		3.051	.006
	Investors Attitude	.271	.101	.330	2.688	.013
	Lifestyle	-.364	.100	-.487	-3.627	.001
	Specific needs	.518	.115	.723	4.509	.000
	Investment Avenues	-.331	.105	-.458	-3.148	.004
	Age	.276	.111	.311	2.488	.020
3	(Constant)	1.425	.379		3.764	.001
	Investors Attitude	.236	.091	.288	2.587	.016
	Lifestyle	-.386	.090	-.516	-4.270	.000
	Specific needs	.466	.105	.650	4.435	.000
	Investment Avenues	-.314	.094	-.435	-3.328	.003
	Age	.121	.116	.136	1.040	.309
	MX1	.090	.035	.309	2.619	.015
4	(Constant)	2.160	.442		4.890	.000
	Investors Attitude	.297	.085	.361	3.494	.002
	Lifestyle	-.676	.138	-.904	-4.898	.000
	Specific needs	.421	.095	.588	4.412	.000
	Investment Avenues	-.311	.084	-.431	-3.680	.001
	Age	-.191	.159	-.215	-1.203	.242
	MX1	.026	.040	.090	.667	.512
	MX2	.189	.073	.598	2.593	.017
5	(Constant)	2.008	.411		4.888	.000
	Invest Attitude	.147	.102	.178	1.431	.167
	Lifestyle	-.758	.132	-1.014	-5.757	.000
	Specific needs	.658	.136	.918	4.825	.000
	Investment Avenues	-.328	.078	-.455	-4.213	.000
	Age	-.195	.146	-.219	-1.336	.196
	MX1	.176	.075	.601	2.336	.029

	MX2	.255	.073	.805	3.493	.002
	MX3	-.169	.075	-.750	-2.266	.034
6	(Constant)	1.976	.378		5.232	.000
	Investors Attitude	.133	.094	.162	1.409	.174
	Lifestyle	-.662	.128	-.886	-5.158	.000
	Specific needs	.591	.129	.824	4.581	.000
	Investment Avenues	-.278	.075	-.385	-3.704	.001
	Age	-.049	.149	-.055	-.328	.747
	MX1	.177	.069	.605	2.559	.019
	MX2	.180	.075	.570	2.406	.026
	MX3	-.129	.071	-.571	-1.815	.084
	MX4	-.064	.029	-.223	-2.213	.039

4.8.15 Optimal models with Moderated Multiple Regression Analysis

Model 1

Equation $Y= \beta_0+ \beta_1X_1+ \beta_2X_2+ \beta_3X_3 + \beta_4X_4$ **Equation 4.1**

M1=$Y= \beta_0+ \beta_1X_1+ \beta_2X_2+ \beta_3X_3 + \beta_4X_4$

Then Y= 1.901+0.276X1-0.453X2 + 0.451X3-0.235X4

From the above equation, Individual Portfolio Choice =1.901 + 0.276 Attitude towards risk −0.453 Lifestyle characteristics +0.451 Specific needs −0.235 Investment Avenues. **Equation 4.1**

From the above regression model, it was revealed that holding Attitude towards risk, Lifestyle characteristics, investor's specific needs and investment avenues as constant, and the Individual Portfolio Choice at the Nairobi Securities Exchange would be at 1.901. It would imply that 1.901 was being contributed to positively by other factors (variables) other than the study variables.

Further, having attitude towards risk as the only variable, denotes that if all other independent variables are rated as zero, a change of magnitude of one unit in X1 (Attitude towards risk), {Y=1.901+0.2761} leads to a 2.177 change in Y (Individual portfolio choice), a change of magnitude of one unit in X2 (lifestyle characteristics), {Y= 1.901-0.4531} leads to a 1.448 change in Y (Individual Portfolio Choice), a change of magnitude of one unit in X3 (Investor's specific needs), {Y=

1.901+0.4511} leads to a 2.352 change in Y *(*Individual Portfolio Choice*)*. Finally, if all other independent variables are rated as zero, a change of magnitude one unit in X4 (Liquidity), i.e. {Y= 1.901-0.2351} leads to a 1.666 change in Individual portfolio choice. This implies that there is a positive and significant effect ($p<.05$) on the direct relationship between attitude towards risk and investor's specific needs and investor's investment avenues on the dependent variable Individual Portfolio Choice.

Model 2

$$M2 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + Z$$

$$M2 = 1.273 + .271 X1 - .364 X2 + .518 X3 - .331 X4 + .276Z$$

In model two, a regression was done to determine the moderating effect of age on the relationship between investor's attitude towards risk, lifestyle characteristics, investor's specific needs and investor's investment avenues on Individual Portfolio Choice. It would indicate that 1.273 was being contributed to positively by other factors (variables) other than the study variables. In addition, it showed that attitude towards risk, lifestyle characteristics, investor's specific needs and investor's investment avenues all had a significant direct relationship on Individual Portfolio Choice. Further, the regression analysis revealed that age had a positive and significant effect on the relationship between all the independent variables and Individual Portfolio Choice, as $p = 0.020$ ($p<0.05$), as shown in Table 4.37 above. The inclusion of age as a moderator would result in a 0.276 increase in Individual Portfolio Choice over and above the contributions of independent variables alone. Therefore, age positively and significantly influences Individual Portfolio Choice at NSE.

Model 3

$$M3 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + Z + Z X_1$$

$$M3 = 1.425 + .236 X1 - .386 X2 + .466 X3 - .314 X4 + .121Z + .090Z X1$$

In model three regressions were done to determine the moderating effect of age on the relationship between independent variables after interaction with investor's age with investor's attitude towards risk on Individual Portfolio Choice. It would indicate that 1.425 was being contributed to positively by other factors (variables) other than

the study variables. After testing for the independent variables, after interaction, the regression analysis revealed that age had no significant effect (p=.309), while the interaction with the moderator age and investor's attitude p = 0.015 (p<0.05), implying that it moderates. Therefore, it has a moderating effect as shown in Table 4.37 above. The inclusion of age together with attitude towards risk as a moderator contributed 0.090 in Individual Portfolio Choice over and above the contributions of independent variables alone. Therefore, together with attitude towards risk, it positively and significantly influences Individual Portfolio Choice at NSE.

Model 4

$$M4= \beta_0 +\beta_1 X_1+ \beta_2 X_2+ \beta_3 X_3+ \beta_4 X_4 + Z +Z X_1 + Z X_2$$

M4= 2.160 +.297 X1 -.676 X2 +.421 X3-.311 X4 -.191Z +.026Z X1 +.189Z X2

In model four, regressions were done to determine the moderating effect of the independent variable after interaction with age, age together with investor's attitude towards risk, age together with lifestyle characteristics and age together with investor's specific needs on individual portfolio choice. It indicated that 2.160 was being contributed positively by other factors (variables) other than the study variables. The regression analysis revealed that age had no significant effect (p=.242), while interaction with age together with attitude towards risk was not significant p=.512. was not significant, p =.512 However, the interaction with age together with lifestyle characteristics had a significant effect, p=.017, as shown in Table 4.37 above. This implies that there is a moderating effect after interaction with age and lifestyle characteristics on individual portfolio choice.

Model 5

$$M5= \beta_0 +\beta_1 X_1+ \beta_2 X_2+ \beta_3 X_3+ \beta_4 X_4 + Z +Z X_1 + Z X_2 + Z X_3$$

M5= 2.008 +.147 X1 -.758 X2 +.658 X3-.328 X4 -.195Z +.176Z X1 +.255Z X2 -.169Z X3

In model five regressions was done to determine the moderating effect of age on the relationship between independent variables and individual portfolio choice after interaction with age alone showed that p value =0.196 was therefore not significant and therefore has no effect The regression analysis revealed that, interaction with age

together with and investors investment avenues (p=.029), interaction with age together with lifestyle characteristics (p=.002), and Interaction with age together with investor's specific needs p=.034 were all significant. This implies that there is a moderating effect of the independent variables after interaction with age, together with investor's attitude towards risk, age together with lifestyle characteristics and age together with investor's specific needs on individual portfolio choice at the NSE

Model 6

$$M6= \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 Z + Z + Z X_1 + Z X_2 + Z X_3 + Z X_4$$

M6= 1.976 +.133 X1 -.662 X2 +.591 X3-.278 X4 -.049Z +.177Z X1 +.180Z X2 -.129Z X3 -.064Z X4

In model six, regressions were done to determine the moderating effect of age on the relationship between independent variables and Individual Portfolio Choice after interaction with age and all independent variables. It showed that lifestyle characteristics, investor's specific needs and investment avenues had significant direct relationships. Age had no significant effect (p=.747). However, the interaction of age together with investor's attitude towards risk results to an increase of 0.177 on individual portfolio choice and significant (p=0.019), age together with lifestyle characteristics results to an increase of 0.180 on individual portfolio choice and significant (p=0.026) and age together with investor's specific needs results to a decrease of 0.129 but not significant(p=0.084) on individual portfolio choice. And interaction with age and investment avenues results to a decrease of .064 and is significant (p=0.039), while interaction with age and investor's specific needs p=.084 was not significant. This implies that there is a moderating effect of the independent variables after interactions on individual portfolio choice, as shown in Table 4.26 above.

4.8.16 Hypothesis Tests

H01: There is no significant effect of attitude towards risk on Individual Portfolio Choice at the Nairobi Securities Exchange.

Hypothesis H01 stated that there is no significant effect of attitude towards risk on Individual Portfolio Choice at the NSE in Kenya was formulated for testing the regression results, which showed that the coefficient of Attitude towards risk is .276 with a p-value =.020 (p<.05), thus the model is positively correlated and statistically significant on Individual Portfolio Choice, therefore reject H01. Hence, we can conclude that the attitude of investors towards risks affects Individual Portfolio Choice at the Nairobi Securities Exchange.

H02: There is no significant effect of lifestyle characteristics on Individual Portfolio Choice at the Nairobi Securities Exchange.

To determine the relationship between lifestyle characteristics and Individual Portfolio Choice at the Nairobi Securities Exchange, Hypothesis 02 was used. The regression results have a coefficient of the model as -.453 with a p-value =.000 ($p<.05$), thus the model is negatively related and is statistically significant, supporting rejection of H02. Hence, we can conclude that lifestyle characteristics of investors affect Individual Portfolio Choice at the Nairobi Securities Exchange.

H03: There is no significant effect of Investor's specific needs on Individual Portfolio Choice at the Nairobi Securities Exchange.

To determine the relationship between Investor's specific needs and Individual Portfolio Choice at the Nairobi Securities Exchange, Hypothesis H03 was used to show the effect of Investor's specific needs on Individual Portfolio Choice at the Nairobi Securities Exchange.

The regression results showed that the coefficient of Investor's specific needs is 0.451 with a p-value =.001 ($p<.05$), thus the model is statistically significant, supporting the rejection of H03. Hence, we can conclude that Investor's specific needs of investors affects Individual Portfolio Choice at the Nairobi Securities Exchange

. H04: There is no significant effect of investment avenues on Individual Portfolio Choice at the Nairobi Securities Exchange. Hypothesis H04 was used to show the effect of investor's liquidity on Individual Portfolio Choice at the Nairobi Securities Exchange.

The regression results showed that the coefficient of liquidity is -.235 with a p-value=.038 ($p<.05$), thus the model is statistically significant, supporting rejection of H04. Hence, we can conclude that investors' investment avenues affect individual portfolio choice at the Nairobi Securities Exchange.

H05: There is no significant moderating effect of investor's age on the relationship between retail investor profile and Individual Portfolio Choice at the Nairobi Securities Exchange.

Hypothesis 5 was used to test the moderating effect of investor's age on the relationship between retail investor profile and Individual Portfolio Choice at the Nairobi Securities Exchange. To test this hypothesis, Hierarchical Multiple Regression was applied. As shown in Table 4.37, the interaction term of age has a beta coefficient of -.049 and a corresponding P-value of 0.747. The relationship is negative (beta value negative) and not significant (p-value >.05), which implies that age has no moderating effect on the relationship between retail investor profile and Individual Portfolio Choice at the Nairobi Securities Exchange. We therefore fail to reject the hypothesis that there is no significant moderating effect of investor's age on the relationship between retail investor profile and Individual Portfolio Choice at the Nairobi Securities Exchange.

Table 4.28: Hypothesis testing summary results - Individual Portfolio Choice

Hypothesis	P-value	Results
H_{01}: There is no significant effect of attitude towards risk on individual portfolio choice at the Nairobi Securities Exchange.	0.000	Positive and significant (Reject **H_{01}**)
H_{02}: There is no significant effect of lifestyle characteristics on individual portfolio choice at the Nairobi Securities Exchange.	0.020	Positive and significant (Reject **H_{02}**)
H_{03}: There is no significant effect of specific needs and preferences on individual portfolio choice at the Nairobi Securities Exchange.	0.000	Positive and significant (Reject **H_{03}**)
H_{04}: There is no significant effect of investment avenues on individual portfolio choice at the Nairobi Securities Exchange.	0.001	Positive and significant (Reject **H_{04}**)
H_{05}: There is no significant moderating effect of age on the relationship between retail investor profile and individual portfolio choice at the Nairobi Securities Exchange.	0.747	Positive and not significant (Fail to Reject **H_{05}**)

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary, conclusions and recommendations of the study on the effect of retail investor profile on individual portfolio choice at the NSE, Kenya. This was arrived at through the scrutiny of the data analysis in chapter four, as well as making inferences and deductions from the data. Subsequently, it will give a summary of key retail investors' opinions and possible further research on other areas of retail investor profile that have not been covered in this study.

5.2 Summary of findings

This section presents the summary of the study based on the specific objectives. The study's dependent variables were stocks, bonds and treasury bills.

5.2.1 Attitude towards risk

The first specific objective was to determine the effect of investor attitude towards risk on individual portfolio choice at the NSE

From the results, it was established that attitude towards risk and individual portfolio choice are positively correlated and statistically significant with respect to individual portfolio choice. This implies that there is a positive and significant effect p value = 0.020 ($p<.05$) on the direct relationship between attitude towards risk on the dependent variable Individual Portfolio Choice at the NSE. Similarly, it had a Pearson Correlation value of positive 0.488 with Individual Portfolio Choice. This means that investors preference towards risk moderately and positively influence individual portfolio choice at NSE.in making investment choices

5.2.2 Lifestyle characteristics

The second specific objective was to assess the effect of investor lifestyle characteristics on individual portfolio choice at the NSE.

From the results, it was established that there is a negative correlation (Pearson Correlation value of negative 0.398 and P value 0.029) with Individual Portfolio

Choice. Similarly, in the regression model results indicated that there existed a negative correlation (Unstandardized Coefficient of -0.453) and statistically significant p value = 0.000 ($p<.05$) between lifestyle characteristics and individual portfolio choice at NSE. This implies that there is a negative and significant effect on the direct relationship between lifestyle characteristics on the dependent variable Individual Portfolio Choice at the NSE.

5.2.3 Investor's specific needs

The third specific objective was to examine the effect of investor specific needs on individual portfolio choice at the NSE.

From the results, it was established that there is a positive correlation that is statistically significant between investor specific needs and individual portfolio choice at the NSE, Kenya. Similarly, it had a Pearson Correlation value of positive value of 0.307 and (p value of 0.048) with Individual Portfolio Choice. This implies that there is a positive and significant effect on the direct relationship between investor specific needs on Individual Portfolio Choice at the NSE Further it means that investors preference towards investor specific needs moderately and positively influence individual portfolio choice at NSE.

5.2.4 Investor's investment avenues

The fourth specific objective was to determine the effect of investor's investment avenues on individual portfolio choice at the NSE.

From the results, it was established that there was a negative correlation and was statistically not a significant relationship between Investor's investment avenues and individual portfolio choice at NSE, Kenya. Similarly, it had a Pearson Correlation value of negative 0.139 and (p value of 0.465) with Individual Portfolio Choice. This indicates that they are moderately and negatively correlated but not significant and therefore do not influence individual portfolio choice at the NSE. In addition, it means that investors opinions on the safety of investments, sources and levels of liquidity and future contingent needs on investor investment avenues are moderately and negatively correlated but do not influence individual portfolio choice at NSE.

5.2.5 Investor's Age

The fifth specific objective was to establish the moderating effect of investor's age on the relationship between retail investor profile and individual portfolio choice at the Nairobi Securities Exchange.

The relationship is negative (Beta value -0.049) and not significant p=0.747 (p-value >.05), which implies that age has no moderating effect on the relationship between retail investor profile and Individual Portfolio Choice at the Nairobi Securities Exchange. This showed that individual retail investors in all the five age groups arw negatively correlated but not significant. Therefore, it implies that it does not influence individual portfolio choice at the NSE Kenya. Hence, age has no moderating effect on the relationship between retail investor profile and Individual Portfolio Choice at the Nairobi Securities Exchange

5.3 Conclusions

By use of general information and descriptive statistics obtained from the study, the findings indicate that the majority of investors have been trading continuously for between five and ten years. Further, most are in the age group of between 35 and 45 years. In addition, it was established from their marital status that the majority are married. Of this, most of the transactions are made by males.

5.3.1 Attitude towards risk.

Under this variable it showed that investors fear losses or adverse movements of prices. Therefore, the fear of losses triggers investors to rethink investment choices made in the past. Secondly, the majorities of investors do not take chances once they see unnecessary fluctuations in security prices and would prefer to dispose of them. Finally, the majority believed that the only way of getting a good return was to invest in risky investments.

In the study of Boobalan and Selvavinayagam (2019) that examined the investors' attitude towards risk and return on investments. The research findings revealed that there is a significant association between Investor's attitude and investment decisions based on investment experience, risk capability of investors, duration of investment

and planning habits. Experienced individuals with a positive attitude towards investment prefer to invest money for a long period of time, may take risks and prepare for long-term plans. The study did not include non-demographic characteristics as part of the control variables. In addition, the study was bivariate. The current study gave dissimilar findings. This study will interrogate the influence of attitude towards risk on individual portfolio choice, which is measured through trading by active retail investors on stocks, bonds and treasury bills at NSE Kenya, thus narrowing the gap

5.3.2 Lifestyle characteristics

The study found that the majority had a clear focus on the amount of money one intended to invest in a particular security. Secondly, the majority continuously assessed the possibilities of winning or losing in a particular portfolio and would confidently adopt an appropriate asset allocation strategy. Thirdly, investors often guide their brokers on the spread of assets for risk minimization.

The study by Rokhmawati, Oktavia and Fitri (2024) examined the roles of young adults' lifestyles in moderating the relationship between financial knowledge and attitude and their management behavior towards money. The results showed that lifestyle significantly moderates the effect of financial knowledge and attitude on financial management behavior. There is a knowledge gap to find out whether such investor lifestyle characteristics are a variable rather than a moderator are value adding to the investor by incorporating the individual portfolio choice perspective. This study delineated investor lifestyle characteristics and investor behavior and determined how the lifestyle characteristics influence individual portfolio choice.

5.3.3 Investor's specific needs

The study established that family structure and social environment do not necessarily affect investment choices when making investment choices. Secondly, the majority did not necessarily carry out social screening of the firms they invested in when making investment choices. Finally, the majority of investors would not bother to keep an eye on the priorities of firms, whether they would do harm to the community or check whether such firms follow social priorities to avoid social hazards.

The study by Kano, Muradoglu & Olukuru (2025) assessed the group versus individual behavior and disposition effect at NSE. The results showed that group investors exhibit a significantly lower disposition effect than individual investors. Further, disposition effect increases with frequency of trade and reduces with age. The disposition effect, being an aspect of specific needs, ignores the effect of investor's specific needs related facets and their implication on individual portfolio choice at the NSE, which the current study fills the gap.

5.3.4 Investment avenues

The study found that given that they do not influence individual portfolio choice, the safety of investment may not be a key determinant when making portfolio choices. Secondly, investors may closely manage their liquidity levels and sources while investing but have no effect on individual portfolio choice. Finally, investors consider cash-flow obligations and future contingent needs while investing but have no effect on individual portfolio choice.

The findings of Bairagi & Rostagi (2013), who gauged the awareness and preferences of investors for different investment avenues, showed that bank deposits were rated the highest preference. Safety of investments was found to be a major objective. The findings were that others were similar while others were dissimilar to those of this study, thus narrowing the gap.

5.3.5 Investor's age

First., in this moderator, it was established that there is a negative moderating effect of investor's age on the relationship between retail investor profile and individual portfolio choice at NSE, but it is not significant, implying that the moderator does not influence their investment behavior on individual portfolio choice at NSE. This implies that age does not influence their investment behavior. With the interaction of age together with investor's attitude towards risk, as well as, age together with lifestyle characteristics, the regression analysis revealed that the relationship is positively correlated and significant, meaning that as one grows older, they increase investments in individual portfolio choices. In the age together with investor's investment avenues, the interaction was negative and significant, meaning that as one grows older, the less they consider opinions on safety of investments, cash-flow

obligations and future contingent needs on individual portfolio choice ar the NSE, Kenya. Finally, with the interaction of the moderator together with investor's specific needs, the relationship is negative but not significant in the moderated model. This means that as one grows older the firms' reputation in the industry as well as the contribution of firms in social causes have no influence on individual portfolio choice at NSE, Kenya.

5.4 Recommendations

5.4.1 Attitude Towards Risk

It is recommended that the NSE review the regulatory framework to reduce entry costs and simplify investment processes to accommodate investor's attitude towards risk in addition to expanding of investment products to widen portfolio choices and spur more investment.

5.4.2 Investor's Specific Needs

It is recommended that Capital Market Authority (CMA) should incorporate regulations that enhance retail investor financial education for it is associated with the management of investors investment avenues. As well as other retail investor characteristics and portfolio choices in addition to invest more in investor protection for better safety of investments.

5.4.3 Investors Investment Avenues

It is recommended that retail investors gain a better understanding of medium- and long-term investment goals as well as future contingent needs as detailed in investor investment avenues.

5.5 Recommendation for further studies

Explore other areas, whether there are any moderating effects like education level, gender or marital status that have not been covered using this outcome as a point of reference on retail investor profile and individual portfolio choice.

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APPENDICES

Appendix I: Cover Letter -PhD Research

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P.O.BOX 3494--30100
ELDORET.
Cell No. 0721351304
Email: fkmaritim19@gmail.com

Dear Respondent,

RE: RESEARCH PROPOSAL QUESTIONNAIRE

I am a PhD Candidate at Jomo Kenyatta University of Agriculture and Technology (JKUAT and this questionnaire is intended to help the bona fide holder to collect information on the **effect of retail investor profile on individual portfolio returns at the Nairobi securities exchange**. The entire information will be treated as confidential and only for academic purpose. Kindly provide accurate and honest information to the best of your knowledge.

Yours Faithfully,

FRANCIS MARITIM

Appendix II: Questionnaire for Retail Investors at the Nairobi Securities Exchange

PART A: GENERAL INFORMATION

Q1. Tick appropriately your sex;

i).Male …….. ☐

ii). Female…… ☐

Q2. Have you been investing in shares and or bonds?

YES ☐ NO ☐

2 (a). If NO (as per Q2 Above), END

Q3. For how long have you been trading **continuously** in securities of firms listed at the Nairobi Securities Exchange? (Tick as Appropriately)

Between 5 to 10 Years ☐

Between 11 to 15 Years ☐

Above 15 Years ☐

If less than 5 years END

PART B: Demographic Characteristics of the Respondents; Tick (√) Appropriately

Characteristics	**Descriptions**	**Tick (√) Appropriately**
AGE	Below 25 years	
	Between 25- 35	
	Between 36-45	
	Between 46-55	
	Above 55 years	
	TOTAL	
MARITAL STATUS	Single	
	Married	
	Divorced	
	Window/(er)	
	TOTAL	

PART C: Investors' Attitude towards Risks

Using the following table and the Likert scale provided below, please tick on the following statements which best describe your opinion on investors' attitude towards risks during the investment process; Scale: (Strongly agree=5, agree=4, Neutral=3, Disagree=2, strongly Disagree=1)

		5	4	3	2	1
1	As a risk-averse investor, when faced with the same return, I generally take the one with lower risks					
2	As a risk-averse investor, I don't take chances once I see unnecessary fluctuation of security prices. This requires me to dispose of those particular securities					
3	I always watch the other market individual investors and even seek financial advice from friends before investing in any type of investment					
4	I rarely assess the level of risk before assessing new investments					
5	I would say I take more risks compared to the average person,					
6	I believe that the only way of getting a good return is to invest in risky investments					

PART D: Lifestyle Characteristics

Using the following table and the Likert scale provided below, please tick on the following statements which best describe your opinion on your lifestyle characteristics when investing; Scale: (Strongly agree=5, agree=4, Neutral=3, Disagree=2, strongly Disagree=1)

		5	4	3	2	1
1	I always have a clear focus on the amount of money to invest in a particular security (s)					
2	I continuously assess the possibilities of winning or losing in a particular portfolio and confidently adopt the appropriate asset allocation strategy					
3	Most of the time, guide my broker on how to spread my assets to minimize the risk of financial losses					
4	I fully believe and accept the Broker's Recommendations on which securities to invest in					
5	I always get a second opinion from family members on the time and the type of securities to invest in					
6	Before I invest in any security, I have to discuss it with well-informed friends or relatives to minimize losses					

PART E: Investor's Specific Needs

Using the following table and the Likert scale provided below, please tick on the following statements which best describe your opinion on your Investor's Specific Needs when investing; Scale: (Strongly agree=5, agree=4, Neutral=3, Disagree=2, strongly Disagree=1)

		5	4	3	2	1
1	My family structure and social environment affect their investment choices					
2	I carry out social screening of the firms my brokers or I wish to invest in, based on what my instinct guides me to be good social practices					
3	The image or reputation a firm has is a major concern in determining whether to invest in its securities or not					
4	I consider investing my resources in securities of firms which advocate corporate social responsibility to impact on the immediate society					
5	I always prefer to invest in securities of firms which follow the social priorities to avoid social hazards					
6	I keep an eye on the priorities of firms to ensure that my resources in terms of my contribution are not used for community destructions					

PART F: Investment Avenues

Using the following table and the Likert scale provided below, please tick on the following statements which best describe your opinion on your Investment Avenues; Scale: (Strongly agree=5, agree=4, Neutral=3, Disagree=2, strongly Disagree=1)

		5	4	3	2	1
1	The safety of the investment is a key determinant to guide me on the type of investment securities I will invest in					
2	I consider the order of my liquidity levels and sources that would be available when investing					
3	I closely manage my liquidity and prefer to stay within my target asset allocation					
4	While investing my needs should meet my cash flow obligations					
5	I always consider my investment avenues in areas of safety, liquidity or better future contingent needs					
6	I am always concerned about getting high capital gains of securities I have invested in different firms					

The end of the questionnaire enquiries

Thank you

Appendix III: Nairobi Security Exchange Trading Activity

No	Year	Stocks in Billions of KES	Bonds in Billions of KES	Treasury bills in Billions of KES	Totals.
1	2024	105.95	1540.00	140.23	1786.18
2	2023	88.20	643.00	33.28	764.48
3	2022	231.60	741.00	0	972.60
4	2021	137.00	956.00	25.00	1118.00
5	2020	148.00	691.00	31.00	870.00
6	2019	153.00	651.35	59.36	863.71
7	2018	351.31	651.68	60.66	1063.65
8	2017	171.61	432.81	48.97	653.39
9	2016	147.18	431.59	24.75	603.52
10	2015	209.38	302.02	133.67	645.07
11	2014	215.75	504.3	135.59	855.62
12	2013	155.75	451.60	17.4	624.75
13	2012	86.80	563.80	22.80	673.40
14	2011	78.81	437.10	7.60	523.51
15	2010	110.00	466.90	17.30	594.20
16	2009	38.00	110.60	27.80	176.40
17	2008	97.80	95.40	10.18	203.38
18	2007	88.60	84.90		173.50
19	2006	95.00	48.60	0.91	144.51
20	2005	36.52	13.10	5.61	55.23
21	2004	22.32	48.40	1.20	71.92
22	2003	15.38	38.90	4.60	58.88
23	2002	1.26	7.00		8.26
24	2001	1.76	7		8.76
25	2000	29.76			29.76

26	1999	0.42	8.00	2.60	11.02
27	1998	2.50	5.00	8.80	16.30
28	1997	6.10	19.00	19.00	44.10
29	1996	1.19	0.80		1.99
30	1995	3.07		27.89	30.96
	Total	**2803.00**	**9950.85**	**866.20**	**13,647.05**

Appendix IV: Combined Correlations between Attitude towards Risk, Lifestyle Characteristics, Investor's specific needs, Investment Avenue and Individual Portfolio Choice at the NSE

		Y	Investors Attitude	Lifestyle	Specific needs	Investment Avenues	Age
Y	Pearson Correlation	1					
	Sig. (2-tailed)						
Investors Attitude	Pearson Correlation	.488**	1				
	Sig. (2-tailed)	.006					
Lifestyle	Pearson Correlation	-.398*	.116	1			
	Sig. (2-tailed)	.029	.541				
Specific needs	Pearson Correlation	.307	.445*	.469**	1		
	Sig. (2-tailed)	.048	.014	.009			
Investment Avenues	Pearson Correlation	-.139	.179	.391*	.576**	1	
	Sig. (2-tailed)	.465	.343	.033	.001		
Age	Pearson Correlation	.245	-.080	-.353	-.224	.108	1
	Sig. (2-tailed)	.191	.673	.055	.234	.568	
	N	30	30	30	30	30	30